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THE SECOND INTERNATIONAL CONFERENCE MARKETING IN THE CONNECTED AGE

MICA

06 October
2018

INTERNATIONAL CONFERENCE
MARKETING IN THE CONNECTED AGE

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2018



Welcome Notes

Dear Friends and Colleagues,

We are pleased to welcome you to the 2nd International Conference on Marketing in the Connected Age (MICA-2018), which is jointly organized by University of Economics – The University of Danang (DUE, Vietnam), University of New South Wales (UNSW, Australia), and National Economics University (NEU, Vietnam), in collaboration with University of Finance – Marketing (UFM, Vietnam), and Danang Young Entrepreneurs Association (Vietnam).

As a result of DUE's close collaboration with international partners, MICA-2018 brings together the experts in Marketing and related fields, serving as a unique point of convergence in South East Asia for researchers, practitioners and policymakers to meet, share, and exchange their ideas. The theme of MICA-2018 is Marketing and New Wave of Technology. MICA-2018 aims to explore the future of marketing, especially fundamental changes as well as opportunities and challenges arising from new waves of technology that have been taking place in this decade, and its prospects for enterprises. We are especially honoured to have:

*Associate Professor **Liem Viet Ngo**, UNSW Business School, University of New South Wales. He also serves as Chair of Research Committee at School of Marketing. He is the incoming Editor-in-Chief of Australasian Marketing Journal.*

Prof Ngo will deliver a keynote on Marketing in the Industry 4.0 revolution. Further, we have a full schedule of 10 sessions that address the depth and range of our theme. These sessions are *Social Media and Consumer Behavior; Digital Marketing Communication and Consumer Behavior; Online Purchase Decision; Applications of Digital Marketing in Vietnam; Customer-Based Brand Equity in the Connected Age; Destination Marketing and Branding; Education Consumer Behavior; Social Marketing in the Connected Age; Buying Behavior of Consumer Goods and Service; and Marketing and Management in the New Age.*

We wish you all an intellectually stimulating and productive conference, and take a little extra time to enjoy the spectacular and unique beauty of Danang City, the *Vietnam's Most Worth Living City*.

Enjoy the conference!

On behalf of the Organizing Committee,

The Conference Co-Chairs

Vo Thi Thuy Anh



Keynote Speaker

Associate Professor Liem Viet Ngo – *UNSW Business School, University of New South Wales, Sydney, Australia.*



Dr Liem Viet Ngo (PhD, University of Newcastle) is Associate Professor of Marketing at UNSW Business School, University of New South Wales, Sydney, Australia. He also serves as Chair of Research Committee at School of Marketing. He is the incoming Editor-in-Chief of *Australasian Marketing Journal*.

Since joining the academia in 2007, he has published 93 publications including 39 journal articles, 54 refereed conference papers, and two book case studies. His work has appeared in *Journal of Product Innovation Management*, *British Journal of Management*, *Industrial Marketing Management*, *European Journal of Marketing*, *Long Range Planning*, *Journal of Services Marketing*, *Journal of Retailing & Consumer Services*, *Psychology & Marketing*, *Journal of Business Research*, *Journal of Marketing Management*, *Journal of Brand Management*, *Australasian Marketing Journal*, *Journal of Business and Industrial Marketing*, among others.

He is leading several research projects focusing on emerging research areas: customer management (e.g. mindfulness, empathy, collective behavior), innovations in business models, and entrepreneurship in emerging economies.

He currently serves on the Editorial Review Board of *Industrial Marketing Management*, *Asia Pacific Journal of Marketing & Logistics*, and *Journal of Asian Business and Economic Studies*. At UNSW, he served as Postgraduate Research Coordinator (2014 to July 2017), and Postgraduate Coursework Coordinator (2010 to 2014). He has taught postgraduate and undergraduate courses at UNSW Business School including brand management, digital marketing, and advertising. He is currently a Member of Advisory Board of Relationship Marketing for Impact, Griffith University.

His research contribution is recognized by the 2008 Emerald/EFMD Outstanding Doctoral Research Award, the 2011 Non-professorial Research Achievement Award from UNSW Business School, Best Paper in Services Marketing and Marketing Strategy Track - ANZMAC 2015, Sydney, Best Paper Nominee in 2017 AMA Global Marketing SIG Conference. He has served as an assessor for the Australian Research Council (Discovery and Linkage Projects) since 2013. In 2010, he was part of a team that won an ARC Discovery Grant of \$145,000.

Since joining UNSW Sydney in 2010, he has been responsible for providing leadership and coordination of the School's research, research training and research driven innovation strategy in his various administrative roles and committee memberships. His duties have required the ability to develop and manage effective internal partnerships and build collaborative linkages with external groups including industry, other universities and governments.

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Category

FULL - PAPER

No.	Paper title	Authors	Page
1	Exploring Factors Affecting The Impulse Buying Behavior on Social Networks in Vietnam: The Case Study of Thai Nguyen	Nguyen Thi Thai Ha; Vu Minh Duc	5
2	The Formation of Facebook Wellbeing: The Perspectives of Self-disclosure, Social Support, Stress, Loneliness and Fear of Missing Out	My Giang Chu; Phuong Thao Nguyen	20
3	Who Are More Responding to Marketing on Social Media? A Motivation-Based Segmentation of Facebook Users in Vietnam	Khai Trieu Tran; Quyen Phu Thi Phan	36
4	Factors Affecting Online Purchase Intention on Facebook: The Role of Online Customer Experience	Phuong Thao Nguyen; Thi Khue Thu Ngo	47
5	Examining Online Marketing Influence on Vietnam Young Travelers' Purchase Decision	Van Pham; Nga Nguyen	65
6	Blockchain Technology and Potential Applications in Online Advertising	Trang Tran	72
7	The Reaction of Z Generation to Online Television Advertisement	Ao Thu Hoai	79
8	An Exploration of Gender Differences in The Use of Social Networking Sites and Recommendation for Online Advertising – The Case of Facebook	Nguyen Cao Lien Phuoc; Ngoc Ha	88
9	Consumers' Attitudes Towards Advertising on Facebook in Vietnam	Le Minh Tai	95
10	Internet Use Behavior of Consumers in Pre-Purchase Stage of Online Shopping	Nguyen Hoang Tien; Dinh Ba Hung Anh	106
11	The Influence of Risk Perception on Online Shopping Intention	Pham Van Tuan; Nguyen Dinh Trung	112
12	Role of Perceived Risk in Determining Consumer Acceptance of Mobile Payment: An Empirical Study in Vietnam	Nhan Tran-Danh; Ha Tran-Thi-Phuong	123

13	Research on Online Purchase Intention of Customers in Ho Chi Minh Based on TPB Theory	Ngo Cao Hoai Linh	141
14	Examining Factors Affecting Online Review Helpfulness in The Context of Vietnam: The Role of Review Characteristic	Tram Thi Le Dinh; My Giang Chu	151
15	Application of Clickstream Analytics for Decision Support in Marketing – A Recommendation for Vietnamese Small And Medium-Sized Enterprises	Tran Thi Song Minh	160
16	Cultural Tourism and City Branding in a Digital Era: A Search Pattern Analysis of Three Tourist Cities in Central Vietnam	Van-Anh T. Truong; Huong T. L. Pham	173
17	Internet Service Provider Switching Intention: The Case of Hanoi Consumers	Pham Thi Thuy Van; Nguyen Thi Anh Tram; Ngo Anh Cuong	186
18	Advanced Application Solutions To Mobile Marketing in Vietnam	Pham Thi Thu Huong; Tran Thi Thuy Sinh; Pham Thi Nga; Pham Thi Thu Huong	194
19	An Evaluation on the Utilization of Website Marketing Activities in Danang Upscale Hotels	Nguyen Thi Bich Thuy; Tran Dinh Long	203
20	Measuring Consumer Brand Engagement by Using Big Data: The Case of Mobile Phone Brands in Vietnam	Vu Huy Binh; Vo Quang Tri; Duong Thi Lien Ha	211
21	Effects of Communication Crisis on Consumers' Attitude: The Case of Vietjet Air with Bikini Images	Pham Thi Huyen; Nguyen Thuy Duong	224
22	Factors Affecting Brand Love, Brand Loyalty and Word Of Mouth: The Case of Honda Brand	Nguyen Ngoc Dan Thanh; Thuy Nguyen	232
23	Brand Experience: A New Approach to Attract and Satisfy Consumers in the Connected Age	Nguyen Thi Hong Nguyet	243
24	Research Model of The Impact of Brand Experience on Brand Equity – Application in Service Industry	Ngo Thi Hong; Ngo Thanh Sang; Bao Quoc Truong-Dinh; Dang Chung Kien	249
25	Destination Marketing Network: A Case in Da Nang, Vietnam	Xuan Dam Dong; Thi Quynh Trang Nguyen; Thi Phuong Thao Nguyen; Nguyen Tran Bao Tran	261
26	An Exploratory Study of The Perception of Co-Creation Experience in The Tourism Industry: A Case Study in Danang City, Vietnam	Pham Thi Lan Huong; Bao Quoc Truong-Dinh	272

27	The Influence of Service Quality in Tourism on Tourist Satisfaction: The Case Of Hanoi Old Quarters	Nguyen Thu Ha; Le Thi Tu Anh; Dinh Thi Thuy Na; Phung Thi Xuan Huong;	282
28	Factors Affecting The Satisfaction Levels of Visitors with Tourism Service Quality in Phu Quoc Island	Phan Van Phung; Le Nguyen Doan Khoi	291
29	Place Brand Positioning Based on Provincial Competitiveness Index: Implications for Danang City	Le Van Huy; Tran Thi Thu Dung	298
30	Urban Heritage Image Based on Destination Brand Personality: The Case of Danang City, Vietnam	Van-Anh T. Truong; Thao-Nguyen D. Nguyen	306
31	Will I Stay or Will I Go? An Empirical Study of Students' Intention to Persist	Nguyen Tran Cam Linh; Nguyen Phuong Tam	317
32	The Factors Affecting the Brand Value of Private Universities in Ho Chi Minh City through Measurement of Students' Perceptions: The Study at Ho Chi Minh city University of Technology (HUTECH)	Le Quang Hung	331
33	Enhancing Efficiency High School Education by Investigation of The Relationship between Construal-Level of Learning and Alliance with Study Plan for High School Students	Nguyen Ngoc Vinh Truong; Huynh Huy Hoa; Jean-Marc Ferrandi	344
34	Applying Balance Scorecard (BSC) to Vietnamese Vocational Institutions in the Digital Age	Nguyen Duy Phuong; Ha Xuan Hung; Bui Hoang Ngoc	356
35	Factors Affecting The Intention to Choose University of High School Students in Vietnam	Nguyen Thi Kim Chi; Pham Thi Huyen;	371
36	Designing coordinating contracts for the consignment channel: Integrating manufacturer- greening and retailer-marketing efforts	Dinh-Anh Phan; Hoa T. L. Vo; Hong - Quang Duong	382
37	A Comparison of Effects of Consumer Perception of CSR Activities and Technology Acceptance on Intention to Adopt Mobile Banking: Evidence in Vietnam and South Korea	Nguyen Van Anh; Nguyen Thi Phuong Thao;	394
38	Ethical Consumption in Vietnam – Do Moral Philosophy, Values and Demographics Differences Matter? A Research Proposal	Ha Tran-Thi-Phuong; Nhan Tran-Danh	415

39	The Role Of Animosity on Purchasing Foreign-Made Products: Evidence in The Relationship between Vietnam And China	Nguyen Thi Phuong Thao; Nguyen Van Anh	429
40	The Impact of Eco-Labeling on Green Purchase Intention of Vietnamese's Consumers: A Conceptual Framework	Dang Van My; Nguyen To Nhu; Thi Khue Thu Ngo	451
41	Factors at Points-Of-Sale Affecting Impulse Buying Behaviour	Vu Huy Thong; Nguyen Phuong Anh	462
42	The Relationship between Final Consumption and Economic Sectors – A Structural Path Analysis Approach	Nguyen Huu Nguyen Xuan	475
43	Conceptual Model of Customer Satisfaction in A Multi-Channel Banking Service Context: A Case of Vietnam	Dang Thi Thu Trang	486
44	Demographic Variables in The Research of Hanoian's Intentions of Buying Chinese Garments	Le Thi Hai Ha; Phan Thanh Hung; Mai Thi Anh Dao;	501
45	Applying Exploratory Factor Analysis (EFA) in Analyzing Factors Affecting the Intention to Choose Traditional Markets for Buying Fresh Food: A Case Study in Southern Central Coastal Region, Vietnam	Nguyen Ha Thanh Thao; Tran Minh Dao	508
46	The Current Status of Production and Consumption of Dragon Fruit in Tien Giang Province	Nguyen Thi Hang Nga; Nguyen Tri Khiem	516
47	The Impact of CRM on Tourism Enterprises' Performance: A Case Study in Ho Chi Minh City, Vietnam	Ngo Cao Hoai Linh	524
48	The Relationship between Internal Marketing and Employee Commitment: In Case of Seafood Companies in Mekong Delta, Vietnam	Nguyen Thi Ngoc Phuong; Vo Kim Nhan	535
49	Organizational Climate for Employee Work Innovation: A Case Study of Hotels and Resorts in Nha Trang City	Pham Hong Liem; Nguyen Xuan Lan	552
50	Internal Branding Affecting Brand Citizenship Behavior of Office Staff in Hochiminh City	Bao Trung	562
51	Factors Affecting Customer Relationship of Vietnamese Textile Companies	Phan Dinh Quyet; Nguyen Thi Van	570
52	A Study on The Factors Affecting The Quality Management Activities of Abode Brick Enterprises in Mekong Delta	Ha Thi Thanh Tuyen; Luu Ba Hoa; Dang Thanh Son	584



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Exploring Factors Affecting the Impulse Buying Behavior on Social Networks in Vietnam: The Case Study of Thai Nguyen

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ABSTRACT

This study provides detailed information about impulse buying on social networking by exploring the relationship of these characteristics to the impulse buying behavior. Based on the SOR and CIFE models, we developed a theoretical model and demonstrated empirically that demonstrates online store stimuli, personalized advertising, and reliance on online word of mouth, impulse buying tendency, and on-line trust effect to impulse buying behavior. 198 questionnaires were collected from consumers using Facebook, mainly in Thai Nguyen. The data was analyzed according to exploratory factor analysis (EFA) and simple regression method to find the relationship between the variables. The result is aimed at improving the understanding of impulse buying behavior and improving online store operations from a management perspective.

Keywords: Impulse buying behavior; impulse buying tendency; urge to buying impulsively; social networking; impulse buying on social networks

1. Introduction

Impulse purchase, which refers to consumers' unplanned and sudden purchasing behavior, has received considerable attention in offline retail environments [18, 50]. So far, behavioral and marketing researchers have focused on the factors that drive the impulse buying behavior in the store environment. These factors can be divided into four categories: consumer characteristics, characteristics of the place of purchase, situational characteristics and the characteristics of the product.

At present, the online environment increasingly attracts the interest of consumers, theo According to User Interface Engineering (2001) [14], 40% of online consumer spend is due to improper purchases, so researchers of impulsively buying tend to study more in this environment. Three groups of factors that academics believe affect online impulsive buying include: marketing - mix, situational characteristics, and consumer characteristics. [49, 50, 5, 53].

Most of the previous studies primarily focused on marketing – mix variables. Beatty and Ferrell (1998) [5] found that consumers' consideration of in-store goods increased, leading to increased purchasing power. Mattila và Wirtz [33] argued that a comfortable and comfortable shopping environment reduces the ability of shoppers to control themselves, resulting in higher impulsive buying behavior. In addition, Van der Heijden [52] also pointed out that online sellers improve the customer's attention to their website using visual elements.

So far, few studies have addressed the situational factors surrounding consumers [5, 13]. Beatty and Ferrell (1998) [5] have identified factors such as product availability, availability of time, credit card use, product transportability... is associated with impulse buying behavior. All of these situational factors have been shown to have a positive impact on the impulse buying tendency. Rook và Gardner [51] argued that the combination of states of pleasure, excitement, and power can also lead to impulse buying behavior..

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Some researchers argued that personality traits of consumers may affect impulse behavior more than demographic characteristics [5, 52]. Studies suggested that personality traits can help determine an individual's impulse buying tendency (IBT) [5, 52]. They also found that consumers who were more likely to buy improvisation were more likely to be affected by marketing stimuli such as advertising, gifts, product images ... resulting in in-store browse, they tend to react more often to stimuli and purchase intentions.

It's also an online environment, but the social networking environment has its own characteristics, where members can build profiles and connect with other members [9]. Social media also allows members to create communities where ideas and information can be shared among people with similar interests. [24, tr. 670, 36, tr. 6, 57, tr. 9].

An overview of impulsively buying in the online environment shows that there is a lot of research into consumer impulse buying behavior in e-commerce websites, but the ability to illustrate user behavior on the social networking environment is very limited. Unlike traditional ecommerce websites, the social commerce environment attracts consumers primarily because they can promote a close user relationship with many other users. [42]. According to the author's understanding, the number of studies on impulsively buying on social networking environment in the world is very limited.

There are a few studies on impulse buying in social network in some countries such as China [68], Taiwan [11], Sweden [6], no research done in Vietnam.

As of 2/2018, Vietnam has nearly 64 million internet users, accounting for over 67% of the population, 53% higher than the world average [54].

According to Nielsen's Shopper Trend 2017 [40], 82% of traditional shoppers regularly purchase the product as planned. This makes brands difficult to attract new consumers. However, more than half (52%) of online shoppers will compare different brands before deciding. Secondly, traditional Vietnamese rarely buy large volume reserves (19%). While this figure in online shoppers is 44%. Third, only 6% of Vietnamese shoppers want to make use of promotions. In contrast, 57% of online consumers decide to go shopping because of promotions. These findings can prove that the impulse buying behavior of Vietnamese consumers in the online environment may be higher than the traditional environment.

In online consumer shopping, social shopping has been a popular activity, with 95.8% of respondents saying they have ever shopped in this form. Of which 31.2% have regular shopping [62].

In today's most used social networks in Vietnam, Facebook has the largest number of users. By the end of February 2017, Facebook reported 1.59 billion users worldwide. Vietnam has 64 million active Facebook users, ranking seventh out of all Facebook users globally [15].

Together with the development of the whole country, Thai Nguyen province is the political and economic center of the Northeast mountainous midland and serves as a focal point for cultural and educational activities in the northern mountainous region. This locality is also the third largest training center in the country with about 140 thousand students. The economic growth rate in 2017 will be 12.75% of total income per capita in 2017 reaching 65 million VND per person per year in average compared to other provinces in the country (national average 53.5 million VND) [7]. Due to the encouraging signs in economic development, e-commerce activities and online shopping of people have been very active. With the geographic location, socio-economic and intellectual characteristics of Thai Nguyen compared to the North and all country as above, the author selected Thai Nguyen as the sampling place for this study.

Therefore, the goal of the article is to first, explore the impact of marketing stimuli, personal characteristics, situational characteristics, and social networking features on impulse buying behavior of consumers; Second, suggest marketing solutions for online entrepreneurs.

2. Theoretical background

Theoretical background of current research is based on Rook's (1987) impulsive purchase theory [50] and many other researchers. A model of research based on stimulus-response (SR) theory is expanded into a stimulus-organism-response (S-O-R) model and the Consumption impulse formation and enactment model (CIFE).

2.1 Impulse buying

Prior to 1982, the definition of impulse buying was more focused on products than on consumers. Katona và Mueller [26] defined improvisation as an unplanned act after the consumer enters a shopping center. In contrast, Nesbitt (1959) (quoted in Chen and Zhang [7]) considers impulse purchasing a sensible act as it is affirmed after consumers enter a shopping center.

Stern [55] Stern [48] provided a basic definition of impromptu behavior, in which the planned action classification is unplanned. According to this classification, planned buying behavior involves finding time-

consuming information, followed by rational decision-making [47, 55]. Unplanned purchases refer to all purchases made without plans, including impulsive purchases, characterized by the immediate nature of the purchase decision taking place.

After 1982, when researchers focused on impulse buying, they began to explore the behavioral aspects of impulsive buying. After that, they agreed to buy improvisation as a temporary or sensory act [8, 47, 50, 52, 65].

Rook [50] redefined impulse buying: "Impulse buying occurs when a consumer experiences a sudden, often powerful and persistent urge to buy something immediately." Many researchers have associated unplanned or unintended purchasing with impulsive purchasing, and an unplanned purchase is necessary for categorizing a purchase as impulsive [50, 52].

A consumer's impulse to buy may occur once or recur more than once for the same consumer [12]. Impulse buyers are less likely to consider the consequences of buying on impulse [50] and less likely to thoroughly evaluate their purchase decisions than a typical informed shopper [25]. They are more willing to accept spontaneous buying ideas [22], and are more focused on the immediate gratification of purchasing the product. Impulse buyers are often drawn to a mysterious attraction of the product which motivates the buyer to purchase the item. [50].

2.2 Stimulus–organism–response (S–O–R)

Stimulus–organism–response model (S–O–R) (Figure 1) has been widely used to explain impulse buying. As introduced by Woodworth [59], this model was extended and improved from the stimulus-response (S-R) pattern in behavioral studies [39, 29]. The classic S-R theory deals with human behavior as a response to stimuli, the process by which humans process stimuli such as the activity of conscious black boxes. Mehrabian và Russell [35] have built the S-O-R framework by combining the concept of "personal" to explain the inner process of human cognition and emotions. According to the S-O-R model, environmental or situational variables (stimuli) can affect endogenous mechanisms (eg, cognition and emotion), thereby leading to responses (behaviors).

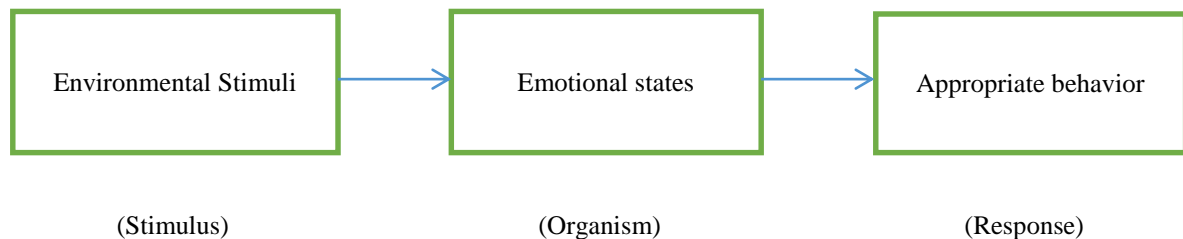


Fig. 1. S-O-R model of Mehrabian and Russell in 1974

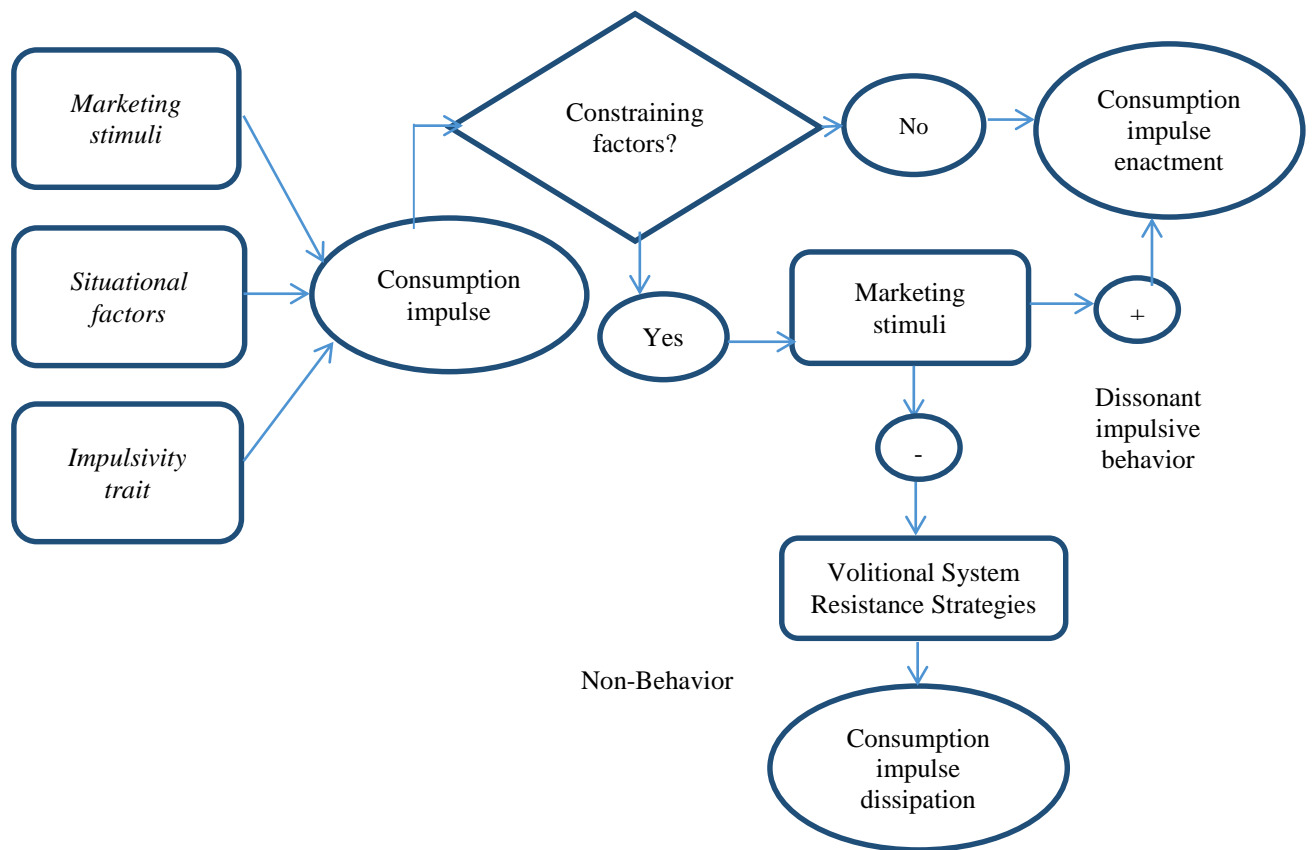


Fig. 2. The Integrated Model of Consumption Impulse Formation and Enactment (from Dholakia 2000)

2.3 An Integrated Model of Consumption Impulse Formation and Enactment

Dholakia (2000) [12] proposed a more detailed theoretical model than previous researchers on the impulse purchase process. This model explains the impulse behavior related to motivational, will, and cognition (Figure 2).

The model points out three premise of impulse buying behavior: stimulation of marketing, impulse characteristics and situational factors. One of the vital factors in the impulse buying process is the exposure to the *marketing stimulus* [50]. In fact, marketers increase the likelihood of impulse purchases by manipulating store atmospherics [12]. Moreover, physical and temporal proximity to the product also increases the consumer's impulsiveness [22]. *Situational factors* refer to both environmental and personal factors that are present when the consumer makes the impulse purchase such as: the amount of money they own, their moods [5], the imitation of the consumer [52].

The third precursor of the CIFE model is the *impulsivity trait*, widely studied in the social sciences, in various contexts. (For example: Plutchik & van Praag, 1995 [48]; Watson & Clark, 1993 [64]). The impulsivity trait has been defined as the tendency to react quickly and unreflectively, and are characterized by fast response times, lack of foresight, and a tendency to act without careful planning.

3. Model of research and hypotheses

From the S-O-R and CIFE model theoretical framework, the research model of this paper has been built as showing in below figure 3. The stimulus consists of 3 groups including stimulation of marketing (Commodity stimuli and Online store stimuli), situational factors (Personalized advertising, Reliance on online word of mouth) and elements of Individuals (impulse buying tendency and online trust) through consumer perceptions of consumer interest and moods (Perceived usefulness and positive effect) that urge to buying impulsively (emotional state) resulting in impulse buying behavior. The definitions and correlations of the factors in this model are explained as follows:

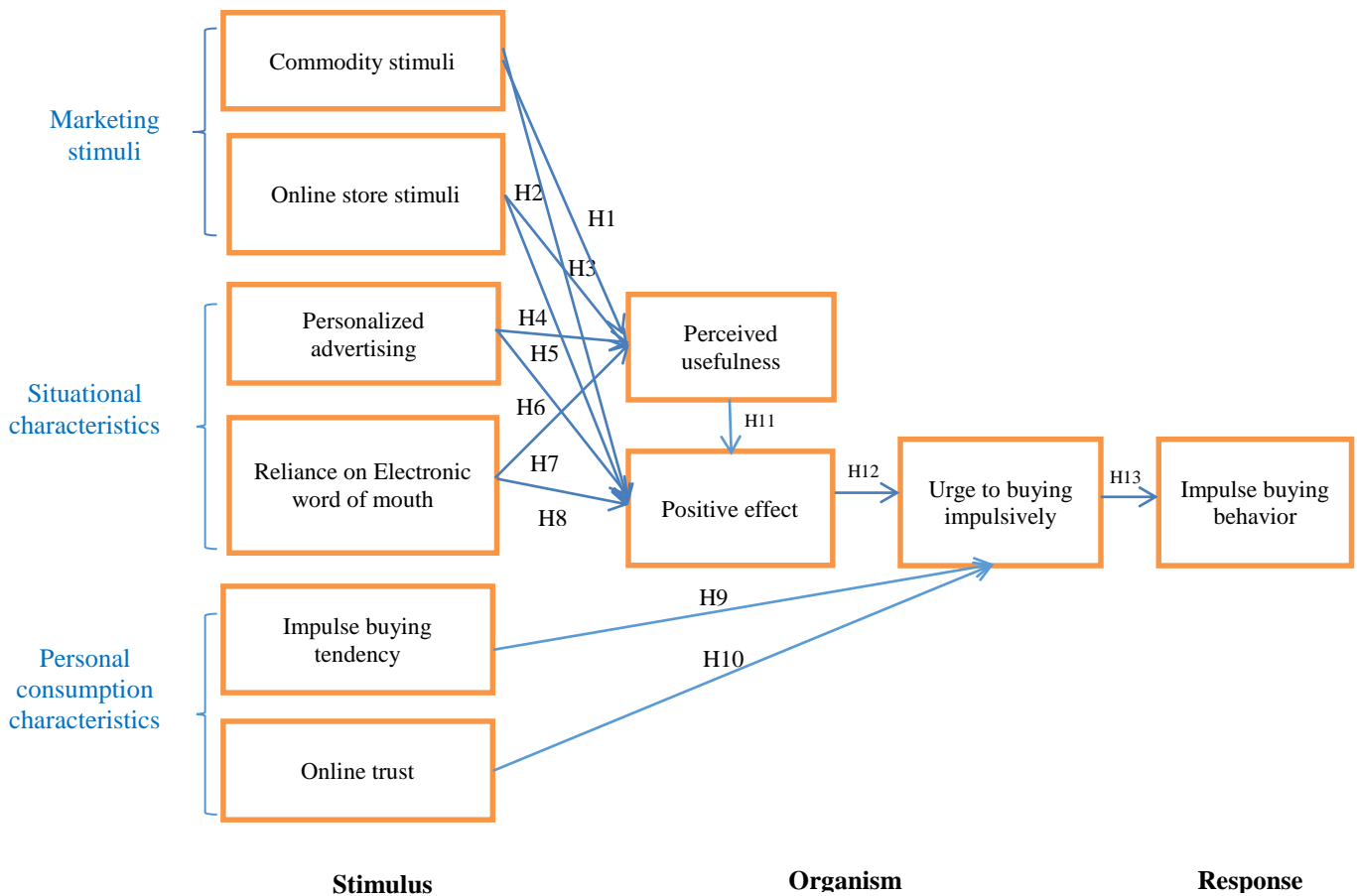


Fig. 3. Research Model

3.1 The effects of commodity stimuli and online store stimuli to perceived usefulness and positive effect

Consumer's impulse buying tendency varies with consumer involvement and different types of products [25]. Other studies suggested that impulse buying behavior may be caused by air factors in the shopping environment. Beatty and Ferrell (1998) [5] found that consumers' consideration of in-store goods increased, leading to increased impulsively purchasing.

Mattila và Wirtz [33] argued that a comfortable and convenient shopping environment reduces the ability of shoppers to control themselves, leading to higher impulse purchase behavior. In addition, Van der Heijden [60] also pointed out that online sellers improve the customer's attention to their website using visual elements, for example, the ingenious use of Different colors will increase visual impact on the customer. Moreover, according to Parboteeah [45] convenience shopping, web site design and visual impact are positively correlated with consumer impulse buying behavior. Thus, the following hypotheses are proposed:

H1: Commodity stimuli and perceived usefulness have a positive relationship.

H2: Commodity stimuli and positive effect have a positive relationship.

H3: Online store stimuli and perceived usefulness have a positive relationship.

H4: Online store stimuli and positive effect have a positive relationship.

3.2 The effects of personalized advertising to perceived usefulness and positive effect

Online personalization refers to providing customers with tailored content and services based on knowledge obtained through service and user interactions [43, tr. 194]. In this sense, personalization is geared towards meeting the needs of consumers; Collect data of consumers to make appropriate product [56, tr. 301].

Previous studies such as Ha et al. (2010) [21] and Mikalef và cộng sự [37] used "customization" and "personalization" as similar interchangeable variables. The broad field of personalization in e-commerce has been researched extensively. Zhou et al. (2007) [72] have posited that personalized services may increase customer loyalty to a certain company, Chang and Chen (2009) [10] have found that personalized services increase customer satisfaction with online shopping, and Adolphs and Winkelmann (2010) [2] have provided a

vast overview on the subject. The main goal of personalization is to satisfy customers based on their needs and wants. Previous studies have shown that personalization affects customers' purchase intentions. Specifically, Ha et al. (2010) [21] have found that providing customized information to customers facilitates their behavioral intentions. Thongpapanl and Rehman Ashraf (2011) [58], who examined the effect of information content on purchase intention, have found that it is moderated by website personalization. Thus, there are grounds for the following two hypotheses:

H5: Personalized advertising and perceived usefulness have a positive relationship.

H6: Personalized advertising and positive effect have a positive relationship.

3.3 The correlation between reliance on electronic word of mouth and perceived usefulness, positive effect

According to Bass (1969) [4], word of mouth (WOM) is an interplay of individuals, created by a network of connected consumers. Engaging in social media like Facebook and Twitter allows users to interact more often with the people they have a close relationship with. A recent study by Katona and colleagues in 2011 [27] also shows that WOM influence is stronger in well-connected networks. Moreover, opinions from close relationships in social networks are more interested in or particularly important to them [67], which may affect the consumption of goods.. Amonrat Thoumrungroje (2014) [59] also demonstrated that consumer dependence (or reliance) on online word of mouth (REWOM) affects product consumption. Based on the above the following hypotheses is formulated:

H7: Reliance on electronic word of mouth and perceived usefulness have a positive relationship.

H8: Reliance on electronic word of mouth and positive effect have a positive relationship.

3.4 The effects of impulse buying tendency to urge to buying impulsively

The relationship between impulse buying tendency and urge to buying impulsively has received attention in both offline and online contexts (eg, Beatty & Elizabeth Ferrell, 1998 [5]; Adelaar et al., 2003 [1]; Zhang et al., 2007 [71], Wells et al., 2011 [66]). In the context of offline shopping, Beatty & Elizabeth Ferrell (1998) [5] have shown that impulse buying tendency influence the impulse purchase, and they also demonstrate that individuals tend to impulse higher levels are more likely to lead to increased urgency. Similarly, in an online context, the relationship between impulse and intentional impulse buying was proposed in the study by Adelaar et al. (2003) [1], Wells et al. (2011) [66], Xiang Li et al. (2016) [68] affirmed the positive relationship between impulse buying tendency and urge to buying impulsively. So that, the following hypothesis is proposed:

H9. Impulse buying tendency and urge to buying impulsively have a positive relationship.

3.5 The correlation between online trust and urge to buying impulsively

In addition to the reliance in online word of mouth, consumers are also influenced by their trust in online merchants. Kimery and McCord [28] defined customer trust as the willingness to accept the downside of an online transaction based on their positive expectations about the behavior of the online store in the future. According to Barber [3], belief is the expectation of an individual's behavior in the society in which he or she lives. Belief can be given to a person, an object, an organization, an organization, or a role. Trust plays an important role in creating the desired results in online transactions [46, 69, 20, 16].

According to McCole and Palmer [34], online shopping requires the trust of customers. Gefen [19] asserted that consumer trust makes them think that online retailers will not have opportunistic behavior. Many studies have concluded that consumers with high trust will lead to higher online purchase intent [61, 30, 31]. Online trust has an impact on impulse buying behavior or is no longer a mystery. In this study, the author puts this variable into the research paradigm as a new point in the impulse buying research in the social networking environment. The following assumption is made:

H10. Online trust and urge to buying impulsively have a positive relationship.

3.6 Impact of perceived usefulness on Positive Affect

According to Holbrook [23], perceptions have the potential to influence behavior. Weinberg and Gottwald [65] point out that cognition plays an important role in impulse buying. In the context of online casual buying, Parboteeah et al. [44] concluded that perceptions of shopping sites significantly influenced consumer interest when interacting with web sites. In addition, Zhang et al. (2014) [70] have demonstrated that perceived usefulness of consumer are positively correlated with their positive affect. From this, the following hypothesis is given in this study:

H11: Perceived usefulness and positive Affect have a positive relationship.

3.7 The relationship between positive affect and urge to buying impulsively

Watson and Tellegen [63] have shown that there are two types of effects: positive and negative affect on impulse buying behavior. Positive affect refers to feelings of excitement, enthusiasm, and pleasant feeling, while negative influences refer to feelings of distress and discomfort [5]. The study by [38] distinguishes positive effects that motivate consumers to purchase impulse, while negative effects have no significant effect. Recent research shows that positive effects, such as joy, excitement, enjoyment, and instant gratification, also affect consumer's online impulse buying behavior. [17, 32, 41]. Therefore, the following hypothesis is proposed:

H12: Positive affect and urge to buying impulsively have a positive relationship.

3.8 The effects of urge to buying impulsively to impulse buying behavior

The urge to buy improvisation comes from Rook's study of sudden, spontaneous urge or urge to buy something. However, the urge or desire [22, 49], can be very powerful, sometimes irresistible, but not always lead to action (Rook and Fisher, 1995). In fact, individuals use a lot of strategies to control this desire [22]. So, the urge to buy impulse is a desirable state to experience when encountering an object in the environment, it is clear before the actual impulse buying behavior. Therefore, the following hypothesis is given:

H13: Urge to buying impulsively to impulse buying behavior have a positive relationship.

4. Research method

4.1 Data collection

We conducted an online survey on Facebook by means of convenient sampling with 198 questionnaires. The questionnaire is sent directly to individuals who have purchased the product (leaving a phone number, mailing address), or individuals recommended to recall the most recent purchase on Facebook. The questionnaire was built using the Google Form tool under Google Driver. Link the questionnaire with referrals sent to consumers through Facebook Messenger. Some online stores on facebook in the fields of business such as cosmetics, fashion, food, fast food, home appliances ... were selected to survey for this study. Description of the sample has been shown as below:

Table 1: Description of the sample

		Quantity	Percentage (%)
Gender	Female	166	83.8
	Male	32	16.2
Age	≤ 20	68	34.3
	21-30	75	37.9
	31-40	46	23.2
	41-50	9	4.5
	≥ 51	0	0
Education background	High school	82	41.1
	College	8	4.0
	Bachelor	60	30.3
	Master or above	48	24.2
Job	Students	127	64.1
	Employee office in business	6	3.0
	Government officials and employees	58	29.3
	Free labor	2	1.0
	Other	5	2.5
Income (million VND/month)	< 3	117	59.1
	3-7	55	27.8
	8-15	22	11.1
	16-25	2	1.0
	≥26	2	1.0
Living area	Thai Nguyen	145	73.2
	Others	53	26.8
Time spent on Facebook	≤ 30 minutes	10	5.1

during the day	30 minutes– 1 h	33	16.7
	1h-2h	43	21.7
	2-3h	46	23.2
	>3h	66	33.3

Source: surveys by authors

4.2 Measures

All factors in the research model were measured using a multivariate scale used from previous studies, with modifications to ensure consistency with the social and contextual of Vietnam. The questionnaire consists of three parts: a filter section consisting of three questions to select impulse purchases, to eliminate planned purchasing decisions; the main information and consumer information is finally located (see Appendix for details). The questionnaire was tested with 10 students to check the semantics, the content of the questions before sending them to the respondents. The 5 point Likert score from "1 = Strongly Disagree" to "5 = Strongly Agree" was used for this study. The scales have been translated downstream and upstream to ensure the accuracy of the original scale.

5. Data analysis

Investigate the relationship between the independent and dependent variables and examine research hypotheses using the SPSS software.

Table 2: Quality control of the scale

	Constructs	Variable name	Number of observed variables	Cronbach's Alpha
1	Commodity stimuli	COMS	2	0.43
2	Online store stimuli	ONSS	3	0.726
3	Personalized advertising	PEAD	3	0.701
4	Reliance on Electronic word of mouth	RWOM	6	0.899
5	Impulse buying tendency	IBT	6	0.753
6	Online trust	ONTR	3	0.862
7	Perceived usefulness	PUSE	3	0.695
8	Positive effect	POEF	4	0.878
9	Urge to buying impulsively	UTBI	3	0.861
10	Impulse buying behavior	IBB	3	0.747

Source: Calculated based on surveys by authors

Remove the COMS variable because it has a Cronbach's Alpha coefficient of less than 0.5. The ONSS after dropping ONSS4, ONSS5 the Cronbach's Alpha coefficient was 0.726. Thus, through the analysis of measuring the scale, the model has 9 quality scale with 34 items. The exploratory factor analysis gives the following results:

Table 3. Pattern Matrix^a

	Factor						
	1	2	3	4	5	6	7
RWOM3	,881						
RWOM2	,806						
RWOM5	,784						
RWOM4	,779						
RWOM1	,670						
RWOM6	,628						
POEF1		,786					
POEF3		,774					
POEF4		,734					
POEF2		,730					
PUSE3		,668					
UTBI2			,888				
UTBI3			,827				
UTBI1			,608				
IBB2			,546				
IBB1			,502				
IBT2				,835			
IBT3				,753			
PUSE1				,727			
PUSE2				,593			
IBT1				,554			
ONTR2					,853		
ONTR1					,846		
ONTR3					,640		
ONSS2						,622	
ONSS1						,560	
PEAD1							,727
PEAD2							,669
Extraction Method: Principal Axis Factoring.							
Rotation Method: Promax with Kaiser Normalization.							
a. Rotation converged in 7 iterations.							

Table 3 shows the characteristic variables that have a Factor loading factor greater than 0.5. There are seven factors that represent the impulse buying behavior with the variable characteristics of the rearranged factor different from the original theoretical model.

Component 1 includes variables: RWOM1, RWOM2, RWOM3, RWOM4, RWOM5, RWOM6. Name this factor as RWOM

Component 2 includes variables: POEF1, POEF2, POEF3, POEF4, PUSE3. Variable PUSE3 is originally based on the PUSE factor, but the EFA is placed in conjunction with the POEF component. Name this factor as POEF

Component 3 includes variables: UTBI1, UTBI2, UTBI3, IBB1, IBB2. The IBB1, IBB2 is originally based

on the IBB but the EFA is placed in conjunction with the UTBI component. Name this element UTBI.

Component 4 includes the IBT1, IBT2, IBT3, PUSE1, PUSE2 variables. Variables PUSE1, PUSE2 are originally based on the PUSE factor, but the EFA is placed in conjunction with the IBT component. Name this factor as IBT.

Component 5 is ONTR1, ONTR2, ONTR3. Name this factor ONTR.

Component 6 is ONSS1, ONSS2. Name the factor as ONSS

Component 7 consists of 2 variables: PEAD1, PEAD2. Name the element PEAD

As a result, through the EFA model qualification scales and validation, there are 6 scales representing the factors that influence the impulse buying behavior and the 1 that represents the impulse buying behavior with a total of 28 variables observed. Synthesize the results as follows:

Table 4: Rename the variable

No	Scale	Characteristic variables	Explain the scale
1	RWOM	RWOM1, RWOM2, RWOM3, RWOM4, RWOM5, RWOM6	Reliance on Electronic word of mouth
2	POEF	POEF1, POEF2, POEF3, POEF4, PUSE3	Positive effect
3	UTBI	UTBI1, UTBI2, UTBI3, IBB 1, IBB2	Urge to buying impulsively
4	IBT	IBT1, IBT2, IBT3, PUSE1, PUSE2	Impulse buying tendency
5	ONTR	ONTR1, ONTR2, ONTR3	Online trust
6	ONSS	ONSS1, ONSS2	Online store stimuli
7	PEAD	PEAD1, PEAD2	Personalized advertising
Total	7	32	

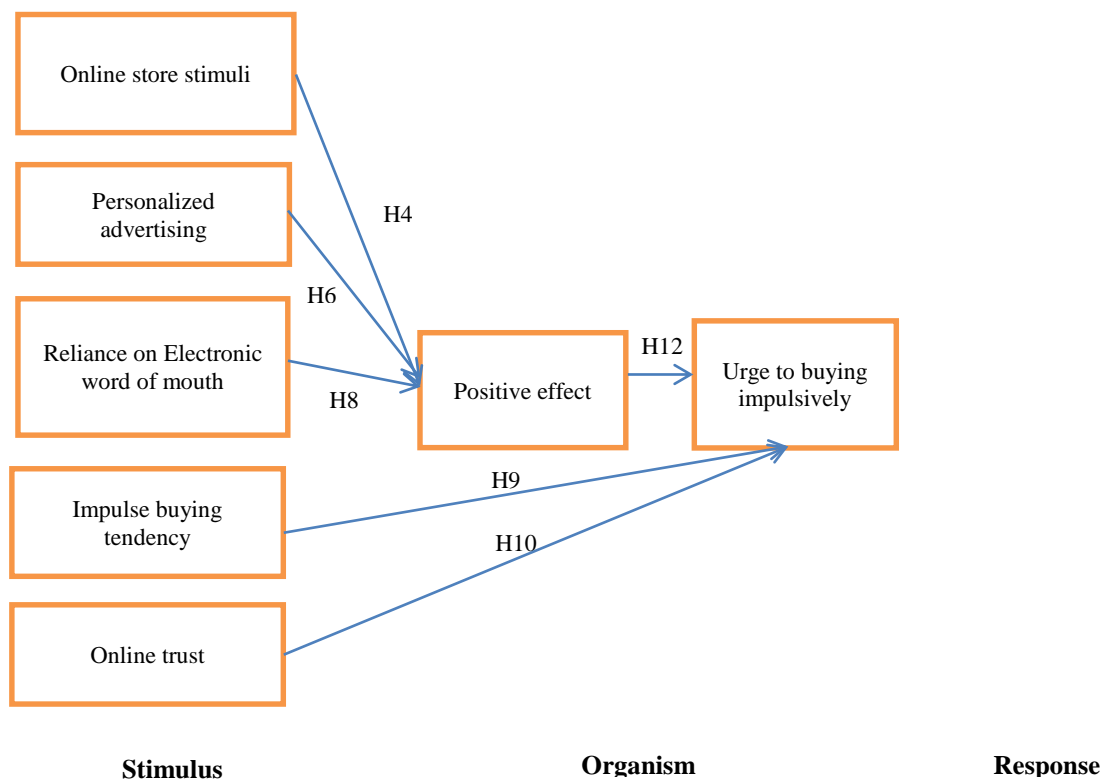


Fig. 3. Research after EFA

Inferential

Investigate the relationship between the independent and dependent variables and examine research hypotheses using the SPSS software. And using Regression analysis to examine the correlation independent and dependent variables.

Table 5. Hypotheses Analytical Results

	Independent Variables	Dependent Variables	R	R Square	F	Sig	Result
H4	Online store stimuli	Positive effect	0.362	0.131	22.754	0.000	Accepted
H6	Personalized advertising	Positive effect	0.383	0.146	25.899	0.000	Accepted
H8	Reliance on Electronic word of mouth	Positive effect	0.261	0.068	10.998	0.001	Accepted
H9	Impulse buying tendency	Urge to buying impulsively	0.517	0.267	54.973	0.000	Accepted
H10	Online trust	Urge to buying impulsively	0.265	0.070	11.398	0.001	Accepted
H12	Positive effect	Urge to buying impulsively	0.425	0.181	33.289	0.000	Accepted

Source: Calculated based on surveys by authors

6. Results

Evaluation of conceptual research model all of hypotheses have been confirmed strongly.

Research results are shown below:

Table 3 shows the result of testing Regression for all hypotheses is meaningful in 0.05 level of detection. So, these hypotheses confirmed with 0.95 confidence level.

- 1) Online store stimuli have a direct positive effect on Positive effect (R=0.362). So that H4 hypotheses are confirmed.
- 2) Personalized advertising has a direct positive effect on Positive effect (R=0.383). So that H6 hypotheses are confirmed.
- 3) Reliance on Electronic word of mouth have a direct positive effect on Positive effect (R=0.261). So that H8 hypotheses are confirmed.
- 4) Impulse buying tendency have a direct positive effect on Urge to buying impulsively (R=0.517) so H9 hypotheses are confirmed.
- 5) Online trust has a direct positive effect on Urge to buying impulsively (R=0.265) so H10 hypotheses are confirmed.
- 6) Positive effect has a direct positive effect on Urge to buying impulsively (R=0.425) so H12 hypotheses are confirmed.

7. Conclusions and recommendations for online retailers

This research was checked the relationship between the reserved variable *commodity stimuli, online store stimuli, personalized advertising, reliance on electronic word of mouth, impulse buying tendency, online trust* effect through intermediate variables *perceived usefulness, positive effect, urge to buying impulsively* to *impulse buying behavior*. Research model was strongly confirmed by the collected data. Among, all hypotheses were confirmed with %95 confidence. From the results of our study, we have provided some suggestions for retailers on social networks:

Online store stimulation has a positive impact on consumer perceptions and emotions, which in turn affects impulse buying behavior. Online retailers therefore need to regularly introduce new products, new uses, advanced product introduction techniques, detailed descriptions of merchandise, development of promotions and customer service.

Through personalized advertising, consumers have access to products that fit their needs. The results show that this has a positive effect on the impulse buying behavior. Retailers should therefore reach out to customers

through the tools of social networking vendors to make their product introduction more effective.

The results of the study also show that consumers' impulse buying tendency motivates them to buy impulsively. So, online retailers need to find them to show their products, possibly through customized advertising.

Online trust can make them buy impulsively, so online retailers need to enhance their credibility, accountability, and promise.

Finally, research results also show that consumers buy impulsively due to their belief in the comments, the introduction of friends and family on social networks. Consequently, online sellers should encourage consumers to leave positive comments, encouraging them to introduce products to their closed ones.

8. Limitations and future research

Although the results of this study have discovered some of the unique features of social networking that influence impulse buying behavior, there are still some limitations and a need for additional research.

First, about sampling method, one possible concern with this study might be the question of generalizability, due to the use of a convenient online sample. The sample was collected using non-probabilistic method and may not represent the general Vietnam online consumer. The results are limited by online consumers who visited the selected pages on Facebook. The research has examined consumers using Facebook social network, so the representative sample is not guaranteed. The sample size is quite small (198 observations), most respondents are female, over 75% under 30 years of age, most them are students (64%) living in Thai Nguyen. Further research should investigate other social networks such as Instagram, Twitter ... in more diverse areas, provinces and cities to represent Vietnamese consumers.

Second, in terms of data processing methods, the research tools have not used strong tools (e.g. SEM) to analyze the relationships of variables in the model.

Third, our research has not yet explored other features of social networks such as spread, social interaction, social effect ... This could be space for further research.

Thank you

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Appendix

Link the research questionnaire

<https://goo.gl/forms/4iboKFR6Xn4dWkcW2>



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The Formation of Facebook Wellbeing: The Perspectives of Self-disclosure, Social Support, Stress, Loneliness and Fear of Missing Out

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ABSTRACT

Social network websites have flourished since the age of Web 2.0. These websites are created specifically for people to online socially connected and interacted with one another, on a particular subject or simply emotion sharing. The success of such online services has received a considerable amount of criticism. In fact, there is extreme comment derived from the criticism that social network sites (SNS) are used by operators as a tool to keep users in front of the screens in order to enhance market control and competitiveness. Driving the users to revisit the SNS is therefore a critical issue for operators to retain the competitive to understand the affective behavioral patterns for SNS users to satisfy to the website. By conceptualizing the wellbeing regards an individual user's happiness or satisfaction, the aim of this study is to explore the formation of wellbeing on social network websites from the perspectives of self-disclosure, social support, stress, fear of missing out, and loneliness.

The data via surveys will be collected from Facebook users in Danang, Vietnam region. A total of 500 samples expect to receive for data analysis. The results of the data analysis may support several findings: (1) Self-disclosure, stress, social support, loneliness, and fear of missing out provided by Facebook significantly influence users' wellbeing on SNSs. (2) Self-disclosure significantly influences users' social support. (3) Social support, loneliness, and fear of missing out are the significant variables affect users' stress. (4) Loneliness is a significant variable affects users' self-disclosure.

The findings of this study provide insights for both academics and practitioners regarding the potential implications, which serve as useful sources for researchers and managers to understand how wellbeing on social network websites might enrich and enhance online interactions with customers.

Keywords: Wellbeing; self-disclosure; stress; social support; fear of missing out; loneliness; social network sites (SNSs)

1. Introduction

Social network sites (SNSs) such as Facebook provide a user-friendly platform on which people meet and talk to each other. SNSs refer to Web sites that not only display visually articulated lists of one's social connections, but also provide technological features, including public profiles through which users can present themselves to others. These websites have flourished since the age of Web 2.0. Among SNSs, Facebook is the most the popular one. Facebook has over 500 million users and every month over 700 billion minutes are spent on this social network (Facebook, 2011). Past research focused on the wellbeing of people who use the Internet have showed mixed conclusions. Pessimistic views assert that the use of the Internet and SNSs have a negative effect on social life and wellbeing (Schiffirin et al., 2010). Nie (2001) argued that the time spent on the Internet

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displaced time spent offline socializing with family and doing face to face activities. One of the most important reasons people use the Internet is to communicate with other people. In a sense, Valkenberg and Jochen (2007) have indicated that Internet use can have a positive impact on wellbeing. In conceptualize, wellbeing as a construct being comprised of various measures, which include an individual's traits such as depression, loneliness, smaller social circles, and overall life satisfaction. Additionally, SNSs are used to facilitate studying, forming new relationships, maintaining preexisting personal ties, engaging in self-presentation, looking at photos and user profiles of other people, commenting on messages posted by others, avoiding boredom, passing the time, and procrastinating. These activities help individuals reduce loneliness and accumulate personal social capital, including emotional satisfaction, access to information, increasing one's wellbeing, and so on. However, the effect produced by loneliness, fear of missing out whether it has a positive or negative effect on wellbeing has yet to be resolved. These conflicting arguments are yet to be resolved and suggest that there is a certain mechanism in which individual traits such as loneliness have an influence on wellbeing, referring to an individual's cognitive and affective evaluation of his/her life.

What factors enable individuals to manifest the happiness and satisfaction, especially in the context of Facebook? Compared with studies on factors affecting Facebook wellbeing, the effects produced by self-disclosure and the higher levels of social support may experience higher levels of wellbeing are not clear. Shumaker and Brownell (1984) have shown that social support as an exchange of one point worth noting is that people tend to disclose themselves on SNSs are interested in bridging, bonding, and maintaining social capital on their SNSs are more likely to receive social support which is the cognitive, perceptual, and transactional process of initiating, participating in, and developing online interactions or means of online interactions to seek beneficial outcomes such as wellbeing.

The above discussion highlights the importance of self-disclosure, social support, stress, loneliness, fear of missing out to explore users' outcomes. However, there have been few attempts to address how wellbeing develops and establish. To fill these gaps, the aim of this study is to explore SNSs users' wellbeing while individuals gained usage motivations including self-disclosure, social support, stress, loneliness, fear of missing out. This study may contribute to the Facebook literature in several ways. First, from the perspective of self-disclosure, this study demonstrates how self-disclosure obtained from the use of Facebook and loneliness enables individuals' wellbeing. Self-disclosure in the form of breadth and depth was employed to predict individual's wellbeing. Second, from the perspective of social support, this study explains how social support facilitates wellbeing obtained from self-disclosure Facebook. Third, the concept of loneliness, stress, and fear of missing out were employed to explain users' wellbeing. Fourth, this study shows how loneliness, social support and fear of missing out perceived by users intervenes in users' stress at the Facebook website. In short, this study integrates the six different theoretical perspectives outlined above. It provides a richer model to better examine the formation of wellbeing in social network sites. Such the framework building may provide a complete understanding of how self-disclosure, social support, loneliness, stress, and fear of missing out may occur and in turn lead to individuals' wellbeing.

Research Questions

From the discussions above, it is important to understand the formation of wellbeing on SNSs. To fill the gap in the previous research on self-disclosure, stress, social support, and loneliness, this research addresses the following research question:

What are the determinants of the relational wellbeing in social network sites?

2. Conceptual Background

2.1. Social Networking Sites

A social networking service is an online platform that is used by people to build social networks or social relations with other people who share similar personal or career interests, activities, backgrounds or real-life connections. The variety of stand-alone and built-in social networking services currently available in the online space is described in three major aspects. First, SNSs is designed to help people establish online presence, build social networks (Ahn, Han, Kwak, Moon & Jeong, 2007) and allow people to exchange emotional supports, such exchange mainly occurs between strangers rather than acquaintance in real life. Second, communities in SNSs are connected in networks rather than in groups. Each user can define his/her community egocentrically. Third, SNSs users are connected in a person-to-person manner and they must explicitly state their relationship with other people. These make the relationships among members in a SNS more visible, direct and interpersonal than the relationships among members in other online communities.

2.2. The Facebook

The Facebook is a social network catered to college and high school communities. Among online social networks, Facebook stands out for three reasons: its success among the college crowd; the amount and the quality of personal information users make available on it; and the fact that, unlike other networks for young users, that information is personally identified. Accordingly, Facebook is of interest to researchers in two respects: (1) as a mass social phenomenon in itself; (2) as a unique window of observation on the privacy attitudes and the patterns of information revelation among young individuals. Facebook's market penetration is impressive: it can draw more than 80% of the undergraduate population in many colleges. The amount, quality, and value of the information provided is impressive too: not only are Facebook profiles most often personally and uniquely identified, but by default they show contact information (including personal addresses and cell phone numbers) and additional data rarely available on other networks (Gross, 2005).

Facebook requires a college's email account for a participant to be admitted to the online social networks of that college (Anderson, 1991). Facebook increases the expectations of validity of the personal information therein provided, as well as the perception of the online space as a closed, trusted, and trustworthy community (Sege, 2005). Facebook, unlike other online networks, offers its members very granular and powerful control on the privacy (in terms of search ability and visibility) of their personal information. Yet its privacy default settings are very permeable: at the time of writing, by default participants' profiles are searchable by anybody else on Facebook network, and actually readable by any member at the same college and geographical location. Thus, this study uses Facebook as a case study to demonstrate wellbeing on social networking sites.

2.3. Self-disclosure

Self-disclosure is an important ingredient of tie strength (Granovetter, 1982; Marsden & Campbell, 1984). It based on trust and can reinforce the closeness among people (Derlega, Winstead, Wong, & Greenspan, 1987). As the relationship develops, persons are more willing to proffer information about themselves without specially being asked for it (Berger and Calabrese, 1975). Previous research has shown that where ties are strong, communicators can influence each other to adapt and expand their use of media to support the exchanges important to their tie; those more strongly tied used more media to support the exchanges (Haythornthwaite, 2001, 2002, 2005; Haythornthwaite & Wellman, 1998). People an intimate relationship communicate more frequently, discussing topics of wider breadth, and the depth of self-disclosure is deep (Laurenceau et al., 1998; Marden & Campbell, 1984). Breadth of disclosure was operationalized as the word count for each disclosure. Depth of disclosure was operationalized as the information that makes the discloser feel vulnerable in some way, for instance, emotionally vulnerable. As relationships develop, the breadth and depth of interaction increases (Altman & Taylor, 1973). The variety of topics, activities, and communication channels increases. Regarding self-disclosure on Facebook, Christofides, Muise, and Desmarais (2009) found that Facebook users tend to disclose personal information, including e-mail address, birthday, relationship, and educational background on their profile pages. In a sense, Facebook's mission statement is "to make the world more open and connected" (Facebook.com, 2013) which rests on its users' willingness to present their inner thoughts and emotional states on Facebook. The characteristics of Facebook encourage such self-disclosure (Mazer, Murphy, & Simonds, 2007).

2.4. Stress

Stress occurs when an individual perceives a situation as threatening, challenging, or harmful and does not have an appropriate coping response (Lazarus and Folkman, 1984). According to Bevan et al. (2014) stress is defined as "a group of events consisting of a stimulus (i.e., a stressor) that triggers a reaction in a person's brain about whether or not there are resources necessary to meet the demands placed on them by the stimulus, which then sparks a physiological fight-or-flight response". Stevens et al. (2011) has pointed out that Facebook users engage in the website as a way to ease stress. Frequent Facebook interaction was also found to be associated with greater distress directly and indirectly via a two-step pathway that increases communication overload and reduces self-esteem (Chen and Lee, 2013). Various longitudinal studies have found that stress predicted the development of adolescents' depressive symptoms (e.g., Hankin, 2008; Meadows, Brown, & Elder, 2006). Especially young people experience substantial levels of stress in their daily lives, partly due to the various changes that are typical for this developmental period (Arnett, 1999). Complex factors contribute to adolescents' depressed mood, including stress (Grant, Compas, Thurm, McMahon, & Gipson, 2004). In a sense, stress is a transactional process in which stressors are the stimuli that encounter an individual and strain is the individual's response to the stressors (Cooper et al., 2001). Stressors are demands, conditions, events, or situations in the environment that can generate stress (Ragu-Nathan et al., 2008).

2.5. Fear of missing out

Fear of missing out (FoMO) is described as “a pervasive apprehension that others might be having rewarding experiences from which one is absent” and “a desire to stay continually connected with what others are doing” (Przybylski et al., 2013). This fear, in turn, prompts individuals to turn to social media such as Facebook because social media enables them to stay in touch with their peers (Shapiro and Margolin, 2013). Przybylski et al. (2013) argued that FOMO was associated with lower need satisfaction, mood and life satisfaction, and was robustly linked to higher levels of social media engagement. In line with this view, Beyens et al (2016) revealed that adolescents’ need to belong and need for popularity were related with increased FOMO, which, in turn, was associated with increased Facebook use. Also, Alt (2015) stipulated the mediating role of FOMO in the relationship between college students’ academic motivations and social media engagement. These studies highlight the importance of FOMO in explaining social media use and extends prior research that focused on the role of FOMO among college students and adults. Wortham (2011) proposes that FoMO may be a source of negative mood or depressed feelings in part because it undermines the sense that one has made the best decisions in life. FoMO is as “the uneasy and sometimes all-consuming feeling that you’re missing out that your peers are doing, in the know about, or in possession of more or something better than you (Morford, M., 2010). Furthermore, past researches have suggested the effects FOMO may have on behavior, well-being, and health, through affecting individuals’ media use. For instance, people may experience sleep deprivation or develop irregular eating habits out of FOMO, because they increasingly feel a need to use media and continually connect with their peers through their media devices (Oshima et al., 2012; Van den Bulck and Eggermont, 2006). As such, FOMO may be an unexplored explanation for perceived stress and well-being.

2.6. Social support

Social support defined as resources exchanged with others through one’s social ties (Cohen & Hoberman, 1985). It has been widely studied as one of the key determinants influencing individuals’ health. In fact, community interaction influences the community commitment of members (J. Heehyoung, L. Olfman, K. Islang, K. Joon, K. Kyungtae, 2008). The main reason why people join online communities is for social support and to exchange relevant information (C.M. Ridings, D. Gefen, 2004). According to S. Cobb and Presidential address (1976) social support can be defined as perceived care, love and support of members of a group. In a sense, individuals receive supportive resources in relationships developed with friends in their communities (B. Wellman, S. Wortley, 1990). As for SNSs, the relationships and ties between members provide emotional aid and information support (M. Huang, F. Cai, A.S.L. Tsang, N. Zhou, 2011; B. Wellman, S. Wortley, 1990). Members of an online community carry out different individual actions, which contribute to the group by information sharing about a product or service (R.P. Bagozzi, U.M. Dholakia, 2002).

2.7. Loneliness

Loneliness is defined as initial interpersonal relationships being less than desired or experienced, including uneasy feelings, distress, and perceptions of deficiencies in one’s social relations, either quantitatively or qualitatively (Russell, 1996). Loneliness has been found to be associated with fewer close friends, less time spent with close friends, more time spent alone, fewer dates and lower friendship quality (Jones et al., 1982; Kraus et al., 1993; Russell et al, 1980). Studies also have found that lonely people tend to have poor social skills as well as certain personality traits such as shyness and low self-esteem (Marangoni & Ickes, 1989). Feelings of loneliness might have evolved as a signal to human beings that their social connections are in need of repair (Cacioppo & Patrick, 2008). However, it remains unclear whether SNSs provide the same respite from loneliness as these more traditional media. Russell (1996) has indicated that loneliness is as initial social relationships being less than desired or achieved, including uneasy feelings, distress, and perceptions of deficiencies in one’s social relations. Some researchers have found that Internet use leads to negative outcomes for the individual user, such as loneliness (Livingstone, 2008).

2.8. Wellbeing

Wellbeing concerns what lay people might call happiness or satisfaction (Diener, 1984; Diener et al., 1999). It is defined as “a global assessment of a person’s quality of life according to his chosen criteria” (Shin and Johnson, 1978). Wellbeing comprises the scientific analysis of how people evaluate their lives both at the moment and for longer periods such as for the past year (Argyle, 2001; Kahneman et al., 1999). These evaluations include people’s emotional reactions to events, their moods, and judgments they form about their life satisfaction, fulfillment, and satisfaction with domains such as marriage and work. Wellbeing reflects people’s evaluations of what is happening in their lives, the facets of wellbeing such as positive affect, lack of negative affect, and life satisfaction show some degree of independence (Andrews & Withey, 1976; Lucas et al.,

1996). The essays suggest that wellbeing important affective outcome of users' self-disclosure, social support, loneliness, stress, and fear of missing out in the context of Facebook.

3. Hypotheses Development

Self-disclosure, stress, social support, loneliness are widely adopted to determine the wellbeing of virtual communities. As shown in Figure 1, this essay proposed a research model (see Fig. 1) in which wellbeing is conceptualized as what lay people might call happiness or satisfaction.

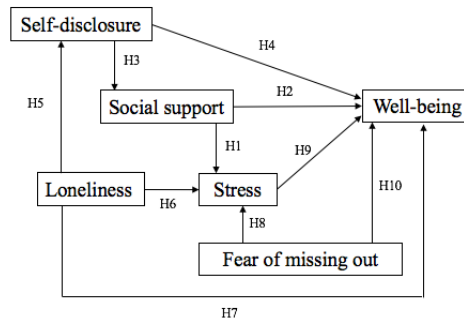


Fig 1. Research Prosomal Framework

3.1. Social support and stress

Social support in this study is considered as the relationships and ties between members provided emotional aid and information support. While social support has been established, Facebook users are likely to receive stress (Maija Reblin et al., 2008). If those with more Facebook friends perceive themselves to have a broad social network, they will likely perceive themselves to have at their disposal a wealth of potential social support, regardless of actual support provided. As the perception of social support availability should increase the perception of resources available to meet life's demands, perceived stress should be reduced and negative health impacts minimized (Robin L. Nabi, Abby Prestin, and Jiyeon So, 2013). If individual gained social support, they are able to reduce perceived stress. As Facebook user feel there is a special person with whom they can share their joys and sorrows, users may deal successfully with irritating life hassles. As the above discussion, social support perceived by individuals may reduce stress. The following hypotheses are proposed:

H1: Social support is positively related to stress

3.2. Social support and wellbeing

Social support is a communication behavior that plays a critical role in the maintenance or disruption of mental and physical health (House, Landis, & Umberson, 1988). Social support in this study is considered as the relationships and ties between members provided emotional aid and information support. While social support has been established, Facebook users are likely to have someone they can get emotional support from, they can lean on when they are feeling down, so on. According to Cacioppo et al (2006) members of an online community contribute to the group by information sharing about a product or service that implicated in the experience of wellbeing. Kim and Lee (2011) have indicated that with honest self-presentation have a long-term perspective in socializing and want others to support their social identities, which influence wellbeing. This essay took a specific interest in the work that social support plays on wellbeing on Facebook Website. We suggest that if individual gained social support, they are able to have someone whom they can talk about the pressures in their life or they can share the most things with. As the user feels a sense of social support on Facebook, they may satisfy with their life in general. Thus, social support perceived by individuals may influence their wellbeing on SNSs. Accordingly, the following hypotheses are proposed:

H2: Social support is positively related to wellbeing

3.3. Self-disclosure and social support

Social networking sites (SNSs) are virtual communities that allow people to connect and interact with others on a particular subject or just hang out together online (Murray & Waller, 2007). Among SNSs, Facebook is characterized by high amounts of self-disclosure because it is well-established that self-disclosure is a crucial element in relationship development (e.g., Altman & Taylor, 1973). Once of the resources people accumulated on

SNSs is social support which is the cognitive, perceptual, and transactional process of initiating, participating in, and developing online interactions or means of online interactions to seek beneficial outcomes (LaCoursiere SP, 2001). Social support in this study is considered as the relationships and ties between members provided emotional aid and information support. As the relationship develops, people are more willing to proffer information about themselves without specially being asked for it. Ellison NB, Steinfield C, & Lampe C (2007) indicated that people tend to disclose themselves on SNSs are interested in bringing, bonding, and maintaining social support. This study took a specific interest in self-disclosure plays on social support. We suggest that if individuals disclose personal information, including e-mail address, birthday, relationship, and educational background on their SNSs are more likely to receive social support. As Facebook user usually tell their friends exactly how they feel or they could confide with friends about almost anything via Facebook, they are able to have someone to talk about the pressures in their life, share most things with or makes them feel worthwhile. Therefore, self-disclosure perceived by individuals may influence their social support on Facebook. Accordingly, the following hypothesis is proposed to examine the effects of self-disclosure on users' social support on Facebook.

H3: Self-disclosure is positively related to social support

3.4. Self-disclosure and wellbeing

The degree of self-disclosure is often based on trust and can reinforce the closeness among people (Cozby, 1973). Self-disclosure is in this study considered tend to disclose personal information, including e-mail address, birthday, relationship, and educational background on their profile pages. In previous studies in the context of SNSs, the effects produced by self-disclosure are not clear. The impact of self-disclosure on wellbeing may be mediated by social support. This result implies that people with honest self-presentation have a long-term perspective in socializing and want others to support their social identities, which influence wellbeing. We suggest that individuals can disclosure, they are likely to satisfy with their life in general. As Facebook users' communication with Facebook friends ranges over a wide of topics, Facebook user feel that they could confide with Facebook friends about almost anything, they have gotten the important things they want in life. Thus, self-disclosure perceived by individuals may influence their wellbeing on Facebook. Accordingly, the following hypothesis is proposed to examine the effects of self-disclosure on users' wellbeing on Facebook:

H4: Self-disclosure is positively related to wellbeing

3.5. Loneliness and self-disclosure

On SNSs, people have opportunities to engage in self-disclosure using profile construction, status updates, photo management, message posting, replying to messages posted by their friends, and so on. Online interactions using social networking sites such as Facebook foster more self-disclosure, and a user reveals oneself more compared to face to face interactions (Lee et al., 2011). The characteristics of Facebook encourage users to present their inner thoughts and emotional states on Facebook (Mazer et al., 2007). People are prompted to disclose information through profile construction, status updates, photo management, message posting, replying to messages posted by their friends, and so on. Previous studies have suggested that loneliness would motivate people to increase their self-disclosure. Komarovskiy (1974) has indicated that loneliness generates the need to share feelings and thoughts with others. As a staple for social networking, Facebook was viewed as more useful for self-disclosure and social connection for lonely people (Jin, 2013). In line with this argument, Lee et al (2013) revealed that loneliness positively influences self-disclosure, implying that lonely people usually lack social skills in an offline context, and rely on. Sheldon (2008) also found that people who felt anxiety and fear about face to face communication used Facebook in order to pass time and to relieve lonely feelings. Additionally, McKenna and her colleagues (2004) conducted a series of studies and found that socially anxious or lonely people tended to form interpersonal relationships easily on the Internet and manage them well. Online communication often does not reveal visible shyness and social anxiety, which help individuals who are less socially skilled foster online friendship. Skues et al. (2012) further explained that lonely people use the self-disclosing feature of Facebook to gain access to the friends of their friends via status updates, comments and photos, making them feel more connected to others and reducing their sense of isolation. We suggest that if individuals suffered loneliness, they likely tend to disclose more personal information on SNSs. As Facebook user suffered no people they can turn to or their interests and ideas are not shared, they are able to tell Facebook friends exactly how they feel or what they like about him/her. Based on these arguments, loneliness perceived by individuals may influence their self-disclosure on Facebook. Accordingly, the following hypothesis is proposed to examine the effects of loneliness on users' self-disclosure on Facebook:

H5: Loneliness is positively related to self-disclosure

3.6. Loneliness and stress

According to Russell (1996) loneliness is as initial social relationships being less than desired or achieved, including uneasy feelings, distress, and perceptions of deficiencies in one's social relations. Past research of Cacioppo and colleagues (2002) as well as related findings in the literature (Hawley et al., 2003) show that lonely people often have greater exposure to stress, are more likely to appraise the events that they encounter as stressful, have more exaggerated physiological stress responses, and have compromised recuperative processes. Stress in this study is considered as a group of events consisting of a stimulus that triggers a reaction in a person's brain about whether or not there are resources necessary to meet the demands placed on them by the stimulus, which then sparks a physiological fight-or-flight response. While Facebook users suffered loneliness, they were unable to control the important things in their life or they could not cope with all the things what they had to do. Thus, loneliness perceived by individuals may influence their stress. Hence, the following hypothesis is proposed.

H6: Loneliness is positively related to stress

3.7. Loneliness and wellbeing

Past studies have inconclusive results with regard to the effect of loneliness on well-being. Skues et al. (2012) reported that students with higher levels of loneliness reported having more Facebook friends. This finding is consistent with Ellison and colleagues' (2007) theory that individuals with low social capital use Facebook to build social capital and experience higher levels of well-being. However, many studies have suggested that loneliness has a negative impact on well-being (Caplan, 2007; Ceyhan and Ceyhan, 2007; Kim et al., 2009; Kraut et al., 1998). Ceyhan and Ceyhan (2007) pointed out that loneliness is associated with problematic use of the Internet. According to Valkenburg and Peter (2009), the Internet takes away time from the users for social activities and thus replaces social ties, which in turn hinders an individual's wellbeing. Lonely people lack social communication skills and tend to stick to compulsive Internet use, resulting in negative life outcomes (Kim et al, 2009). In this research, loneliness is as initial social relationships being less than desired or achieved, including uneasy feelings, distress, and perceptions of deficiencies in one's social relations. Kraut et al. (1998) has suggested that loneliness has a negative impact on wellbeing. Wellbeing concerns what lay people might call happiness or satisfaction. This essay took a specific interest in the work that loneliness plays on wellbeing on Facebook Website. While individual suffered loneliness, they are unable to be wellbeing. As the user feels a sense of loneliness on Facebook, they may not satisfy with their life in general. Thus, loneliness perceived by individuals may influence their wellbeing on SNSs. Accordingly, the following hypotheses are proposed:

H7: Loneliness is negatively related to wellbeing

3.8. Fear of missing out and stress

According to Beyens et al (2016), adolescents' FoMO was related with increased perceived stress due to not belonging to their peers on Facebook and not being popular among their peers on Facebook. Cheever et al (2014) reported a relationship between anxiety and not being able to use wireless mobile devices. Because FoMO is closely related to anxiety and anxiety is often associated with feelings of stress among adolescents (Kim et al., 2011; Przybylski et al., 2013), it is very likely that adolescents' FoMO is related with higher levels of stress. Particularly, in the context of social networking sites, users may feel pressured to stay on and access the site often due to the fear of missing out and to keep up with relationship maintenance demands (Fox and Moreland, 2015). For adolescents, being excluded from interactions with their peers and being neglected by peers is stressful (Frankel, 1990) and creates feelings of stress (Leary, 1990). Therefore, feelings of missing out from peer interactions can be perceived as very stressful for adolescents. As such, FOMO likely increases adolescents' stress related to using Facebook. In line with several indications in the literature (e.g., Fox & Moreland, 2015; Rosen et al., 2013), and based on the empirical evidence provided by previous studies (Beyens et al., 2016; Chiou et al., 2015; Jones, 2014). Therefore, fear of missing out perceived by individuals may influence their stress on Facebook. Accordingly, the following hypothesis is proposed to examine the effects of fear of missing out on users' stress on Facebook:

H8: Fear of missing out (FoMO) is positively related to stress

3.9. Stress and wellbeing

Bevan et al. (2014) pointed out that the more time spent on and the more social network memberships, the higher stress and lower quality of life, thus detrimental to user wellbeing. In the context of social networking sites, however, studies on the relationship between stress and wellbeing related to Facebook use have yielded mixed results. Past studies have confirmed the inverse association between stress and physical and psychological wellbeing. Nabi et al. (2013) confirmed that the number of Facebook friends was associated with greater perceived social support, which in turn associated with reduced stress, and in turn less physical illness

and greater psychological wellbeing. People look for SNSs such as Facebook because they may experience a specific positive affective state and feel less distressed (Stevens et al., 2011; Zhang et al., 2013). However, numerous researches have indicated that using SNSs such as Facebook may be associated with increased stress levels, thus detrimental to user wellbeing (Campisi et al., 2012; Chen and Lee, 2013; Clayton et al., 2013; Grieve et al., 2013; Jelenchick et al., 2013; Rosen et al., 2013). Based on these arguments, stress perceived by individuals may influence users' wellbeing on Facebook. Accordingly, the following hypothesis is proposed to examine the effects of stress on users' wellbeing on Facebook:

H9: Stress is negatively related to wellbeing

3.10. Fear of missing out and wellbeing

Wellbeing and FoMO we hypothesized that fear of missing out would be negatively associated with general mood and overall levels of life satisfaction across the general population. Feeling excluded from ones' social connections has been seen to lead to decreases in psychological wellbeing (Bevan, Pfyl, & Barclay, 2012). On this basis therefore it might be assumed that suffering from FoMO has the potential to negatively impact on any psychological benefits from using SNSs. Fear of missing out in this study is considered as a pervasive apprehension that others might be having rewarding experiences from which one is absent and a desire to stay continually connected with what others are doing. Przybylski et al. (2013) indicated that FOMO was associated with lower need satisfaction, mood and life satisfaction, and was robustly linked to higher levels of social media engagement. In line with this view, Beyens et al (2016) revealed that adolescents' need to belong and need for popularity were related with increased FOMO, which, in turn, was associated with increased Facebook use. Also, Alt (2015) stipulated the mediating role of FOMO in the relationship between college students' academic motivations and social media engagement. In a sense, past researches have suggested the effects FoMO may have on wellbeing through affecting individuals' media use. In line with this view, Beyens et al (2016) revealed that adolescents' need to belong and need for popularity were related with increased FoMO, which, in turn, was associated with increased Facebook wellbeing. We suggest that if individuals lay on happiness or satisfaction on their life are more likely to avoid the negative of fear of missing out. For instance, Facebook users may satisfy with their life and would change almost nothing, because they can share the details online (e.g. updating status) or they are able to understand their friends "in jokes". Hence, fear of missing out perceived by individuals may influence their wellbeing. Accordingly, the following hypothesis is proposed to examine the effects of fear of missing out on users' wellbeing on Facebook

H10: Fear of missing out is negatively related to wellbeing

4. Research method

The aim of this study is to investigate the formation of Facebook wellbeing. A survey conducted in the context of Facebook to measure the following six constructs proposed in the research model: (1) loneliness, (2) Social support, (3) Stress, (4) Self-disclosure, (5) Fear of missing out, (6) wellbeing.

4.1. Procedure

A questionnaire will be administrated to collect data. The pilot test will conduct to refine the formal questionnaires. A total of 500 formal questionnaires will distribute to young people. The samples for this study will draw from young people in Danang, Vietnam. Facebook was chosen as the target SNS site because it is the second most popular site in the world, with more than a billion members (Alexa, 2014 traffic rankings; Facebook Newsroom, 2014). Furthermore, Facebook is the dominant player in the SNSs industry, growing daily. Because of our target subjects are those users with wellbeing, the questionnaires in which the respondents answer the frequency of Facebook usage is equal to or above four days per week are remained for the subsequent analysis. The respondents answer the usage of Facebook is below four days per week and will be discarded.

4.2. Measures

The scale items will use in this study were adapted from previous related studies as indicated in table 1 Multiple item measures are used for all of the variables (see Appendix A in English for details). The instrument used to measure the various research variables is described below.

Table 1. Measurement constructs

Components	Number of items	Source	Item no. in the questionnaire
Self-disclosure	5	Rau (2008)	16-20
Social support	6	Kyung-Tag Lee, Mi-Jin Noh, and Dong-Mo Koo (2013)	10-15
Stress	14	Cohen S, Kamarck X, Mermelstein (1983)	31-44
Loneliness	5	Kyung-Tag Lee, Mi-Jin Noh, and Dong-Mo Koo (2013)	45-49
Fear of missing out	10	Przybylski et al., 2013	21-30
Wellbeing	4	Ed Diener, Robert A. Emmons, Randy J. Larsen & Sharon Griffin (1985)	50-53

Note: The questionnaire is described in detail in Appendix A (English version)

Measurement items were adapted from the literature. The questionnaire was originally developed in English and then translated into Vietnamese. This study used one-way translation, in which the author translated the questionnaire from English into Vietnamese version as well as verified the conceptual rather than the literal equivalence between these versions. A pre-test of the questionnaire will conduct to assess its logical consistency, easy of understanding, and contextual relevance by using 2 scholars who had experience of human computer interaction. All scale items will be measured using a five-point Likert scale ranging from one (“strongly disagree”) to five (“strongly agree”). As for stress and loneliness’s scale items, will be measured Likert scale ranging from one (“never”) to five (“very often”). Measurement items of six constructs proposed in the research framework.

4.3. Method of Data Analysis

The data analysis will be performed using Smart Partial Least Squares (PLS) version3.0 software. It is primarily intended for causal-predictive analysis and is suitable for high-complexity research that involves low levels of theoretical information (Joreskog and Wold, 1982). PLS is appropriate to handle both reflective and formative constructs and constructs with mixed scales (Chin, 1998). The PLS approach to structural modeling includes two stages, measurement model testing, and structural model testing. The former tests the reliability and validity of the research of the research model, whereas the latter examines the significance of the path coefficient between the variables and evaluates the predictive ability of the proposed model.

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Appendix A. Scale items associated with specific constructs

Questionnaire for Facebook users

The questionnaire will conduct a research for understanding the Facebook users' wellbeing development, entitled: *"The Formation of Facebook Well-Being: The Perspectives of Self-Disclosure, Stress, Social Support, And Loneliness"*. This study will attempt to help practitioners and provider's social network sites such as Facebook to understand what factors enable a social network site to enrich the service interactions and how to manage relations with the users properly. Thank you for taking the time to fill in this questionnaire. Your response will contribute to this academic research. Your answers will be treated with complete confidentiality. If you have any questions about this questionnaire, please contact:

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1. Personal Information

1. Gender : Male Female
2. Education : High school Bachelor Master/ Doctor Other _____
3. Age : 15 - 22 23 - 30 31-40 > 40
4. Average daily time spent on Facebook:
 < 30 minutes 30 minutes - 1 hour 1 – 2 hours 2 - 3 hours > 3 hours
5. Average times connect to Facebook per day (You can select more than one answer)
 I log on to Facebook frequently during the day, but only shortly each time
 I have Facebook open in my browser while doing other stuff
 I open Facebook when I get "push"- notifications
 I check Facebook few times a day
6. Number of Facebook friends:
 0 - 50 51 – 250 251 – 500 501 – 1000 >1001
7. Frequency of using Facebook per week:

- < 1 day 2-3 days 4-6 days Everyday
 8. Facebook using experience:
 <1 year 1-2 years 2-3 years > 3 years
 9. Working status:
 Students Working Non-Working Other__

2. The aim of the following questions is to understand what and the degree of social support, stress, self-disclosure, loneliness you received from using Facebook and your relational wellbeing development.

For each of the following statements, please indicate whether you very often, often, sometimes, almost never, or never with the statement. Choose one answer for each statement. Please rate your level of agreement with the following statements.

Section A: How does Facebook support you?	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
10) There is someone (on Facebook) I can talk to about the pressures in my life.					
11) There is at least one person (on Facebook) that I can share most things with.					
12) When I'm feeling down, there is someone (on Facebook) I can lean on.					
13) There is someone (on Facebook) I can get emotional support from.					
14) There is at least one person (on Facebook) that I feel I can trust.					
15) There is someone (on Facebook) that makes me feel worthwhile.					
Section B: Did you disclose yourself on Facebook?	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
16) My communication with Facebook friends ranges over a wide of topics.					
17) Once my communication with Facebook friends started, we easily move from one topic to another.					
18) I usually tell Facebook friends exactly how I feel via Facebook.					
19) I have told Facebook friends what I like about him/her.					
20) I feel that I could confide with Facebook friends about almost anything.					
Section C: The Fear of Missing Out of you on Facebook	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
21) I fear others on Facebook have more rewarding experiences than me.					
22) I fear my Facebook friends have more rewarding experiences than me.					
23) I get worried when I find out my Facebook friends are having fun without me.					

24) I get anxious when I don't know what my Facebook friends are up to Facebook.					
25) It is important that I understand my Facebook friends "in jokes".					
26) Sometimes, I wonder if I spend too much time keeping up with what is going on Facebook.					
27) It bothers me when I miss an opportunity to meet up with Facebook friends.					
28) When I have a good time it is important for me to share on Facebook the details online (e.g. updating status).					
29) When I miss out on a planned get-together on Facebook, it bothers me.					
30) When I go on vacation, I continue to keep tabs on what my Facebook friends are doing.					
Section D: Have you ever been stressed?	Never	Almost never	Sometimes	Fairly often	Very often
31) In the last month, how often have you been upset because of something that happened unexpectedly?					
32) In the last month, how often have you felt that you were unable to control the important things in your life?					
33) In the last month, how often have you felt nervous and stressed?					
34) In the last month, how often have you dealt successfully with irritating life hassles?					
35) In the last month, how often have you were effectively coping with important changes that were occurring in your life?					
36) In the last month, how often have you confident about your ability to handle your personal problems?					
37) In the last month, how often have you felt that things were going your ways?					
38) In the last month, how often have you found that you could not cope with all the things that you had to do?					
39) In the last month, how often have you been able to control irritations in your life?					
40) In the last month, how often have you felt that you were on top of things?					
41) In the last month, how often have you felt that you were on top of things?					
42) In the last month, how often have you found that yourself thinking about things that you have to accomplish?					
43) In the last month, how often have you been able to control the way you spend your time?					

44) In the last month, how often have you felt that difficulties were piling up so high that you could not overcome them?					
Section E: Loneliness in you	Never	Almost never	Sometimes	Fairly often	Very often
45) How often do you feel alone?					
46) How often do you feel that your interests and ideas are not shared by those around you?					
47) How often do you feel that your relationships with others are not meaningful?					
48) How often do you feel that no one really knows you well?					
49) How often do you feel that there are no people you can turn to?					
Section F: How is your life?	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
50) I am satisfied with my life.					
51) The conditions of my life are excellent.					
52) So far I have gotten the important things I want in life.					
53) If I could live my life over, I would change almost nothing.					

Thank You!



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Who are More Responding to Marketing on Social Media? A Motivation-based Segmentation of Facebook Users in Vietnam

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ABSTRACT

This study (1) explores users' motivations to use social media in Vietnam market, (2) identifies different user segments based on these motivations, and (3) examines relationships between the user segments and their responses to marketing activities on social media. Facebook is selected as the social media platform of choice due to its popularity. We conduct a survey on a sample of 429 young Facebook users in Vietnam. Findings show that the motives for Facebook use can be identified as helping, social connection, social creation, entertainment, working, information seeking, learning, and status seeking. Using cluster analysis, we identify five Vietnamese Facebook user segments, namely Maximizers, Socializers, Middle of the road, Information seekers, and Laggards. Moreover, users with different motivations for Facebook use have varying levels of responses to Facebook marketing. These findings provide firms with important implications for designing and implementing their marketing strategies on social media environments.

Keywords: motivation; segmentation; social media marketing; Facebook; Vietnam.

1. Introduction

Social networking sites (SNSs) have become one of the most noticeable marketing tools for firms due to their marketing potential. Of several SNSs, Facebook is now with over one billion registered users globally (Statistic, 2018). In online retailing sector, Facebook accounts for 64% of total social revenue (Business Insider 2015). According to Facebook (Q4, 2017), 42% of marketers report that Facebook is critical to their business. It is undoubted that Facebook is one of the most prominent marketing tools in the heart of social commerce. From consumers' perspective, consumers are spending significant amount of their time to present on Facebook (Nielsen, 2011). To know about product offerings and get updates on preferred brands, consumers do not necessarily visit a company's websites or stores, but through its Facebook pages. Therefore, companies are harnessing this technology by integrating social commerce into their operations and sales (Turban et al., 2017). Despite much investment on Facebook, 55% of users support a company's Facebook page, and they do not want to see posts from companies or to visit the company's page again (Lee & Bae, 2016). In fact, companies are getting more difficulty in keeping in touch with customers and engaging them for a long term (Lee & Bae, 2016). Understanding how consumers interact with and respond to marketing on SNSs presents a challenge. There is little empirical research to understand Facebook users and their responses to marketing efforts on Facebook (Lee et al., 2011). We address this by conducting a Facebook user segmentation study.

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Market segmentation or classification is an important step in understanding characteristics of social media users (Dibb, 2005). Segmentation in general and segmentation of SNS users in particular offers various advantages for businesses (Shao et al., 2015). For instance, companies can know what types of people respond to messages they post on their Facebook pages, and how these people respond to different types of messages. Additionally, segmentation can help companies optimize their messages so that they resonate with each audience group's characteristics (Daniel Kushner, 2015). Previous research has employed various segmentation approaches to classify SNS users, such as segmenting based on user usage, user motivations to participate (Shao et al., 2015; Foster et al., 2011), user activities on SNSs (Lorenzo-Romero & Alarcón-del-Amo, 2012), or user reactions to social media marketing (Campbell et al., 2014). These studies have successfully identified distinct user typologies primarily in western contexts. However, limited attention has been paid to connect the resulting segments and their reactions to marketing efforts. Recent studies reveal that experiences with SNSs affect user responses to online shopping and advertising (Lee & Bea, 2016; Lee et al., 2011; Shao et al., 2015). Furthermore, SNS users' motivations are likely to stimulate users to engage in viral advertising and marketing, and electronic word of mouth (Libai et al., 2010; Campbell et al., 2014). Antoniadis et al. (2017) suggest that further research on SNS user segmentation should focus on how segments vary in their behaviors and their patterns of SNSs usage.

Regarding the research context, previous studies have predominantly segmented SNS users or consumers among samples from Western countries. In Western cultures, people are often characterized by individualism that focuses on personal values such as independence and personal goals (Hofstede, 1980). On the contrary, Triandis et al. (1990) argue that individuals are interdependent to each other, and group identity is more critical than personal identity. Vietnamese people represent users with strong collectivist and social values in which being socially informed and social connections are more concerned. Thus, this study extends SNSs literature by identifying and characterizing segments of Facebook users in Vietnam. In addition, the study aims to examine differences in responses to marketing efforts on Facebook between different segments.

2. Literature Review

2.1 Market segmentation

Market segmentation is a traditional marketing tool which groups potential consumers into distinctive categories (LaRose & Eastin, 2004). It assists marketers to create rich portfolios of consumer information that can be used in designing a targeted marketing strategy (Wedel & Kamakura, 2012). In the online setting, consumers' demographic, psychographic and behavioral characteristics are increasingly diversified (Lee & Ma, 2012). In order to understand different characteristics of online consumers, research attention has concentrated on segmenting online consumer market. Identifying user segments on online environment means classifying users with diversified characteristics into meaningful categories. In the SNS context, users form a heterogenic consumer group in terms of their demographic characteristics, motivations, interest, responses to marketing and purchasing behavior (Perrin, 2015). Consumer segmentation in SNS environment has been explored by using a number of segmentation bases such as consumers' motivations, demographics (Park & Yoon, 2009), preferences, attitudes, beliefs, activities (Shao et al., 2015), and shopping behavior (Campbell et al., 2014). However, with respect to Facebook, there is tendency to consider users as a single segment rather than understanding different user segments on this SNS platform (Shao et al., 2015). This research attempts to segment Facebook users based on their motivations and demonstrates how consumers in these segments can respond to marketing activities.

2.2 Consumers' motives for engaging in social media

Facebook is built based on computer-mediated SNSs. Previous studies on motivations for engaging virtual world can be extended to motivations to use Facebook. Motivation of SNS users are explored from a number of different perspectives. One approach is to use the uses and gratifications theory (Blumler, 1979), which explains why an individual makes a media selection and the satisfaction of needs, interests and objectives that he/she achieves from this selection. Based on this theory, Park and Yoon (2009) identifies four primary motivations for Facebook participation including: socializing, self-status seeking, information seeking and entertainment value. In particular, Facebook provides users with social benefits to communicate with others, such as the ability to keep in touch with friends, make new friends and locate old friends. Entertainment dimension of Facebook is applicable to virtual communities through playing with interactive tools such as online games. Self-status also becomes a strong motivating force for social media participation because it is able to enhance user self-status or peer admiration. Meanwhile, consumers can seek and exchange information with other individuals participating

in the same virtual communities in SNSs. Other studies consider motivations of SNS users with regard to two dimensions: utilitarian and hedonic motivation (Campbell et al., 2014). Utilitarian motivations relate to the retrieving information, while hedonic motivations are defined as consumers' enjoyment and escape (Korgaonkar & Wolin, 1999). Online users motivated by utilitarian values seek the convenience of saving time or the ease of accessing information. For users motivated by hedonic values, they have a desire for entertainment and escapism (Anderson et al., 2014).

Another approach looks at user motivations through their activities on social media. A few studies have used an unifying theory "4Cs" (connect, create, consume a control) to explain in part why so people spend their time using social media and why social media are so popular (Hoffman & Novak, 2011). Users can use SNS platforms to share their information with their friends thus connecting people together. Users can create (i.e. post, upload, comment) and consume (i.e. read, watch, listen to) content through applications of social media. Finally, users can actively control the application like page layout, tagging, or online setting such as profile or privacy functions. Then, Hoffman & Novak (2012) tested the reasons people use social media by using the 4Cs theory. They found four social media goal pairs (connect-consume, connect-create, control-consume, and control-create) and this shows that motivations differentially drive social media goals and users with different primary social media goals differ in perceptions of well-being. Additionally, Chung et al. (2016) adopted the 3Cs – connecting with others, creating content, and control over the user experience in order to distinguish four segments of consumers who support social ventures.

2.3 Consumers' responses toward marketing activities on social media

Social media on which consumers are spending majority of their time (Nielsen, 2011) provide a new landscape for marketing practices (Campbell et al., 2014). This opportunity brings about "social media marketing", which refers to the practices that marketers use social media platforms to promote their products or services (Felix et al., 2016). Social media marketing is becoming more popular for both practitioners and researchers (Shaltoni, 2016). It is a powerful way for businesses to reach customers through connections between brands and consumers. Particularly, social media tools provide opportunity for companies to engage and interact with potential and current consumers, enhance a sense of intimacy with them, and thus strengthen important and meaningful relationships with the consumers, especially in competitive business environments (Davis Mersey et al., 2010). Additionally, it allows consumers to share information about products or services to others, and co-create values with companies online, which can result in offline benefits.

Having consumers engaged in social media marketing requires an understanding of individuals' motivations and connecting these motivations to users' usage and adoption. Previous studies have discussed the relationship between motivations and consumer willingness to join a Facebook brand page community (Shao et al., 2015). There is evidence that different motivations of users are associated with different attitudes and behaviors, for instance, socializing and information seeking motive were found to be important for joining or posting on Facebook brand page community (Shao et al., 2015). Cho et al. (2014) also found that Facebook users with high motivation for status seeking tended to have positive intention to share information about products or services they have used. Given that individuals' motivations to use Facebook are diverse, they constitute an effective basis for segmentation activities. However, few studies have linked motivation-based segmentation to users' responses to marketing activities. Shao et al. (2015) suggests that future research should examine the effect of motivational segments on consumer interaction with Facebook brand communities. For instance, Foster et al. (2011) investigated social media user segmentation and how it influences on brand management in SNSs context. Consumer responses to social media marketing are also shown to be heterogeneous (Campbell et al., 2014). However, this perspective ignores the motivations that prompt consumers to engage in social media, as well as the contextual effects of social networking on consumers' perception and responses. Thus, this study explores the relationship between motivation-based segments of social media users and their responses to social media marketing. According to Campbell et al. (2014), consumers' reactions to social network marketing encompass brand engagement, word of mouth referral behavior and purchase intention. Drawing on Campbell et al.'s (2014) approach, this study measures consumers' responses to marketing activities based on these constructs.

3. Methods

3.1 Samples

We used a convenience sampling technique to recruit respondents due to the time and resource constraints. The sample included 429 Vietnamese respondents, who had used at least a Facebook account at the time. The

sample was characterized by: most females (70%), single (95%), low income (82%), university students (86%), and young age (mean = 20.9 years, SD = 3.5). Although the sample is highly bias, it generally reflects characteristics of the target market of Facebook (i.e., young and active people with high level of education and technological savviness).

3.2 Procedure

This study adopted a quantitative methodology. Data were collected by means of a survey. Participants were asked to complete a self-administered survey in the form of either online or paper-and-pen questionnaire. The questionnaire contained several items asking about (1) motivations for using Facebook, (2) consumers' reactions to marketing activities on Facebook, and (3) demographics (age, gender, marriage status, education and income) and their Facebook usage (experience with Facebook, frequency of Facebook use, average time on Facebook daily, average time on Facebook per access, number of Facebook accounts, devices to access Facebook). A pilot test was conducted with a small group of Facebook users to check for clarity and comprehensiveness of the survey items.

3.3 Measures

The Facebook use motivations were measured by 34 items compiled from several previous studies (Chung et al., 2016; Hoffman and Novak, 2012; Heinonen, 2011; Foster, West & Francescucci, 2011; Park et al., 2009; Shao et al., 2015). Consumers' reactions to marketing activities on Facebook were examined in terms of purchase intention, eWOM intention, and brand engagement according to Campbell et al. (2014). These user response subscales (i.e., brand engagement, eWOM referral intention and purchase intention) were adapted from Campbell et al.'s (2014) study. All items measuring motivations and reactions to Facebook marketing were measured on five-point Likert scale, anchored by 1 = strongly disagree. 5 = strongly agree.

3.4 Data analysis

Exploratory factor analysis and reliability analysis (Cronbach alpha) were employed to adjust and validate the motivations and responses to marketing on Facebook scales. Subsequently, the cluster analysis was used to classify social media users into meaningful sub-groups based on their motivations of using Facebook. Cluster analysis relates to a group of multivariate techniques whose primary purpose is to group objects into relatively homogeneous groups, so-called clusters, based on the characteristics they possess (Hair et al., 2010). Finally, ANOVA was used to determine if there were significant differences in how segments/clusters response (i.e., engage in, intend to purchase, and intend to make referrals) to marketing on Facebook.

4. Results

4.1 Motivations to use Facebook

Exploratory factor analysis (with the extraction method of Principal Component Analysis and the rotation method of Varimax) was conducted on a pool of the 34 motivation items to identify the underlying motivation dimensions. In the final solution (KMO = 0.846; χ^2 (df = 378) = 4267.288; $p < 0.001$), 28 out of the original 34 items were retained, resulting in eight motivation factors which accounted for 63.8% of variance in the data. The first factor, helping included two items focused on helping others and getting support from others. Five items comprised the second factor, which described aspects of social connection, which is, using Facebook to maintain current relationship. Three items formed a scale assessing social creation: socialize with anonymous people, meet new people, interact with peoples who are the same hobbies. Entertainment consisted of four items focused on entertaining, escape, funning/interesting on Facebook. Additionally, four items for work, three items for information seeking, three items for learning, and four items for status seeking. Table 1 shows that all factors met criteria for convergent validity (all items' factor loadings were above 0.4), discriminant validity (no significant cross-loading between the factors), and reliability (Cronbach's alpha values were above 0.6, and item-total correlations were above 0.3).

Table 1: EFA and reliability analysis for the motivation measurement model

	Motivation constructs	Factor loading	Eigen-values	Item-Total Cor.	Cronbach Alpha
Helping					
MOT1	Gaining a sense of helpfulness to others	0.863	1.005	0.621	0.760
MOT2	Being helpful to others	0.865		0.621	
Social connection					
MOT4	To stay in touch with people I know	0.693	2.352	0.503	0.727
MOT5	Understanding about friends and acquaintances	0.748		0.552	
MOT6	Creating and managing social network of friends and acquaintances	0.584		0.426	
MOT7	Connecting with people I can't meet directly	0.547		0.480	
MOT8	Reconnecting with people I've lost touch with	0.594		0.501	
Social Creation					
MOT9	Sharing and experiencing with others	0.661	1.311	0.498	0.673
MOT10	Meeting new people	0.775		0.563	
MOT11	Interacting with groups that share my interests	0.693		0.409	
Entertainment					
MOT14	Seeking/ Providing emotional support	0.534	1.764	0.493	0.743
MOT25	It is entertaining	0.684		0.559	
MOT26	Escaping the real world for a while	0.782		0.497	
MOT27	It is funny and exciting	0.732		0.633	
Work					
MOT16	To connect or build relationship about my business	0.482	2.088	0.464	0.775
MOT17	To develop my career	0.776		0.664	
MOT18	Promote myself or my business	0.775		0.624	
MOT33	Network for business/professional purposes	0.801		0.572	
Information Seeking					
MOT19	Updating information about events what is happening	0.720	1.132	0.475	0.636
MOT20	Seeking/providing advice	0.652		0.434	
MOT21	To get useful information about product/ service	0.524		0.429	
Learning					
MOT22	Learning about unknown things	0.860	6.710	0.795	0.894
MOT23	Learning about useful things	0.864		0.818	
MOT24	Exploring about new things	0.786		0.761	
Status seeking					
MOT28	I feel peer pressure to participate	0.652	1.495	0.390	0.690
MOT29	It makes myself look cool	0.766		0.585	
MOT30	I am invited	0.752		0.477	
MOT31	It is a new trend	0.642		0.450	

4.2 Motivation-based segmentation of Facebook users

A two-stage cluster analysis was applied on the basis of eight motivation dimensions identified by the preceding factor analysis (i.e., helping, connection, creation, entertainment, work, information seeking, learning, and status seeking). The values of these clustering variables were obtained by averaging the values of their corresponding items. First, a hierarchical cluster analysis using Ward's method was conducted to determine the number of clusters (using agglomeration coefficients) and cluster's centroids. The results suggested a three to

six cluster solution. In the next step, we conducted four non-hierarchical (k-means) cluster analyses for these four possible solutions to select the best one. Mean values of each cluster from the hierarchical cluster analysis were used as initial seeds of the non-hierarchical cluster analysis. Consequently, the comparison between the four analyses favored for the five cluster solution based on the relationships between cluster solutions and the background variables, as well as existing literature. ANOVA showed that the differences in the clustering variables (motivation factors) between the five clusters were statistically significant ($p < 0.001$).

Table 2. Results of Cluster Analysis

	Seg. 1	Seg. 2	Seg. 3	Seg.4	Seg.5	Total		
	N=123	N=141	N=70	N=67	N=28	N=429		
Motivations							F (4, 424)	p
Helping	3.8	2.5	3.4	2.7	2.1	3.0	92.2	0.000
Connection	4.3	4.0	3.8	3.8	2.9	3.9	43.9	0.000
Creation	3.9	3.9	3.4	2.8	2.5	3.5	76.9	0.000
Entertainment	3.8	3.7	3.0	3.2	2.4	3.5	53.6	0.000
Work	3.8	3.4	2.8	3.2	2.0	3.3	62.2	0.000
Information seeking	4.2	3.8	3.4	4.0	2.5	3.8	78.3	0.000
Learning	4.4	3.9	3.2	4.3	2.7	3.9	80.4	0.000
Status seeking	2.6	2.7	2.0	2.0	2.1	2.4	27.9	0.000
Experience with Facebook								
<2 years	7%	12%	4%	13%	18%	10%		
2-4 years	63%	58%	69%	54%	57%	60%		
>4 years	31%	30%	27%	33%	25%	30%		
Fb use frequency								
<= 1 per week	9%	17%	10%	16%	29%	14%		
Many times per day	91%	83%	90%	84%	71%	86%		
Average time on Facebook daily								
<1 hour	9%	13%	13%	24%	21%	14%		
1-3 hours	53%	57%	54%	51%	64%	55%		
>3 hours	38%	30%	33%	25%	14%	31%		
Average time on Facebook per access								
<10 minutes	14%	18%	26%	19%	29%	19%		
10-30 minutes	46%	48%	37%	39%	39%	43%		
>30 mins	41%	35%	37%	42%	32%	38%		
Number of friends on Facebook								
<100	11%	11%	4%	10%	21%	11%		
100-500	48%	50%	47%	60%	54%	51%		
>500	41%	38%	49%	30%	25%	38%		
Devices to access Facebook								
Mobile phones	91%	91%	90%	76%	89%	88%		
Tablets	20%	12%	17%	13%	21%	16%		
PCs	71%	66%	67%	70%	75%	69%		
Number of Facebook accounts								
1	71%	72%	73%	69%	75%	72%		
>1	29%	28%	27%	31%	25%	28%		

The final five cluster solution is presented in Table 2. Each cluster was labelled as follows. The cluster 1 was named as *Maximizers* ($n = 123, 29\%$). This cluster had the highest score on the seven of eight motivation constructs, for example, learning ($M=4.4$), connection ($M=4.3$), information seeking ($M = 4.2$). They explored

to be maximizers of Facebook functionality and benefits. Maximizers were the only segment whose scores were greater the point of the total scores on all eight motivation constructs. Of all the identified segments, maximizers were the most positive about Facebook use. Specifically, the majority of users spent more than 3 hours Facebook usage per day and 91% of users use Facebook many times per day.

The cluster 2 was named as *Socializers* (n = 141, 33%) who has scores lower than those of Cluster 1, but higher than those of other cluster with regard to all types of motivations. On the status seeking dimension, their scores (M=2.7) was higher than the average for the whole sample (M=2.4), and it had the highest score on the rest of segments.

The third cluster, *Middle of the road* (n = 70, 16%) is no significant differences comparing with the other segments. The majority of respondents had average scores for helping, connection; develop new relationship, entertainment, or information seeking. They adopted a sensible, middle of the road for opinions leadership.

The fourth cluster was labeled *Information seekers* (n = 67, 16%). This segment was distinguished from the other Facebook users mainly because the information seeking (M=4.0) and learning (M=4.3) motivations were more important for this group than social creation (M=2.8) and status seeking (M=2.0). In the other hand, status seeking and socialize were not motivators for members of this segment. Learning and information seeking were the strongest motivation for this segment.

Cluster 5 had the lowest scores with regard to all Facebook usage motivations (n = 28, 7%). The scores for this group were much lower than the average for the whole sample. Users in this cluster indicated that they are not active users who develop relationship, learning or information seeking. For this reason, respondents in this cluster are labeled *Laggards*.

4.3 Differences in response to marketing on Facebook between segments

An exploratory factor analysis revealed three factor, engagement ($\alpha=0.863$), WOM ($\alpha=0.889$), and purchase intention ($\alpha=0.833$), which explained 60.854% of the variance (Table 3).

Table 3: EFA and reliability analysis for the social marketing response measurement model

	Social Marketing Response Constructs	Factor loading	Eigen-values	Item-Total Cor.	Cronbach Alpha
Engagement					
ENG3	I would be interested in receiving communications from a brand/organization via social networking sites	0.763	6.951	0.645	0.863
ENG1	I like to talk about brands/organizations that are advertised on social networking sites	0.752		0.669	
ENG6	I like to browse through social networking related to brands/organizations	0.75		0.682	
ENG7	Compared to other people, I closely follow news about brands/organization	0.738		0.632	
ENG2	I am always interested in learning more about brands/organizations that are present online	0.737		0.660	
ENG5	I am proud to have others know which brands/organizations I affiliate with via social networking sites	0.647		.587	
ENG4	I am accepting of communications from brands/organizations providing they seek my permission	0.593		0.565	
Word of mouth					
WOM5	I would share a social networking advertisement with others if I see an advertisement that focuses on the positive benefits of a product or service	0.806	2.199	0.766	0.889
WOM6	I would share a social networking advertisement with others if I see an advertisement that focuses on how to better deal with a specific problem or issue	0.791		0.671	

	Social Marketing Response Constructs	Factor loading	Eigen-values	Item-Total Cor.	Cronbach Alpha
WOM4	I would share a social networking advertisement with others if I see an advertisement that focuses on how easy a product is to use.	0.765		0.643	
WOM7	I would share a social networking advertisement with others if I see an advertisement that mentions how other people are getting good results from a product	0.754		0.717	
WOM2	I would share a social networking advertisement with others if I see an advertisement about a product that I think would be useful to someone you know	0.736		0.714	
WOM3	I would share a social networking advertisement with others if I see an advertisement that focuses on how easy a product is to use	0.656		0.663	
WOM1	I would share a social networking advertisement with others if an advertisement offers a discount or coupon for a particular product.	0.609		0.621	
Purchase Intention					
INT1	I am likely to buy products that I see on social networking sites if the price is appealing	0.885	1.804	0.745	0.833
INT2	I am likely to buy products that I see on social networking sites if the delivery period is satisfactory	0.834		0.749	
INT4	I am likely to buy products that I see on social networking sites if it is a new and exciting product	0.730		0.587	
INT3	I am likely to buy products that I see on social networking sites if it is a brand I know and trust	0.637		0.577	

Additionally, ANOVA was used to test whether there were differences in how five Facebook user segments response to marketing efforts on Facebook. As a result, the five segments showed differential responses to marketing attempts in all three aspects: engagement ($F(4, 424) = 10.7, p = 0.000$), eWOM ($F(4, 424) = 9.7, p = 0.000$) and purchase intention ($F(4, 424) = 5.0, p = 0.001$). Overall, the engagement response was found to be strongest in segment Maximizers ($M=3.1$) and weakest in segment Middle of the Road and Laggards ($M=2.5$). Results showed that the segment Maximizers display the highest motivation on WOM referrals and purchase intention ($M=3.5$). While the Middle of the Road ($M=2.9$) was found to have the lowest eWOM intention compared to the other segments, the Laggards ($M=2.8$) showed the lowest purchase intention compared to the others. Results also revealed that the Socializers and Information seekers have similar response to marketing activities: brand engagement ($M = 2.8$), WOM referrals intention ($M=3.3$ and $M =3.2$, respectively), and purchase intention ($M=3.3$). The response scores of the both groups were similar to the average scores of the whole sample.

Table 4. Social marketing response on Facebook by segments

	Maximizers	Socializers	Middle of the Road	Information seekers	Laggards	Total	F	P
	(n=123)	(n=141)	(n=70)	(n=67)	(n=28)	(n=429)	(4, 424)	
Engagement	3.1	2.8	2.5	2.8	2.5	2.8	10.7	0.000
WOM	3.5	3.3	2.9	3.2	3.1	3.3	9.7	0.000
Intention	3.5	3.3	3.2	3.3	2.8	3.3	5.0	0.001

5. Discussion

The current study explores reasons for using Facebook of Vietnamese Facebook users. Findings from this study back up the study by Shao et al. (2015), in which respondents reported that they use Facebook for socializing, entertainment, information seeking, and status seeking. Moreover, this study extends previous research on Facebook use motivations by elaborating the motivation dimensions. For example, “socializing” motivations were examined in more detail. The EFA of the motivation scale suggested that Vietnamese users conceptualized “socializing” motivations in three distinct aspects: (1) to keep in touch with friends/acquaintances; (2) to establish new relationships, and (3) to help others. It is important to distinguish between established and new friendships on Facebook because the maintenance of existing relationships may be different from its establishment (Hoffman & Novak, 2012). Also, helping others and getting help from others give individuals a sense of belonging and socialization to a community. Therefore, with regard to socializing, Facebook can be thought to serve for three different purposes: social connection, social creation, and helping. Meanwhile, the entertainment, information seeking, and status seeking motivations have been similarly found in previous studies (Hoffman & Novak, 2012; Park et al., 2009; Shao et al., 2015). These findings offered an evidence of the generalizability of some motivation dimensions of Facebook use across cultures, with four motivations appearing consistently in Vietnam (in the present study) and in Western countries (in the previous studies).

This study further identified two motives for using Facebook in Vietnam that have rarely examined in previous studies, namely working and learning motivations. Using Facebook for working purposes is an important aspect to Vietnamese users. It is no surprise given that nearly half of Vietnamese population has at least of one Facebook account (Internet World Stats, 2017). We speculate that Facebook provides users who run their own small businesses with a free platform for keeping in touch with consumers, attracting new customers and increasing sales.

After identifying motivations of Facebook use, this study found a motivation-based segmentation through clustering methods. This study showed that Facebook users fall into five distinct segments: Maximizers, Socializers, Middle of the Road, Information Seekers, and Laggards. The five Facebook user segments identified in this study resembles findings from the study of Lee et al. (2015), who also discovered five similar segments of Facebook users between 18 and 24 years of age in xxx, such as Maximizers, Information seekers, Middle of the Road, Interactors and Laggards.

Across all identified segments, this study found that consumer responses to social media marketing were significantly related to Facebook user segments. The Maximizer segment exposed high levels of all behavioral outcomes: brand engagement, purchase intention and referral intention. This segment consists of the most active Facebook users, thus they may be willing to interact with brands on Facebook, most likely to make a purchase decision, and spread positive words about products or services they used on Facebook. In contrast, the Laggards who had the least motivations to use Facebook had the lowest levels of their responses to marketing activities on Facebook. However, of the responses examined, they had higher tendency to engage in referral on Facebook. This can be explained by the finding that social connection is the highest motivation of Laggards to use Facebook. We also found that the Socializers and Information seekers have the same responses to social media marketing. This suggests that Facebook users with high motivations for socializing and seeking information will have positive intention to share information, make a purchase decision and brand engagement. They are able to expand their social network, as well as gathering information from engaging in marketing activities. Finally, the Middle of the road mainly focused on purchase intention, which might be due to their high motivation in helping others. They also tend to put forth less effort on sharing information of a product/service.

6. Conclusions

The current study contributes to the social media marketing literature by investigating motivations for Facebook use in more depth, and linking the motivations to consumers’ responses to marketing on Facebook. Although there have been a number of studies investigating motivations of Facebook use, the current study provided a better insight into the underlying motivations. Our findings offered empirical support to confirm previous research results (Park & Yoo, 2009; Shao et al., 2015) from a sample of non-Western respondents. Moreover, we explored two new motivations of Facebook users in the context of Vietnam, such as: working and learning. Additionally, the findings confirmed that motivation is a valuable variable for segmenting SNS users. Finally, it is worth to gain an understanding of how motivation-based segments respond to social media marketing, particularly in Facebook context.

This study provides practical implications for both SNSs and business participants. Marketers should be aware of the fact that a market segmentation strategy for SNSs might not be optimal at the platform level, unless

the effectiveness of social media marketing are consistent with. Large segments of consumers on Facebook, such as Maximizers, Socializers and Information seekers have high motivation for information and socializing; therefore, marketers should complement information about their products or service with other valuable information that satisfies the users' information-seeking motivation. Meanwhile, marketers should combine various tools for users to respond to posted information such as Like, Comment, or Share. It could stimulate users to connect with friends and express themselves. The Laggards are perhaps least responsive to marketing on Facebook, thus marketers need to concentrate on adopting listening platforms. Following what people in this group are saying will get them motivated to start participating in marketing activities.

This research, like all, is subject to certain limitations. The current study focuses only on one type of social media, Facebook, and one geographic area, Vietnam. The respondents were chosen based on a convenience sampling and bias to young female students. Responses to Facebook marketing examined were limited to only three reactions (engagement, purchase intention and referral intention) which do not necessarily reflect the ultimate objectives of marketers (actual purchase behavior). Further research can extend to other social media contexts like Twitter, and Instagram. It is also encouraged to carry out similar studies in other cultural contexts. Future research should also pay attention to employment of more rigorous research design in terms of sampling to enhance the generalizability of findings. At the heart of marketers' concern, linking motivation-based segmentation to consumers' actual buying behavior deserves more research effort in the future.

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Factors Affecting Online Purchase Intention on Facebook: The Role of Online Customer Experience

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ABSTRACT

The advancement of World Wide Web and particularly social networking sites such as Facebook has resulted in the creation of a new form of retail transactions – electronic retailing or online shopping. Thus, customers' involvements in online purchasing have become an important trend. As such, it is vital to identify the determinants of the customer online purchase intention. The aim of this research is to evaluate the impacts of perceived usefulness, perceived ease of use, past online shopping experience and trust on the customer online purchase intention. A total of 210 female office workers in Da Nang participated in this research. The findings revealed that past online purchase experience, trust and perceived ease of use were positively related to the customer online purchase intention, of which customer experience exerts the strongest effect.

Keywords: TAM; Facebook; Trust; Customer experience; Purchase Intention

1. Introduction

The advent of the Internet, accompanied by the exponential growth of related technologies such as tablets, smartphones, have encouraged the rapid emergence of social networking sites (SNSs) that Facebook is a prime example. The Wall Street Journal reported that in the first quarter of 2015, Vietnam had 30 million Facebook users, up from 8.5 million in 2012, becoming one of Facebook's fastest growing markets. According to the Digital Economy and E-commerce Department - Ministry of Industry and Trade, shopping through online websites or SNSs has significantly increased, from 53% in 2014 to 68% in 2015. In 2015, 28% of businesses surveyed said they had advertised or sold merchandise through online social networks, up 4% over the previous year. Shopping through SNSs was forecast to increase to 34% in 2016. More than 43% of surveyed respondents said that Facebook ads had an impact on their purchase intentions. The tremendous impact of Facebook has not only affected the way businesses operate, but also changed the way consumers behaved. As such, Facebook's role is becoming so increasingly important in improving business efficiency that studies on Facebook will provide useful insights to help businesses better understand customer behavior and thereby improve the effectiveness of marketing programs on Facebook.

Women seem to prefer shopping through SNSs than men do. Previous research shows that women tend to shop online for goods intended for enjoyment (Chang and Chen, 2008). Most online customers are really young, from ages 25 to 39, working in a company, with a steady monthly salary, most of whom are women and have at least one social networking site account. Before buying a product online, they usually rely on notifications from forums, company websites, Facebook accounts or reviews. It is important to note that one of the reasons most consumers prefer online transactions is its convenience and quick delivery. The most purchased products are electronic appliances and clothing. People living in urban areas tend to shop online more than people living in rural areas. In addition, studies have shown a gender difference in online shopping: the number of female

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shoppers is three times more than that of their male counterparts. The website 100ydesign.com (2014) describes the behavior of female customers as follows: 78% of women shops online and over 58% buys more than twice a month. The best-selling product is women's clothing, accounting for 62%. The explanation is that women like to buy clothes at all times and change them every day even though they can not try on or touch them before buying. Once a customer feels satisfied in the first buying experience, he or she will become regular shoppers. In addition, women also intend to buy based on the clothing design and quality of the garment.

In summary, the benefits of using SNSs in marketing are enormous as they offer a huge opportunity for marketers to create innovative activities that have not previously been viable. However, marketers need to develop an insightful understanding of consumer behavior when purchasing products online. This information will help marketing managers to plan their marketing mixes and offers to better meet customer's requirements. By doing so, companies will establish, maintain or increase customer satisfaction, build strong brand loyalty and ultimately, provide consumers with a solid rationale for continuing to buy the same brand. This study is thus significant as an attempt to identify factors and their relative strength in influencing customer online purchase intention when shopping on Facebook. Particularly, the authors expect to find out the role of customer experience during customer decision making process.

This research particularly focuses on female office workers in Da Nang (ages 25 to 40) who have a stable source of income and easy access to new technologies such as Facebook. This group is considered potential for businesses aimed to expand customer networks via Facebook.

The study begins with a literature review of previous studies on related subjects, in order to develop a theoretical model for this study. A large quantitative survey was conducted in order to empirically test and confirm the conceptualized model. This research also provides some recommendations for businesses or individuals who intend to sell online via Facebook in Da Nang, in order to better satisfy customer demand and achieve the highest business efficiency.

2. Literature review

2.1. Online shopping behavior

According to Kolter & Levy (1969), "consumer behavior is specific action of an individual who make the purchasing decision and accept or dispose of products, services". Consumer behavior is a process in which it allows an individual or a group of people choose, buy, use or eliminate products or services, the accumulation of experience with the purpose to satisfy their demands/needs (Solomon Micheal, 1992).

Online shopping is defined as the use of online stores by consumers up until the transactional stage of purchasing and logistics (Monsuwe et al., 2004). Haubl and Trifts (2000) conceptualized shopping in online environments as a shopping activity performed by a consumer via a computer-based interface, where the consumer's computer is connected to, and can interact with, a retailer's digital storefront through a network (e.g., the WWW).

The decision-making process of an online consumer will be different from that of traditional consumer: Internet shoppers are not able to gain the experience they usually get when shopping the traditional way, e.g. interacting with a salesperson, feeling the atmosphere, and touching or trying the merchandise (Li et al., 1999). According to previous studies, there are several fundamental differences. Firstly, according to Christopher & Hwang (2003), unlike shopping at traditional retail stores where customers often rely on references from their family and friends, consumer research group or word-of-mouth, customers shopping at an online stores will experience different evaluation methods aided by new information technology, such as a link to product-related websites, "help" on product section, product review by other customers and discussion groups. Second, while customer experience very intensive personal contact in a face to face context, they have very little or even non-existent online (Rose et al., 2011). Third, online customers are provided with a very rich source of information, whereas in a face to face context, this may be more limited or may occur over a range of formats (e.g. brochures, posters, customer sales representatives). Next, customers can purchase online anytime anywhere suited to themselves, particularly now with Web access via mobile devices. Within the face-toface context, customer interactions are defined and restricted by the opening hours of the organization. Finally, differences may exist in terms of how the brand is presented. Online, the brand is presented in a predominantly audio-visual way, whereas offline opportunities exist for the brand to be experienced via a range of artefacts such as staff and their presentation, buildings and facilities, vehicles, livery and other tangible elements (Rose et al., 2011).

With all these abovementioned advantages, Monsuwe et al. (2004) indicated that online shopping fulfills several consumer needs more effectively and efficiently than conventional shopping. From the consumer's viewpoint, online shopping allows the shopper to search and compare various product or service alternatives from different online stores that are located in different parts of the world. The interactive nature of the Internet

offers opportunities for consumers to use the web shopping facilities effectively by improving the availability of product information, enabling direct multi attributes comparison, and reducing prospective buyers' information search costs (Alba et al., 1997). The Internet can also provide benefits to companies. As consumers are increasingly using the Internet as a shopping approach in performing their purchasing activities, companies can take this opportunity to use the Internet, especially SNSs, as a medium to attract and maintain current and potential customers.

2.2. Theory of Technology Acceptance Model (TAM)

TAM is an adaptation of TRA, which hypothesized that behavioral intention is influenced by attitude and subjective norms. However, TRA's weak point was detected in the use of abstract concepts like 'belief' and 'evaluation' as constructs that affect attitude (Yu et al., 2005). The TAM, introduced by Davis (1986), has received considerable attention in the information system (IS) field for predicting and explaining user behavior and IT usage (Yu et al., 2005). For Davis et al. (1989, p. 985) the main goal of TAM was to 'provide an explanation of the determinants of computer acceptance that is general, capable of explaining user behavior across a broad range of end-user computing technologies and user populations'.

Indeed, the TAM has gained considerable theoretical and empirical support in predicting technology acceptance among potential users and decision makers (Ajzen, 1991; Wu and Lu, 2013). The TAM theorizes that two key beliefs about a new technology, perceived usefulness (PU) and perceived ease of use (PEOU), determine a person's intention to adopt a new technology (Davis, 1989). According to Davis (1989), users' acceptance of a new technology depends primarily on its function (PU) and secondarily on the ease or difficulty with which its function can be performed (PEOU). The predictive power and parsimony of the TAM enables researchers to analyze and understand different purchase behaviors.

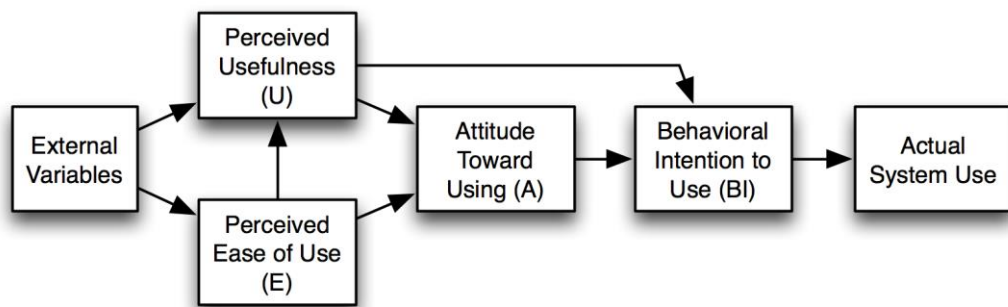


Fig. 1. Technology Acceptance Model-TAM Model of Davis (1989)

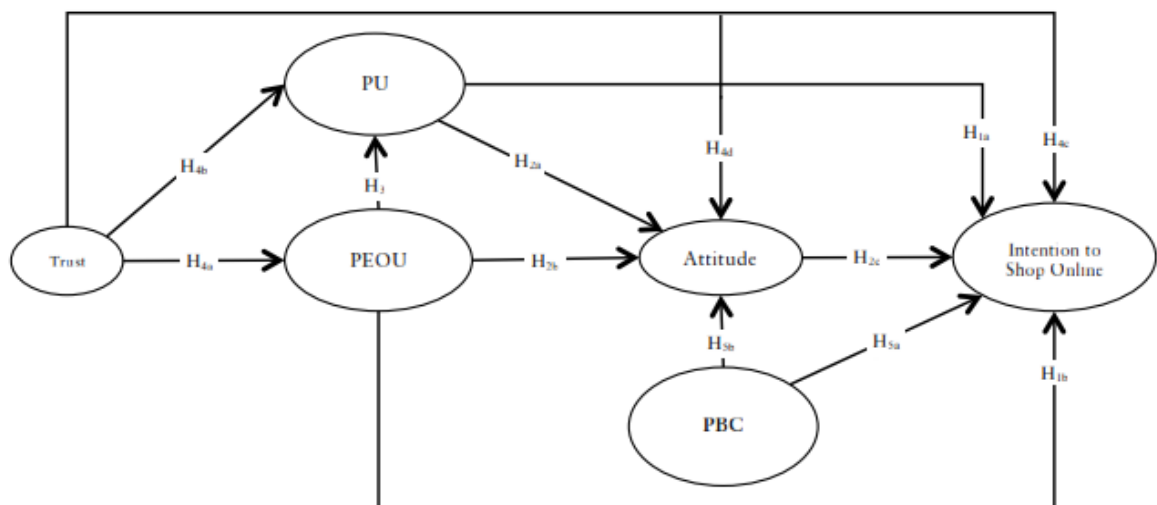


Fig. 2. Extended Technology Acceptance Model

The choice for using TAM as a research model to explain consumers' online shopping adoption is attributed to its consistent capability to explain a substantial portion of variances between behavioural intention and actual behaviours derived mainly from research into the purchase of technology related products (Bobbitt & Dabholkar, 2001; Goldsmith, 2002; Grabner-Krauter & Kaluscha, 2003; Hanque, et al., 2006; King & He, 2006).

The technology acceptance model (Davis, 1993) has been applied to the topic of online shopping, with the two main constructs 'perceived usefulness' and 'perceived ease of use' being applicable to online shopping adoption. With the particular topic of online shopping, usefulness would therefore refer to the degree that a consumer believes using the Internet enhances the outcome of their shopping experience, and ease of use would refer to the consumer's perception of the effort involved in the online shopping process. However, it is important to note that the technology acceptance model has been criticised for ignoring other factors that can influence technology acceptance (Chen et al., 2002). Some studies have specifically aimed at exploring other factors that affect online shopping. Pentina et al. (2011) focus on website functions and how they affect satisfaction and online retail performance. Pentina et al. (2011) suggest that future research in the area consider the role that other factors apart from web site features and functions play in customer satisfaction, such as customer service, price, and shipping policies.

In addition to PU and PEOU, an important factor involved in technology adoption is trust. Trust is defined as the extent to which consumers expect that an e-retailer will meet their transaction expectations and will not engage in opportunistic behavior (Morgan & Hunt, 1994; Pavlou, 2003; Pavlou et al., 2007). As such, the trust-augmented TAM developed by Dahlberg et al. (2003) seems to be more useful in explaining customer technology acceptance behavior than the basic TAM.

2.3. Online Customer Experience

Past studies have pointed out that there are several factors influencing customer online purchase intention, such as perceived usefulness (PU), perceived ease of use (PEOU), trust, etc. as demonstrated in TAM model below. However, intention to shop online is also influenced by consumers' Internet shopping history (Shim et al., 2001).

Meyer and Schwager (2007, p. 2) defined customer experience as 'the internal and subjective response customers have to any direct or indirect contact with a company'. The creation of the subjective response is via the customer's interaction with the various components of the organization's offer, which includes the performance of the product itself, packaging, pricing, advertising, retail environment and customer service handling (Rose et al., 2011). Similarly, Carbone and Haeckel (1994) suggested that a customer experience takes place whenever a customer interacts with an organization and its activities. It was defined as 'the take-away impression formed by people's encounter with products, services and businesses' (Carbone and Haeckel, 1994, p. 9).

In the context of online environment, Rose et al (2012) defined customer experience to be a psychological state manifested as a subjective response to the e-retailer's website (Gentile et al., 2007; Meyer and Schwager, 2007). The customer engages in cognitive and affective processing of incoming sensory information from the website, the result of which is the formation of an impression in memory. Previous research have pointed out that prior online shopping experiences have a direct impact on Internet shopping intentions (Eastlick & Lotz, 1999; Weber & Roehl, 1999). Helson (1964) suggests that an individual's response to a judgmental task is based on three aspects: (1) sum of the individual's past experiences, (2) the context or background, and (3) the stimulus. To the extent that minimal context or system-specific information is given, the individual will make system-specific evaluations based on prior experiences with the system. In the online shopping context, consumers evaluate their Internet shopping experiences in terms of perceptions regarding product information, form of payment, delivery terms, service offered, risk involved, privacy, security, personalization, visual appeal, navigation, entertainment and enjoyment (Burke, 2002; Parasuraman & Zinkhan, 2002; Mathwick et al., 2001). In case prior online shopping experiences resulted in satisfactory outcomes and were evaluated positively, this leads consumers to continue to shop on the Internet in the future (Shim et al., 2001). Such past experiences decrease consumers' perceived risk levels associated with online shopping. However, if these past experiences are judged negatively, consumers are reluctant to engage in online shopping in future occasions. This illustrates the importance of turning existing Internet shoppers into repeat shoppers by providing them with satisfying online shopping experiences (Weber & Roehl, 1999).

The main reason that past online purchase experience included in this study because Facebook is another online shopping channel even though its original purpose is a social network. There are more risks and trust involved in the social network compared to normal e-commerce website when the customers purchasing products. Thus, it will be interesting to know whether users' confidence and skills in online effect can overcome those trust and risks.

2.4. Hypotheses development and research model

2.4.1. Online purchase intention:

Purchase intention measures have been used frequently to identify buying likelihoods for products within defined time periods (Juster, 1966; Morrison, 1979; Whitlark et al., 1993). Earlier research has shown that consumers who report intentions to purchase a product possess higher actual buying rates than consumers who report that they have no intention of buying (Berkman and Gilson, 1978). While it is accepted that purchase intention does not equate to actual purchase behaviour, it has been demonstrated that measures of purchase intention do possess predictive usefulness (Jamieson and Bass, 1989; Stapel, 1971).

Customer online purchase intention was one of the intensive research areas in the extant literature. Customer online purchase intention in the online shopping environment will determine the strength of a consumer's intention to carry out a specified purchasing behaviour via the Internet (Salisbury et al., 2001). Furthermore, the theory of reasoned action suggested that consumer behaviour can be predicted from intentions that correspond directly in terms of action, target and context to that consumer behaviour (Ajzen and Fishbein, 1980). According to Day (1969), the intentional measures can be more effective than behavioural measures to capture customer's mind as customer may make purchases due to constraints instead of real preference when purchase is considered.

Purchase intention can be classified as one of the components of consumer cognitive behaviour on how an individual intends to buy a specific brand. Laroche et al. (1996) assert that variables such as consideration in buying a brand and expectation to buy a brand can be used to measure consumer purchase intention. Based on the argument of Pavlou (2003), online purchase intention is the situation when a customer is willing and intends to become involved in online transaction. Online transactions can be considered as an activity in which the process of information retrieval, information transfer, and product purchase are taken place (Pavlou, 2003). The information retrieval and exchange steps are regarded as intentions to use a web site; however, product purchase is more applicable to an intention to handle a web-site (Pavlou, 2003). Therefore, it is crucial to evaluate the concept of online purchase intention in this study. In order to trigger customer online purchase intention, web retailers have to explore the impact of shopping orientations on the customer online purchase intention.

2.4.2. Perceived Usefulness

PU is defined as the degree to which the user believes that the technology will enhance the performance of an activity (Davis, 1989). Perceived usefulness is the most important factor influencing behavioral intention especially when making an adoption decision (Venkatesh and Davis, 2000). Perceived usefulness is generally associated with convenience and ease of use. In the context of e-commerce, Chau et al. (2000) declares that, in general terms, the 'purchase speed' and the 'convenience' of the websites are determinant factors of their usefulness. Additionally, Shih (2004) defined PU of e-shopping as the degree to which an individual believes that trading on the Web would enhance the effectiveness of his or her shopping. Most of the prior studies on perceived usefulness focused mainly on the usage or adoption of information technology and the World Wide Web but not on the adoption to buy products online. This study was aimed at examining the impact of perceived usefulness on the purchase intention to buy products via Facebook online. Perceived usefulness is hypothesized to have a direct effect on purchase intention when buying online. Hence, it is expected that:

H1: Female office workers' perceived usefulness of using the Facebook for buying goods and services has a positive effect on their purchase intention via Facebook.

2.4.3. Perceived Ease of Use

Perceived ease of use is defined as the degree to which a person believes that using a particular system would be free of effort (Davis, 1989). It has a strong influence on behavioral intention to adopt information technology. If a technology is perceived as too difficult to use, a person will choose an alternative option that is easier for him or her to perform. According to Buton-Jones and Hubona (2005), the ease of learning and becoming skilful at using pervasive technologies, including technologies and interfaces on online shopping sites, were concluded as valid determinants as to what makes a technology easy to use. The work of Selamat et al. (2009) further added that a technology which is perceived to be easier to use than another is more likely to be accepted by users whereas the more complex a technology is perceived to be, the slower will be its rate of adoption. This is supported by Teo (2001) as the study concluded that a system which is easy to use often requires less effort on the part of users and thereby increases the likelihood of adoption and usage of a particular technology. Accordingly, the study proposes that:

H2: Female office workers' perceived ease of using the Facebook for buying goods and services has a positive effect on their purchase intention via Facebook.

2.4.4. Relationship between perceived ease of use and perceived usefulness

Perceived ease of use has been empirically verified by many studies as a predictor of perceived usefulness (King & He, 2006). When all other factors are equal, users are likely to consider a technology useful when they perceive it as easy to use (Bruner & Kumar, 2005). Nonetheless, the relationship remains contradictory (Aladwani, 2002). The work of Gefen and Straub (1997) concluded that the relationship was not significant in predicting e-mail acceptance as a technology, while more recent researches (e.g. Jantan, et al., 2001; Shyu & Huang, 2011) proved otherwise. However, in existing studies around the area of electronic commerce, both are expected to be closely linked as Ramayah and Ignatius (2005) argued that consumers who perceive that online shopping is effortless should in turn develop a tendency to perceive it as useful. The rationale behind such a phenomenon is due to the fact that consumers would inherently try to form his or her perception of online shopping based on his or her own experiences in engaging in online shopping and the ease in which the shopping activity was executed. This is in line with the work of Heijden (2000) which suggests that the easier it is for consumers to use online shopping sites, the more useful online shopping will be perceived by consumers. Therefore, this study anticipates that:

H3: Female office workers' perceived ease of using the Facebook has a positive effect on female office workers' perceived usefulness.

2.4.5. Online customer experience

Based on the previous study (Monuwe et al., 2004), intention to shop online is related to internet shopping history and has a direct impact on internet shopping behavior. Customers with strong online purchase intention in web shopping usually have prior purchase experiences that assist in reducing their uncertainties (Shim and Drake, 1990). Also, Gefen and colleagues (2003)'s research showed two sets of unrelated usage antecedents by customers: 1) customer trust in the e-vendor and 2) customer assessments of the IT itself, specifically the perceived usefulness and perceived ease-of-use of the website as depicted in the technology acceptance model (TAM). Research suggests, however, that the degree and impact of trust, perceived usefulness, and perceived ease of use change with experience. Additionally, Ranganathan and Jha (2007) claimed that past online shopping experience has the strongest association with purchase intention compared to other factors in their models. Thus the hypothesis:

H4: Female office workers' past online shopping experience has a positive effect on their purchase intention via Facebook.

2.4.6. Trust

Kimery and McCard (2002) define trust as customers' willingness to accept weakness in an online transaction based on their positive expectations regarding future online store behaviour. According to Barber (1983), trust is an expectation about individuals' behaviour within the society where they are living or by which they are ruled. Trust can be bestowed upon a person, an object (product), an organization (a business), an institution (the government) or a role (a professional of some kind).

According to Blau (1964), trust can reduce uncertainty created by other people or artifacts and is therefore essential for e-commerce. It has been shown to affect consumers' fears of unreliability and risks of being cheated. Trust in the online environment is particularly important because of the complexity and diversity of online interactions and the resulting possibility of insincere and unpredictable behavior (Gefen and Straub, 2003). Kim and Bensabat (2003) claimed, in an online shopping context, consumers are vulnerable and likely to expose themselves to loss if they: (i) provide the email address (with the vulnerability of spam email); (ii) provide their shipping information (with the vulnerability of privacy invasion); (iii) provide their credit card information (with the vulnerability of credit card fraud) or (iv) complete online purchase transaction (with the vulnerability to quality and service inadequate).

In the context of online social networks such as Facebook, there are several reasons why trust is an important factor in the online purchase intention. First, Facebook users must provide personal information when they register to Facebook. Such personal information is subject to potential abuse as the data might be used for marketing purposes or shared with third parties. Thus, users may have concerns about the misuse of their personal information done by Facebook. Second, there are unclear security settings (such as https, SSL, or third party certificate) in Facebook. Therefore, consumers must trust either Facebook or online social network vendor

not to violate their privacy and security. Finally, anybody can open a shop in Facebook as long as they are registered member. Therefore, buyers may have concerns about whether the sellers are reliable.

Kim and Benbasat (2003) stated that trust helps the complexity and vulnerability a consumer feels while engaging in e-commerce by allowing the consumer to subjectively rule out undesirable yet possible behaviors of the online vendor. According to Van der Heijden et al. (2003), trust hence helps consumers reduce their risk perceptions when dealing with online vendors makes them more comfortable sharing their personal information which is necessary in ecommerce transactions. Consumer trust in a company’s website has been shown to directly and positively affect the attitude toward the company and purchase intention from that company. Based on the arguments above, we propose that:

H5: Female office workers’ trust of using the Facebook for buying goods and services has a positive effect on their purchase intention via Facebook.

2.4.7. Research model

The Technology Acceptance Model has been used in different contexts with numerous supporting empirical studies. Therefore, our study is constructed based on the theoretical framework of TAM with the elimination of attitudes. There were three main reasons why we decided to eliminate attitudes from the Technology Acceptance Model. Firstly, prior empirical studies showed a nonsignificant effect on behavioral intention (Davis et al., 1989). Perceived usefulness was found to be the major determinant of behavioral intention while attitudes illustrated a non-significant impact toward behavioral intention. Although perceived usefulness has an important influence on attitude formation, it is possible that attitudes might not play a strong role in predicting behavioral intention after an individual is exposed long enough to the technology. Secondly, why some researchers have chosen to take attitudes out of the Technology Acceptance Model might be in the interest of parsimony because the revised model has fewer indicators, which do not significantly lower its predictive capability (Mathieson, 1991; Davis, 1985). Thirdly, the Technology Acceptance Model relies on the premise that attitude factors are comprehensively included within the construct of perceived usefulness. People may use a technology even if they do not have positive attitudinal affect towards it as long as it is useful or provides productivity enhancement (Davis et al., 1989). Therefore, attitudes are eliminated from the structural model proposed for this research.

In the Technology Acceptance Model, perceived usefulness is the major determinant of behavioral intention and the effect of perceived ease of use on behavioral intention is largely indirect through the construct of perceived usefulness (Davis et al., 1989). Based on the literature review, two more constructs namely trust (TR) and online customer experience (OCE), have also been added into the TAM Model to better explain the phenomenon of female office workers’ online shopping via Facebook in Da Nang (Goldsmith, 2001; Shim et al., 2001; Phau & Poon, 2000; Haubl & Trifts, 2000; Novak et al., 2000; Tan, 1999).

Fig. 3. below presents a proposed model for this study which features the hypothesized relationships.

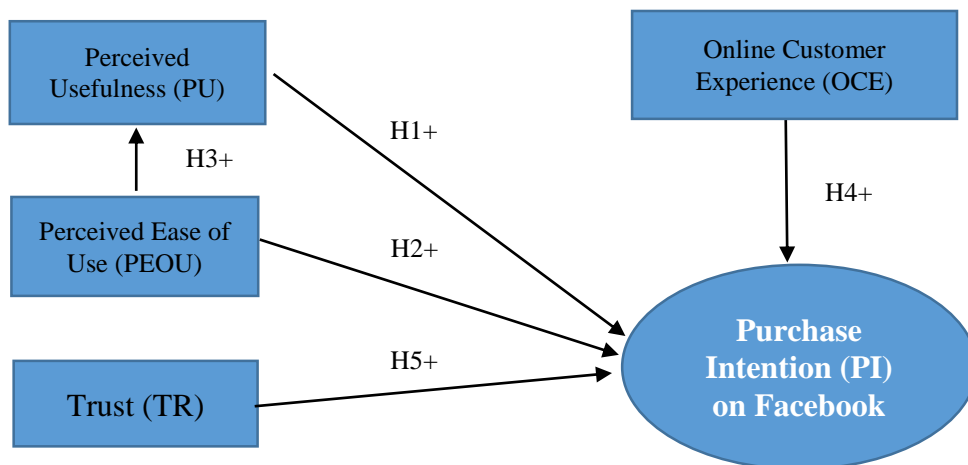


Fig. 3. Proposed research model

3. Research methodology

3.1. Measurement items

Table 1. Constructs and measurement items for all major study variables

Construct	Measurement Items	Author
PU (Perceived Usefulness)	The variety of products and services when shopping on Facebook help buyers have more options.	- Shu-Hung Hsu, Bat-Erdene Bayarsaikhan (2012) - Claudia (2012)
	Shopping on Facebook is more time-saving than shopping at traditional stores.	
	Shopping on Facebook is more cost-effective than shopping at traditional stores.	
	When shopping on Facebook, it is easier to compare prices and quality than shopping at traditional stores.	
	When shopping on Facebook, consumers can place orders at any location and at any time.	
	When shopping on Facebook, consumers are quick to grasp the trends and new product information through its various features.	
PEOU (Perceived Ease of Use)	It is easy to search for product information on Facebook.	- Leelayouthayotin (2004) - Burke (2002) - Claudia (2012)
	It is easy to make purchases on Facebook.	
	It is easy to make payments on Facebook.	
	It is easy to find sellers' information on Facebook.	
	It is easy to interact with sellers about product information.	
Consumers can quickly get feedback from sellers when there is a problem with the product.		
OSE (Online Customer Experience)	Previous Internet purchases help me master the use of information technology when buying goods and services.	- Gefen et al., 2003 - Burke, 2002 - Shim et al., 2001 - Leeraphong and Mardjo, 2013
	I have a positive view on the prices and quality of the products on previous Facebook purchases.	
	I have a positive view on the seller's service attitude and delivery time on previous Facebook purchases.	
	I have learned about the risks of shopping online on previous Facebook purchases.	
TR (Trust)	Products or services purchased by using Facebook will be trustworthy	- Leeraphong and Mardjo (2013)
	The seller is reliable	
	Seller is committed to send the product after payment	
PI (Purchase Intention)	Consumers will use Facebook to search for the product types they intend to buy.	- Pavlou, 2003 - Laroche et al., 1996
	Consumers will use Facebook to search for product information of which they intend to buy.	
	Consumers will use Facebook as a channel to make purchases when needed.	
	Consumers will use Facebook to find information about sellers before making a purchase.	

3.2. Data collection

This study uses the convenience sampling method. The study use Likert-scale to measure the relationship between customer online purchase intention and customer experience, trust, perceived usefulness and perceived ease of use.

According to Hair et al (1998), in order to select appropriate research sample size for Exploratory Factor Analysis (EFA), the minimum sample size is $N \geq 5 * x$ (x: the total number of observed variables). In this research, we selected the sample size large enough to satisfy the conditions of the EFA test $N \geq \max$. We conducted data collection with our questionnaire being sent face-to-face directly to 250 postgraduate students at Danang University of Economics as it was more convenient and easier to control for the researchers to do so. They come from different cities and work at numerous companies and organizations. We received 230 responses, out of which 210 was valid. The authors then processed these surveys using the software SPSS 20.0.

The participants in the study are female office workers aged 25-40 years old, having a Facebook account and previously shopping on Facebook.

4. Results

4.1. Descriptive results

Table 2. Profile of respondents in this study

	Variables	Frequency	Percentage %
Facebook usage experience	Below 1 year	3	1.4%
	From 1 year to below 3 years	30	14.3%
	Form 3 years to below 5 years	78	37.1%
	Above 5 years	99	47.1%
Average time spent on Facebook a day	Below 0.5 hour	5	2.4%
	From 0.5 to below 1.5 hours	38	18.1%
	From 1.5 hours to below 3 hours	81	38.6%
	From 3 hours to below 5 hours	55	26.2%
	Above 5 hours	31	14.8%
Number of purchases on Facebook	Never	7	3.5%
	From 1 to below 10 times	108	51.4%
	From 10 times to below 20 times	63	30%
	Above 20 times	32	15.2%
Average times of visits	Never	3	1.4%
	From 1 to below 10 times	62	29.5%
	From 10 times to below 20 times	50	23.8%
	From 20 times to below 30 times	33	15.7%
	Above 30 times	62	29.5%
Ages	From 20 to below 26	73	34.8%
	From 26 to below 30	98	46.7%

	From 30 to below 40	34	16.7%
	Above 40	5	2.4%
Monthly income	Below 5 million VND	40	19.0%
	From 5 million VND to below 7 million VND	77	36.7%
	From 7 million VND to below 10 million VND	64	30.5%
	Above 10 million VND	29	13.8%

Source: SPSS analysis results

Out of 210 respondents, more than 80% are aged between 20 to 30 years and only 18.6% are over 30 years old, which is generally quite young and thus higher adaptability to new technologies such as Facebook. Most of the respondents in the survey have an income from 5 to 10 million VND (accounting for 67.2%). A smaller number of participants have a monthly income below 4 million VND or over 10 million VND.

Regarding Facebook usage experience, more than 80% of respondents have over 3 years of usage experience. In particular, the average time spent on Facebook everyday ranges from 1.5 to 5 hours (accounting for over two thirds of people surveyed). Nearly 50% of participants have purchased on Facebook over 10 times. About 40% of respondents frequently visit Facebook shopping pages over 10 times a month.

4.2. Cronbach’s Alpha reliability test

The scale was evaluated through Cronbach Alpha coefficients in order to eliminate unreliable variables before, the variables which have a **Corrected Item- Total Correlation** less than 0.3 will be excluded and will select the scale which its credibility Alpha is more than 0.6, especially for the case that the research concept is new to the respondents in the context of research (Nunnally, 1978; Peterson, 1994; Slater, 1995). The results of Alpha Cronbach reliability are following:

Table 3. Cronbach’s Alpha Reliability

Var.	Items	Corrected Item- Total Correlation	Cronbach Alpha if Item Deleted
(PEOU) Perceived Ease of Use. Cronbach’s Alpha= .752			
PEOU1	It is easy to search for product information on Facebook.	.539	.701
PEOU2	It is easy to make purchases on Facebook.	.577	.685
PEOU3	It is easy to make payments on Facebook.	.588	.681
PEOU4	It is easy to find sellers’ information on Facebook.	.466	.726
PEOU5	It is easy to interact with sellers about product information.	.421	.742
(OCE) Online Customer Experience. Cronbach’s Alpha= .727			
OCE1	Previous Internet purchases help me master the use of information technology when buying goods and services.	.529	.658
OCE2	I have a positive view on the prices and quality of the products on previous Facebook purchases.	.577	.631
OCE3	I have a positive view on the seller's service attitude and	.497	.676

	delivery time on previous Facebook purchases.		
OCE4	I have learned about the risks of shopping online on previous Facebook purchases.	.466	.697
(TR) TRUST. Cronbach's Alpha=.698			
TR1	The seller is committed to deliver the goods after the buyer makes payment.	.494	.632
TR2	The actual quality of the goods received is the same as the information advertised on Facebook.	.560	.551
TR3	My credit card account number and personal information are strictly confidential.	.492	.637
(PU) Perceived Usefulness. Cronbach's Alpha=.849			
PU1	The variety of products and services when shopping on Facebook help buyers have more options.	.611	.827
PU2	Shopping on Facebook is more time-saving than shopping at traditional stores.	.616	.826
PU3	Shopping on Facebook is more cost-effective than shopping at traditional stores.	.668	.817
PU4	When shopping on Facebook, it is easier to compare prices and quality than shopping at traditional stores.	.640	.822
PU5	When shopping on Facebook, consumers can place orders at any location and at any time.	.579	.834
PU6	When shopping on Facebook, consumers are quick to grasp the trends and new product information through its various features.	.675	.815
(PI) Purchase Intention. Cronbach's Alpha=.821			
PI1	Consumers will use Facebook to search for the product types they intend to buy.	.557	.814
PI2	Consumers will use Facebook to search for product information of which they intend to buy.	.731	.736
PI3	Consumers will use Facebook as a channel to make purchases when needed.	.630	.781
PI4	Consumers will use Facebook to find information about sellers before making a purchase.	.664	.765

4.3. Exploratory Factor Analysis (EFA)

4.3.1. EFA for independent variables

Exploratory analysis was undertaken next in order to test the measurement items used in this research. Eighteen items were proposed to contribute to 5 constructs in this survey.

In the first analysis, KMO = 0.883 with Sig. = 0.000 which confirmed the relationships among variables were statistically significant and these variables were suitable for applying exploratory factor analysis to provide a more parsimonious set of factors. Chi-Square = 1594.07 with Sig. = 0.000 << 0.05.

However, at the 1st EFA, the difference between the two loading factors is not greater than 0.3; so the item PU5, PU2, PU6, PEOU4, OCE1, PU1 and TR3 were disqualified. We continued to analyze the 2nd EFA and 3rd EFA. The items PU3, PU4 and PEOU5 were eliminated. Finally, the result of EFA for independent variable is below:

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.760
Bartlett's Test of Sphericity	Approx. Chi-Square	365.252
	df	28
	Sig.	.000

Rotated Component Matrix^a

	Component		
	1	2	3
PEOU2	.839		
PEOU1	.756		
PEOU3	.703		.318
OCE4		.779	
OCE3		.742	
OCE2		.708	.340
TRUST1			.823
TRUST2			.817

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

The results of above table show that the variables of PEOU1, PEOU2 and PEOU3 correlated with component 1; the variables of OCE2, OCE3, OCE4 correlated with component 2; the variables of TRUST1 and TRUST2 correlated with component 3.

4.3.2. EFA for dependent variable:

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.780
Approx. Chi-Square		301.483
Bartlett's Test of Sphericity	Df	6
	Sig.	.000

Component Matrix^a

	Component
	1
PI2	.866
PI4	.824
PI3	.798
PI1	.740

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

For the table above, we can see the variables of PI1, PI2, PI3 and PI4 correlated with component PI (purchase intention). These items are retained in the subsequent analysis.

➔ **Adjusting the research model**

Based on the Cronbach's Alpha Factor Analysis and Factor Analysis and Exploratoire Factor Analysis (EFA), the authors provide a modified research model as below:

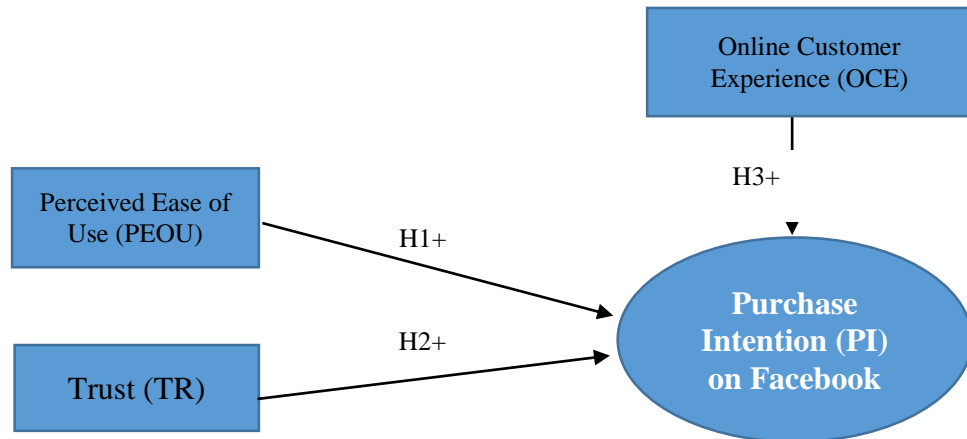


Fig. 4. Proposed research model

With the above test results, the authors adjusted the initial proposed research model. The adjusted model now consists of 3 independent variables with 8 measurement items, and PI as dependent variable including 4 measurement items.

The hypotheses were adjusted according to the new research model:

H1: Female office workers’ perceived ease of using the Facebook for buying goods and services has a positive effect on their purchase intention via Facebook.

H2: Female office workers’ trust of using the Facebook for buying goods and services has a positive effect on their purchase intention via Facebook.

H3: Female office workers’ past online shopping experience has a positive effect on their purchase intention via Facebook.

4.4. Hypothesis testing

4.4.1. Examining the correlation between variables

The first step in conducting a linear regression analysis is to examine the linear correlation between the dependent variable and each independent variable as well as between the independent variables together. The assumption is that the independent variables are not perfectly correlated with each other (the correlation coefficient isn't equal 1).

Correlations

		PEOUnew	OCEnew	TRUSTnew	PInew
PEOUnew	Pearson Correlation	1	.000	.000	.418**
	Sig. (2-tailed)		1.000	1.000	.000
	N	210	210	210	210
OCEnew	Pearson Correlation	.000	1	.000	.442**
	Sig. (2-tailed)	1.000		1.000	.000
	N	210	210	210	210
TRUSTnew	Pearson Correlation	.000	.000	1	.422**
	Sig. (2-tailed)	1.000	1.000		.000
	N	210	210	210	210
PInew	Pearson Correlation	.418**	.442**	.422**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	210	210	210	210

** . Correlation is significant at the 0.01 level (2-tailed).

Next, all variables are taken into the linear regression analysis in order to examine the influence of the independent variables on the dependent variable.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.740 ^a	.548	.541	.67715642

a. Predictors: (Constant), TRUSTnew, OCEnew, PEOUnew

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	114.541	3	38.180	83.265	.000 ^b
1 Residual	94.459	206	.459		
Total	209.000	209			

a. Dependent Variable: PInew

b. Predictors: (Constant), TRUSTnew, OCEnew, PEOUnew

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-3.063E-017	.047		.000	1.000
1 PEOUnew	.418	.047	.418	8.927	.000
OCEnew	.442	.047	.442	9.431	.000
TRUSTnew	.422	.047	.422	9.009	.000

a. Dependent Variable: Pnew

Results of linear regression analysis showed that the model had $R^2 = 0.548$ and adjusted $R^2 = 0.541$. This means that 54.1% of the variance of the dependent variable: Purchase intention on Facebook is explained by three factors PEOUnew, OCEnew, TRUSTnew.

The analysis shows $sig = 0.000$ confirming that the regression model is consistent with the data collected and all the variables are statistically significant with a 5% significance level.

Regression equation of the model representing factors that affect the purchase intention on Facebook is as follows:

$$P_{new} = 0,418 * X_1 + 0,422 * X_2 + 0,442 * X_3 + u_i$$

The regression equation shows linear relationship between purchase intention on Facebook and PEOUnew, TRUSTnew, OCEnew. All these three factors have positive effects in purchase intention via Facebook. In particular, customer past online purchase experience exerts the most powerful impact on purchase intention through Facebook ($\beta = 0.442$ and $p = 0.000 < 0.05$)

Table 4. Multiple regression analysis results

No.	Hypothesis	Statistical Testing Method	β	Sig. Value	Results
H1	Female office workers' perceived ease of using the Facebook for buying goods and services has a positive effect on their purchase intention via Facebook.	Regression Analysis	0.418	0.000	Accepted
H2	Female office workers' trust of using the Facebook for buying goods and services has a positive effect on their purchase intention via Facebook.	Regression Analysis	0.422	0.000	Accepted
H3	Female office workers' past online shopping experience has a positive effect on their purchase intention via Facebook.	Regression Analysis	0.442	0.000	Accepted

Thus, it can be concluded that, in order to increase the intention to make a purchase on Facebook of female office workers in Da Nang, businesses need to raise the perception about the ease of use when shopping on Facebook as well as enhance consumer trust in the sellers and past customer purchase experience also has strong influence on their buying intentions.

5. Discussion and conclusion

This study has stipulated that there are 3 determinants affecting purchase intention on Facebook, namely perceived ease of use when looking for information and making payment when shopping online; Trust in the sellers and products, and Customer past shopping experiences on Facebook.

With $Sig = 0.000$ and the regression coefficient is 0.418, H1 is accepted: The higher the perceived ease of

using Facebook, the higher intention to purchase on Facebook and vice versa. The more easily customers find information about goods and make payments, the more likely they intend to make a purchase.

With sig = 0.000 and regression coefficient is 0.422; H2 is accepted: The stronger the belief is in the seller, the product and the ability to interact with the seller, the higher intention to purchase on Facebook and vice versa. When buyers trust the sellers as well as the products that are sold on Facebook and interact regularly to address questions and feedbacks of the buyers, they are more likely to intend to use Facebook to shop.

With sig = 0.000 and regression coefficient is 0.442; H3 is accepted: The more positive the past purchase experience on Facebook is, the higher intention to purchase on Facebook and vice versa. If prior online shopping experiences are good and customers realize many benefits when buying online, then they are more likely to make a purchase.

Additionally, the regression coefficients represent the relative strength that these factors affect purchase intention: the greatest impact is past customer experience (H3); next is trust in the seller (H2) and lastly perceived ease of use (H1) when searching for information and making payments via facebook.

The elimination of perceived usefulness, albeit surprising, provides credence for Davis et al.'s (1989) argument that perceived usefulness at the beginning of a development project provides little influence on behavioral intention. They argued that usefulness is a performance measure that takes time and actual use to assess. The strength of these effects should be stronger with repeat customers because potential customers base their usefulness perceptions on relatively superficial acquaintance with its features. Consequently, Davis et al. were able to find that the influence of usefulness on behavioral intention to use the system increased over time and use. This finding is not surprising since both Davis et al. (1989), Adams et al. (1992) and Jackson et al. (1997) found this relationship to be significant only after prolonged use. Even though the majority of respondents in this study have used the Facebook for over 5 years, they only purchased online less than 10 times. Furthermore, it is possible that respondents found that buying product from the Internet was not as time- and cost-saving. Having a large assortment of products was not necessarily the best strategy to sell online. Cheap prices were also not the ultimate goal for those who shopped online.

From these findings, we offer some recommendations for businesses or individuals who intend to sell online via Facebook in Da Nang, in order to better satisfy customer demand and achieve the highest business efficiency: (1) Improving the ease of use when buying on Facebook by the ways that seller should properly and logically arrange and display their products on the Facebook pages so that customers do not spend too much time searching and that sellers should make it easier for customers to order and pay online; (2) Enhancing trust in the sellers and products by showing commitment to quick delivery and good quality as well as frequently responding to customer inquiries; (3) Creating good impressions and positive experiences with first-time customers by ensuring quick delivery, excellent services to make customers feel comfortable when shopping via Facebook.

This research has several limitations: (1) the research scope is in Da Nang, (2) the sample size is small (210 respondents), (3) the number of study variables is low. Future studies can extend the sample to different geographies and participants as well as incorporate other theoretical frameworks besides TAM with new variables to better explain the customer purchase intentions on Facebook.

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Examining Online Marketing Influence on Vietnamese Young Travelers' Purchase Decision

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ABSTRACT

The research aims to examine online marketing effects on young traveller purchase decision. Based on traditional buying decision process, new factors from internet environment were added to find out the relationship between purchase decision and online marketing through three main channels including social network, electronic word of mouth (EWOM) and online advertising. The results reveal positive influence of independent variables on dependent variable, the raising demand on travelling and mobile first trend of young consumer. To be more detailed, EWOM is the strongest factor while social network, here is Facebook, has weakest effect. Online advertising gives a moderate influence on young traveller consumption. As a result, company should spend more efforts on raising customer's feedback, keeping good relationship and doing higher level of after sale services rather than simply promote their social network accounts.

Keywords: online marketing; purchase decision; young consumer; social network; EWOM; online advertising; tourism

1. Introduction

Following the economy rapid growth, Vietnamese is willing spend more on travelling and leisure services, especially young customers [1]. They are one of the main target group for tourism business due to higher travel frequencies and their influence on others' decision. It explains why travel and leisure companies invest largely their resource to reach and persuade this consumer group. Born in the booming era of internet, traditional marketing means show very limited impact on them. For millenium citizen the time of traditional marketing, where marketers were pushing out messages toward consumers using only a one-way communication, is over [2]. With the internet penetration rate at 44%, equivalent to 40 million users, steady increase speed [3], Vietnam market is raising quickly in usage of internet. It introduces online marketing as a future choice for marketers. In fact, online marketing has been widely adopted in the company marketing strategy to formulate desirable consumer behaviour.

According to Vietnam digital landscape report [4], most frequent online activities of young consumers include social networking, read newspaper and update general news, search, and email. It indicates the most effective channels to reach this type of audience are social networks, online forums, popular online newspapers, and advertising which are categorized as online marketing means. Presently, tourism business have already invest tons of effort in these channels. Most tourism business are developing their fame in online environment via social networks like: Facebook fanpage,; online forum such as Tripadvisor, webtretho, lamchame, facebook

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group. Furthermore, companies frequently remain their presence on travel category in popular online newspaper including *dulich.vnexpress.net*, *kenh14*, *toidi.net*. Mean while, online advertising in the form of Google Ads, Facebook Ads, banners or videos are inevitable for many hospitality business. These channels are also recommend by professionals as most appropriate and efficient tools [5]. However, do they really work? This paper will examine company online marketing activities impact on Vietnam young traveller purchase decision making stage through three recommended channels: social networks, electronic word of mouth and online advertising.

2. Literature review

2.1. Social Networks

Social media is proved to impact to traveller buying decision by transforming the information source thus completely changes the final consumption [6], [7]. In Vietnam, as social network is most frequent online activities and widely use, the study will focus on this social media mean. Social networking sites is defined as "...applications that enable users to connect by creating personal information profiles, inviting friends and colleagues to have access to those profiles, and sending e-mails and instant messages between each other [8]. With over 35 millions frequent user [3], Facebook has highest influence as well as an important source for Vietnam consumers. More and more people share their experience on Facebook because it is very convenient. It is the reason why biggest travel agencies in Vietnam greatly invest on their facebook fanpage with over hundred thousand of likes and followers, such as IVIVU (320k likes), Viettravels (137k likes), My tour (216k likes), Viettour (112k likes) etc. Presently, they are one of the key to reach and persuade target customers.

2.2. Electronic Word of Mouth

According to [9], online Word of Mouth is any positive or negative statement made by potential, actual, or former customers about the product or company which is made available to a multitude of people and institutions via the internet. Nielsen reports 89% Vietnam consumer trust WOM recommendation from people they know, the highest record in South East Asia, and mastering online word-of-mouth marketing techniques can result in a wider circle of trust [10]. E-WOM definitely stand in a strong position in consumer buying process. Research found out E-WOM positively affect young Malaysian traveler purchase intention [11]. Probably, E-WOM also have great effect on Vietnam millenium consumers. Since it allows them to share and express their experience which is a fashion among young generation. Taking a closer look in tourism market, Tripadvisor, Expedia or Agoda are full of foreigner comments in different languages making them become the playground for inbound tourists. Meanwhile, Vietnamese relies on other domestic source such as Facebook groups, *chudu24*, *webtretho* or *otofun* forum. Previously, it is confirmed that despite the small use of online travel communities and social network sites for travel information gathered, travel-related consumer generated media is predicted to become an influential source for travel decision making in the near future [12].

2.3. Online Advertising

Online advertising is defined any paid form of non-personal presentation and promotion of ideas, goods and services by an identified sponsor, which appear while consumers are browsing internet including displayed ads, search related ads, online classifieds and other forms [13]. There was claims that online ads have positive impact on Vietnam traveler purchase intention [14]. In this market, online advertising budget is forecasted to be four times higher within the next five years [15], making it becomes important tool to get customers, especially the Y generation.

2.4. Purchase Decision Making Stage

At the purchase decision stage, consumer will measure the different options that offer to him, consider the most suitable one to his needs then choose the best as he perceives. The traditional consumer buying behaviour model proposed a set of belief, attitudes and intention as direct antecedents of consumer purchased behaviour [16]. Belief is a consumers' subjective perception of how well a product or brand performs on different attributes [17]. It is made from knowledge, understanding about the brand or company which is generated from social media, advertising and other content platforms. Attitude is an "overall evaluation that expresses how much we like or dislike an object, issue, person or action" [18], which greatly contributes to personal choice of brand and

services. Consumers use belief and attitudes to evaluate the alternatives and form the purchase intention, which represents what consumers think they will buy [19]. This kind of opinion will dominate final consumption choice.

3. Research framework

Figure 1 illustrates the causal research framework of this study. It indicates the influence relationship between online marketing activities and the purchase decision in the young generation tourism context.

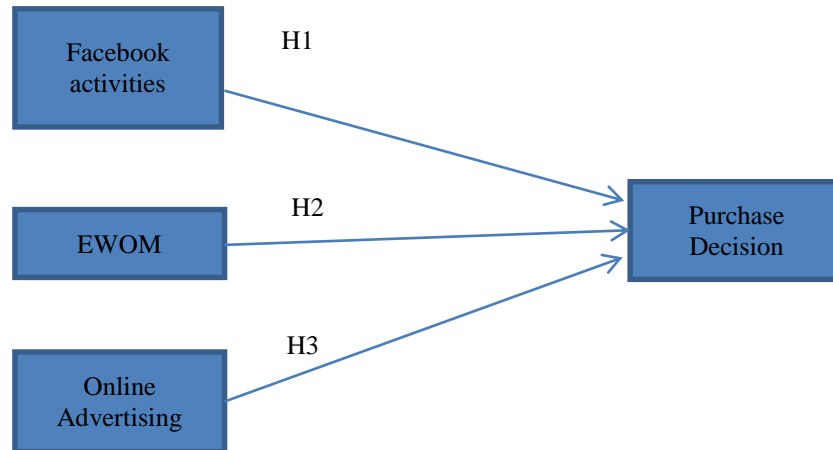


Fig. 1: The impact of Social networks, EWOM and Online Advertising on young traveller purchased decision

Hypothesis

- H1: Facebook fanpage activities can positively impact to Vietnam young traveler purchase decision
- H2: E-WOM positively influence purchase decision of Vietnam young traveler
- H3: Online advertising positively impacts Vietnam young traveler purchase decision

4. Methodology

4.1. Data Collection

The research is carried out through two phases: qualitative study then quantitative research. Qualitative research helped to adjust variables scale in proposed research model. After pilot test, questionnaires was distributed in a convenient manner to implement quantitative research. Data is collected from over 300 Vietnam Maritime University students by online channels and print surveys. Research sample is focused on very young people who are under 25, have low budget but can decide independently when buying travel services.

4.2. Data Analysis

In order to find out the interrelationships between the variables and prove the reliability, reliability analysis (Cronbach Alpha) and exploratory factor analysis (EFA) are chosen. Reliability analysis helps identify the internal consistency of variables, points out trustable variables set. EFA is widely adopted when examining the potential interrelationships among variables, here are the dimensions of online marketing activities.

Using SPSS 16.0 to analyze data, Cronbach's Alpha analysis is conducted to test model reliability. The lowest value is Online Advertising (.718), and the highest one is EWOM (.886). It shows that the items are closely related in the same factor. The Corrected item – Total correlation values are higher than .3, which is ranged from .517 to .824. The independent variables' scale have Cronbach's Alpha coefficient value excess .6 which means all variables are valid and reliability for further analyze.

Table 1. Chronbach’s Alpha reliability analysis result

Variable	No of items	A
Facebook	3	.810
EWOM	3	.886
Online Advertising	3	.718

The exploratory factor analysis (EFA) were tested with Kaiser-Meyer-Olkin and Bartlett’s test of sphericity to exclude irrelevant items. There was 9 items of independent variables is analyzed using Varimax Rotation method. The final decision variable is explained by only 1 factor will not be included in EFA analysis.

Table 2. EFA Result

Rotated Component Matrixa			
	Component		
	1	2	3
EWOM impacts on attitude	.905		
EWOM impacts on purchase intention	.884		
EWOM impacts on belief	.878		
Facebook impacts on attitude		.883	
Facebook impacts on purchase intention		.836	
Facebook impacts on belief		.791	
Online advertising impacts on attitude			.871
Online advertising impacts on purchase intention			.771
Online advertising impacts on belief			.769
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 4 iterations.			

Table 2 shows EFA rotated component matrix with The Barlett's Test of Sphericity sig is .000 <5%; KMO Values is .638. EFA result shows that there are 3 factors are extracted. These factors corresponded to three independent factors: (1) Facebook fanpage activities; (2) EWOM about the company; (3) Online advertising activities. The dependent factor, which is traveler purchase decision, has one explained variable and did not included in the EFA. EFA result also points out 9 variables of the 3 factors have acceptable factor loading (more than .769) and Chronbach’s Alpha values are higher than .7. Therefore, the research model will remain 3 factors with 1 dependent factor as proposed before.

Table 3. Pearson Analysis Result

Correlations					
		F_PD	F_FB	F_EWOM	F_OA
F_PD	Pearson Correlation	1	.413**	.674**	.401**
	Sig. (2-tailed)		.000	.000	.000
F_FB	Pearson Correlation	.413**	1	.319**	.187**
	Sig. (2-tailed)	.000		.000	.002
F_EWOM	Pearson Correlation	.674**	.319**	1	.091
	Sig. (2-tailed)	.000	.000		.127
F_OA	Pearson Correlation	.401**	.187**	.091	1
	Sig. (2-tailed)	.000	.002	.127	

To explore the correlation among independent variables, Pearson correlation analysis is applied to the data.

Pearson correlation analysis result reveals a strong linear correlations between independent variables and dependent variables. The Pearson’s correlation coefficients are highly significant (all P values <.01). Specifically, the correlation between Purchase Decision (F_PD) and Facebook fanpage activities (F_FB) is $r = .413$, with EWOM (F_EWOM) is highest at $r = .674$, and with Online Advertising is $r = .401$. This result showed that EWOM have strongest relationship with purchase decision.

5. Results and findings

5.1. Young’s traveller buying behaviour

According to table 4, research sample contains very young participants with relatively low budget, high internet use via mobile devices, significant travel demand and frequency. Over 50% participant said they have holiday travel within 6 months and 67% travel at least once annually. Having limited income, they might traveled with family, and play important role in decision making process. Talking about most frequent use device, 63% respondents accessed internet on their mobile phone, meaning company should pay more attention to mobile first trend. It is unavoidable to effectively adapt with this trending environment beside the computer screen. Further more, unlike the mature customers, young consumer strongly relies on internet typically search engine and social network to search for destination, seeking suggested activities and find information about accommodation or restaurant. In addition, this age group also has strong impact to their family decision because many of them will be in charge for planning family trips.

Table 4. Sample characteristics

	Percentage
Gender	
Male	42.5%
Female	57.5%
Age group	
Under 22	58.9
From 22-25	25.6
From 26-30	15.4
Internet access device	
Mobile	63.51%
Personal computer	27.02%
Work place	8.07%
Internet shop	1.40%
Income	
Less than 3 millions VND	57.19%
From 3-5 millions VND	12.98%
From 5-10 millions VND	15.79%
Over 10 millions VND	7.02%
Annual travel frequency	
1-2 per year	67.72%
3-5 per year	12.63%
Every 2-3 years	5.61%
Rarely	14.04%
Reasons to use internet when plan to travel	
Find information about tour. hotel. restaurant. Ticket	59.30%
Search destinations. Places	80.00%
See photo or video about places. experience. activities	61.75%
See advertisements. promotions. compare the price and offers	41.05%
Read comments. reviews in professional websites such as TripAdvisor. Agoda. ofofun...	41.05%
Post and ask for advices about travel plan	9.82%
Reference channel when making purchase decision	
Search engine (Google. CocCoc. Firefox...)	85.26%
Social network (Facebook. Zing.vn. Instagram...)	74.74%

Forums online communitie (webtretho. ofofun. Tripadvisor. Agoda...)	55.09%
Blogs (toidi.net. ivivu...)	28.42%
Online newspaper. online magazine (dantri.com. vnexpress.net...)	29.82%
Photo. video sharing (Youtube. Flickr...)	26.67%

5.2. Online marketing activities influence on young traveller purchase decision

Lineneer regression analysis is accomplished for 3 independent variables including: Facebook activities (F_FB), EWOM (F_EWOM), Online advertising (F_OA) and 1 dependent variable: Purchase decision. The analysis will examining relationship between variables.

Table 5. Linear regression analysis result

Variables	B	T	Sig	Hypothesis
Constant	-.595	-2.779		
Facebook	.201	4.695	.000	Accepted
EWOM	.671	14.898	.000	Accepted
Online Advertising	.430	8.667	.000	Accepted
R			.782	
R2			.612	
Sig F Change			.000	

Table 5 shows the relationship of Facebook activities, EWOM, online advertising and Purchase decision. The R2 value is .612 which means 61.2% of the dependent variable (purchase decision) can be influenced by three independent variables (facebook activities, EWOM and online advertising). There is no autocorrelation in the residuals of this regression analysis as Durbin-Watson value is 1.952. The sig(β_1), sig(β_2), sig(β_3) values are less than .05 showing independent variables contribute statistically significantly to the model. It can be said that young Vietnamese purchased decision is highly affected by online marketing activities in the tourism context.

Result points out the Facebook activities positively affect Vietnam young traveller purchase decision, partly explains by the widely use of Vietnamese in this platform. Presently, the vast majority business in tourism industry are spending much effort in Facebook marketing along with high competence. It is efficient in terms of reaching audience with positive impacts on purchase decision. However, it is not as strong as many people might think since $\beta_1 = .201$, the lowest one among independence variables. Facebook fanpage may not be the highly recommended channel for making instant sale. This finding points out that managing Facebook fanpage should be in the long time, in order to gradually build up company image in customer's mind. Several campaigns can boost the fame but cannot directly rock the turnover. It could be a daily place to talk to broad audience, reaching potential customers and keep interaction.

It seems EWOM has higher influence on Vietnam young traveller purchase decision ($\beta_2 = .671$). It is the strongest factor to people's choice of service among researched channels. EWOM, being the user-generated content, proves its power to affect people buying behaviour. The hypothesis is also backed up by the fact that 89% Vietnam consumer believe WOM recommendation from people they know (Nielsen, 2015). What happens in the real life, performs similarly in the internet environment. EWOM should have greater investment. By concerning more about what the customer's feedback, keeping good relationship and doing higher level of after sale services, company can increase their sale more efficiency. The better review they get, the higher sales will come. However, Vietnam culture is an obstacle as people unwilling or easily forget to leave their feedbacks. In addition, people tend to post about unsatisfactory, complains rather than compliments. It is company's turn to actively contact, invite and motivate them give better feedbacks, solve problems, keeping in touch regularly and instantly.

Table 5 also exposed the significant impact of online advertising on Vietnam young traveler purchase decision ($\beta_3 = .430$). The young generally considers online advertising as an important reference source. Apparently, young consumer is attracted by sparkling advertisement, even make purchase decision upon their emotion. Therefore, online advertising is an effective, and quick method to persuade customer as well as their decision, giving the fact that search engine (contains many search ads) such as Google, Firefox, Coc Coc... is the most widely use when planning to travel. In the short term, business can sharply increase sales using good offer and a wise advertising campaign. Advertisements should be designed attractively, clearly as well as distribute widely.

6. Conclusion, limitation and future development

Base on EBM model of consumer buying decision process, this study test, and explain the influence of online marketing means on Vietnam young traveller purchase decision. It provides more details about impact of online channels which are different from the traditional promotion channels such as TV, newspapers, magazine, event or banner, leaflet. The previous studies clarified social media effects to purchase intention. This research and possibly, future improvement, tried to go further to cover decision making stage. Moreover, previous studies were carried out mainly in developed countries, this study adjusted and tested those models in Vietnam, a transitional economy with very young consumer compared to the mature counterpart in the developed countries.

Beside the findings, there are limitations exist to overcome for further study. Firstly, the number of observational items is limited. A more detail list of variables and items could deliver more precise results, giving the fact that online marketing does not only include social network, EWOM and online advertising. Research methodology is rather simple, which cannot discover all aspects of the issues. Finally, due to the shortage of resource and time, participant's profile focused on university students, thus lack of diversity.

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Blockchain Technology and Potential Applications in Online Advertising

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ABSTRACT

Blockchain is a new technology, although it has recent appeared for few years, blockchain is considered a technology that has a great influence and can affect many different areas. Online advertising is also one of the areas affected by this technology. To broaden our understanding of blockchain technology based services and platforms, this article gives the potential applies of blockchain in online advertising. This article focuses on introducing and clarifying the theory of blockchain technology. In addition, this article gives the problems that online advertising is facing now and how blockchain changes it by exploring the potential application of blockchain in online advertising.

Keywords: blockchain; blockchain technology; potential apply; blockchain and online advertising

1. Introduction

Online advertising is an important part of any business organization on the internet. Nowadays, any business wants to advertise their products and services to targeted customers fastly, online advertising is the best way. Online advertising has grown tremendously in recent years thanks to its superior features such as targeted advertising, accurate measurement, high efficiency and competitive cost. With the benefits of online advertising: Measurability, Interactivity, Increase the revenue, Trust, Cost-Effective, no modern businesses can ignore this media [27]. You can see, the roles of online advertising are huge. However, there are a number of issues that still exist in online advertising. About users, they concern the confidentiality of information, the viewer's advertising data. For publishers and advertisers, they concern about fraud; measurement and cost in advertising.

Blockchain is not a miracle technology that can change any problem in online advertising, but it is a potential technology that is highly influential and can improve some the remaining problems.

This article will begin with an explanation of what the blockchain technology. And then, it gives issues which still exist in online advertising. Many potential benefits were expressed to deal with these issues. The purpose of the study is to provide a general theory of blockchain, to clarify the issues that exist in online advertising, and to offer potential applications that blockchain can solve. For the purpose above and blockchain is a relatively new technology, so the author uses the research method at the desk to clarify the problem. Because of being a new technology that even many people did not about it, so author used research method at the desk to execute this article.

2. Research method

This article was executed with three main objects are: (1) given the general theory of blockchain (concept of blockchain, the way that blockchain works, the benefits of blockchain); (2) presented the remaining issues of online advertising activities in the present; (3) given potential benefits of blockchain in online advertising; to do

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this research, author used desk research method.

Desk research is the study of the analysis of existing data from different sources. Such sources include: book, press, Internet, analytical reports, statistical data. The main advantages of desk research are: faster and cheaper data analysis and collection than the generation of new research; the ability to analyze data based on multiple sources of information; suitability for each stage of study [14].

Blockchain is a relatively new technology that was first introduced in 2008 by Satoshi Nakamoto with its initial product Bitcoin - electronic money [2]. So far blockchain is considered as one of the most potential and influential technologies in many fields from economics to politics and society. However experts do not know the true level of development of this technology, they only know that this is a really potential technology [20]. The research method at the desk will be a suitable method for new technology such as blockchain while in the research stage, exploration.

3. Literature review

3.1 Blockchain technology

Concept of blockchain

Honestly, there is no specific definition of blockchain technology, experts only offer a common understanding about this technology. In a pure sense of the term "blockchain", blockchain is a chain of transaction blocks that are connected to each other. Blockchain is a series of blocks of information, which was first described in 1991 by a group of researchers including Stuart Haber and W. Scott Stornetta [1,4]. In 1998, Szabo designed a mechanism for a decentralized digital currency he called "bit gold". Bit gold was never implemented, but has been called "a direct precursor to the Bitcoin architecture [8]. In 2000 Stefan Konst published a general theory for cryptographic secured chains and suggested a set of solutions for implementation. The first blockchain was then conceptualized by Satoshi Nakamoto in 2008 and implemented the following year as a core component of the digital currency bitcoin, where it serves as the public ledger for all transactions. Through the use of a peer-to-peer network and a distributed timestamping server, a blockchain database is managed autonomously. The invention of the blockchain for bitcoin made it the first digital currency to solve the double spending problem. The bitcoin design has been the inspiration for other applications: Identity, Personal records, Financial services and banking, Supply chain management, asset tracking, and inventorying, Contract and vendor management, Copyrights,... [12,].

The simplest way we can understand blockchain is the method of recording data, which can be thought of as a scattered ledger that stores transactions, agreements, contracts and any data. we need to record independently or verify its existence. This is a hierarchical database that stores information in blocks of information that are linked together and expanded over time. Each block of information contains information about initialization time and is linked to the previous block, so this database is called block chain. The key difference between blockchain and normal ledger is that it does not exist in a particular location (meaning it has no authentication center or a single ledger source). It is distributed over hundreds and thousands of computers around the world by a technology that allows grouping of digital records into blocks and strings by complex algorithms and synchronous encoding processes many computers [3,12].

Structure of a block

Blockchain owes its name to the way it stores transaction data — in blocks that are linked together to form a chain. As the number of transactions grows, so does the blockchain. Blocks record and confirm the time and sequence of transactions, which are then logged into the blockchain, within a discrete network governed by rules agreed on by the network participants.

Each block contains a hash (a digital fingerprint or unique identifier), timestamped batches of recent valid transactions, and the hash of the previous block. The previous block hash links the blocks together and prevents any block from being altered or a block being inserted between two existing blocks. In this way, each subsequent block strengthens the verification of the previous block and hence the entire blockchain. The method renders the blockchain tamper-evident, lending to the key attribute of immutability.

To be clear, while the blockchain contains transaction data, it's not a replacement for databases, messaging technology, transaction processing, or business processes. The blockchain contains verified proof of transactions. However, while blockchain essentially serves as a database for recording transactions, its benefits extend far beyond those of a traditional database [6].

Blockchain – How it works

Blockchain allows for the secure management of a shared ledger, where transactions are verified and stored on a network without a governing central authority. Blockchains can come in different configurations, ranging

from public, open-source networks to private blockchains that require explicit permission to read or write. Computer science and advanced mathematics (in the form of cryptographic hash functions) are what make blockchains tick, not just enabling transactions but also protecting a blockchain's integrity and anonymity [4].

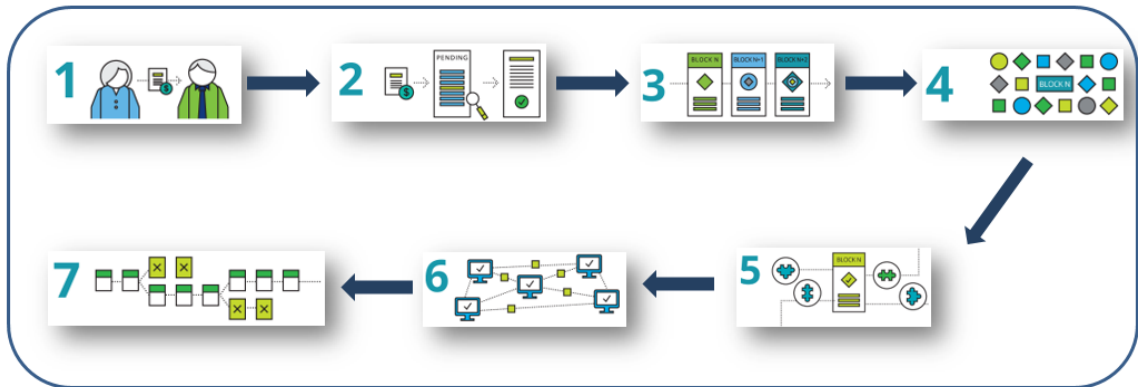


Fig. 1. Blockchain - How it works [4]

Step 1: Transaction - Two parties exchange data; this could represent money, contracts, deeds, medical records, customer details, or any other asset that can be described in digital form.

Step 2: Verification - Depending on the network's parameters, the transaction is either verified instantly or transcribed into a secured record and placed in a queue of pending transactions. In this case, nodes—the computers or servers in the network—determine if the transactions are valid based on a set of rules the network has agreed to.

Step 3: Structure - Each block is identified by a hash, a 256-bit number, created using an algorithm agreed upon by the network. A block contains a header, a reference to the previous block's hash, and a group of transactions. The sequence of linked hashes creates a secure, interdependent chain.

Step 4: Validation - Blocks must first be validated to be added to the blockchain. The most accepted form of validation for open-source blockchains is proof of work—the solution to a mathematical puzzle derived from the block's header.

Step 5: Blockchain mining - Miners try to “solve” the block by making incremental changes to one variable until the solution satisfies a network-wide target. This is called “proof of work” because correct answers cannot be falsified; potential solutions must prove the appropriate level of computing power was drained in solving.

Step 6: The chain - When a block is validated, the miners that solved the puzzle are rewarded and the block is distributed through the network. Each node adds the block to the majority chain, the network's immutable and auditable blockchain.

Step 7: Built-in defense - If a malicious miner tries to submit an altered block to the chain, the hash function of that block, and all following blocks, would change. The other nodes would detect these changes and reject the block from the majority chain, preventing corruption.

Characteristics of blockchain

Blockchain builds trust through the following five attributes [7]:

Distributed and sustainable: The ledger is shared, updated with every transaction, and selectively replicated among participants in near real time. Because it's not owned or controlled by any single organization, the blockchain platform's continued existence isn't dependent on any individual entity.

Secure, private, and indelible: Permissions and cryptography prevent unauthorized access to the network and ensure that participants are who they claim to be. Privacy is maintained through cryptographic techniques and/or data partitioning techniques to give participants selective visibility into the ledger; both transactions and the identity of transacting parties can be masked. After conditions are agreed to, participants can't tamper with a record of the transaction; errors can be reversed only with new transactions.

Transparent and auditable: Because participants in a transaction have access to the same records, they can validate transactions and verify identities or ownership without the need for third-party intermediaries. Transactions are time-stamped and can be verified in near real time.

Consensus-based and transactional: All relevant network participants must agree that a transaction is valid. This is achieved through the use of consensus algorithms. Each blockchain network can establish the conditions under which a transaction or asset exchange can occur.

Orchestrated and flexible: Because business rules and smart contracts (that execute based on one or more

conditions) can be built into the platform, blockchain business networks can evolve as they mature to support end-to-end business processes and a wide range of activities.

3.2 Many issues in online advertising

Advertising industry have lots of problems that are facing. Technology is growing fast, especially the world is in The Fourth Industrial Revolution, so the method of online advertising must bring efficiency to the participants. There are many existing issues that make it difficult for users, publisher, advertiser, details are:

Many middlemen in advertising

The fig 2.1 below shows that the simple model in online advertising and relationship between them. This model includes: user, publisher, network and advertiser.

User (Customer): Users are people that visit a publisher website/ or apps and they are interested in products and services.

Publisher: A publisher is simply the entity who receives money for showing ads on their website. The publisher advertises the actual product or service and drives the user to the advertiser page to make a purchase or read more details about the product. Typically, the publisher can be an affiliate or a reseller, or just a website promoting a business. Its main profit comes from publishing the advertisement itself. For example: The ones who sign up in Google AdSense are called publishers and they get money from publishing ads.

Advertiser: An advertiser is the one who pays money in order to get his or her ads shown on a mobile app or a website. An advertiser controls the actual product or service that is being advertised as they are the one who commands the product advertising process. The advertiser is also known as a retailer or a merchant.

Network (Ad Network): Ad networks help advertisers to buy digital ads across a slew of publisher sites and apps. At the most basic level, ad networks pool inventory of unsold ads from publishers and sell it to advertisers. They match the supply with demand.

In here, Ad Networks, Ad Exchange, Agencies can be understood as middlemen that match advertisers and publishers and support advertising display (Fig 2.2).

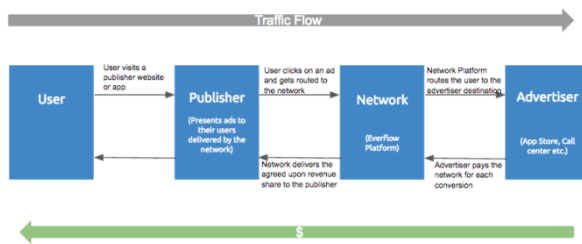


Fig. 2.1. The flow of online advertising [18]

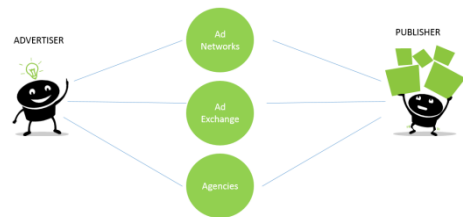


Fig. 2.2. Intermediate in online advertising [9]

In the advertising industry, there are a lot of middlemen that lead to cost for business to pay more because of these middlemen. The problem with display online advertising is that it has become an inefficient and costly process, both for advertisers and publishers. Publishers aren't able to sell most of their inventory and the inventory they do sell is sold for way too low a cost. Advertisers on the other hand, are also losing money through middlemen deal as not every impression is made equal. Originally, the publisher would send his available inventory to a mediator (ad exchange, ad network, or agency) and the advertiser would purchase in bulk, to serve his ads on the site. Advertisers and publishers are actually limited by these mediators. The advertiser gets a limited amount of sites to choose from and most of those will most likely be irrelevant. Also, the variety of those ad-networks results quite a cumbersome process managing campaigns in multiple ad-networks simultaneously, creating a huge burden on the advertiser side.

About the confidentiality of information and data viewers

The second issue that causes trouble for users is the privacy of data users. In most cases, a user's search query is tracked and archived, and then the ad service provider will display relevant ads on the user's browser. In some case that users allow, but this is an issue that almost internet users do not like and this can also be interpreted as violating personal privacy.

For example, Google automatically scanned email users to retrieve the data used later for targeted ads. Many people think that this is a worrying issue and even if the company recently announced it had stopped functioning, most experts say that this move is due to the adequacy of data collection, not due to privacy concerns, but this is also a concern for viewers [15,16].

Fraud in advertising

The third issue that affects directly to advertisers is ad fraud, this is also a problem that the professional advertising community is concerned about. Ad fraud is a type of scam in which the perpetrator fools advertisers into paying for something that is worthless to them, such as fake traffic, fake leads or misrepresented and ineffective ad placement [22].

The media industry has been under fire as problems with online ad fraud, more precisely bots instead of humans seeing or 'clicking' on ads, have shown unrealistic measurement of campaigns. Usually, online advertising uses automated technology, and it can be unclear where precisely the ads are placed, leading to vast amounts of money being wasted because they cannot be properly monitored [17].

A well-known and recent example of this case is Methbot (this is the name of a fraudulent campaign conducted by a Russian criminal group AFK13 which estimates it earns \$3 million to \$5 million a day by click fake ads). This is a fraudulent campaign by creating fake domains for advertisers to buy ads, and then the phishers invest a bot to click on the ad that boosts revenue thanks to the paid system money per click that they exploit. It's the biggest digital ad fraud ever uncovered and perpetrated by faking clicks on video ads.

They planned their machinations in meticulous detail. First, they created more than 6,000 domains and 250,267 distinct URLs within those that appeared to belong to real big-name publishers. But all that could be hosted on the page was a video ad. With faked domain registrations, they were able to trick algorithms that decided where the most profitable ads would go into buying their fraudulent web space. Those algorithms typically make bids for ad space most suitable for the advertisement's intended audience, with the auction complete in milliseconds. But AFK13 were able to game the system so their space was purchased over big-name brands. AFK13 then invested heavily in a bot farm, taking up space in data centers so they could fire faked traffic from more than 570,000 bots at those ads, thereby driving revenue thanks to the pay per click system they exploited. As part of what White Ops called the Methbot campaign, those bots "watched" as many as 300 million video ads a day, with an average payout of \$13.04 per thousand faked views. And the fraudsters had their bot army replicate the actions of real people, with faked clicks, mouse movements and social network login information [16].

3.3 Potential applications of blockchain in online advertising

Blockchain is considered as a potential technology which allows to solve the problems mentioned above.

Applying blockchain allows to connect directly without middlemen helping to reduce costs considerably

In finance, the removal of middlemen involves the removal of intermediaries, such as bankers, used to transfer and store your money. In the case of online advertising too, this middleman is an agency like Google or Facebook, ensuring the reliability of the money through the advertising campaign. Blockchain is likely to break this pattern by allowing direct advertisers to buy and sell to advertisers instead of through middlemen. Applying blockchain, advertiser can directly contact the owner of the website when they want to publish their advertisements, blockchain can help them connect via the app to the owner. Through the application, it can be easily proven that the viewer of the ad and the click is real through the display data, ensuring that the website owner and the business do not need a middleman to mediate the transaction and authenticate the deal. No need for middlemen and no fraud, blockchain provides accurate information to the parties: who, when, how often to see the ad on the page and how many users actually click on it [19].

For example: Platform of XCHNG (XCHNG.io)

The XCHNG platform is an open source digital advertising platform based on blockchain technology that simplifies the buying and selling process for advertisers, agencies and partners. With XCHNG, the future of advertising is simplified, secure, verifiable, scalable and standardized. Through the use of blockchain technology, buyers and sellers outline their terms in a smart contract. Smart contracts may be subject to additional verification and enforcement layers by optional online service providers, such as measurement providers, rating providers, payment providers, and payers. accountant.

The payment provider is responsible for paying the publisher payments when the contract terms are met. Additional offers for payment providers include providing fast payments to publishers for a fee, which encourages publishers to deliver [25].

Kochava has designed and developed an open, crypto-based ledger framework that is the manifestation of a smart contract system for advertising. Unlike the paper-based version of the contract to buy and sell digital ads, the smart contract IO codifies all the elements of a well-formed IO into a fully traceable and immutable electronic Ricardian contract, binding the following key elements:

- (1) Identification and pre-verification of inventory being bought, sold, or traded with associated targeting capabilities against an open blockchain framework
- (2) Identification and pre-verification of the Buyer and Seller of the media with unique keys

(3) Embedded and programmable terms for the agreement that address traffic and brand safety verification, targeting (from 1, above), allowance of re-brokering, flight times, payment approach: CPM (Cost per Mille—impression-based pricing), CPC (Cost per Click), CPI (Cost per Install), CPX/CPA (Cost per Action) and other details for the digital ad buy; General Data Protection Regulation (GDPR) compliance

(4) Identification of the associated ecosystem partner to be used for the purpose of measuring performance of IO terms (called the Measurement Provider)

(5) Identification of the optionally associated ecosystem partner to be used as the Ratings Provider

(6) Identification of the optionally associated ecosystem partner to be used as the Payment Provider (For clarity, Kochava will not serve in this capacity on XCHNG).

(7) Identification of the optionally associated ecosystem partner to be used as the Arbitration Service in the event there is disagreement between the Buyer, Seller or Measurement Provider upon delivery By codifying the IO into a smart contract written to the XCHNG distributed ledger, the associated inventory is replete with a) traceable history, b) capacity for delivery verification, c) arbitrage opportunity and, most importantly, d) liquidity.

Applying blockchain allows the user to gain control over the information

Applying blockchain allows users to increase control over their own information. Instead, users will have greater authority in determining when, for whom, and for how long their information is available. People may be able to buy and sell their own personal information, giving them greater autonomy in information. Advertisers will then have a better set of loyalty and quality in the long run.

For example: Platform of Snovio (snov.io)

The Snovio platform marries the interests of businesses (the buyers of the data) and data providers (contributors) from all over the world. For that purpose, Snovio uses blockchain technology in order to provide transparency in revenue distribution among participants that complete the databases with efficient leads. So, the main actors are:

Platform serves for both contributors and buyers. It works on the blockchain and smart-contract – instruments that guarantee a fair distribution of revenues from data sales among the contributors.

Contributors refill the database with new leads contacts. They also update the obsolete information. Snovio saves every activity of contributors in a history log and demonstrates which data turned out to be the most useful and sought. This is considered in calculation of the reward paid to a contributor after the data is sold.

Customers set the criteria for the search of the needed leads. While buying leads they will be able to check the origin of the contacts, see how many times this data was bought and understand whether these leads were useful for another business or not. Such transparency is enabled by Snovio's blockchain. Whenever information in a purchased lead is updated, customers are immediately notified.

The platform will also function as a marketplace. The customers will no longer have to carry out the search by themselves. They will be able to place an order for search inside the platform that will be performed by an agent [23].

Ensuring information is safe and confidential

Applying blockchain, user information will be confidential and not disclosed to third parties, data is only viewed by system members such as advertiser and publisher, large amounts of information and data will be stored by blockchain not available to third parties.

For example: Platform of Blockstack (Blockchack.org)

Blockstack applies blockchain to build an open source project that allows users to access web pages while maintaining their privacy and security. This service is supported by blockchain technology, where people have the ability to grant read / write permissions to their data. The information is then encrypted directly on their personal device, eliminating the need for a third party. Blockstack customers can access the content they want, without having to worry about getting unwanted targeted ads - the power back to the consumer [11].

Blockstack has the following design goals:

(1) Decentralized Naming & Discovery: End-users should be able to (a) register and use human-readable names and (b) discover network resources mapped to human-readable names without trusting any remote parties.

(2) Decentralized Storage: End-users should be able to use decentralized storage systems where they can store their data without revealing it to any remote parties.

(3) Comparable Performance: The end-to-end performance of the new architecture (including name/resource lookups, storage access, etc.) should be comparable to the traditional internet with centralized services

Ensuring the reliability of statistical data

In online advertising, it is almost impossible to know whether the statistics are accurate or not, the business itself does not know whether the clicker is a real person or a robot or a software that used to simulate data to be

charged higher. Applying blockchain, we can know that. Each chain in the system is transparent and encrypted, and companies may be able to determine whether their ad is a member of the system. This helps the companies to have accurate statistics on the target customers and help them reduce cost.

For example: Platform of Adchain (Adchain.com)

Adchain is an open protocol on Ethereum's public blockchain. Its stated goal is to allow for building of decentralized applications, specifically for use in the digital advertising ecosystem. Adchain is an open protocol that uses blockchain technology to solve digital advertising's persistent issues of brand-safety, fraudulent traffic, and lack of financial transparency. The way this works is that there is an open access ledger, available to all parties, that tracks and reports the life cycle of an ad impression. That is the advantage of the blockchain: an open and transparent ledger, that is irreversible and practically impossible to compromise [10].

4. Conclusion

At the present time, all the applications studied are potential projects being tested and no applications are widely applied. It can be said, until the present time, early in 2018, blockchain technology has not yet integrated much into our daily life. One of the main reasons is the functionality, the interface of the blockchain applications are quite poor, not friendly and still in development. Even so, the basic term is still not uniform, causing confusion over time.

Although still relatively new, but with the relatively high consensus today, the application of this technology in all areas of life will not be too far away and gradually become the mainstream. With this article, author hopes to contribute a part of the blockchain theory and to present some potential applications of blockchain in the field of online advertising that will be applicable in the future. Author is confident that this article can serve as an inspirational starting point for other future studies of blockchain.

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The Reaction of Z Generation to Online Television Advertisement

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ABSTRACT

Online advertisement or online television advertisement (TVC) are the most effective ways of communication. Researchers and marketers have turned their attention and resources into this channel, exploring the rules and reactions of those who accept advertising. The Z generation is a particularly important group of customers nowadays, representing the behavioral group and the unique qualities of people in the era of science and technology with many historic turning points. In fact, how did they react to TVC? There are some general studies about online advertising with consumers. These studies are not very meaningful because each group of customers will have reactions that can be completely different from each other online advertising methods. By quantitative research, combined with the analysis of secondary material, this study is based on the communication model of some prior scholars to test a behavioral study of the Z generation with TVC online.

Keywords: Online advertising; TVC; Z generation; Reaction.

1. Introduction

In order to sell products, the first thing a company needs is how to communicate the products to the public. Advertising is one of the simplest and most effective forms of communication. In the past, the customers received a huge amount of advertising messages, they often did not have the means to pay attention to all (Ducoffe, 1996). Moreover, with early ad technology, many people don't intend to buy the advertising products. Besides that, the ads messages don't really relate to consumer concern at exposure time. (Ducoffe, 1996). Thus, several researches are offering new advertising technologies with more accurate targeting. This is in line with the modern and effective marketing communication strategies towards the right approach for the needs of receiving information of consumers.

There are many media tools for advertising, including television advertisement or television commercial (referred to as a TVC online or TVC). With the characteristics of TVC, online TVC has the advantage that messages can be transmitted everywhere and at any time, impressing to the public more than other media by text, image, sound and motion in the ads. This combination has the same effect on many senses, making receiver remember and remind the ads as well as the brand better. In addition, online TVC makes it easy and quick to interact between customers and advertisers. With TVC online, consumers are not forced to view ads, they can skip. Due to the ability to attract the attention of many customers, online TVC gradually replaced the traditional media channels.

According to a report by Nielsen (2012), 33% of the internet users hate the advertisement, and 26% like it. However, true contextual ads are easily accepted. In particular, Asians are generally more inclined to TVC (41%

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like, 26% share, 31% buy). With a large number of online users in Vietnam, the internet environment is the communication channel for online video development. Online TVC allow marketers to have direct contact with customers anytime, anywhere. Using online advertising, marketers can easily find out what their customers are doing on the internet: the websites they visit, the products that they are interested in, the messages that they send to their friends... and through that to know their needs. It's better to meet the needs of customers than to bring them troubles. Online TVC not only helps the marketer reach the right target audience, but also the real customers. Marketers will not dominate customers but partnering with them (Vollmer & Precourt, 2008). The important thing is how to understand internet users and the factors that affect their attitudes towards online TVC. Because of the attitude of thought, the effect on emotions results in behavioral influences (Nguyen Xuan Lan et al., 2010). And the attitude is a central role in consumer decision-making (Nguyen Xuan Lan et al., 2010).

In Vietnam, according to a report by the Vietnam Internet Association (11/2017), there are more than 64 million Internet users, ranked 6th in Asia and 12th in the world. This is really a great ground for the development of the online TVC market. In particular, the majority of users are young. Young consumers are the target audience for many brands as they are accessible to the latest trends as well as the fastest new technologies.

The Z generation (also known as Post Millennials, the iGeneration, or the Homeland Generation) is the demographic behind The Millennials. We still have no exact time when the group started or ended, but it is understood to be from the mid-1990s to the early 2000s. In 2015, Epinion Global has a more in-depth study on The Z generation in Vietnam with 710 responses, Epinion has discovered seven characteristics of The Z generation in Vietnam such as:

- They do not like to spend time to go out, just enjoy being online, calling and staying home, they are most comfortable when interacting with others through a screen.
- They tend to be inseparable from mobile phones, preferring to spend time searching for information, products and brands on their technology devices.
- They have become more skeptical of the Internet, they seem to have a lot of experience accessing online information, which suggests that the origin of shared information is not necessarily obtained from reliable sources. And they want to get more proof of the authenticity of the information and the censorship of reputable organizations.
- They are interested in social issues and want to do something for themselves and society.
- They can have "immature" syndrome because they have grown up in a relatively stable economy. Thus, they completely lack personal autonomy and independence.
- They are confident and knowledgeable with the help of technology equipment.
- They cannot lack the Internet because they are the ones who constantly monitor and update the trend, online information at any time and cannot miss even a very small and even not very noticeable information about the famous.

The results of a survey by market research firm Kantar Millward Brown on The Z generation in 2017 shows a clearer Z generation, including the Z generation in Vietnam, the Philippines, and Indonesia. And Thailand. Growing up in technological maturity since the mid-1990s, the Z generation is the most technologically advanced generation today. The Z generation likes to communicate through images, using multiple social networks simultaneously to connect. This group of young people is less likely to watch television, listen to the radio, or read newspapers than in previous generations: only 52% watched television for more than an hour a day, compared to 77% in the 20-34 age group. In particular, this new consumer group is hated by advertisers and wants the brands to respect their online space. According to the survey, 22% of the Z generation in Vietnam reacted negatively to pop-up ads (automatic windows that popped up on the news site, even when viewers did not click on it). The biggest opportunity for marketers is to connect this generation with ads that are likely to invite them to participate: 58% of the Z consumers are positive about the ads. With funny content, 51% give priority to compelling stories, 50% for good music, and 22% pay attention to celebrities.

Attracting the attention of the Z generation with advertising media in general and online TVC is a challenge. Therefore, the research team has chosen the topic: "The reaction of Z generation consumers for online TVC". In this study, the authors identified a number of research questions as follows:

- Is there a relationship between the Z generation consumers and online TVC?
- If there is a relationship, how impact of online TVC to the consumer Z?

2. Literature review

Since the development of advertising for many years, there have been many researches on attitude toward

advertising. Some outstanding works like Mackenzie & Lutz (1989), Pollay & Mitall (1993), Ducoffe (1996), Shavitt et al., (1998), Bracket & Carr (2001).

Mackenzie & Lutz (1989) model focused on attitude-toward-the-ad, the factors included are ad perception, ad credibility, attitude toward advertiser, attitude toward advertising and mood (Figure 1). The attitude-toward-the-ad model points at the attitude toward any specific advertisements which like a process of specification of attitude toward advertising.

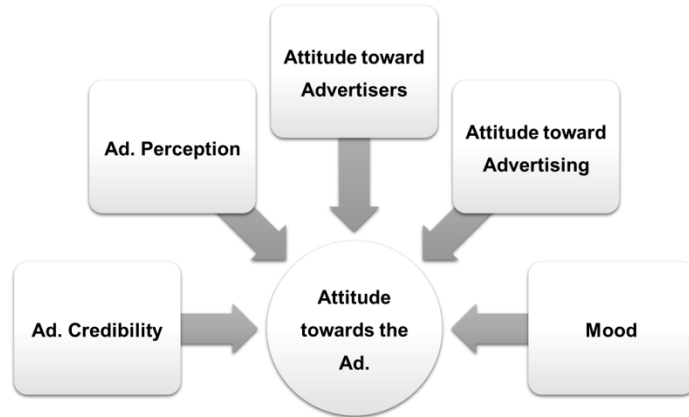


Fig. 1. Attitude-toward-the-ad Model (Lutz & MacKenzie, 1989)

Pollay & Mitall (1993)'s seven factor model laid the foundation for the forming of attitude toward advertising. The seven factors are product information, social role and image, hedonic pleasure, good for the economy, falsity, corrupt values and materialism. This model was mainly used for the research on traditional media rather than online advertising, so the author thought about it in this research.

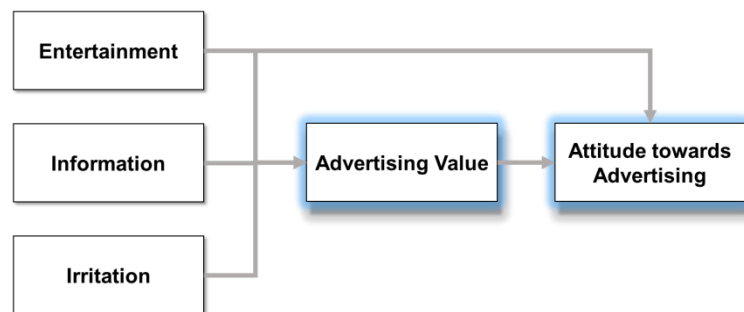


Fig. 2. Attitude toward advertising (Ducoffe, 1996).

In his work, Shavitt (1998) thought credibility and demography are important factors which should be added into Ducoffe (1996) model. The importance of credibility and trust was stressed by Shavitt (1998). The ad credibility was also supported by Mackenzie and Lutz (1989) who focused on the attitude-toward-the-ad. In this research, the author focuses on college students who have the similar demographics, so demography factor will not be considered.

Bracket & Carr (2001) which researched attitude toward advertising in web environment validated Ducoffe (1996) model and added two variables: credibility and relevant demographics to extend Ducoffe (1996) model. The model was displayed below (Figure 2).

Gustaf and Ruxandra (2012) combined the whole Lutz and MacKenzie (1989) model with Ducoffe (1996) model which was used to explain factors of attitude toward advertising in the former. The attitude-toward-the-ad model mainly reflects the instrument, in detail advertisement itself, while the attitude toward advertising aims at institution (Sandage & Lechenby, 1980).

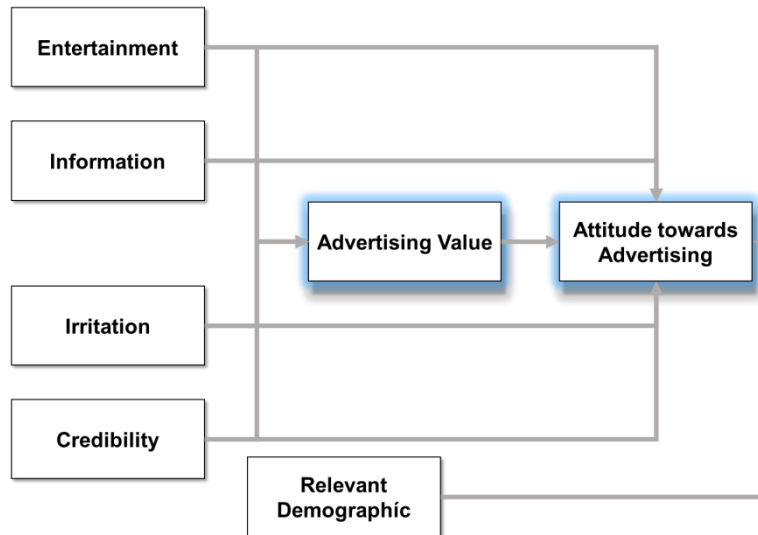


Fig. 3. Bracket & Carr (2001) model

Mehta (2000) stated that consumers’ beliefs and attitudes toward advertising are important indicators of advertising effectiveness.

Wang, Zhang and D’Eredita (2002), Zhang and Chingning (2005), Ducoffe (1996), Brackett and Carr (2001), Ling et al., (2010) and Saadeghvaziri and Seyedjavadin (2011), have all used parts of or all factors included in the model to do research.

The objects of this study are college students who have the same demographics, therefore we will skip the demography factor. The final model, which is called Ducoffe (1996) extended model is presented below in Figure 4.

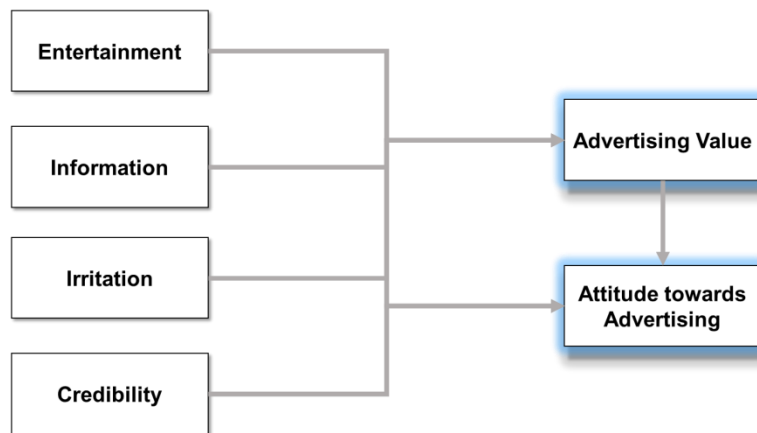


Fig. 4. The model formed in this research - Ducoffe (1996) extended model

Research models suggested in this study that the model be incorporated from the elements is said to have influenced the response of consumers to Z to online TVC in the previous research. The model proposed in this work is one that combined factors thought to influence Z consumers reaction in previous studies. These studies include Ducoff, Cyril et al's, Chinging Wang et al's model. In this work, we will suggest the hypothesis and reach the goal of research based on the above documents.

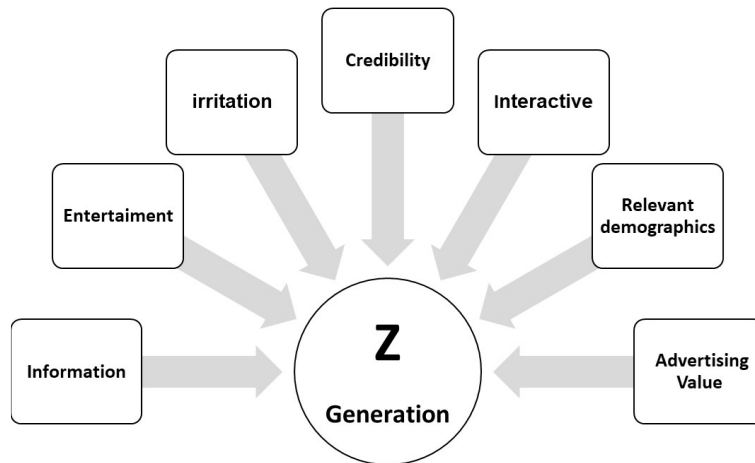


Fig. 5. The research model of consumer reaction of Z generation to TVC online (Hoai et al)

3. Methodologies and Data

The hypothesis: This research is described in the diagram of figure 5. First of all, based on the theoretical basis and the issues of practices, some of the major works to be done. To verify the model, a quantitative description is the appropriate method. Firstly, a set of tools and scientific methods are used to test and get a complete set of scales to meet the requirements in terms of the mathematical statistics in the analysis and processing of data. This data will be used to evaluate the response of the generation Z to online TVC. Secondary, data for this study were collected from the scientific articles, monographs, essays from a number of universities in Vietnam and abroad.

The proposed hypotheses are:

- H1: There is a positive relationship between the information of TVC online and the reaction of the Z generation.
- H2: There is a positive relationship between the entertainment of TVC online and the reaction of the Z generation.
- H3: There is a negative relationship between the irritation of TVC online and the reaction of the Z generation.
- H4: There is a positive relationship between the credibility of TVC online and the reaction of the Z generation.
- H5: There is a positive relationship between the interactive of TVC online and the reaction of the Z generation.
- H6: There is a positive relationship between the relevant demographics of TVC online and the reaction of the Z generation.
- H7: There is a positive relationship between the value of TVC online and the reaction of the Z generation.

The measurement model of testing as well as theoretical models and hypothesis will be done by the research with 330 samples with overs 30 questions. In this section, the reaction of the generation Z is based on the measuring questionnaire theory. The reaction of the generation Z to online TVC is through the measurement recorded the remarks from the perspective of the people who have joined the social network use is subject to the direct impact from online TVC. Accordingly, all the research problems are measured through the record the feel of the generation Z to the impact of online TVC. This is the questionnaire for the score. Each answer is evaluated by measuring the Likert 5 point scale (1 = strongly disagree 2 = disagree 3 = no opinion 4 = disagree, 5 = strongly agree) (Likert, 1967). The questions in this questionnaire is built and tested to suit the conditions of Vietnam.

After the data collected is processed by SPSS version 22th. The work is done in formal research include: preliminary evaluation of the scale; factor analysis of discovery; correlation analysis; regression analysis; analysis of variance (ANOVA).

In analyzing, evaluating and verifying scales, we will continue to exclude, group, or classify the component variables according to their characteristic groups and to be appropriately named by the exploratory factor analysis (EFA).

The scale is based on previous studies by researchers such as Ducoffe (1996), Prendergast et al (2009),

Bracket & Carr (2001) model, Ko et al. (2005). The scale of Information, Entertainment, Irritation, Advertising value is based on Ducoffe's (1996). Scale of Credibility is based on Prendergast et al (2009). The Interactive component scale is based on Ko et al. (2005). The Relevant Demographics is based on Bracket & Carr (2001) model. Then the scales were adjusted and supplemented through qualitative research to suit consumers in Vietnam.

There are seven concepts studied in the model: information of online TVC (INF), Entertainment of online TVC (ENT), Irritation of online TVC (IRR), Credibility of online TVC (CRE), Interaction (INT), Value of online TVC (VAL), Attitudes towards online TVC (ATT).

In the preliminary study phase, 30 questionnaires were sent to four small groups for testing. Each questionnaire consists of observation variables that measure the reaction of the Z generation consumer to online TVC. 30 questionnaires were returned, all could be used for analysis. Scales were evaluated through the Cronbach Alpha confidence test and the coefficients of coefficients were calculated. As a result, many variables with low confidence coefficients and low correlation coefficients will be rejected. Initially, this research included eight measures of 37 variables. In particular, some observational variables are from previous studies and others are new. Based on preliminary research with small samples (30 samples), some variables are less meaningful according to experts' opinion and are removed, leading to 34 observation variables belonging to seven scales as shown in the table, namely:

- Information of online TVC scale includes 4 observation variables: INF_1, INF_2, INF_3, INF_4.
- Entertainment of online TVC scale includes 4 observable variables: ENT_1, ENT_2, ENT_3, ENT_4.
- Irritation of online TVC scale includes 5 observation variables: IRR_1, IRR_2, IRR_3, IRR_4, IRR_5.
- Credibility of online TVC scale includes four observation variables: CRE_1, CRE_2, CRE_3, CRE_4.
- Interactive scale includes 5 observation variables: INT_1, INT_2, INT_3, INT_4, INT_5.
- Value of online TVC scales includes 4 observation variables: VLA_1, VLA_2, VLA_3, VLA_4.
- Attitudes towards online TVC scale includes 4 observation variables: ATT_1, ATT_2, ATT_3, ATT_4.

Demographic scales with 3 observation variables: sex, education level, income.

Quantitative research was conducted by interviewing internet users in Hochiminh city through direct interview; and indirect interview via "Google doc form". Data collection is used to test the model and analyze consumer attitudes toward social ads. Samples are selected by convenient method. The data analysis method used in this study is linear structural model.

The size of the sample in this research was based on the requirement of Exploratory Factor Analysis (EFA) and multivariate regression:

Equation 1: For Factor EFA Exploratory Analysis: Based on the research by Hair, Anderson, Tatham and Black (1998) the expected sample size is at least five times the total number of observation variables. This is the appropriate sample size for this research using factor analysis (Comrey, 1973; Roger, 2006). $n = 5 * m$

Equation 2: For multivariate regression analysis, the minimum sample size to be calculated is $n = 50 + 8 * m$, where m is the number of independent variables (Tabachnick and Fidell, 1996).

Therefore, ~~to~~ as our principle is not missing samples we choose the number of samples satisfy both formula. The estimated sample size of this study was $n = 300$.

4. Results and discussion

With a 95% confidence level, there are four factors that influence the consumer reaction to the Z generation for online TVC. The model is shown below:

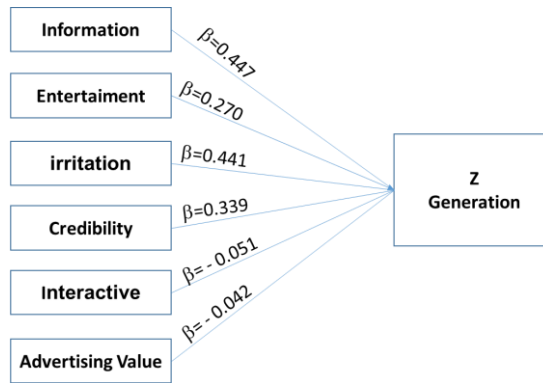


Fig. 6. The reaction model of Z generation on TVC after testing

The one-sample T test contributes to the test of significant difference, the result will help us make a decision whether the hypothesis should be accepted or rejected. Compared the mean value to the neutral point, it will indicate whether there is a positive or negative influence.

After encoding the measurement variables and analyzing correlations between variables, we analyze the regression with the Enter method. In this method, four independent variables (INF, ENT, IRR, INT) and one dependent variable (Y) are included in the model.

Table 1: Regression coefficient

Model	Unstandardized coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	4.924E-17	0.038		.000	1.000		
INF	0.447	0.038	0.447	11.875	0.000	1.000	1.000
ENT	0.270	0.038	0.270	7.171	0.000	1.000	1.000
IRR	0.441	0.038	0.441	11.731	0.000	1.000	1.000
INT	0.339	0.038	0.339	9.013	.000	1.000	1.000

As a result of the regression analysis, with 4 variables are accepted (enough strong) and 2 variables are rejected (very weak), the authors write the following regression equations:

$$Y = 0.447INF + 0.270ENT + 0.441IRR + 0.339INT$$

It means:

Z Generation Consumer Response to online TVC = 0.447 (Information) + 0.270 (Entertainment) + 0.441 (Irritation) + 0.339 (Credibility).

Regression of variables is satisfactory (sig. <0.05) and positive. Therefore, we can conclude that the following hypotheses are accepted:

H1: There is a positive relationship between the information of TVC online and the reaction of the Z generation.

H2: There is a positive relationship between the entertainment of TVC online and the reaction of the Z generation.

H3: There is a negative relationship between the irritation of TVC online and the reaction of the Z generation.

H4: There is a positive relationship between the credibility of TVC online and the reaction of the Z generation.

From accepted hypotheses, we conclude that INF, ENT, IRR, INT variables are confirmed to have an effect on Y. This shows that values of information, entertainment, and credibility have a positive impact on the behavior of the Z generation consumers to online TVC, the irritation has negative impact to online TVC.

The major result of this study is to show the factors that strongly influence the reaction of the generation Z consumers to online TVC. The contribution of this research is in addition to continuing to affirm the importance

of the factors affecting the reaction of the Z generation to online TVC through quantitative research. It shows that the information and irritation that most strongly influence the reaction of consumers to online TVC.

5. Conclusions

With the effort and scope, this study has achieved the following results. Firstly, systemizing the basic theories of the Z generation, TVC online, review of the scholarly content of previous work such as Chingning Wang's Model of Research, Ping Zhang, Risook Choi, and Michael DiCredita (2002), a model of consumer attitudes toward advertising by Uchenna Cyril, Eze, Chai Har & Lee (2011)...etc. Secondly, doing evaluation and commenting on previous research models, then suggesting a model that is based on the reference with 7 dependent variables. Thirdly, successfully testing a model and shows a 95% reliability of a psychometric test, which indicates that their levels of influence is similar to the reaction of the Z generation consumer to online TVC.

Limitations of study include: restrictions related to the sample because of random sampling method, and the sampling range was small and limited in some areas, so the sample did not meet the requirements of representativeness and generality. The second constraint is the ability to convert and apply international scales in Vietnam. In particular, it was not possible to measure some variables, the third limitation is technical analysis. SPSS analysis software can do exploratory factor analysis (EFA) but not confirmatory factor analysis (CFA) and no advanced analytical techniques like other software. The fourth constraint is the ability to create questionnaire.

However, this study will help business leaders decides the selection criteria to create a better TVC online, suitable to the demand of the Z generation's and organizations' objectives.

This article is a summary of a full research report some details have been skipped. Please contact the authors if you are interested and need more information.

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An Exploration of Gender Differences in the Use of Social Networking Sites and Recommendation for Online Advertising: The Case of Facebook.

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ABSTRACT

The purpose of this study is to explore individuals' usage purposes of social networks sites (SNSs) with a focus on the possible differences between females and males. Online survey was used for data gathering through Facebook. Out of a total number of 265 respondents distributed and The Statistical Package for Social Scientists (SPSS 20.0 version) was used in data analysis. By One way ANOVA test, the study revealed that insignificant differences were found between genders in three of the purposes mentioned: maintaining existing relationships, using for career purposes, following specific agenda. In addition, the study disclosed that men and women are different in using Facebook to make new friends and join Facebook associations. Based on research results, the study suggests choosing gender variables in running Facebook Advertising.

Keywords: Social Network site (SNS); Facebook; Gender differences; usage purposes; Facebook advertising.

1. Introduction

A lot of studies reported about various reasons for social network sites usage, among them are, to update their knowledge on current issues, analysing and exchange of increasing information, sustaining social contacts and relationships and facilitating delivery of academic activities. These, therefore are some of the reasons why social network sites are gaining popularity quickly although the initial idea was sharing photos, personal information, videos, profiles and related content (Ajjan & Hartshorne, 2008).

A study on the gender of users of social networking sites appears to have some impact on the online information behaviour. Globally, male students tend to use internet sources more frequently than females (Li and Kirkup, 2007). In a similar study by Madden and Zickuhr (2011; Nadkarni and Hofmann, 2012) concerning media use, social networking sites emerge to be used by female rather than male students.

It is important to explore individuals' social network usage purposes, usage areas and outcomes to find what motivates them to adopt social networks so rapidly and to use so actively. Various researchers have studied users' purposes in using social networks. According to Joinson (2008), people use social networks to keep in touch with old friends, find the lost contacts, communicate with the like-minded people, join groups with shared interests, organize or join events, view and tag photos, share/ post photographs, play games, update one's own status, see others' status. He also grouped these uses under seven categories which were to keep in touch, passive contact, social surveillance, reacquiring lost contacts, communication, photographs, designing related uses, perpetual contacts and making new contacts. Stutzman (2006) stated that social networks can be used for passing time, learning about other people, maintaining social relations, following changes at the university, class or school

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enrolled.

In the context of electronic of activities, social networks increasingly affect the activities of people, especially business. Facebook advertising is of particular interest to entrepreneurs (especially small businesses). Criteria for running multiple ads based on demographic and geographic variables. But - when was we use the gender? This research aims to identify the differences between men and women in the usage and activities of SNSs, and then there are some suggestions for gender variables when running ads on Facebook.

2. Literature review

Social Network site (SNS), Facebook

Social networks are defined as a body of applications that augment group interaction and shared spaces for collaboration, social connections, and aggregates information exchanges in a web-based environment (BarlettBrag, 2006). Facebook, Myspace, Youtube, Flickr, and Linkedn are the most commonly known social network sites containing similar as well as different features. Facebook is handled among other social networks in this study because of being the most popular and most heavily visited social network website (eBizMBA, 2010). Facebook provides an opportunity to users, to create personalized profiles that include general information like education background, work background, and favorite interests and also to add links and song clips of their favorite bands, post messages on friends' pages, and post and tag pictures and videos, among other things (Zywica & Danowski, 2008).

Facebook is one of the most popular social networking sites which provides users with a platform to create personal profile pages add friends and send messages. Since the company was founded in February 2004 by Mark Zuckerberg, it has become the top ranked social networking site (Kazeniak, 2009; Wikipedia 2010).

Usage purpose

A lot of studies reported about various reasons for social network sites usage, among them are, to update their knowledge on current issues, analyzing and exchange of increasing information, sustaining social contacts and relationships and facilitating delivery of academic activities. These, therefore are some of the reasons why social network sites are gaining popularity quickly although the initial idea was sharing photos, personal information, videos, profiles and related content (Ajjan & Hartshorne, 2008).

People use social network sites for a variety of reasons among which ease of use, allowing rapid updating, analyzing and sharing the continuously increasing information, reflecting on daily life, establishing and maintaining spontaneous social contacts and relationships, supporting informal learning practices with interaction and communication and facilitating delivery of education are the leading ones. Thus, these reasons explain why social network sites are adopted rapidly although they first had emerged with the purpose of sharing photos, personal information, videos, profiles and related content (Mejias, 2005; Ajjan & Hartshorne, 2008).

Purpose of Using SNSs by Gender

A study carried out by Bonds-Raacke and Raacke (2008) indicated that although females and males are both likely to have SNS accounts, the purposes for creating the accounts may vary based on gender. For females, social networking sites are primarily to reinforce pre-existing friendships; for males, the networks also offer a way for sexual activities and making new friends (Bonds-Raacke & Raacke, 2008).

Giles and Price (2008) revealed that females use social media for chatting and downloading music. Rafferty (2009) opined that the primary purposes female use social networks platform are to post pictures of themselves and also to discuss sex issues on these public fora. Merten and Williams (2009), reported that females are more likely to share their personal information on SNSs which is a public platform than their male counterparts. Merten and Williams (2009) emphasized that about 55% of females shared their private issues such as depression, anxiety, and relationship problems on SNSs, while 15% of males shared any personal information besides their hobbies, interests, and friendships. According to Boneva et al., (2001) sending and receiving emails with friends and family was one of the dominant online activities for females, while males tended to spend more time on reading online news, engaging in task-oriented work, or visiting websites of governmental departments.

Accoding to Guzin and Dr Jasemin (2011), the usage purposes of social networks with a focus on the differences

between females and males. The explanatory factor analysis was carried out and individuals' Facebook usage purposes were categorized under four categories; 'maintaining existing relationships', 'making new relationships', 'academic usage' and 'following agenda'. To match the research on the common respondent, 'academic usage' dimension in this research is modified into activities associated with the occupation of the respondent (Career usage). So, 2 items are modified into "I use Facebook to share my job" and "I use Facebook to support my job".

Facebook advertising.

Facebook advertising is an effective and efficient way of advertising for many businesses. If your customers use Facebook then it's probably worth a look. Facebook allows you to select your target audience. Choose who you want to see your ad. Options include Country, City, Age, Gender and interests. It is important not to overdo it with selecting audience demographics.

On the fast growth of Facebook, Moriarty et al assert that by 2007, the smaller but still phenomenally popular Facebook had created a community of 24 million members, comprising mainly college buddies who share photos, favorite music, and personal stories. Considering the ever changing and competitive field of advertising and marketing, advertisers and marketers are seeking new and easy ways to reach their target consumers. Waters (2007) also notes that use of Facebook as a platform of advertising is growing and more business organizations are integrating it into their advertising programmes while Saxena (2010) sees it as a big time monetizing platform for online advertisers; more so, Church S. Akpan, Nduka N. Nwankpa (2015). , points out that Facebook has been very instrumental to the success of several brand campaigns.

3. Methodology

Online survey was used as a data gathering instrument. Statistical Package for Social Scientists (SPSS) was used to analyse the collected data. . The questionnaire was in two sections. Section a gathered information on the frequency of visiting of SNS. Section B found out the purpose of using social networking sites (SNS) while Section C contained demographic data of respondents. The sampling design was based on the combination of convenience sampling method. The survey was distributed people online in Facebook. The second section of survey consisted of 11 items whose responses varied from 1 (Strongly disagree) to 5 (Strongly Agree) in form of a five point Likert type scale. The data are gathered in Vietnam from middle of April to the middle of May in 2018. Out of the total number of 265 copies of questionnaire distributed 265 were retrieved representing 100% response rate which was very much representative of the sample.

In this research, the data analysis use SPSS20.0 software is a major tool to analysis the collected data. The following data analysis techniques are detailed discuss as follows: Descriptive Statistic Analysis, Reliability and Explore factor Analysis, One-way Analysis of Variance (ANOVA). (Hair 1998, Pallant 2001)

Four Dimension (11 items) in this research adapt from Guzin and Dr Jasemin (2011). To match the research on the common respondent, 'academic usage' dimension in this research is modified into activities associated with the occupation of the respondent (Career usage). So, 2 items are modified into "I use Facebook to share my job" and "I use Facebook to support my job". Reliability Analysis and The Cronbach's alpha value of this 11- item scale was found to be (table3). One way ANOVA Test to explore the differences in the use of SNSs.

Demographic

<i>N= 265</i>		<i>Frequency</i>	<i>Percent</i>
Gender	Male	117	44.2
	Female	148	55.8
Occupation	Student	97	36.6
	Free Career	18	6.8
	Employee	103	38.9
	Unemployed	3	1.1
	Other	44	16.6
Age	18-25	128	48.3
	26-35	87	32.8
	36-45	44	16.6
	>45	6	2.3

Table 1: Frequency distribution of genders, occupation, age.

Respondents are consisted of 265 Facebook users (from 10/06/2018-28/06/2018) who responded to the online survey accurately. The result of table 1 has showed that most of the participants were 18 to 25 ages (48.3%) and were Employee (38.9%) and university students (36.66%). As can be seen in Table 1, male is 117 respondents (44.2%) and female is 148 respondents (55.8%). Table 2 indicates that out of 170 respondents (64.2%) use social networking sites more than 5 years.

<i>Time for using Facebook</i>	<i>Frequency</i>	<i>Percent</i>
<i>Below 1 Year</i>	6	2.3
<i>From 1 to 3 Year</i>	9	3.4
<i>From 3 to 5 Year</i>	80	30.2
<i>Under 5 year</i>	170	64.2
<i>Total</i>	265	100

Table 2: Frequency distribution of *Time for using Facebook*

4. Findings

Dimension	Item	Reliabilities analysis	Mean
1. MER	MER 1. I use Facebook to find my old friends.	Cronbach's Alpha: 0.677 Mean : 4.050	4.4453
	MER 2. I use Facebook to contact with my friends.		3.5245
	MER 3. I use Facebook to share information and resources with my friends.		4.1132
	<i>MER 4. I use Facebook to maintain my relations by joining groups (class, school, department and faculty).</i>		4.3509
	MER 5. I use Facebook to follow changes and improvements about my friends.		3.8151
2. MNR	MNR 1. I use Facebook to make new friends.	Cronbach's Alpha: 0.678 Mean : 3.009	2.7925
	MNR 2. I use Facebook to find out people with common interests and to join groups with such people.		3.2264
3. CU	CU 1. I use Facebook to share my job.	Cronbach's Alpha: 0.588 Mean : 3.828	4.1321
	CU 2. I use Facebook to support my job.		3.5245
4. FA	FA 1. I use Facebook to follow the changes occurring in our daily lives.	Cronbach's Alpha: 0.666 Mean : 3.926	4.2528
	FA 2. I use Facebook to keep track of innovations on the agenda.		3.6000

Table 3. Facebook Usage Purposes Items with Mean Scores

According to table 3, as a result of Reliabilities analysis, four factor namely: Maintaining Existing Relationship (MER),

Making New Relationship (MNR), Career Usage (CU) and Following Agenda (FA) with 11 items have Cronbach's Alpha value 0.677, 0.678, 0.588 and 0.666. This scale could be considered as a reliable data collection tool within the context of the study.

	Levene Statistic	df1	df2	Sig.
MER	.555	1	263	.457
MNR	2.980	1	263	.085
BU	3.576	1	263	.060
FA	14.057	1	263	.000

Table 5: One way ANOVA

Table 6: Welch's Test

Table 4. Levene's Test: Test of Homogeneity of Variances

The mean scores attained from the surveys were calculated to determine the purposes of Facebook users in using it. As can be seen in Table 3, Item MER 1 (I use Facebook to find my old friends) was found to be the leading purpose having the highest mean score (mean=4.4453). While MNR 1 (items about the 'Make new friend' factor) has the lowest means score.

To determine if Facebook usage purposes differs in terms of genders, One way ANOVA analysis was carried on the total scores by factors. Based on Levene's Test in Table 4, three factor MER, MNR, BU have p-value insignificant, so that, we use the result in table 5: One way ANOVA of Facebook Usage Purposes in terms of genders. FA factor has significant P-value, so that we use the result in Welch's Test (table 6).

As seen in Table 5, significant differences were found between males and females in their Facebook usage purposes about Making New Relationship. According to these results, Male use Facebook for 'Making New Friend', more than Females. To result also out the standardized difference between the two means, Male = 3.2051, Female = 2.8547.

Table 5. One way ANOVA of Facebook Usage Purposes in terms of gender

Dimension	Gender	N	Mean	P-value	Result
Maintaining Existing Relationship (MER)	Male	117	4.0444	0.904	insignificant differences
	Female	148	4.0541		
Making New Relationship (MNR)	Male	117	3.2051	0.010	significant differences
	Female	148	2.8547		
Career Usage (CU)	Male	117	3.8846	0.435	insignificant differences
	Female	148	3.7838		
Following Agenda (FA)	Male	117	3.9573	0.646	x
	Female	148	3.9020		

Table 6. Welch's Test: Robust Tests of Equality of Means

		Statistic ^a	df1	df2	Sig.
MER	Welch	.014	1	242.930	.905
MNR	Welch	6.958	1	258.911	.009
PU	Welch	.629	1	260.111	.428
FA	Welch	.200	1	215.784	.655

a. Asymptotically F distributed.

Insignificant differences

According to table 6, P-value of FA factor is more than 0.05, insignificant differences between Male and Female in "following agenda" in usage of Facebook.

5. Discussion and recommendation

According to S. Güzin MAZMAN (2011), this research inherits four factors that determine the user's purpose of using Facebook: 'maintaining existing relationships', 'making new relationships', 'academic usage' and 'following agenda'. "Academic usage" is adjusted to "Career Usage (CU)" to suit popular users. S. Güzin MAZMAN. (2011)

found that males use social networks mostly for making new friends and relationships while females use it mostly for finding their old friends and keeping in touch with the existing ones. The reasons for this finding could be explained by the possibility that females tend to hide their identities and personal information to keep their privacy in Internet environment (S. Güzin MAZMAN. (2011). This research result totally agree with S.Güzin MAZMAN. (2011), Vietnamese women seem to use facebook to interact with their friends (M=4.0541), share information, photos, videos and use facebook for career-related activities (M=3.7838) rather than using facebook to make new friends. In contrast, men tend to join hobby groups (gaming, sports...), make new friends than Female. (M = 3.2051). ***With those results, when running Facebook ads, we should select men's variable to reach this target group and approach hobby groups in SNSs. Some man hobby Group categorized: Gym man group, Motorock, Ghita club, Football, Man Sport, game club...***

Furthermore, this study also found that people most generally use Facebook for maintaining existing relationships (M=4.05090). As Facebook gives users an opportunity to communicate with their friends via messages or chat and also, to track their friends' status messages, walls and other profile changes, people tend to benefit from these facilities of Facebook. (S. Güzin MAZMAN. (2011). As people in Facebook, share news from newspapers, TV or magazines and also announce advertisement of innovations, new products or event notifications related to concerts, films, theaters, sport activities etc. One more time, 'following agenda' factor was support by this study result.

The most findings of this study do not support (S. Güzin MAZMAN. (2011) study on females and males in terms of their usage's purpose like: maintaining existing relationships, career usage and following agenda. Based on this study results, Vietnamese people agree that they use Facebook to maintaining Existing relationships, career usage and following agenda but it has insignificant differences between male and female. With this result, when using a facebook advertising tools, the marketer should be prompt in the use of the Gender to reach target customers.

Today, social networks have millions of users whose numbers increase rapidly, promotional tools through the SNSs are also focused. However, reaching the target audience effectively, the marketers need to select the subtle criteria to run ads. Gender is one of the criteria that the marketers consider when running the ad. Therefore, in this topic, the author wishes to explore the differences between men and women in the behavior and purpose of using Facebook. With 256 limited samples, the topic is only identifiable in terms of genders, only in 'making new relationships' factor, males found to having higher scores than females. In 'maintaining existing relationships', 'making new relationships', 'academic usage' and 'following agenda' factors, man and female have Insignificant differences. Hence, future research should investigate the reasons in larger samples.

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Consumers' Attitudes towards Advertising on Facebook in Vietnam

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ABSTRACT

This paper aims to analyze factors affecting consumers' attitudes towards advertising on Facebook in Vietnam. Base on the literature review and previous research, we suggest a model which have five factors affecting consumers' attitude. First, a qualitative research is examined with 10 people to adjust scales to match the Vietnam context. Second, a quantitative study is examined with the sample size $n = 241$. The study's results provide evidences to confirm the factors: Perceived Interactivity; Advertising Avoidance; Privacy and Information that impact on Consumers' attitudes toward advertising on Facebook, but Credibility factor does not impact on Consumers' attitudes. The results of this study show that ads on modern channels such as Facebook are not highly rated by users. Therefore, managers need to adopt appropriate advertising strategies, create competitive advantage in attracting the consumers' attention to the product/service.

Keywords: Facebook; consumers' attitude; advertising.

1. Introduction

Facebook is a social networking site, it is defined as an application that allows users to connect by creating profiles of personal information, inviting friends and colleagues to access that profiles, send messages and connect instantly with others (Kaplan & Haenlein, 2010) [8].

Facebook's the most popular social networking site in the world, with more 2,000 million users*. Facebook is also the most popular social networking site in Vietnam with over 64.5 million participants†. Along with Facebook as the most popular social networking site, advertising on Facebook is interested and developed with many brands.

Online advertising on social networking sites is a popular advertising tool for many enterprises. The purpose of using ads on social networking sites that provides information or update information about a company's products, shares pictures, and creates brand awareness for customers (Nekatibebe, 2012) [13]. There have been many studies of consumer's attitudes toward advertising. However, studies about consumers' attitudes toward online advertising are limited, and almost no study about consumers' attitudes toward advertising on social networking site such as Facebook in Vietnam. So a study about consumers' attitudes toward advertising on a particular social networking site as Facebook should be done.

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* <https://thenextweb.com/facebook/2018/04/05/zuckerberg-facebooks-2-billion-users-assume-data-compromised/>

† <https://thenextweb.com/contributors/2017/07/13/india-overtakes-usa-become-facebooks-top-country/>

2. Literature review and suggested research model

2.1. Advertising on Social networking site

Advertising on social networking sites is the usual form of online advertising on Facebook, Twitter, Yahoo, YouTube, etc., to achieve the goals of product and service communication. One of the main benefits of this type of advertising is that businesses can take advantage of the consumers' personal information to reach their target market effectively (Roberts, 2010) [14].

Individuals have been using social networking sites often provide information about themselves, including: name, age, gender, interests, and work place. These personal information allow businesses to create specific target groups and personalize their ads, access to consumers who may actually be interested in the advertised products or services by better way. Using social networking sites as an advertising tool reduces the cost of advertising and helps spread the advertising to more customers. Thereby making it easy to reach a large group of potential customers for advertised product or service (Todi, 2008) [18].

Today, Facebook is a popular social networking site and it has the largest number of users. It is also a popular advertising tool that advertisers and businesses use for their advertising purposes. The advantage of Facebook is the ability to engage users with written content, images, videos and interactive content to follow and share new products and services information with consumers (Yaakop et al, 2012) [20].

2.2. The relationship between Perceived Interactivity and consumers' attitude toward advertising on Facebook

Perceived Interactivity is an effective way to communicate between individuals, regardless of geographical distance or time (Hadija, 2008) [6]. Technically, Perceived Interactivity occurs when there is human communication action and computer software or any other communication device. Since Facebook is also a social networking site, Perceived Interactivity on Facebook will also affect consumers' attitudes toward advertising on this site. Because Perceived Interactivity on Facebook is good, consumers can actively discuss with businesses about the advertising they post on Facebook.

Perceived interactivity and consumers' attitudes towards advertising on Facebook have a positive relationship (Azeem & Haq, 2012) [1]. It plays an important role that influence positively to attitudes (Yuanxin & Pittana, 2011) [21]. Schlosser, Shavitt & Kanfer (1999) [15] suggest that Perceived Interactivity of consumers to advertising brings valuable information to consumers and reinforce their purchasing decisions.

Hypothesis H₁: Perceived Interactivity impacts on consumers' attitudes toward advertising on Facebook positively.

2.3. The relationship between Advertising Avoidance and consumers' attitudes towards advertising on Facebook

Advertising avoidance includes all consumers' actions who using media devices to reduce exposure of advertising content (Speck & Elliott, 1997) [16].

Cho & Cheon (2004) [2] argue that the barriers in accessing the web display, the confusion of advertising templates, and the negative experience of consumers about online advertising on the Internet creating psychology that avoids advertising. According to Hadija et al (2012) [7], consumers who use social networking sites simply do not want to see ads on their sites. Kelly et al (2010) [10] suggest that Facebook users can avoid advertising who based on previous negative experiences by clicking on an advertising link. This action can lead to the appearance of websites with unintended content or will create computer viruses.

Hypothesis H₂: Advertising avoidance impacts on consumers' attitudes towards advertising on Facebook negatively.

2.4. The relationship between Credibility and consumers' attitudes towards advertising on Facebook

Credibility is defined by Yaakop et al (2012) [20] as the level of consumers' trust for advertising on social networking sites.

According to Goldsmith et al (2000) [5], Credibility affects consumers' attitudes toward advertising, consumers' attitudes towards the brand and consumers' intentions directly and positively. Yuanxin & Pittana (2011) [21] argue that Credibility of Facebook advertising has a positive influence on the attitude of Facebook

users. Consumers keep a more positive attitude towards online advertising as they believe online advertising is reliable.

Hypothesis H3: Credibility impacts on the consumers' attitudes toward advertising on Facebook positively.

2.5. The relationship between Privacy and consumers' attitudes towards advertising on Facebook

Consumers think that a social networking site is a personal website (Kelly, 2008) [9]. So advertising appear on a social networks site without the consumers' consent that are a form of privacy infringement. Privacy is a factor of social networking site awareness. Privacy reflects the extent which a person feels and thinks about advertising posted on their own personal website, such as Facebook.

If consumers concern that their personal information is being exploited in a way they do not know or do not want, they will restrict their personal information. As a result of this restriction, the accuracy of the advertising which target to each specific consumer will be decrease (Krasnova et al, 2009) [11]. Turow et al (2009) [19] suggest that a consumer do not want advertising to appear as if they were reserved for only her and her information is being stored online and is being used by others.

Hypothesis H4: Privacy impacts on consumers' attitudes towards advertising on Facebook positively.

2.6. The relationship between Information and consumers' attitudes toward advertising on Facebook

Ducoffe (1996) [3, 4] conclude that there is a strong positive relationship between the level of information and consumers' attitudes toward advertising. Taylor, Lewin & Strutton (2011) [17] also conclude that information factor impacts on consumers' attitudes toward advertising on social networking site.

Facebook is a part of the Internet and it has full of information from users. However, the quality of the information on Facebook can impact on the perception of businesses for their products or services in advertising which target to a specific consumer. Therefore, the information will be correlated with the attitude of consumers (Yuanxin & Pittana, 2011) [21]. Consumers keep a more positive attitude towards advertising as they believe that the advertising has more information.

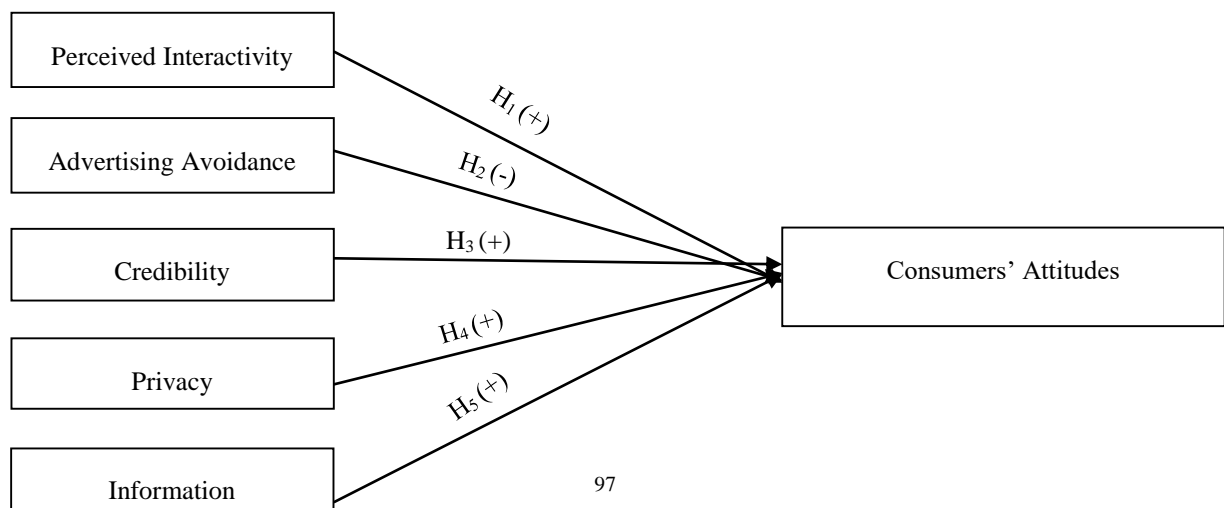
Hypothesis H5: Information impacts on consumers' attitudes toward advertising on Facebook positively.

2.7. The relationship between Information and consumers' attitudes toward advertising on Facebook

The term "attitudes" is described as the way we think and feel about advertising on Facebook. Follow previous studies, two conclusions are made: positive and negative towards online advertising (Kelly et al, 2008; Hadija, 2008) [9, 6]. A positive feeling or a positive way of thinking will create positive attitudes; a negative feeling or a negative way of thinking will create a negative attitude towards advertising on Facebook.

Base on the literature review of the factors affecting consumers' attitudes towards advertising on social networking site by Yaakop et al (2012) [20], Kelly et al (2010) [10], Azeem & Haq (2012) [1], suggested research model is shown in Figure 1.

Fig. 1. Suggested research model



3. Methodology and research data

The research process focuses on two main steps: (1) A qualitative research to adjust scales that match with Vietnam context, (2) A quantitative research to test the scales and the hypotheses.

Base on the literature review of the factors affecting consumers' attitudes towards advertising on Facebook by Yaakop et al (2012) [20], Kelly et al (2010) [10], Azeem & Haq (2012) [1], observed variables are designed. However, these observed variables need to be adjusted to the new context in Vietnam. So a group discussion was held. The group consist of 10 people, 5 women and 5 men among the ages of 18 to 45. Attendees are asked to comment on the meanings of each variable and make suggestions for improvements if needed. After the discussion, twenty-seven observed variables measure the factors affecting consumers' attitudes towards advertising on Facebook are identified. 6 observed variables for Perceived Interactivity, 6 observed variables for Advertising Avoidance, 6 observed variables for Credibility, 5 observed variables for Privacy, 4 observed variables for Information and 4 observed variables for Consumers' Attitude.

Next, the quantitative research is using. The scale of independent variables and dependent variable was designed under Likert 5 (1 - Completely disagree and 5 - Completely agree). Respondents are consumers who are over 18-year-old in Vietnam. Total surveys returned is 300. After filtering and disqualifying that has 59 invalid questionnaires because of answering the same level for all questions or missing information. Since, there are 241 valid questionnaires used as data for this study. For further, descriptive statistics, testing the reliability of the scales (Cronbach's alpha), exploratory factor analysis (EFA), multivariate regression are used to test the scales and the hypotheses.

4. Research results

4.1. Descriptive Statistics by Characteristics

In study sample, there are 81 males and 160 females, accounted for 33.6% and 66.4%, respectively. People with age under 22 years old accounted for the highest proportion 46.1%, of 22-35 years old accounted for 43.6%, over 35 years old accounted for the lowest proportion 10.4%. This also shows that the proportion of respondents participating in this survey with an average age under 35 years old is quite high. 162 respondents had access Facebook more than 10 times a week, accounted for 67%. Respondents access Facebook up to 3 hours / time that accounted for more than 87%. Young people (students or staff officers) often have high levels of Facebook using and exposure to Facebook advertising. People with education level at primary schools accounted for 8%, at junior schools accounted for 6%, at high schools accounted for 5.6%, at college accounted for 71.5% and at post – graduate accounted for 8%. For monthly income, 34.4% at level under 5 million VND (equivalent to 250 USD), from 5 to 10 million VND accounted for 41.1%, from 10 to 20 million VND accounted for 18.9%, from 20 to 30 million VND accounted for 2.7% and above 30 million VND accounted for 2.9%.

4.2. Descriptive Statistics of Variables

From Table 1, the results show: For the Perceived Interactivity, PI6 has the highest average value (3.39), in which the average value of PI3 is lowest (2.59). Thus, consumers believe in Facebook is the lasted way for advertising rather than their attention with advertisement among other content. Related to the Advertising Avoidance, ADA3 has the highest average value (3.25) and the variable with lowest average values is ADA1 (2.81). The results show that customers feel that they are at risk when they click on to a link of advertising. For the Credibility, CRE3 and CRE6 have the highest average value (3.37) and the variable with lowest average values is CRE2 (3.07). This means that with the popular of Facebook, customers think that it is easy to find the service/product they need. For the Privacy, variable with the highest average value is PRI4 (3.31) and the variable with lowest average values is PRI2 (3.17). Thus, consumers feel scare when they log in Facebook with advertisement. For the Information, variable with the highest average value is INF3 (3.39) and the variable with lowest average values is INF4 (3.00). Consumers intend to use the information about product/service from others who use Facebook too. Related to the Consumer's attitude, variable with the highest average value is CONA4 (2.82) and the variable with lowest average values is CONA2 (2.61).

Table 1. Descriptive Statistic Variables

Variables	Content	Min	Max	Mean
Perceived Interactivity				
PI1	Advertisements in Facebook catch my attention among other content	1	5	2.71
PI2	I will visit a product website after being exposed to an ad in Facebook	1	5	3.06
PI3	Advertising on Facebook made me see the product advertised that is very attractive	1	5	2.59
PI4	In my daily activities, I recognize brands as the ones that are advertised in Facebook	1	5	3.07
PI5	It is easier for me to remember brands advertised through other media channels such as TV and radio as opposed to the ones advertised in Facebook	2	5	3.25
PI6	Facebook is the latest way for advertising	2	5	3.39
Advertising Avoidance				
ADA1	I can list the advertisements that I can remember seeing on Facebook	1	5	2.81
ADA2	Advertisement on Facebook tells me things that persons like me are buying or using	2	5	3.21
ADA3	I felt that I was at risk of getting a virus by clicking onto a link in Facebook advertising*	1	5	3.25
ADA4	The position of advertisement is the biggest factor that prevents me from looking at ads on Facebook*	1	5	3.03
ADA5	I am the fan of at least one company or brand in Facebook advertising	1	5	3.14
Credibility				
CRE1	Advertising on Facebook provide accurate information about products/services	1	5	3.24
CRE2	Facebook advertising insults the intelligence of the average consumer*	2	5	3.07
CRE3	Facebook advertising tells me which brands have the features I am looking for	1	5	3.37
CRE4	There are too many exaggerations in Facebook advertising*	2	5	3.10
CRE5	Facebook should be used for promoting commercial products/services	1	5	3.40
CRE6	Because of Facebook advertising, people buy a lot of things that they do not really need	1	5	3.37
Privacy				
PRI1	Advertisements found on Facebook are tailored to your interests	1	5	3.22

PRI2	Facebook advertising keeps me up to date about products/services available in the marketplaces	1	5	3.17
PRI3	Advertising on Facebook discloses the private information	1	5	3.27
PRI4	Users of Facebook will be forced to see the advertisement every time they logged in	1	5	3.31
Information				
INF1	Advertising on Facebook increases the user's knowledge of the product / service	1	5	3.26
INF2	Advertise on Facebook up to date information about products / services	1	5	3.26
INF3	Facebook advertising provides information to users about products that others are using	1	5	3.39
INF4	Facebook ads provide useful information about new products and services	1	5	3.00
Consumers' attitudes				
CONA1	Consumers believe that advertising on Facebook is true	1	5	2.70
CONA2	Consumer believe advertising on Facebook credibility of	1	5	2.61
CONA3	Consumers like ads on Facebook	1	5	2.70
CONA4	Consumers satisfacti of advertising on Facebook	1	5	2.82

*Reverse Scale

4.3. The Cronbach's Alpha and EFA Analysis

The scales is expressed in 25 observed variables. These scales have Cronbach alpha reliability coefficient greater than 0.7 and total correlation coefficient for each variable is greater than 0.4. In particular, Cronbach's alpha of Perceived Interactivity factor is 0.871; Advertising Avoidance factor is 0.848; Credibility factor is 0.774; Privacy factor is 0.882; Information factor is 0.826. Cronbach's alpha of Consumers' attitude is 0.803. The total correlation of each variable is greater than 0.4, indicating that the factors are closely related and reflect the same concept. In addition, if any variable is removed from the factors, the Cronbach's alpha coefficient will decrease so no variable is eliminated at these factors.

For factor analysis at first time, we select all 25 observation variables in the list. The results of the first EFA analysis of factors affecting customers' attitude shows that six factors were extracted at Eigenvalue values greater than 1 (1.312), cumulative achieves 68.971%. This is not consistent with the initial five factors in the research model. First time of factor analysis shows that CRE2 and CRE4 variables belonging to the Credibility factor were separated by a other group factors. This reflects these questions of measuring these two variables not in line with the content of Credibility factor. Remove CRE2 and CRE4 variables, then analyze EFA with the remaining 23 variables at second time. The results of the analysis show that five factors were extracted at Eigenvalue values greater than 1 (1.1312) and cumulative achieves 66.516%. KMO = 0.875 (0.5 < KMO < 1) and Bartlett's Test has Sig. = 0.000.

Table 2. EFA at second time

Variables					
	1	2	3	4	5
PI1	.801				
PI2	.793				
PI3	.780				

PI4	.710				
PI5	.700				
PI6	.668				
ADA1		.794			
ADA2		.761			
ADA3		.729			
ADA4		.724			
ADA5		.670			
CRE1			.840		
CRE3			.840		
CRE5			.822		
CRE6			.814		
PRI1				.829	
PRI2				.774	
PRI3				.745	
PRI4				.712	
INF1					.832
INF2					.751
INF3					.692
INF4					.674

Four observed variables are used to measure Consumers’ attitudes. Table 3 presents the results of the EFA analysis of this research concept. The results show that only one factor was established with Eigen value at 2,526; cumulative achieves 63.140% and KMO = 0.709; Bartlet’s Test has Sig. = 0.000. All loading factors are greater than 0.70.

Table 3. EFA result of Consumers’ attitude

	Component
	1
CONA1	.755
CONA2	.771
CONA3	.804
CONA4	.846

4.4. The Regression Analysis

Table 4. Regression results

Model	R	R ²	ADJ R ²	Std Error
1	.732	.535	.525	.557

Model		Unstandardized Coef		Standardized Coef	T	Sig	VIF
		B	Std Error	Beta			
1	(Constant)	-.823	.254		-3.245	.001	
	X1 (Perceived Interactivity)	.167	.073	.122	2.291	.023	1.422
	X2 (Advertising Avoidance)	.428	.072	.334	5.932	.000	1.601
	X3 (Credibility)	.018	.069	.013	.254	.800	1.294
	X4 (Privacy)	.090	.043	.103	2.090	.038	1.225
	X5 (Information)	.418	.063	.367	6.519	.000	1.569

Model		Sum of Squares	Df	Mean Square	F	Sig
1	Regression	84.068	5	16.817	54.110	.000 ^a
	Residual	73.037	235	.311		
	Total	157.123	240			

The result of regression analysis the Beta of X3 (Credibility) = 0.018 with Sig=0.8 so X3 need to be removed from regression model and analysis again.

Table 5. Adjusted Regression results

Model	R	R ²	ADJ R ²	Std Error
1	.731	.535	.527	.556

Model		Unstandardized Coef		Standardized Coef	T	Sig	VIF
		B	Std Error	Beta			
1	(Constant)	-.794	.227		-3.502	.001	
	X1 (Perceived Interactivity)	.171	.072	.124	2.385	.018	1.422

	X2 (Advertising Avoidance)	.431	.071	.336	6.060	.000	1.601
	X4 (Privacy)	.090	.043	.103	2.094	.037	1.225
	X5 (Information)	.422	.062	.370	6.806	.000	1.569

Model		Sum of Squares	Df	Mean Square	F	Sig
1	Regression	84.066	4	21.016	67.890	.000 ^a
	Residual	73.057	236	.310		
	Total	157.123	240			

4.5. Discussion of Regression Results

Perceived interactivity effects on consumers' attitudes toward Facebook advertising positively with $t = 2.385$, significance = 0.018. This result consistent with previous studies. According to Yaakop et al (2012) [20] and Azeem & Haq (2012) [1], perceived interactivity has the positive influence on consumers' attitudes towards online advertising. This shows that this result is also consistent with the Vietnamese context. Because Vietnam is a country that thrives on information technology, so the interaction between advertising and users through the internet is indispensable.

With the regression result Beta = 0.013, $t = 2.094$ and significance level = 0.037, Privacy effects on consumers' attitude towards Facebook advertising positively. This result corresponds to the research results of Yaakop et al (2012) [20] in Malaysia. Therefore, this result is consistent with the context in Vietnam. Because Vietnam is also an Asian country, there are still notions of privacy that are not open.

Advertising Avoidance is the second most influential to the attitude towards advertising on Facebook. Advertising annoying and annoying to users are important reasons to reduce the effectiveness of marketing. With $t = 6.060$ and a significance level at 0.000, Advertising Avoidance has the opposite effect (reverse scale), and the more restrictive the consumer can get, the more positive attitudes towards advertising on Facebook. This result corresponds to that of Yaakop et al (2012) [20], Kelly et al (2010) [10].

Information has the greatest impact on consumers' attitudes towards Facebook advertising. With the regression result beta = 0.370, $t = 6.806$, significance level = 0.000 indicates that Information of advertising is useful. The results of the study show that information is influential in the positive way as in Ling et al (2010) [12].

5. Conclusions and recommendations

5.1. Conclusions

The results provided evidence to confirm the factors: Perceived interactivity; Privacy; Advertising Avoidance; Information all impact on consumers' attitudes towards Facebook advertising, but Credibility factor does not affect. Among four factors that influence consumers' attitudes towards Facebook advertising, the most influential factor is Information; the second is Advertising Avoidance; the third is Perceived interactivity; Privacy has the lowest effect.

5.2. Recommendations

Given the current context of Vietnam's online business market, competition among businesses is becoming more intense. And the results of this study show that ads on modern channels like Facebook of businesses are not highly rated by users. Therefore, managers need to adopt appropriate advertising strategies, create competitive advantage in attracting the consumers' attention to the product/service.

In order to improve the ability of customers to receive advertisements, advertisers need to convey the full information in a shorter time, from the moment the consumers catch the ad. Moreover, with the advantage of social networking is the information sharing and high update, the template can take advantage of consumers' interest history to recommend the appropriate advertising information to the interests. In addition, attention should be paid to the time and space constraints of advertising on a social networking site, which only provides information that is truly useful to consumers, should not contain excessive information. To increase this factor, advertisers need to pay attention to the frequency and appearance of the social networking interface. A low incidence and appropriate small area will help consumers remember and list the ads when they have seen and increase the likelihood of their attitude towards Facebook ads. With the social networking community's ability to collect consumers' information, the ad templates can show more information about them. This will attract more consumers' attention to the ad.

Therefore, one of the current solutions to increase the perceived interactivity of advertising products or services for users is to hire famous pages of public figures (singers, models, campaigners, athletes...) to post ads to take advantage of the number of viewers. However, this requires high costs. Another solution may be more effective than building your own product or service pages, actively writing review articles and posting product introductions that combine with rating tools and reviews. Such pages will be sponsored by social media sites such as Facebook, and the opportunity to interact with customers is high.

Obviously, there is a tradeoff when using Facebook to advertise. Recommended solution is that businesses should focus solely on updating product/service information on Facebook according to the statistics collected from consumers' browsing history. From the information, businesses continue to design of the advertising that up to date with consumers' favorites.

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Internet Use Behavior of Consumers in Pre-purchase Stage of Online Shopping

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ABSTRACT

The online shopping cannot be considered as an emerging trend because it has become a standard way of doing business. The focus of online retailers' interest should be aimed at the customer behavior during purchasing process. The aim of this paper is to describe and analyze the use of Internet in the pre-purchase stage of customers in selected countries. We found that there is a significant negative correlation between development indicators of nations and the use of Internet in pre-purchase stage of shopping. Furthermore, there is a significant difference between European and Asian consumers using Internet during pre-purchase stage in several observed activities.

Keywords: Online shopping; consumer behavior; pre-purchase stage

1. Introduction

Although the latest financial crisis has reduced shopping budget and the confidence of consumers, evidence shows that online retailing continues to be a valuable alternative or complement to the traditional retailing (Ferencova and Jurkova, 2011). Internet technology has reduced barriers and encourages globalization, helping outreach the online retailing. Over the past years, Internet has developed into a global marketplace for goods and service exchange with round-the-clock availability and worldwide coverage. Global online retail industry has grown significantly and it is possible to notice the flow of international capital pouring into this sector (Slusarczyk and Kot, 2012). The development of e-commerce has incited the increase of trust in security of Internet banking as well as the speed and efficiency of order processing. This is reflected in more favorable prices for consumers (Kot et al., 2012). Convenient and fast shopping is mostly used by young generations since they are increasingly familiar with the use of Internet banking. Online shopping allows customers to perform a variety of activities wherever the Internet is available. Retailers are increasingly offering online platforms and with the use of encrypted, secure gateways they provide risk free and pleasant shopping experience. However, it is important not only to provide such possibilities, retailers should also be able to determine if these possibilities are appreciated by consumers. Thus, they should start with understanding consumer behavior, a process that involves purchasing and using products or services in order to satisfy individual preferences, needs and desires (Solomon et al., 2013). With rapid movement to online selling, sellers cannot use the knowledge gathered from in-store customer behavior, as in-store and online customers are influenced by different motivational factors (Liu et al., 2013). Trenz (2015) differentiated 3 stages of the purchasing process – pre-purchase stage, purchase stage and post-purchase stage. In our paper, we focus primarily on behavior in the pre-purchase stage of Internet users. During pre-purchase stage, the customers inform themselves about the product. Since the pre-purchase stage entails no obligations, customer often changes the vendor in order to find the most suitable deal (Trenz, 2015). In this phase of the purchasing process, users tend to look for information that can help them select the right

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product or seller. Comparison in general plays a certain role at this stage. As consumers can compare products' price and features online with ease and switch stores until they find the most suitable solution for them, e-service quality must become a key factor (Bai et al., 2014). Users would also look for product/brand reviews in order to avoid a purchase of unreliable product or from unreliable source. Hu et al. (2015) claim, that customer loyalty is influenced by online complaining behavior. So, the focus of this paper is aimed at activities executed prior to purchase that can help online sellers to improve their online presence in order to provide the right information and experience to the potential customers.

2. Research objective and methodology

The aim of this paper is to analyze the use of Internet in pre-purchase stage in the selected countries from Europe to Asia. By decomposition of the main objective, two partial objectives were specified. First partial objective was to find the dependence between development indicators (proposed by World Bank) and the use of Internet in the pre-purchase stage. Second partial objective was focused on determination of differences between continents in terms of the use of Internet during pre-purchase stage.

To accomplish the objective of the paper, secondary data from the Consumer Barometer and from World Bank was used. The data in the Consumer Barometer is gathered from two sources: core questionnaire that is focused on the population of adults; customer study that is used to enumerate the total population and is used to weight the results (Consumer Barometer, 2015). The sample consists of nationally representative population, online (by phone or email) and offline (by face-to-face interviews), at the age of over 16 in each country surveyed. The sample consists of nearly two hundreds thousands participants from 44 countries (29 in Europe and 15 in Asia (Consumer Barometer, 2015). Surveys were conducted by TNS Infratest on behalf of Google from January to March 2014 and from January to March 2015. The data from the World Bank was gathered from data section of the World Bank official website (World Bank, 2015). The data gathered from the World Bank's databases consisted of 02 development indicators: GDP per capita and number of Internet users per 100 people. The data was analyzed using software IBM SPSS and Microsoft Excel. To analyze the data, descriptive statistics was used (tables, mean, min, max, standard deviation). In order to test the following hypothesis H1 and H2, Pearson correlation coefficient was used, the hypothesis H3 was tested with the use of F-test and t-test.

It is commonly clear that wealthier countries (with higher GDP per capita) have not only higher rate of Internet users (also perceived as the volume of Internet users per 100 people) but also better access to Internet in terms of quality. As a consequence, in those countries, the use of Internet in the pre-purchase stage will be more frequent compared to countries with a lower level of these indicators. Regretfully, this is only half of the truth. In emerging, fast developing and very dynamic markets of Asia, both consumers and companies willingly use technology, especially Internet technology to leverage their economic distance to developed markets in North America and Europe (Sajda, Lotfollah, 2017). Many researchers see the reason behind this fact in socio-demographic trend and structure called the "golden age" of population growth in Asia. In fact, Western and Eastern consumers are very different in diverse aspects (Spelich, 2017; Ali et al, 2006). Eastern consumers include mainly Chinese, Indian and ASEAN nationals; they are predominantly young, open to Western culture and living style, eager to discover new things, among others, using available technologies to leverage their lack of knowledge and experience and financial resource (income) compared to their Western counterparts (Lopez, Sicillia, 2014; Ward, Lee, 2000). That is the real reason why we must verify scientifically and statistically the fact which is subjectively perceived as a true, according to our common sense. Thus, based on the objective of the paper, the following working hypotheses were formulated:

H1: There is a significant association between GDP per capita and the use of the Internet in order to make a purchase decision in the analyzed countries.

H2: There is a significant association between Internet users per 100 people and the use of the Internet in order to make a purchase decision in the analyzed countries.

H3: There is a significant difference between European and Asian countries in terms of the use of Internet in order to make a purchase decision.

3. Research results and discussions

Based on the objective of the paper, we initially analyzed the portions of the Internet users who executed selected actions in the pre-purchase stage of the buying process. The overview is presented in Table 1. By comparing means, we can see that users mostly use the Internet for product/price/features comparison (51,73%), searching of opinions/reviews/ advice (29,02%) and discovery of relevant brands (26,36%). Users in the pre-purchase stage do not use the Internet to look for redeemed offers, coupons or promotions (11,52%), contact/request with retailers or brands (8,61%) and investigation of financing options (4,66%).

Table 1. The overview of actions performed by Internet users

Action	Mean (in %)	Min (in %)	Max (in %)	Standard Deviation
Get ideas/inspiration online	24,27	10,00	55,00	9,12
Discover relevant brands online	26,36	17,00	54,00	7,13
Compare products/price/features online	51,73	35,00	66,00	6,68
Watch relevant videos online	11,89	5,00	24,00	4,44
Look for opinions/reviews/advice online	29,02	12,00	41,00	6,31
Look for redeemed offers, coupons or promotions online	11,52	5,00	23,00	4,25
Check where to buy/product availability online	19,95	11,00	30,00	4,70
Got locations/directions online	14,68	8,00	33,00	5,43
Make contact/request contact (with brands, retailers) online	8,61	3,00	19,00	2,94
Investigate financing options online	4,66	1,00	15,00	3,18

In order to accomplish one of our partial goals, the determination of association between World Bank development indicators and pre-purchase behavior of Internet shoppers, we tested the following statistical hypotheses:

- H0: There is no correlation between GDP per capita and the use of the Internet in the pre-purchase stage.
- H0: There is no correlation between the number of Internet users per 100 people and the use of the Internet in the pre-purchase stage.

GDP per capita and the Internet users per 100 people belonged to indicators that interested us. We used Pearson correlation to define correlation between those indicators and activities executed during the pre-purchase stage by Internet shoppers. The results can be found in Table 2.

Table 2. The dependence between WB development indicators and use of Internet in pre-purchase stage (H1, H2)

Action	Pearson coefficient	
	GDP per capita	Internet users per 100 people
Get ideas/inspiration online	-0,109	-0,347*
Discover relevant brands online	-0,549**	-0,732**
Compare products/price/features online	-0,363*	-0,091
Watch relevant videos online	-0,637**	-0,703**
Look for opinions/reviews/advice online	-0,622**	-0,391**
Look for redeemed offers, coupons or promotions online	-0,359*	-0,308*
Check where to buy/product availability online	-0,527**	-0,473**
Get locations/directions online	-0,487**	-0,483**
Make contact/request contact (with brands, retailers) online	-0,392**	-0,495**
Investigate financing options online	-0,639**	-0,653**
* significant at $\alpha = 0,05$, ** significant at $\alpha = 0,01$		

It is commonly clear that countries with higher GDP per capita and higher volume of the Internet users per 100 people will use the Internet in the pre-purchase stage more compared to countries with a lower level of these indicators. However, based on our results, we can see that there is a strong negative correlation between World Bank development indicators and actions taken with the use of Internet during pre-purchase stage. Especially, the negative correlation between the Internet users per 100 people and its use during the pre-purchase stage should be a subject of further discussion. There is presented strongest observed negative correlation between the Internet users per 100 people and use of the Internet in the pre-purchase stage, concretely the discovery of relevant brands online (Pearson coefficient -0.732 for Internet users per 100 people) and the watching relevant videos online (Pearson coefficient -0.703 for Internet users per 100 people). Alternatively, we see two cases of the strongest observed negative correlation between GDP per capita and use of the Internet in the pre-purchase stage, concretely watching of relevant videos online (Pearson coefficient -0.637 for GDP per capita) and investigation of the financing options online (Pearson coefficient -0.639 for GDP per capita). It might be

assumed there are limitations in the data that distort the results. In addition, further research of conditions that caused calculated results should be conducted in order to discover the cause of the negative correlation or other variables that might influence the use of the Internet in the pre-purchase stage.

Based on the available data and calculated statistics, we reject the null hypothesis, except the case of getting ideas/inspiration online (Pearson coefficient -0,109 for GDP per capita) and the case of comparison of products/price/features online (Pearson coefficient -0.091 for Internet users per 100 people) and accept both alternative hypotheses. So, there is a significant correlation between World Bank development indicators and the use of the Internet in order to make a purchase decision in analyzed countries.

The second partial goal of our paper was focused on a comparison of the Internet use in pre-purchase stage between European and Asian countries. In order to determine the difference, we tested the following hypotheses:

- H0: There is no significant difference between average values of European and Asian countries in the use of the Internet in order to make a purchase decision.

First, we used two-sample F-test for variances in order to determine if the variance is equal. The results can be found in Table 3.

Table 3. Results of F-test two-sample for variances action

Action	F	p-value
Get ideas/inspiration online	0,15	0,000**
Discover relevant brands online	0,26	0,001**
Compare products/price/features online	0,45	0,034*
Watch relevant videos online	0,36	0,010**
Look for opinions/reviews/advice online	1,05	0,475
Look for redeemed offers, coupons or promotions online	0,63	0,14
Check where to buy/product availability online	0,51	0,063
Get locations/directions online	0,42	0,024*
Make contact/request contact (with brands, retailers) online	0,12	0,000**
Investigate financing options online	0,22	0,000**
* significant at $\alpha = 0,05$, ** significant at $\alpha = 0,01$		

- Based on the results received in Table 3, we used two-sample T-test assuming equal/unequal variances. As the results in Table 4 display show, the statistically significant difference between European and Asian countries during the pre-purchase stage with the use of the Internet was observed in:
 - Discovery of relevant brands online,
 - Watching relevant videos online,
 - Looking for redeemed offers, coupons or promotions online, and
 - Getting locations/directions online.

In those four cases, we rejected the null hypothesis from c) and accept the alternative hypothesis. In the remaining activities, we could not reject the null hypothesis from c), assuming there is no statistically significant difference between European and Asian countries in the use of the Internet in order to make a purchase decision. However, the actions where the differences were noticed should be the subject of further research. It can be beneficial in determination of shopping preferences based on the geographic, demographic, behavioral or psychographic features of the Internet users as well as the development of online environment on European and Asian markets.

Table 4. Results of two-sample t-test

Action	T-test assuming equal variances		T-test assuming unequal variances	
	T Stat	p-value	T Stat	p-value
Get ideas/inspiration online	-	-	-1,1	0,287
Discover relevant brands online	-	-	-3,69	0,002*
Compare products/price/features online	-	-	-1,01	0,322
Watch relevant videos online	-	-	-2,92	0,009*
Look for opinions/reviews/advice online	-2,02	0,05	-	-
Look for redeemed offers, coupons or promotions online	-2,03	0,049*	-	-
Check where to buy/product availability online	-1,13	0,263	-	-
Get locations/directions online	-	-	-2,81	0,011*

Make contact/request contact (with brands, retailers) online	-	-	-1,52	0,147
Investigate financing options online	-	-	-1,6	0,128
* significant at $\alpha = 0,05$, ** significant at $\alpha = 0,01$				

Given the all above mentioned results we come to the following conclusions:

- There is a statistically significant negative correlation between GDP per capita and the use of the Internet in the pre-purchase stage (except the case of getting ideas/inspiration online) and between the Internet users per 100 people and the use of the Internet in pre-purchase stage (except the case of comparison of product/price/features online) in European and Asian countries.
- There is a statistically significant difference between European and Asian countries in discovery of relevant brands online, watching relevant videos online, looking for redeemed offers, coupons or promotions online and getting locations/directions online. In the other cases, there was not found a statistically significant difference between European and Asian users when using the Internet in the pre-purchase stage.
- The results might be affected by several limitations: the number and composition of countries included in our sample, use of aggregated data and the accuracy of data from both databases. Moreover, as Clark and Avery (1976) discuss in their paper, there are certain bias when using correlation analysis on aggregated data. It is incorrect to assume that relationship existing at one level of analysis will be the same at another level. This limitation might be overcome by gathering additional data about users on more granular level.

4. Managerial implications and conclusions

The results of the study can be used by marketing and sales managers and directors of companies that sell products online to Europe and Asia. In case there was a real causality (not only correlation) between variables tested in working hypotheses H1 and H2, it would mean the less developed markets are more suitable for developing online business, thus are more suitable for this kind of business. Companies that are willing to take this risk can try to reach potential customers on these markets and take over the market share from companies that are not attracted in these markets. In case these efforts are successful, companies can gain a competitive advantage as a result of being established on the market before competitors. Moreover, the results obtained by testing hypothesis H3 didn't show a significant difference between European and Asian online users. This means that companies that are focused on selling online on both continents are not forced to distinguish their online promotion activities. We assume these companies should focus more on cultural differences instead of geographic ones. These implications are valid in cohesion with limitations of this study.

Online shopping has become a regular purchase form in today's business (Nguyen Hoang Tien, 2017). As the online and offline shopping differs, sellers cannot rely on data on offline shopping behavior anymore. The aim of this paper was to analyze the use of the Internet in the pre-purchase stage in the selected countries in Europe and Asia. The results of this paper show that there is a significant negative correlation between selected World Bank development indicators (GDP per capita, Internet users per 100 people) and the use of the Internet in the pre-purchase stage. Moreover, we have found that there is a significant difference between European and Asian countries in the use of Internet during pre-purchase stage in the following observed activities: discovery of relevant brands online, watching relevant videos online, looking for redeemed offers, coupons or promotions online and getting locations/directions online. There was not found any significant difference in the other observed activities. The results can be used by managers in the field of marketing and sales as a basis for the composition of online presence, online marketing campaigns and online reputation management for the companies that sell products online and offline in Europe and Asia.

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The Influence of Risk Perception on Online Shopping Intention

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ABSTRACT

Online shopping as well as e-commerce have been widely expanding in a large number of countries over the world, including Vietnam. In comparison with traditional methods, it brings many benefits but also contains various limitations for consumers. Consumers have perceived numerous risks when shopping online and have impacted on their buying intention. Thus, various domestic and overseas studies have been researched on perceived risks and its influences on online shopping intention. Nevertheless, there were many differences between researches' conclusion about kinds of perceived risks and their impact ability to purchasing intention. As such, this research is aimed at verifying all kinds of perceived risks introduced by previous studies in the context of Vietnam, a case in Hanoi, to find out kinds of perceived risks that affect on online shopping intention and evaluate its impact ability. By using quantitative method, the research used Cronbach's Alpha, EFA (Exploratory Factor Analysis) and multiple linear regression analysis to examine the model and hypotheses. The results indicate that Information Security Risk has strongest impact on online shopping intention; respectively following are Delivery Risk, Time Risk, Psychological Risk, Vendor's Fraud Risk and Product Performance Risk. Conclusions together with suggestions are offered to help organisations and enterprises enhancing their online business efficiency and prestige

Keywords: Online shopping; online shopping intention; perceived risks; online shopping risks

1. Introduction

Online shopping on social networks and e-commerce has been growing rapidly in many countries around the world, including Vietnam. According to a research conducted by Nielsen in 2016, there are 46% Vietnamese customers said that they had bought a product or service through mobile devices in the first haft of the year, 92% internet users in Ho Chi Minh city and Hanoi experienced online shopping activity. In addition, the growth rate of the e-commerce market is quite good: revenue in 2015 reached \$ 4.07 billion, increased about 37% compared to the revenue in 2014 with the most popular goods and services purchased online are clothing, footwear and cosmetics (Vietnam E-Commerce Report 2015 by the Ministry of Industry and Trade). However, the value that online shopping contributes to our country is low when compared with other countries in the region and in the world. This result might be because Vietnamese are still cautious about online shopping, they usually buy low value products and services only. In addition, there are also a number of explanations that consumers have not

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participated in online shopping yet, such as: the sellers are not reliable, the concept of buying at brick and mortar is considered much more convenient and cheaper than online shopping, the fear feeling of disclosure of personal information,...There are also the risks that customers feel before making a decision to take part in online shopping activity.

The activity that promote online shopping, including e-commerce and business-related social networking, plays an important role for businesses doing business in that field in particular and for the economy in general. With purpose to achieve that activity, the first and foremost thing to do is building trust among customers, reducing and eliminating the major risks that they experience before making an online shopping decision. Therefore, it is necessary to identify the risk perceptors that affect the consumer's online shopping intentions. This study will delve into all the risk aspects that previous studies have used (including 9 aspects) emerging in consumer perception when they pop up the intention of online shopping. For more detailed, the paper bases on the knowledge in terms of Technology acceptance model (TAM) developed by Davis (1986) is a simple model that has been used by academics for studying user acceptance of new technologies, and recently for studying user acceptance for online shopping; Theory of Planned Behavior (TPB) developed by Ajzen (1991) which has been applied for predicting behaviors, Online Shopping Acceptance Model (OSAM) developed by Zhou et al. (2007) primarily for consumers' adoption of online shopping and other relating researches. From there, the study also gives some suggestions from the approach of business administration for individuals and businesses which doing online business.

2. Conceptual framework and research hypothesis

2.1. Risk perception

The concept of risk perception was first introduced by Bauer (1960) in the area of consumer behavior, which is defined as the uncertainty of consumers in the purchase of the products/ service and must have the responsibility for the consequence from this decision. He also noted that individuals can only respond and deal with risk when they perceive it in a subjective way, and only the perception influences the decision of the consumer. Perceived risk refer to the nature and amount of risk professed by a consumer in contemplating a particular purchase decision (Cox & Rick, 1964). One of the most common definitions of perceived risk is the perception of ambiguity and subjective expectation of loss (Sweeney, 1999). Some researchers also agree that perceived risk is a double factors based on consumer perceptions of the degree of the success or failure (or uncertainty) associated with uncertainty (or possible consequences) (Cox & Rich, 1964; Kim & Lennon, 2000). Schiffman & Kanuk (2000), who has the same view, argue that risk perception is the uncertainty that consumers have to deal with when they can not forecast consequences of their purchase decisions.

Thus, many studies have given definitions of risk perception but in general the view on risk perception of consumers agree that: Risk perception is a perception of consumers related to the uncertainty about unexpected consequences in the buying decision process.

2.2. Online shopping intention

Intention refers to the extent of conscious effort that an individual will follow to approve his/her behaviour; intention is also regarded as one of the motivational components of behaviour (Ajzen, 1991). Purchase intention will occur when an individual plan to buy a particular commodity or service in the future. In the context of E-Commerce, online purchase intention can be defined as a situation when a person desires to buy a particular product or service through the website (Chen, Hsu & Lin, 2010; Fygenson & Pavlou, 2006).

Since the advancement of information technology, there have been models established by academics to determine factors that mediate the susceptibility of users or consumers towards new information systems. One of the most widely studied and applied models is the Technology Acceptance Model developed by Davis in the 1980s. His work showed that perceived usefulness (PU) and perceived ease of use (PEOU) are the factors that determine the attitude towards new information systems that in turn affect the behavioural intention. This intention would lead to actual use of the system, which is considered as a successful launch of the new information system (Davis, 1985). Since its establishment, the TAM has been widely applied as a basis for predicting user acceptance of new technology in various sectors, for instances, mobile phone adoption (Kwon & Chidambaram, 2000), internet usage (Moon & Kim, 2001), e-learning (Park, 2009; Al-Adwan et al., 2013; Sharma & Chandel, 2013), mobile-banking (Lule et al., 2012), etc. Lim and Ting (2012) applied TAM to investigate the adoption behaviour of online shopping customers and found that both PEOU and PU would have positive effect on attitude towards online shopping.

Fishbein and Ajzen developed the Theory of Reasoned Action (TRA) to explain how different kinds of behaviour were predicted by the concerned behavioural intention, which was further determined by the attitude

towards the behaviour and subjective norm. Ajzen later extended TRA to the theory of Planned Behaviour (TPB) by adding the perceived behavioural control. Attitude towards a certain behaviour was said to be related to the behavioural beliefs, which linked the behaviour to the perceived outcome and certain attributes like cost incurred. Subjective norm was said to be related to the normative beliefs that were concerned with the likelihood that important individuals or group members would approve or disapprove this certain behaviour. The perceived behavioural control was said to be related to the control beliefs that were concerned with how easy or difficult the behaviour was and how the behaviour was facilitated.

Zhou et al. (2007) developed a reference model for explaining customer acceptance of online shopping through a survey of related studies. Their in-depth literature review revealed that an extensive number of factors have been proven by empirical studies to influence customers' online shopping intention and in turn the actual online shopping behaviour.

Online shopping behaviour has been said to be directly associated with the behavioural intention in TAM, TPB and OSAM. However, continuous online shopping intention is to be distinguished from first time shopping intention. First time shopping can be either shopping at a new website or shopping at online websites instead of traditional bricks-and-mortar stores. Zhou et al. also identified that past online shopping satisfaction had a greater effect on continuous buying intention, while innovativeness and perceived usefulness had a greater moderating effect on first time online intention. In OSAM, online experience, consumers' innovativeness, attitude towards online shopping, normative beliefs and satisfaction are positively associated with online shopping intention, while shopping motivation and shopping orientation have an influence on online shopping intention.

2.3. The aspects of risk perception affect the intention of online shopping

Risk perception is a multidimensional phenomenon (Cunningham, 1967) and each of those dimension is cost estimate at different view in the future, contributing to the perceived value of the product (Sweeney & Soutar, 1999; Sweeney, Soutar, & Johnoson, 2001). Though an overview of national and international research, the author found out that there has been not any study has assessed the overall dimension of risk perception. Each study selected several aspects that satisfy the resources, context, subjects and scope of the research. In addition, there is a contradictory that a affirmative dimension that influences the intention of online shopping in one study but is negated in other studies. The latest cosmetic research by Ha Ngoc Thang & Nguyen Thanh Do (2016) on the factors affecting the online shopping intentions of Vietnamese consumers just examined only two aspects of risk perception are financial risk and product risk. In a more in-depth study of risk perception, Bui Thanh Trang (2013) has pointed out four types of risk perceptions that affect on online shopping intentions: financial risk, product risk, information security risk, fraud risk of the vendor. In terms of foreign studies, Berteau (2004) suggested that there are three types of risk perceptions: financial risk, product risk and time risk, while Bo Dai, Sandra Forsythe and Wi-Suk Kwon (2013), three types of risk perception affecting in online shopping intention are product risk, financial risk and information security risk, and Hashim (2015) mentioned three concepts are financial risk, product risk and delivery risk. However, according to Shannon-Jane Ward (2008), Mohammad (2012) and Chiu Chen (2015), for online shopping perspective, people may experience six basic types of risk perception which are product risk, financial risk, physical risk, social risk, psychological risk and time risk. The research conducted by Emad Masoud (2013) evaluated the effect of six types of risk perceptions are: financial risk, product risk, delivery risk, informational security risk, time risk, and social risk; and there are only the four first types of those risk perceptions have negative effect on online shopping behavior, while the risk of time and social risk do not have such kind of affect.

In conclusion, basing on the theory of previous studies, the author expects to develop the most comprehensive study of all aspects of risk perception and identify how each type of risk perception affect on online shopping intention. The proposed research model, through literature review, there are nine types of risk perception which are Financial risk, Product risk, Time risk, Physical risk, Psychological risk, Social risk, Delivery risk, Information security risk and Vendor's Fraud risk and all types of risk perception are shown in Figure 1.

Financial risk perception is a perception of the potential for financial loss from online shopping behavior (Jacoby & Kaplan, 1972), and it is also a perception of possibility of losing money through online purchase (Horton, 1984). In particular, the phenomenon of credit card fraud and financial loss are considered two of the top concerns of online consumers (Sweeney & Johnson, 1999). In addition, financial risk includes shipping charges which customer have to pay mentioned by Turner (1999) and hidden charges pointed out by Krantz (2003). On the other hand, the purchase of problematic or unsatisfactory products from unreliable suppliers is also likely to increase the cost of online purchases (Lim, 2003). Hypothesis H1 is given:

H1: Financial risk perception has negative effect on online purchase intention.

Product risk perception is perception of possibility of customers' expectations for product/ service are not

fulfilled after having purchasing (Horton, 1976). Product risk occurs when the product/ service does not work as expected and the buyer can not evaluate the real quality of the product (Bhatnagar, Misra & Rao, 2000). When having online shopping activity, buyers rely on only limited information and images displayed on website so that they can not feel product directly (Jarvenpaa, Noam & Lauri, 1999) which leads to the uncertain feeling when consumers have intention of online shopping. Hypothesis H2 is given:

H2: Product perception risk has negative effect on online purchase intention.

Time risk perception is perception about time that the buyer use for buying product (Griffin & Viehland, 2010). According to Sim & Su (2012), time perception risk involves the waste of time, access ability or effort to make any purchasing decision and when purchased product needs to be repaired. In fact, while shopping online, consumers might waste their time in researching product information. Other time risks also include the inconvenience that buyers deal with during online transaction, navigation and order procedure, as well as delays in purchasing products (Forsythe, Liu, Shannon & Gardner, 2006). Hypothesis H3 is given:

H3: Time risk perception has negative effect on online purchase intention.

Physical risk perception is perception about the possibility and importance that consumers associate with a product that has negative effect on their health (Lim, 2003). When having online shopping, consumers lack interaction with other leading to physical risks. According to Swinyard & Smith (2003), there is not any sales assistant who can tailor product information based on the specific needs of consumers; therefore, there might be a risk or harm when consumers misuse product. Hypothesis 4 is given:

H4: Physical risk perception has negative effect on online purchase intention.

Psychological risk perception is a perception about the possibility and importance that the individual is stressed by his buying behavior (Lim, 2003). Internet shopping as well as traditional shopping will cause a sense of disappointment and shame to the buyers when the product that they have bought did not match with their own image (Forsythe & Shi, 2003). When having online shopping, consumers might have uncomfortable feeling due to disclosure of personal information, which can be described as a psychological risk (Forsythe & Shi, 2003). Hypothesis H5 is given:

H5: Psychological risk perception has negative effect on online shopping intention.

Social risk perception is a perception about possibility and importance of the perception of others be affected by an individual's online shopping behavior (Lim, 2003). Social risk includes the possibility of online shopping products can influence the way that others think about buyers as well as their buying behavior will not be accepted by other members of society. The way that not deliver holiday presents in time might cause negative effect on social interactions with friends and lead to social risk that online shoppers can feel (Mardesich, 1999). Hypothesis H6 is given:

H6: Social risk perception has negative effect on online shopping intention.

Delivery risk perception is a perception of the loss during delivery which relate to lost or damaged goods, or shipping wrong product after customer finished an online transaction procedure (Zhang, Tan, Xu, & Tan, 2012). Customers may have worry feeling about late delivery or they even not receive the product. Hypothesis H7 is given:

H7: Delivery risk perception has negative effect on online shopping intention.

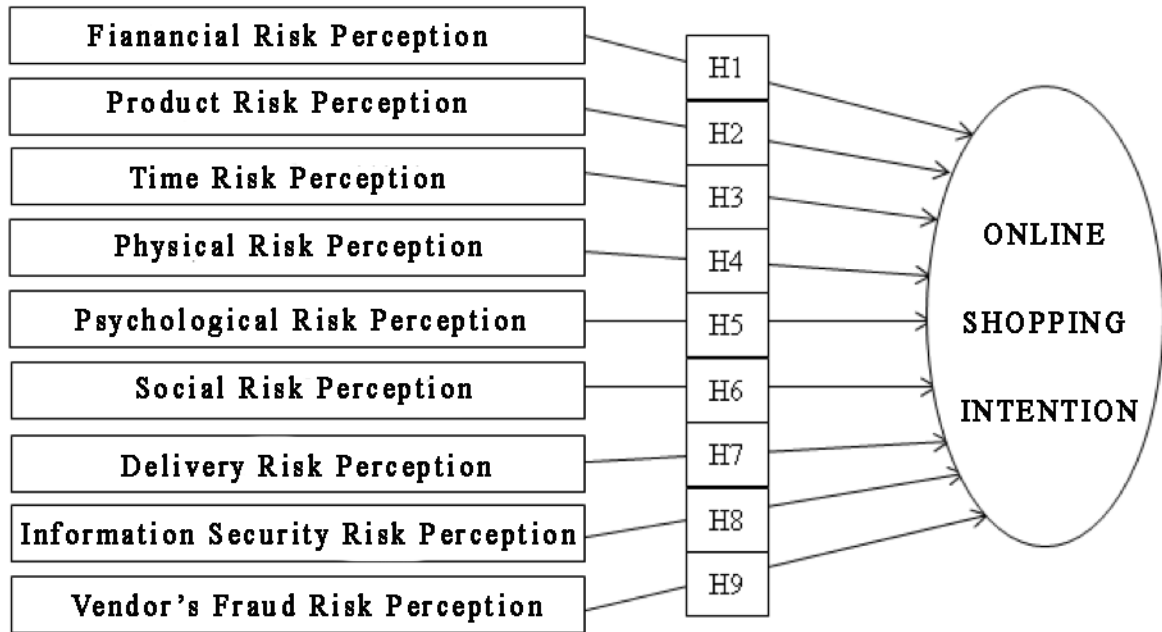
Information security risk perception is a perception of possibility of personal information being lost, disclosed, or unsecured during online transaction (Garbarino & Strahilevitz, 2004). The risk of disclosure of personal information while shopping online is being concerned increasingly (Drenman, 2006). There are a number of people use unauthorized information without the allowance of the information owner, which raises concerns about the buyers information stolen while they provide personal information such as bank account number, address, phone number, email when buying goods online. Hypothesis H8 is given:

H8: Information security risk perception has negative effect on online shopping intention.

Vendor's Fraud risk perception is a perception of buyers about the dishonest of the seller, such as inaccurate information about product quality, promotion policy, customer preferences; failure to comply with post-sale commitments; the ability of buyers to find a pace to deal with a dispute (Mc CorKle, 1990). Hypothesis H9 is given:

H9: Vendor's Fraud risk perception has negative effect on online shopping intention.

Fig. 1. Research Model



Resource: Proposed by authors

3. Research methodology

The study was conducted in two steps: preliminary investigation and formal investigation. In the preliminary investigation, the authors used qualitative research, conducted in-depth interviews, and in-depth interviews with a number of experts and clients who had previously shopped online to adjust the scale and complete the questionnaire to suit the situation in Hanoi, Vietnam. Note that the questionnaire was based on a literature review, and the scales were checked by previous studies, so the authors only inherited and adapted the words for suitable purpose. The questionnaire consists of three parts. The first part measures consumers' perceptions of risk when shopping online. According to the study of Bui Thanh Trang (2013), there are the financial, product and fraud of the seller risk; time risk and physical risk of Hassan et al. (2006); social risk and psychological risk are correlated from the scale of Corbitt & Thanasankit (2003) and Hassan et al. (2006); delivery risk by Hashim Shahzad (2015); information security risk is the combination of Bui Thanh Trang (2013) and Chiu Chen (2015). The second part measures online shopping intentions, using the scale of Bui Thanh Trang (2013). Components of the model, including risk perceptions and online shopping intentions, were measured using a Likert scale of 5, with 1 being very disagreeable and 5 very agreeable. The third section is information on demographics and online shopping behavior, including questions about gender, age, education, income and years of online shopping, using the nominal scale.

Then, the completed questionnaire was sent to the official quantitative survey in Hanoi from April 15, 2017 to May 1, 2017. Research subjects are Internet users, who have experienced online shopping, they belong to all range of ages, places of living, income, different levels. Sample subjects are customers over 18 who have experienced online shopping. The measurement model consists 34 observations, based on the principle of a minimum of 5 elements per measurement variable (Bentler & Chou, 1987), the minimum sample size required is $34 \times 5 = 170$, then, the chosen sample size is 200. The questionnaires are sent directly to respondents and via Internet with random sampling method combines convenient sampling. The result collected 177 valid responses, with response rate of 88.5%. The characteristics of the sample in Table 1 show that there are 78% females, 65.5% consumers are from 18 to 36 years old and 66.7% of consumers have two-year experience in online shopping. Data processing is performed through the following steps: (i) verifying the scale and reliability of measurement variables by Cronbach's Alpha coefficient and value by Exploratory Factor Analysis (EFA); (ii) linear multiple regression analysis for model testing and research hypothesis.

Table 1. Characteristics of samples

Sample size (n=177)		Frequency	Percent (%)
Sex	Male	39	22,0
	Female	138	78,0
Age	From 18 to 25	49	27,7
	From 26 to 30	26	14,7
	From 31 to 35	41	23,2
	Over 36	61	34,5
Average income per month	Under 3 million	36	20,3
	From 3 to 6 million	81	45,8
	From 6 to 10 million	45	25,4
	Over 10 million	15	8,5
Education level	Graduated High school	11	6,2
	Graduated college/ professional high school	20	11,3
	Graduated university	83	46,9
	Graduated post- university	59	33,3
	Other	4	2,3
Number of years participating online shopping	Under 1 year	67	37,9
	From 1 to 2 years	51	28,8
	Over 2 years	59	33,3

Resource: Proposed by authors

4. Results

4.1. Verification of the scale

Using SPSS 20.0 software, the author drew the results of reliability analysis of the scale (Cronbach Alpha) and the results of the Exploratory Factor Analysis (EFA), which suggested that the removal and consolidation of a number of observations to help the scale more accurately assess to the concepts.

The first step is conducting a Cronbach's Alpha test to examine the reliability of the measurement. This step is used to delete unreliable variables, avoid the case of that variables make unrealistic factor when analyzing Exploring Factor Analysis EFA (Churchill, 1979). The Cronbach's Alpha coefficient must be greater than 0.6 and the correlation coefficient of each scale must be greater than 0.3 (Hair et al., 2006). The result in Table 2 shows that all scales of risk perceptions and online shopping intention satisfy the criteria. Thus, all scales of factors are reliable and continued to be used to analyze upcoming factor.

Table 2. Summary of Reliability Statistics and minimum Corrected Item-Total Correlation

Scale	Number of Items	Cronbach's Alpha	Minimum correlation coefficient
Product risk (SP)	4	0,832	0,605
Finacial risk (TC)	3	0,700	0,473
Time risk (TG)	3	0,697	0,438
Physical risk (THC)	3	0,819	0,659
Social risk (XH)	3	0,887	0,664
Psychological risk (TL)	3	0,794	0,579
Delivery risk (GH)	3	0,738	0,472
Information scurity risk (BMTT)	4	0,891	0,721
Fraud of seller risk (GLNB)	4	0,874	0,641
Online shopping intention (YD)	4	0,831	0,569

Resource: Research of authors

After testing Cronbach's Alpha, the next step is to analyze the EFA exploration factor for a preliminary evaluation of the uniqueness, convergence value, and discriminant value of the scale. The EFA exploratory factor analysis was performed using the Principal Component Analysis method and the Varimax rotation to group the factors. With a sample size of 177, the factor loading of items must be greater than 0.5; The variables converge on the same factor and distinguish it from others (Hair & ctg, 2009). In addition, the KMO test coefficient must be in the range of 0.5 to 1. After analyzing the first factor, the TC3 variable is deleted because it does not satisfy the required conditions, take a second analysis with 33 items.

The analysis results in Table 3 show that all loading factor of the items are greater than 0.5; Bartlett test with significance level Sig. = 0.000 with coefficient KMO = 0.861. All 33 variables after EFA analysis were extracted into eight factors with values of Eigenvalues greater than 1 and Variance Explained greater than 50%. The remaining eight factors from the nine factors are due to the observed variables of Financial Risk and Physical Risk that converge on one factor, and this factor is named Physical Risk (VC). The research model changes into 8 independent variables, with the new variable Material Risk, and one dependent variable, used for the linear regression analysis and subsequent hypothesis testing.

Table 3. EFA analysis about online shopping risk perception

Items		Factor								
		1	2	3	4	5	6	7	8	9
Online shopping intention (YD)	YD3	0,878								
	YD1	0,872								
	YD4	0,850								
	YD2	0,839								
Information security risk (BMTT)	BMTT1		0,808							
	BMTT3		0,807							
	BMTT2		0,778							
	BMTT4		0,750							
Product risk(SP)	SP1			0,832						
	SP3			0,805						
	SP4			0,747						
	SP2			0,715						
Physical risk(VC)	VC1				0,779					
	VC2				0,749					
	VC3				0,720					
	VC4				0,535					
	VC5				0,509					
Vendor's Fraud Risk (GLNB)	GLNB4					0,790				
	GLNB3					0,783				
	GLNB2					0,780				
	GLNB1					0,613				
Social risk (XH)	XH3						0,905			
	XH2						0,895			
	XH1						0,736			
Psychological (TL)	TL1							0,793		
	TL2							0,763		
	TL3							0,683		
Delivery risk(GH)	GH2								0,720	
	GH3								0,713	
	GH1								0,674	
Time risk (TG)	TG3									0,785
	TG1									0,714
	TG2									0,580

Resource: Research of authors

4.2. Regression analysis and hypothesis testing

First, use Pearson correlation analysis to analyze the correlation between quantitative variables. At a significance level of 5%, the correlation coefficients show that the relationship between the dependent variable and the independent variables is statistically significant (Sig value is less than 0.05). The magnitude of the correlation coefficients ensures that there are no hyperbolic phenomena. Therefore, it is possible to use other statistics to test the relationship between variables.

Next, conduct a linear multiple regression analysis of the relationship between risk factors that influence online shopping intentions. As shown in Table 4, the adjusted R² coefficient is 0.541, indicating that the linear regression model was constructed in accordance with the data set of 54.1%. The results of the regression indicate that the six independent variables are: Product Risk, Psychological Risk, Time Risk, Information Security Risk, Vendor's Fraud Risk and Delivery Risk have The beta-denominated Beta is -0.138; -0.165; -0,172; -0.338; -0,165 and -0,201 with significance levels less than 0.05. Thus, the hypotheses H2, H3, H5, H7, H8, H9 are accepted. Social Risks, Physical Risks and Social Risks has Sig. are 0.245 and 0.080 which are greater than 0.05, so the hypotheses H1, H4 and H6 are rejected.

Based on the Beta, it can be concluded: Information security Risk have the greatest impact on online shopping intentions; then to Delivery Risk, Time Risk, Psychological Risk, and Fraud from seller Risk. Product risk is the worst influencing factor for online shopping. The linear regression model obtained is as follows:

$$YD = 8,061 - 0,381 * BMTT - 0,201 * GH - 0,172 * TG - 0,165 * TL - 0,165 * GLNB - 0,138 * SP + e$$

Table 4. The regression results of risk perception factors affect on online shopping intention.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	8,061	0,313		25,716	0,000		
Product Risk(SP)	-0,138	0,068	-0,112	-2,029	0,044	0,663	1,508
Social Risk (XH)	-0,087	0,075	-0,063	-1,165	0,245	0,706	1,416
Psychological Risk(TL)	-0,165	0,075	-0,122	-2,210	0,028	0,667	1,499
Time Risk (TG)	-0,172	0,083	-0,115	-2,068	0,040	0,661	1,512
Information security Risk (BMTT)	-0,381	0,072	-0,306	-5,274	0,000	0,603	1,658
Physical Risk (VC)	-0,171	0,097	-0,113	-1,760	0,080	0,495	2,020
Vendor's Fraud Risk (GLNB)	-0,165	0,076	-0,128	-2,165	0,031	0,585	1,709
Delivery Risk (GH)	-0,201	0,084	-0,144	-2,406	0,017	0,567	1,763
Dependent Variable: Online shopping intention (YD)							
Adjusted R square = 0,541							

5. Conclusion and recommendation

Research results show that risk perception factors have affect on online shopping intention including: Information security Risk, Delivery Risk, Time Risk, Psychological Risk, Vendor's Fraud Risk và Product Risk. All of these factors have negative effect on shopping intention. In particular, Information security Risk factor hase the biggest effect on online shopping intention, suggesting that buyers feel worry and unsecured when thinking about their personal information is unsafe when shopping onling and they also have to bear an annoying from strangers. This is can be explained by the importance of information the current situation of information insecurity. Financial Risk, Physical Risk, Social Risk factors do not show the effect on onling shopping intention, which show the contradictory to the results of some previous studies, especially the research of Bui Thanh Trang (2013) when the result confirm that Financial Risk has the most negative effect on online shopping intention. It can be seen that online sellers have put a lot of efforts to limit the risk of spending money when buyers have online purchase such as cash on delivery, checking product before receiving, having high possibility of refund; therefore, all of these activities make buyers more secure and less worried about the financial risk involving online shopping.

In general, individuals and organizations with online businesses are now trying to improve and round the quality of their products and services, minimizing the risks that customers may have, making customers get ease when buying. However, there are risk aspects that they have not dealt with well or have not done yet, leading to the hesitation of customers when buying goods online. For that reason, the authors propose some of the managment proposals for individuals and businesses of online businesses as follows:

First, commit to the customer that their personal information will not be public and fully encrypted to ensure confidentiality. Do not disclose customer information to third parties without their permission.

Second, if the company has the ability to deliver goods by themselve, training and having strict monitoring policy for delivery staff. If the business is not capable of self-delivery and must outsource, it is important to choose reputable delivery companies to minimize the risk of delivery and help customers peace of mind shopping.

Third, ensure delivery of products to customers on time; communicate the benefits of online shopping and shows that online shopping is suitable for anyone actively, regardless of wealth or class; create trust of customers with the seller itself by letting customers check the product after delivery, provide their information online, immediately deal with the problem wrong ... This measure minimizes customer perceptions of time, psychology, and vendor's fraud when shopping online.

Fourth, ensure the quality of products delivered to customers according to the commitments on the network. Publishing fully, clearly and accurately information on the products, especially the image of the products' representatives should be truthful, clear, on all media so that the customers can freely refer and comment about products. When customers have a comprehensive and correct view of the product, they will feel more confident in their purchase and avoid negative feedback from the information and experience after receiving the product.

6. Limitations and implications

Limitations of this study: Firstly, the study use a convenient sampling method, so the sample does not really guarantee the representation; Secondly, it is not possible to use higher-order theoretical modeling methods; Thirdly, it is not yet possible to research subjects who have used the internet but have never shopped online, and the target groups that organizations and businesses sell online are also particularly interested in attracting them to become customers, and compare this group with the group which have bought their products. Based on these limitations, the authors suggest further studies should use the SEM model and analyze the ANOVA variance between two groups that have never been and have been online shopping. The SEM model allows simultaneous estimation of elements in the model, the causal relationship between concepts, the measurement of stable and unstable relationships, direct influence factors as well as indirect one. ANOVA analysis to comparing the mean of multiple samples based on average samples and through hypothesis testing to conclude whether there is a difference in the degree of influence of the independent variable on the dependent variable between the two groups Never and never bought.

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Role of Perceived Risk in Determining Consumer Acceptance of Mobile Payment: An Empirical Study in Vietnam

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ABSTRACT

Mobile payment is getting emergent consideration worldwide with enormous potential to explore. This study aims to investigate the impacts of various factors on behavior intention and actual usage of mobile payment based on a risk-extended model of UTAUT2 as well as explore impacts of various individual risk aspects on the overall perceived risk toward mobile payment adoption. The research model was empirically examined utilizing 329 responses conducted from Vietnamese young people. The research results confirmed that performance expectancy, facilitating conditions, price value and habit altogether have direct effects on the intention to adopt mobile payment. To determine usage behavior of mobile payment, the behavior intention along with facilitating conditions and habit make impacts on the actual use. Regarding to perceived risk, it does have negative indirect, not direct, impact on behaviors intention through the mediation of performance expectancy. When perceived risk is included in the model, the effect of effort expectancy on behavior intention would be diminished due to the mediation role of perceived risk between the two constructs. Furthermore, in case of mobile payment, it is suggested that the overall perceived risk would be significantly influenced by perceived psychological risk, time risk, performance risk, and privacy risk.

Keywords: mobile payment; UTAUT, perceived risk, technology acceptance

1. Introduction

Mobile payment is defined as “a process in which at least one phase of the payment transaction is conducted using a mobile device (such as mobile phone, smartphone, PDA, or any wireless enabled device) capable of securely processing a financial transaction over a mobile network, or via various wireless technologies (NFC, Bluetooth, RFID, etc.)” [1]. Paying for transactions via mobile devices let consumers get rid of the requirement of cash using, provide convenient and fast payment procedure, enable secure information transferring between devices with various transaction categories ranged from individual to high scale of payment volume [2-4]. Across the global markets, growth of mobile payment is being expeditious and its potentials are realizing by more and more commercial entities [5, 6]. According to Statista Corporation [7], the world-wide returns for mobile payment is estimated to exceed 1 trillion U.S. dollars in 2019 due to the spread of mobile devices like smartphones and tablets. However, mobile payment is still considered as a comparatively new research area in comparison with other technology adoption research fields such as e-commerce, Internet banking or mobile banking. In few recent research that issued in top tier journals, the mobile payment adoption have been investigated with ungenerous models such as studies of Leong et al. [4], Slade et al. [8] and Tan et al. [9]. Therefore, an holistic research that adapts universal technology acceptance model like UTAUT2 of Venkatesh et

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al. [10] is needed. Furthermore, in researching toward mobile payment adoption, based on the nature of e-payment, a risk consideration extension for UTAUT2 is also required.

In this studies, we examined all factors that could affect to consumer's intention toward using mobile payment as well as their actual usage behaviours based on an integration between the UTAUT2 model and perceived risk extension. Besides, the impacts of different individual risk facets were also investigated in this research. The paper is structured as follows. In the next sections we will discuss the conceptual model development with proposed hypothesis, methodology, results, and conclusion.

2. Conceptual model development

2.1. Performance expectancy

Performance expectancy refers to an individual's perception that using a technology could provide benefits to users in performing certain activities [10]. Reflecting a range of attributes that a technology could give benefits to clients, performance has been conceptualized by using system features that could enhance speed, productivity, and chances of task accomplishment as well as perceived usefulness [10, 11]. Five constructs including perceived usefulness that adapted from Technology Acceptance Model - TAM [12], Extended Technology Acceptance Model - TAM2 [13], and Combined Technology Acceptance Model and Theory of Planned Behavior – C-TAM-TPB [14]; extrinsic motivation that adapted from Motivation Model – MM [15]; job-fit that adapted from Model of PC Utilization - MPCU [16]; relative advantage that adapted from Innovation Diffusion Theory – IDT [17]; and outcome expectations that adapted from Social Cognitive Theory [18, 19]. Unambiguously, in diverse task settings, performance expectancy was affirmed to affect intentions to use technological systems [20]. Consumers' perception that utilizing mobile payment would support them to achieve benefits in executing payment tasks may thus affect the behavioral intention of mobile payment adoption. Accordingly, the following hypothesis was formulated.

H1. There is a positive relationship between consumers' performance expectancy of mobile payment and their intentions to adopt the technology.

2.2. Effort expectancy

Effort expectancy is defined as an individual's estimation of the effort required to accomplish a task utilizing a given technology [10]. The concept of effort expectancy has been captured by three remarkably similar constructs derived from different models comprise Technology Acceptance Model - TAM/TAM2 (perceived ease of use), Model of PC Utilization (complexity), and Innovation Diffusion Theory (ease of use). Many researchers such as Venkatesh et al. [11], Venkatesh et al. [10], and Dwivedi et al. [21] have provided significant evidence to validate the influence of effort expectancy on individual's intentions to adopt technological systems. Nevertheless, the relationship between effort expectancy and intentions has become inconclusive due to the recent research that found non-significant relationships or relationships with low magnitude between perceived effortlessness and behavioral intentions [20, 22, 23]. In the context of mobile payment, most of modern applications have been designed to become effortless payment methods with intuitive tools and easy-to-follow operating procedures toward the general population; therefore, consumers' competence to operate such mobile payment systems could be considered as a primeval antecedent to develop behavioral intentions. In view of that, the following hypothesis was developed.

H2. There is a positive relationship between consumers' effort expectancy of mobile payment and their intentions to adopt the technology.

2.3. Social influences

Social influence is defined as the degree to which an individual perceives that essential referents such as family and friends believe he or she should adopt a specific technology [10]. Three constructs related to social influence are subjective norm (derived from Theory of Reasoned Action - TRA of , Extended Technology Acceptance Model – TAM2 of Venkatesh and Davis [13], Theory of Planned Behavior TPB/DTPB of Ajzen [24], and Combined Technology Acceptance Model and Theory of Planned Behavior – C-TAM-TPB of Taylor and Todd [14]), social factors (derived from Model of PC Utilization – MPCU of Thompson et al. [16]), and image (derived from Innovation Diffusion Theory – IDT of Moore and Benbasat [17]). Even though they have diverse names, each of the aforementioned constructs contains the explicit or implicit concepts of the impact on individual's adopting intention by the manner in which they consider others' thinking of them because of utilizing a particular technology. That impact has been validated by many studies such as Venkatesh et al. [11]

and Venkatesh et al. [10]. Furthermore, the current trend of social commerce that intensively utilizing individuals' social connection to promote innovative technology such as mobile payment will make that relationship become more relevant to consumers. Based on the discussion above, the following hypothesis was developed.

H3. There is a positive relationship between consumers' social influences regarding mobile payment and their intentions to adopt the technology.

2.4. Facilitating conditions

In business-to-consumer (B2C) settings, facilitating conditions represent the degree to which an individual believes that supporting resources and people are available to facilitate task accomplishment based on a particular utilized technology [10]. This notion incorporated three different constructs derived from various models that operationalized to embrace traits of the technical and/or managerial settings considered to eliminate obstacles of technological usage. Those three constructs are: perceived behavioral control that adapted from Theory of Planned Behavior TPB/DTPB [24] and Combined Technology Acceptance Model and Theory of Planned Behavior – C-TAM-TPB [14]; facilitating conditions that adapted from Model of PC Utilization – MPCU [16]; and compatibility that adapted from Innovation Diffusion Theory – IDT [17]. Venkatesh et al. [10] suggested that an individual provided with an advantageous set of facilitating conditions is more likely to have a greater intention to utilize a specific technology. Their prior research also found that facilitating conditions have significant direct impact on usage behavior toward the technology [11]. Regarding to the most essential resource that an individual need to obtain to perform mobile payment tasks, smart mobile devices (e.g. smartphones, tables, smart watches, etc.), they currently are becoming more and more popular and inexpensive for consumers to afford. Additionally, supporting knowledge and people are getting easier to interact based on the current revolution of Industry 4.0. The aforementioned developments could boost both consumers' behavioral intention and usage behavior toward mobile payment. Therefore, the following hypothesis was formulated.

H4a. There is a positive relationship between consumers' facilitating conditions regarding mobile payment and their intentions to adopt the technology.

H4b. There is a positive relationship between consumers' facilitating conditions regarding mobile payment and their usage of the technology.

2.5. Hedonic Motivation

Hedonic motivation is defined as the extent to which individual believe that utilizing a technology could provide fun or pleasure [10]. This construct has been developed based on the extended finding of technological adoption theories that consumers would not only utilize a specific technology to accomplish tasks but also to entertain. Accordingly, adoption literature has been extended from merely focusing on internal beliefs and utilitarian factors to incorporating playfulness, entertainment value, and enjoyment [21, 25, 26]. In the consumer context of technology adoption research, hedonic motivation has also been affirmed as a significant factor of technological behavioral intentions [10, 27, 28]. Akin to most recent B2C applications, mobile payment applications are designed to comprise hedonic features by interactive visualized interfaces or gamification. Those features could provide consumers more incentives to use mobile payment as well as enhance their engagement with the technology. Thus, the following hypothesis was developed.

H5. There is a positive relationship between consumers' hedonic motivation of mobile payment and their intentions to adopt the technology.

2.6. Price Value

Venkatesh et al. [10] define price value as the degree to which an individual believes that using a technology could make him or her face a cognitive trade-off between perceived benefits and monetary cost of using the technology. This construct has been developed by adapting the marketing literature which conceptualize monetary cost/price in conjunction with the quality of products or services to ascertain their perceived value [29, 30]. In mobile payment context, monetary cost could include elements such as data service carriers costs (mobile Internet), mobile device cost, annual or monthly subscription fees, and transaction fees, where applicable. Consumers are more likely to adopt the technology if they perceived that benefits obtained could overcome associated monetary cost from usage, in other words the price value is positive. Consequently, price value could be formulated as a predictor of behavioral intention to utilize mobile payment and the following hypothesis was developed.

H6. There is a positive relationship between consumers' price value of mobile payment and their intentions to adopt the technology.

2.7. Habit

Habit is defined as the degree to which an individual tend to perform behaviors automatically as a result of learning from prior experiences [10, 31]. Besides, Venkatesh et al. [10] have distinguished habit from experience with two fundamental dissimilarities. The first dissimilarities is that to form habit, experience is a compulsory condition but not sufficient. The second dissimilarities is that divergent levels of habit could be formed as a result of similar experience (regarded as passage of chronological time) along with different degree of interaction and familiarity toward the technology. Researchers also suggested that habit should be operationalized as a self-reported perception [10, 31]. The effects of habit on both behavioral intention and actual usage behavior have been proposed and validated by researchers such as Pavlou and Fygenson [32], Lankton et al. [33], and Venkatesh et al. [10]. With the current development of mobile commerce, consumers are using mobile devices like smartphones for almost daily tasks such as internet surfing, social connecting, text and voice chatting, video calling, gaming, shopping, bill paying, etc. Therefore, that development could make mobile-related habits relatively more relevant than before toward the influence on both behavioral intention and actual usage behavior of mobile payment. Accordingly, the following proposition was developed.

H7a. There is a positive relationship between consumers' habit of mobile payment and their intentions to adopt the technology.

H7b. There is a positive relationship between consumers' habit of mobile payment and their usage of the technology.

2.8. Perceived Risk

According to Featherman and Pavlou [34], perceived risk involves various individual risk aspects that encompass performance risk, financial risk, time risk, psychological risk, social risk, and privacy risk. The researchers also examine construct overall risk as a composite of the individual risk aspects. Performance risk is defined as the likelihood that the technological system being interrupted or not operating in the way it was designed and publicized to be, and thus inadequately provide the preferred outcome [34]. In mobile payment context, consumers could face with the undesired probability that the system not performing well and creating problems with their credit or the built-in security features could not be strong enough to protect their account or the mobile payment servers not performing well and process payments incorrectly. Financial risk reflects the prospective monetary expenditure accompanied by the consumption and maintenance of a product or service as well as the recurrent possibility of financial loss as a result of fraud [34]. Regarding to mobile payment, consumers could face monetary loss due to their improper operating, system inaccuracy or potential fraud. As a results, their non-refundable paying money would be sent to wrong receivers or scammers or just be disappeared. Time risk is defined as the potential time loss of researching, operating purchasing process, learning how to utilize a product or service that an individual may suffer if he or she has to replace it when its performance does not meet with prior expectations [34]. When adopting mobile payment, consumer would spend time setup the new application, to learning how to operate that application and may spend more time for fixing payment errors when using. The time investment could be too high for consumers to adopt a new e-service like mobile payment. Furthermore, if they find that mobile payment is not a proper payment method for them that require switching to another payment method, they will lose all their prior time investment. Psychological risk reflects the possibility that process of selecting the producer or operating with product or service will negatively affect consumer's peacefulness and self-perception or the possibility that frustrating of not attaining a performance goal could make consumer suffer a loss of self-esteem or ego [34]. In mobile payment context, consumer may suffer uncomfortable feeling, anxiety or tension when signing up for and using the technology. Social risk reflects the possibility of losing consumer's status in a social group due to utilizing a product or service [34]. Consumers may concern about the situation that others would think less highly of them if they make mistakes when using mobile payment. Privacy risk is defined as the possibility that consumer could losing control over their personal information in case of those private information could be utilized without their knowledge or permission, or in more extreme case, their identity information could be used by criminals to conduct fraudulent dealings [34]. By using mobile payment, consumers could be suffered the risk of losing their payment information that disclosed to unwanted person or losing control of their checking account due to Internet hacking. Finally, overall risk is a universal measurement of perceived risk when all individual risk aspects are assessed together [34]. Based on the aforementioned discussion, we can hypothesize that:

H8a. There is a positive relationship between consumers' perceived performance risk toward mobile payment and their overall perceived risk of adopting the technology.

H8b. There is a positive relationship between consumers' perceived financial risk toward mobile payment and their overall perceived risk of adopting the technology.

H8c. There is a positive relationship between consumers' perceived time risk toward mobile payment and their overall perceived risk of adopting the technology.

H8d. There is a positive relationship between consumers' perceived psychological risk toward mobile payment and their overall perceived risk of adopting the technology.

H8e. There is a positive relationship between consumers' perceived social risk toward mobile payment and their overall perceived risk of adopting the technology.

H8f. There is a positive relationship between consumers' perceived privacy risk toward mobile payment and their overall perceived risk of adopting the technology.

Featherman and Pavlou [34] also posited that individual's perceived risk of using a technology has negative influence on perceived usefulness (equivalent to performance expectancy) and behavioral intention toward that technology while his or her perceived ease of use (equivalent to effort expectancy) also has adverse impact on the perceived risk. In mobile payment context, it is likely that the lower risk consumers notice from utilizing mobile payment, the higher tendency they have to perceive mobile payment as beneficial and adoptable. In addition, it is also expected that with lower perceived effort consumers would have higher tendency to perceive mobile payment as a risk-free technology. Consequently, the following hypotheses were developed.

H9a. There is a negative mediating effect of consumers' overall perceived risk of adopting mobile payment on the relationship between their effort expectancy and intentions to use the technology.

H9b. There is a negative mediating effect of consumers' performance expectancy of mobile payment on the relationship between their overall perceived risk and intentions to use the technology.

H9c. There is a negative relationship between consumers' overall perceived risk of adopting mobile payment and their intentions to use the technology.

2.9. Behavioral Intention

According to Davis [35], behavioral intention is defined as the degree to which an individual believes that they will implement a particular behavior. In technology adoption theories, the relationship between behavioral intention and usage behavior has been consistently confirmed (e.g., Davis et al. [36], Venkatesh and Davis [13], Venkatesh et al. [11], Venkatesh et al. [10], Baptista and Oliveira [20]). In mobile payment context, there is still a gap between intention and actual use toward the technology. Although the development of mobile commerce has led consumers to use mobile devices in various aspects of their daily lives, the actual amount of mobile payment is still small compared to other forms of payment. In accordance with the technological adoption literature, it can be hypothesized that:

H10. There is a positive relationship between consumers' intentions to adopt mobile payment and their actual usage of the technology.

All in all, based on the aforementioned discussion, the conceptual model has been developed and shown in Fig. 1

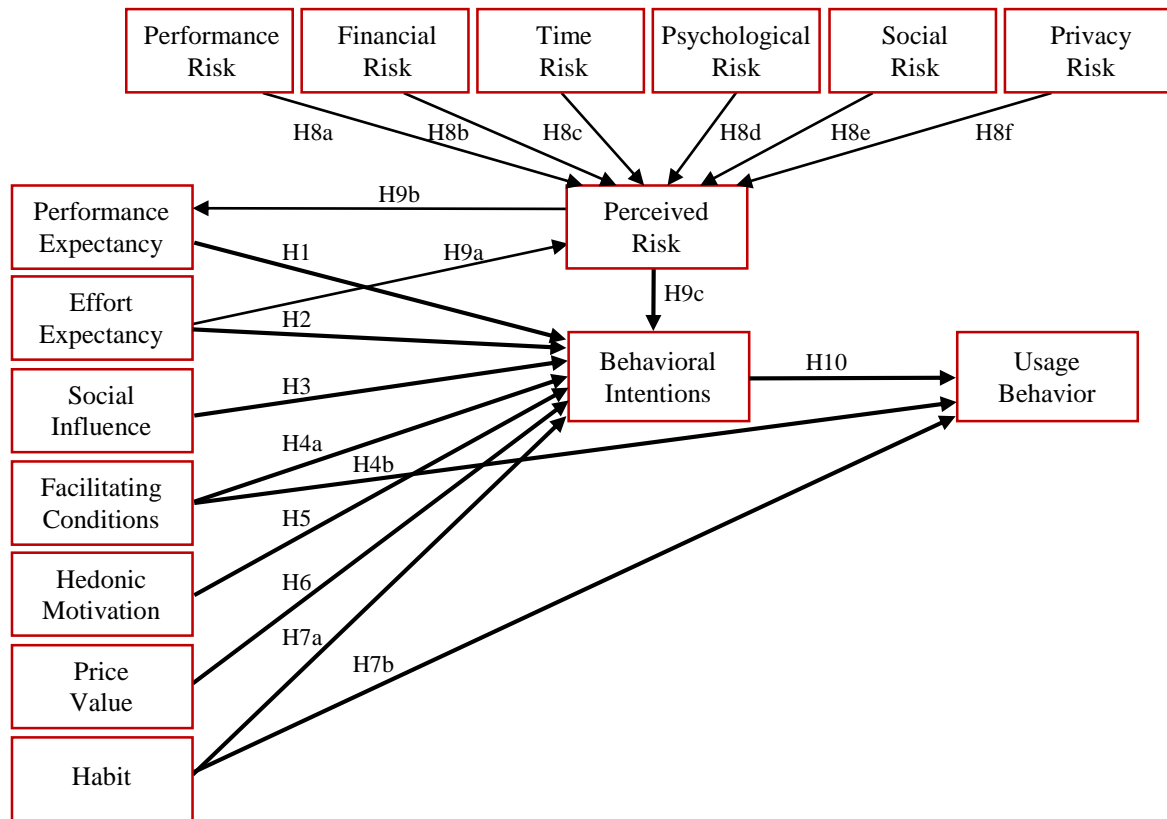


Fig. 1. Conceptual Model.

3. Methods

3.1. Measurement instruments

A questionnaire-based survey was developed in order to test the theoretical constructs. Constructs and measurement items were adapted with slight modifications from technology acceptance literature to build the questionnaire. Measurement items for constructs of performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, habit, and behavioral intention are adapted from Venkatesh et al. [10]. Constructs of perceived risk and its individual risk facets were operationalized by items adapted from Featherman and Pavlou [34]. Finally, Im et al. [37] was adapted to operationalize the usage behaviour construct. Except usage behaviour construct, all main measurement items were measured on a five-point Likert scale, ranging from totally disagree (1) to totally agree (5). The usage behaviour measurement was operationalized by one item that measure consumers’ actual frequencies of mobile payment usage (have not used, once a year, once in six months, once in three months, once a month, once a week, once in 4–5 days, once in 2–3 days, and almost every day). The items for all constructs are presented in the Appendix A. Two demographic variables related to age and gender were also included in the questionnaire. Age was measured in years and gender was coded using a 0 or 1 dummy variable where 1 represented women.

The questionnaire was primarily developed in English, based on the literature with reviewing for content validity experts from a university. Because the data collection procedure was operated in Vietnamese context, then later all English instruments was translated into Vietnamese language by a professional translator. The questionnaire was built online with Google Form service.

3.2. Data collection

Eight hundred and forty-three (843) students and alumni from universities in Vietnam were contacted by e-mail and social network account in June of 2018. A hyperlink to the online survey was included in the messages. Three hundred and twenty-nine (329) valid responses were received. The overall response rate was 39%, which is reasonable for studies of this scale. 81% of the subjects were females. Because of our convenience sampling, this gender distribution in the sample could be results of that fact that women are have more interest on mobile

shopping and mobile payment than men and more willing to answer the questionnaire. The age ranged from 18 to 26 years. Individuals which are university students accounted for 82.4% of the data. The sample is an indicative group to test the instrument because university students have high potential to adopt new mobile technologies such as mobile payment [38]. There are 10% of the subjects have not used mobile payment and the highest portion of mobile usage is once a month.

4. Results

4.1. Measurement model

In order to evaluate the constructs' reliability, Cronbach's Alpha reliability test was utilized. It is a widely used measure that examines the scale reliability, so called the internal consistency analysis [39]. By measuring the reliability coefficient, the reliability test could assess the consistency of the entire scale. According to Nunnally [40] a scale would be high reliable level if the coefficient alpha is greater than 0.7 while the coefficient alpha is higher than 0.6 means the scale is reliable. As seen from Table 1, Cronbach's Alpha of all constructs are above the expected threshold of 0.7, showing evidence of internal consistency. These constructs would be utilized in further analysis to test the proposed hypotheses. The means and standard deviations of each constructs as well as their belonging measurement items are also shown in Table 1.

Table 1. Means, standard deviations, and constructs' reliability for the measurement model.

Constructs and Items	Mean	SD	Corrected Item-Total Correlation	Cronbach's Alpha
<i>Performance Expectancy (PE)</i>	3.97	0.76		0.895
PE01	3.95	0.88	0.721	
PE02	4.14	0.83	0.802	
PE03	3.84	0.88	0.792	
PE04	3.93	0.88	0.755	
<i>Effort Expectancy (EE)</i>	3.82	0.81		0.906
EE01	3.82	0.90	0.770	
EE02	3.82	0.86	0.755	
EE03	3.85	0.94	0.800	
EE04	3.80	0.96	0.831	
<i>Social Influence (SI)</i>	3.49	0.80		0.823
SI01	3.49	0.95	0.708	
SI02	3.43	0.93	0.695	
SI03	3.55	0.92	0.634	
<i>Facilitating Conditions (FC)</i>	3.80	0.70		0.736
FC01	3.71	0.98	0.577	
FC02	3.81	0.89	0.587	
FC03	3.95	0.92	0.617	
FC04	3.71	0.94	0.348	
<i>Hedonic Motivation (HM)</i>	3.07	0.83		0.816
HM01	2.97	1.00	0.736	
HM02	3.47	0.94	0.608	
HM03	2.78	0.96	0.663	
<i>Price Value (PV)</i>	3.54	0.68		0.835
PV01	3.47	0.79	0.682	
PV02	3.54	0.77	0.742	
PV03	3.63	0.79	0.666	
<i>Habit (HT)</i>	2.67	0.91		0.852
HT01	2.64	1.13	0.770	
HT02	2.32	0.97	0.725	
HT03	3.07	1.13	0.520	
HT04	2.66	1.12	0.782	
<i>Perceived Risk (PR)</i>	2.23	0.75		0.888
PR01	2.35	0.89	0.733	
PR02	2.37	0.91	0.750	
PR03	1.96	0.89	0.734	
PR04	2.28	0.92	0.675	
PR05	2.17	0.90	0.750	
<i>Performance risk (PER)</i>	2.84	0.74		0.780
PER01	2.88	1.03	0.586	
PER02	2.85	1.05	0.572	
PER03	3.13	0.99	0.506	
PER04	2.53	0.93	0.568	

PER05	2.79	1.03	0.542	
Financial risk (FIR)	2.72	0.84		0.846
FIR01	2.56	0.96	0.621	
FIR02	2.98	1.04	0.693	
FIR03	2.56	1.07	0.676	
FIR04	2.78	1.01	0.742	
Time risk (TIR)	2.31	0.84		0.861
TIR01	2.53	1.23	0.670	
TIR02	2.55	1.13	0.590	
TIR03	2.44	1.13	0.710	
TIR04	2.52	1.13	0.741	
TIR05	1.93	0.94	0.608	
TIR06	1.91	1.01	0.608	
Psychological risk (PSR)	1.95	0.76		0.816
PSR01	1.72	0.90	0.584	
PSR02	1.67	0.88	0.575	
PSR03	1.94	1.06	0.618	
PSR04	2.35	1.05	0.657	
PSR05	2.09	1.06	0.607	
Social risk (SOR)	1.78	0.78		0.739
SOR01	1.65	0.90	0.660	
SOR02	1.55	0.82	0.637	
SOR03	2.14	1.15	0.451	
Privacy risk (PRR)	3.36	0.96		0.834
PRR01	3.22	1.08	0.724	
PRR02	3.40	1.17	0.729	
PRR03	3.46	1.05	0.639	
Behavioral Intentions (BI)	3.78	0.74		0.773
BI01	4.05	0.85	0.561	
BI02	3.73	0.91	0.623	
BI03	3.57	0.92	0.644	
Usage Behavior (UB)	4.08	1.89		

4.2. Hypotheses testing

To test hypotheses of the relationships between the overall perceived risk and its individual risk aspects, the Linear regression analysis was utilized. In the test, the overall perceived risk construct was treated as a dependent variable; the mean score of the overall perceived risk construct was regressed across mean scores for six independent variables of individual risk constructs. The regression results shown in Table 2 indicated that there are statistically significant positive impacts of consumers' perceived psychological risk ($\beta = 0.277$, $p < 0.001$), time risk ($\beta = 0.261$, $p < 0.001$), performance risk ($\beta = 0.191$, $p = 0.001$) and privacy risk ($\beta = 0.088$, $p = 0.021$) toward mobile payment on their overall perceived risk of adopting the technology. In the other hand, based on the regression results, influences of consumers' perceived financial risk and social risk are not statistically significant. Therefore, the hypotheses H8a, H8c, H8d and H8f are supported while the hypotheses H8b and H8e are not supported.

Table 2. Regression analysis results for testing relationships between individual risks and perceived risk.

Independent Variable	Regression Analysis					
	Coefficients	t-value	p-value	F-value	p-value	R-square

<i>(Constant)</i>	-0.028	-0.206	0.837			
Performance risk (PER)	0.191	3.423	0.001			
Financial risk (FIR)	0.057	1.239	0.216			
Time risk (TIR)	0.261	6.078	< 0.001			
Psychological risk (PSR)	0.277	5.303	< 0.001			
Social risk (SOR)	0.064	1.420	0.156			
Privacy risk (PRR)	0.088	2.325	0.021			
Overall model				60.958	< 0.001	0.532

In order to test the proposed mediating effects, Baron and Kenny [41]’s three-step mediation testing approach was adapted with a bootstrapping integrated enhancement provided by Preacher and Hayes [42]. The modern method could be used to replace the traditional mediation testing method proposed by Sobel [43] by overcome the assumption that the product of coefficients constituting the indirect effect must be normally distributed. In behavioral studies, that assumption is usually violated due to the fact that the distribution tends to be skewed and leptokurtic [42]. According to the researchers, a statistically significant simple mediation effect could be shown if the values between the upper and lower limits of confidence interval for the size of the indirect path do not include zero.

As show in Table 3, the Effort Expectancy negatively significantly predicts the Perceived Risk ($\beta = -0.242$, $t = -4.896$, $p < 0.001$). Additionally, when the Perceived Risk is not in the model, the Effort Expectancy significantly predicts Behavioral Intentions ($\beta = 0.390$, $t = 8.516$, $p < 0.001$). Besides, the results also indicate that Effort Expectancy significantly predicts Behavioral Intentions even with Perceived Risk in the model ($\beta = 0.360$, $t = 0.047$, $p < 0.001$); Perceived Risk also significantly predicts Behavioral Intentions ($\beta = -0.123$, $t = -2.409$, $p = 0.017$). The Effort Expectancy predict Behavioral Intentions less strongly in the model of step 3 than in the model of step 2 ($\beta = 0.360 < \beta = 0.390$). These results satisfied the partial mediation conditions suggested by Baron and Kenny [41]. Moreover, the indirect effect of Effort Expectancy on Behavioral Intentions was estimated with $\beta = 0.030$ and bias-corrected bootstrapped confidence interval = [0.006, 0.064] (BCa bootstrapped CI based on 1000 samples). This range does not include zero suggest that there is likely to be a genuine indirect effect, or in other words, Perceived Risk is a mediator of the relationship between Effort Expectancy and Behavioral Intentions. Therefore, the hypothesis H8a is supported.

Table 3. Mediating effect of Perceived Risk (M) on Effort Expectancy (X) and Behavioral Intentions (Y)

Step 1: Regression predicting M from X ($R^2 = 0.068, p < 0.001$)				
	Coefficients	SE	t-value	p-value
(Constant)	3.152	0.193	16.320	<0.001
Effort Expectancy (EE)	-0.242	0.049	-4.896	<0.001
Step 2: Regression predicting Y from X ($R^2 = 0.182, p < 0.001$)				
	Coefficients	SE	t-value	p-value
(Constant)	2.292	0.179	12.811	<0.001
Effort Expectancy (EE)	0.390	0.046	8.516	<0.001
Step 3: Regression predicting Y from X and M ($R^2 = 0.196, p < 0.001$)				
	Coefficients	SE	t-value	p-value
(Constant)	2.679	0.239	11.194	<0.001
Perceived Risk (PR)	-0.123	0.051	-2.409	0.017
Effort Expectancy (EE)	0.360	0.047	7.651	<0.001
Direct effect of X on Y				
	Effect	SE	t-value	p-value
Effort Expectancy (EE)	0.360	0.047	7.651	<0.001
Indirect effect of X on Y				
	Effect	Boot SE	Boot LLCI	Boot ULCI
Effort Expectancy (EE)	0.030	0.014	0.006	0.064
<i>Note:</i> - X: Effort Expectancy (EE); M: Perceived Risk (PR); Y: Behavioral Intentions (BI). - Number of bootstrap samples for bias corrected bootstrap confidence intervals: 1000 - Level of confidence for all confidence intervals in output: 95.00				

The testing results shown in Table 4 indicate that the Perceived Risk negatively significantly predicts the Performance Expectancy ($\beta = -0.284, t = -5.305, p < 0.001$). Furthermore, when the Performance Expectancy is not in the model, the Perceived Risk negatively significantly predicts Behavioral Intentions ($\beta = -0.224, t = -4.212, p < 0.001$). Besides, the results also indicate that Perceived Risk does not significantly predicts Behavioral Intentions with Performance Expectancy in the model ($\beta = -0.063, t = -1.379, p = 0.169$) while Performance Expectancy significantly predicts Behavioral Intentions ($\beta = 0.569, t = 12.565, p < 0.001$). These results satisfied the complete mediation conditions suggested by Baron and Kenny [41]. Moreover, the indirect effect of Effort Expectancy on Behavioral Intentions was estimated with $\beta = -0.161$ and bias-corrected bootstrapped confidence interval = [-0.243, -0.086] (BCa bootstrapped CI based on 1000 samples). This range does not include zero suggest that there is likely to be a genuine indirect effect, or in other words, Effort Expectancy is a mediator of the relationship between Perceived Risk and Behavioral Intentions. Therefore, the hypothesis H8b is supported.

Table 4. Mediating effect of Performance Expectancy (M) on Perceived Risk (X) and Behavioral Intentions (Y)

Step 1: Regression predicting M from X ($R^2 = 0.079, p < 0.001$)				
	Coefficients	SE	t-value	p-value
(Constant)	4.597	0.126	36.598	<0.001
Perceived Risk (PR)	-0.284	0.053	-5.305	<0.001
Step 2: Regression predicting Y from X ($R^2 = 0.051, p < 0.001$)				

	Coefficients	SE	t-value	p-value
(Constant)	4.283	0.125	34.235	<0.001
Perceived Risk (PR)	-0.224	0.053	-4.212	<0.001
Step 3: Regression predicting Y from X and M ($R^2 = 0.361, p < 0.001$)				
	Coefficients	SE	t-value	p-value
(Constant)	1.667	0.232	7.183	<0.001
Performance Expectancy (PE)	0.569	0.045	12.565	<0.001
Perceived Risk (PR)	-0.063	0.046	-1.379	0.169
Direct effect of X on Y				
	Effect	SE	t-value	p-value
Perceived Risk (PR)	-0.063	0.046	-1.379	0.169
Indirect effect of X on Y				
	Effect	Boot SE	Boot LLCI	Boot ULCI
Perceived Risk (PR)	-0.161	0.039	-0.243	-0.086
<i>Note:</i> - X: Perceived Risk (PR); M: Performance Expectancy (PE); Y: Behavioral Intentions (BI). - Number of bootstrap samples for bias corrected bootstrap confidence intervals: 1000 - Level of confidence for all confidence intervals in output: 95.00				

Regarding to the relationships between Behavioral Intentions toward mobile payment adoption and its potential predictors, a similar Linear regression analysis procedure was conducted. The regression results shown in Table 5 indicated that there are statistically significant positive impacts of consumers' performance expectancy ($\beta = 0.308, p < 0.001$), facilitating conditions ($\beta = 0.186, p = 0.001$), price value ($\beta = 0.107, p = 0.041$) and habit ($\beta = 0.088, p < 0.001$) toward mobile payment on their behavioral intentions of adopting the technology. In the other hand, based on the regression results, influences of consumers' effort expectancy, social influence, hedonic motivation and perceived risk are not statistically significant. Therefore, the hypotheses H1, H4a, H6 and H7a are supported while the hypotheses H2, H3, H5 and H9c are not supported.

Table 5. Regression results for testing relationships between behavioral intentions and its potential predictors.

Independent Variable	Regression Analysis					
	Coefficients	t-value	p-value	F-value	p-value	R-square
(Constant)	0.633	2.413	0.016			
Performance Expectancy (PE)	0.308	6.130	< 0.001			
Effort Expectancy (EE)	0.029	0.643	0.521			
Social Influence (SI)	0.046	1.071	0.285			
Facilitating Conditions (FC)	0.186	3.334	0.001			
Hedonic Motivation (HM)	-0.035	-0.835	0.405			
Price Value (PV)	0.107	2.055	0.041			
Habit (HT)	0.249	6.139	< 0.001			
Perceived Risk (PR)	0.008	0.192	0.848			
Overall model				42.805	< 0.001	0.517

A final regression analysis was also conducted to test the relationships between potential influences and usage behavior of mobile payment, and its results are shown in Table 6. The regression results suggested that usage behavior are statistically significantly positively influenced by behavioral intentions ($\beta = 0.353$, $p = 0.017$), facilitating conditions ($\beta = 0.410$, $p = 0.005$), and habit ($\beta = 0.880$, $p < 0.001$).

Table 6. Regression results for testing relationships between usage behavior and its potential predictors.

Independent Variable	Regression Analysis					
	Coefficients	t-value	p-value	F-value	p-value	R-square
(Constant)	-1.167	-2.272	0.024			
Behavioral Intentions (BI)	0.353	2.396	0.017			
Facilitating Conditions (FC)	0.410	2.854	0.005			
Habit (HT)	0.880	7.668	< 0.001			
Overall model				62.884	< 0.001	0.367

Fig. 2 illustrates results from all above hypotheses testing.

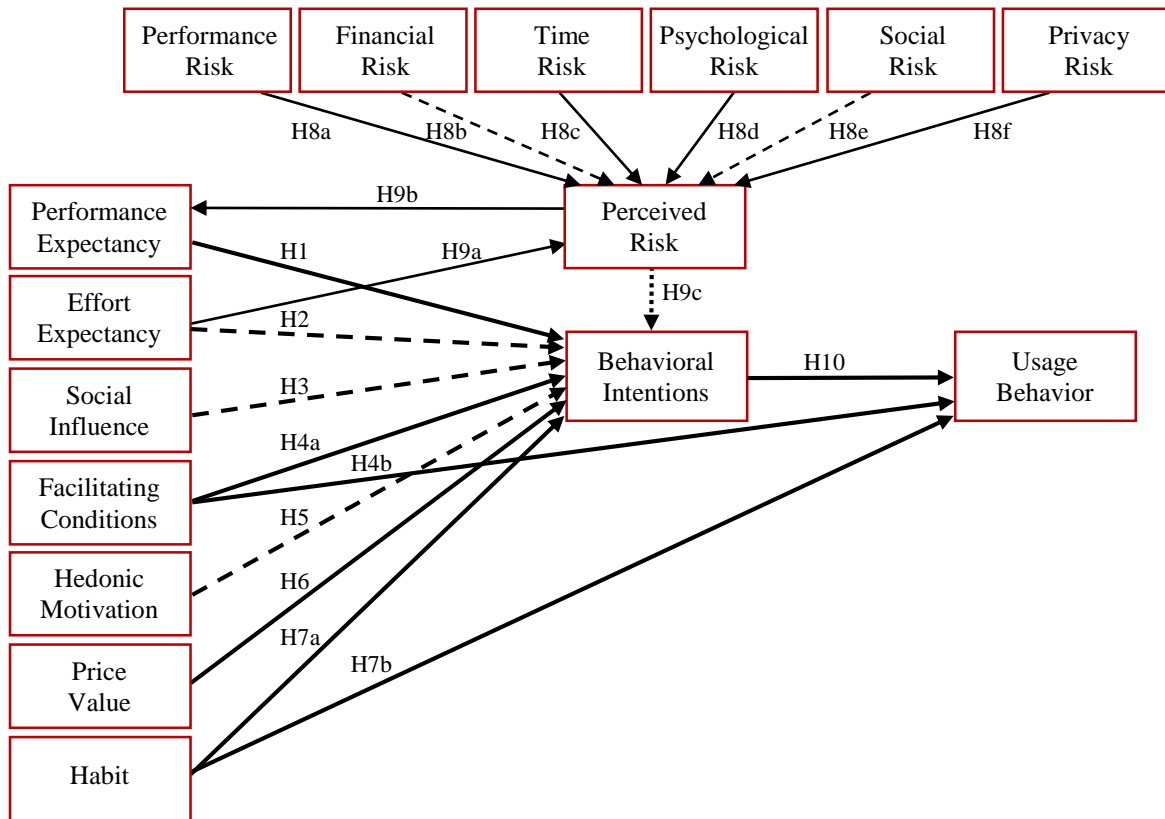


Fig. 2. Model testing results

5. Limitations and future research

Beside of our study’s main contribution that adds into the existing body of knowledge, we also recognize its limitations, mostly regarding the sampling with typically young, highly educated people as responders. The respondents’ behavioral patterns might diverge to some extent in comparison with the population average. With the behaviors that are mostly more pioneering and rapider to adopt new technologies, this sampling may have biased the effects. It is likely that seniors and less educated consumers or those who hold low computing or Internet-related capability would recognize more difficulty in adopting mobile payment and greater intrinsic mobile payment usage risks. Future research can be constructed based on this study by examining the proposed model in different age groups or applying this model to other countries and also other contexts.

6. Conclusions

Mobile payment is getting emergent consideration worldwide, however, the impacts of various factors on its adoption have not yet been expansively investigated. Toward fulfilling this research gap, we had extended the well-known theories, namely UTAUT2, with perceived risks as well as explored impacts of various individual risk aspects on the overall perceived risk. Our results confirmed that performance expectancy, facilitating conditions, price value and habit altogether have direct effects on the intention to adopt mobile payment. To determine usage behavior of mobile payment, the behavior intention along with facilitating conditions and habit make impacts on the actual use. Regarding to perceived risk, it does have negative indirect, not direct, impact on behaviors intention through the mediation of performance expectancy. When perceived risk is included in the model, the effect of effort expectancy on behavior intention would be diminished due to the mediation role of perceived risk between the two constructs. Furthermore, in case of mobile payment, it is suggested that the overall perceived risk would be significantly influenced by perceived psychological risk, time risk, performance risk, and privacy risk.

Appendix A. Main model measurements

Constructs	Items	Source
Performance Expectancy	PE01 -	I find mobile payment useful in my daily life.
	PE02 -	Using mobile payment helps me accomplish things more quickly.
	PE03 -	Using mobile payment increases my productivity.
	PE04 -	Using mobile payment increases my chances of job done.
Effort Expectancy	EE01 -	Learning how to use mobile payment is easy for me.
	EE02 -	My interaction with mobile payment is clear and understandable.
	EE03 -	I find mobile payment easy to use.
	EE04 -	It is easy for me to become skilful at using mobile payment
Social Influence	SI01 -	People who are important to me think that I should use mobile payment
	SI02 -	People who influence my behavior think that I should use mobile payment
	SI03 -	People whose opinions that I value prefer that I use mobile payment
Facilitating Conditions	FC01 -	I have the resources necessary to use mobile payment
	FC02 -	I have the knowledge necessary to use mobile payment
	FC03 -	Mobile payment is compatible with other technologies I use.
	FC04 -	I can get help from others when I have difficulties using mobile payment
Hedonic Motivation	HM01 -	Using mobile payment is fun.
	HM02 -	Using mobile payment is enjoyable.
	HM03 -	Using mobile payment is very entertaining.
Price Value	PV01 -	Mobile payment is reasonably priced.
	PV02 -	Mobile payment is a good value for the money.
	PV03 -	At the current price, mobile payment provides a good value.
Habit	HT01 -	The use of mobile payment has become a habit for me.
	HT02 -	I am addicted to using mobile payment.
	HT03 -	I must use mobile payment.
	HT04 -	Using mobile payment has become natural to me.
Performance Risk	PER01 -	The mobile payment might not perform well and create problems with my credit.
	PER02 -	The security systems built into the mobile payment system are not strong enough to protect my checking account.
	PER03 -	The probability that there will be something wrong with the performance of the mobile payment or that it will not work properly is high
	PER04 -	Considering the expected level of service performance of the mobile payment, for me to sign up for and use it would be risky
	PER05 -	Mobile payment servers may not perform well and process payments incorrectly.
Financial Risk	FIR01 -	The chances of losing money if I use mobile payment are high
	FIR02 -	Using a mobile payment service subjects my checking account to potential fraud.
	FIR03 -	My signing up for and using a mobile payment would lead to a financial loss for me.
	FIR04 -	Using a mobile payment service subjects your checking account to financial risk.
Time Risk	TIR01 -	If I use a new mobile payment method, the chances that I will lose time due to having to switch to a different payment

		method is high	
	TIR02 -	My signing up for and using mobile payment would lead to a loss of convenience of me because I would have to waste lot of time fixing payments errors.	
	TIR03 -	The investment of my time involved to switch to (and set up) a new mobile payment method is high.	
	TIR04 -	The possible time loss from having to set-up and learn how to use a new mobile payment method is high.	
	TIR05 -	Using mobile payment could lead to an inefficient use of my time.	
	TIR06 -	Using mobile payment could require more time than when not using them.	
Psychological Risk	PSR01 -	Mobile payment will not fit in well with my self-image or self-concept.	
	PSR02 -	The usage of mobile payment would lead to a psychological loss for me because it would not fit in well with my self-image or self-concept.	
	PSR03 -	My signing up for and using mobile payment makes me feel uncomfortable.	
	PSR04 -	My signing up for and using mobile payment gives me an unwanted feeling of anxiety.	
	PSR05 -	My signing up for and using mobile payment causes me to experience unnecessary tension.	
Social Risk	SOR01 -	The chances that signing up for and using mobile payment will negatively affect the way others think of me is high	
	SOR02 -	My signing up for and using mobile payment would lead to a social loss for me because my friends and relatives would think less highly of me.	
	SOR03 -	I would be concerned about what others would think of me if I made a bad choice when using mobile payment.	
Privacy Risk	PRR01 -	The chances that using mobile payment will cause me to lose control over the privacy of your payment information is high	
	PRR02 -	My signing up for and using mobile payment would lead to a loss of privacy for me because my personal information would be used without my knowledge.	
	PRR03 -	Internet hackers (criminals) might take control of my checking account if I use mobile payment	
Overall Risk	OR01 -	On the whole, considering all sorts of factors combined, I would say it would be risky to sign up for and use mobile payment	
	OR02 -	Using mobile payment to finish my transactions would be risky.	
	OR03 -	Mobile payment are dangerous to use.	
	OR04 -	Using mobile payment would add great uncertainty to my payment.	
	OR05 -	Using mobile payment exposes me to an overall risk.	
Behavior Intentions	BI01 -	I intend to continue using mobile payment in the future.	
	BI02 -	I will always try to use mobile payment in my daily life.	
	BI03 -	I plan to continue to use mobile payment frequently.	
Usage Behavior	UB	What is your actual frequency of use of Internet banking services?	

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Research on Online Purchase Intention of Customers in Ho Chi Minh Based on TPB Theory

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ABSTRACT

This research was carried out to analyze factors influencing the online purchase intention of customers in Ho Chi Minh City. Through the combination of qualitative research and quantitative research, the author conducted a survey of 226 customers who intended to engage in online purchase in Ho Chi Minh City. As can be seen from the research results, there were 5 groups of factors influencing the customers' online purchase intention, namely: (1) Perceived usefulness; (2) Perceived ease of use; (3) Perceived risk; (4) Subjective norm; and (5) Price expectation. This is an important basis for enterprises in Ho Chi Minh City to develop directions and strategies for the purpose of positively influencing on the customers' online purchase intention by applying the extended theory of planned behavior (abbreviated TPB).

Keywords: TPB theory; Online purchase intention; Perceived risk; Customers in Ho Chi Minh City.

1. Introduction

The development of 4.0 technology revolution and digital technology on these days brought great impact on e-commerce, making it growing strongly beyond the border. Ho Chi Minh City gets the same situations as e-commerce is becoming more and more convenient, making customers' purchase behavior change rapidly, requiring enterprises and retailers to strive to meet this trend. With the launch of a series of e-commerce websites such as Thegioididong, Lazada, Tiki, Shopee, Sendo, Adayroi, etc., online purchase is no stranger to Vietnamese consumers, especially young people. In Ho Chi Minh City, the e-commerce market continues to expand with a wide range of new models. Ho Chi Minh City's enterprises have also quickly caught up with new trends and made investments in e-commerce websites in a professional way with the aims of building a version used on mobile devices such as smartphone, tablet; etc., to serve production and business activities in the network environment effectively. According to Ho Chi Minh City Department of Industry and Trade, there are about 127,100 active websites, including 8,910 e-commerce websites in the city registered with the Ministry of Industry and Trade, namely: 819 e-commerce websites on sales of goods and 391 e-commerce website on provision of services. Such large numbers of websites in Ho Chi Minh City do help enterprises maximize their value chain and effectively exploit this resource. However, this requires enterprises accurately grasping a core issue which is to understand factors that affect the consumers' online purchase intention because the purchase intention is seen as a factor that have a decisive influence on consumer behavior. The research of consumers' online purchase intention was conducted based on various theories such as: Theory of Reasoned Action (TRA) model, Theory of Planned behavior (TPB), Technology Acceptance Model (TAM) Among these theories, the Theory of Planned Behavior (TPB) has been widely used in lots of studies and applied successfully as a theoretical framework for predicting purchase intention and behavior. TPB was developed by Ajzen (1991) on

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the basis of Theory of Reasoned Action (TRA) of Fishery and Ajzen (1975) by adding the "behavioral awareness" factor to the TRA. Although the TPB model is more optimistic than the TRA model in predicting purchase behavior, it still has shortcomings that only provide three certain factors to explain purchase behavior while there are many other factors in fact. From the above issues, the paper focuses on research and solutions to apply TPB to explore online purchase intention of customers in Ho Chi Minh City.

2. Theoretical framework and research model

2.1 Theoretical framework

E-commerce, or EC is the purchase and sale of products or services on electronic systems such as the Internet and computer networks. According to Monsuvve, Dellaert and K. D. Ruyter (2004): Online purchase is defined as the behavior of consumers in purchase through online stores or websites that use online purchases. Abu Bakar (2005): E-commerce is the exchange, purchase and sale of goods and services through wireless devices such as mobile phones, personal digital assistant (PDAs).

As stated by Philip Kotler (2003): Consumer purchase behavior is the act of consumers in relation to the procurement and consumption of products / services, including information search, review, purchase and post-purchase behavior. According to Liang and Lai, (2000): Online purchase behavior refers to the process of purchase of any product or service on the Internet, including five steps similar to traditional purchase behavior.

Theory of Planned Behavior Model (TPB) is one of the most influential theories used in the research of human behavior, developed by Ajzen from the Theory of Reasoned Action (TRA).

TPB was accepted and used widely in the studies with the aim guessing the consuming intention and specific behavior of individuals. Hansen and et al (2004) was tested in both 2 models TRA and TPB, the result showed that the TPB model explained customer's behavior better than the TRA model. Furthermore, in the research background at Viet Nam, some studies proved TPB more suitable in guessing the online purchase intention of consumers (Thang, 2016) . According to TPB, the motive or intention of consumption is considered the primary motivator of consumer behavior driven by three basic factors: Attitudes, subjective norms, and perceived behavioral control.

Besides 3 factors above, in the online purchase background, the study of Jarvenpaa and et al (2000), Lee and et al (2001), Winch and et al (2006), Pavlou and et al (2003) also concerned with the price expectation and the perceived risk is one of the most influent factor to consumer's online purchase intention. In there, the attitude "Evaluation of a individual about the result from performing a behavior" (Ajzen,1991); The subjective standard is the individual's awareness about stress of society to perform or not perform a behavior (Ajzen, 1991); The behavior control awareness is the feeling of a individual being easy or difficult to perform (Ajzen, 1991); The perceived risk mention to the awareness of customers about the uncertainty and the consequences of joining a specific activity (Dowling & ctg, 1994); The price expectation is the evaluation of consumers about what they have to exchange with the cost they have to spend out (Pavlou and et al, 2003). Through the theoretical summary process, the author suggest that the research model includes 5 independent variables: (1) Perceived usefulness; (2) Perceived ease of use; (3) Perceived risk; (4) Subjective norm; and (5) Price expectation và 1 biến phụ thuộc "Online purchase intention".

2.2 Research model

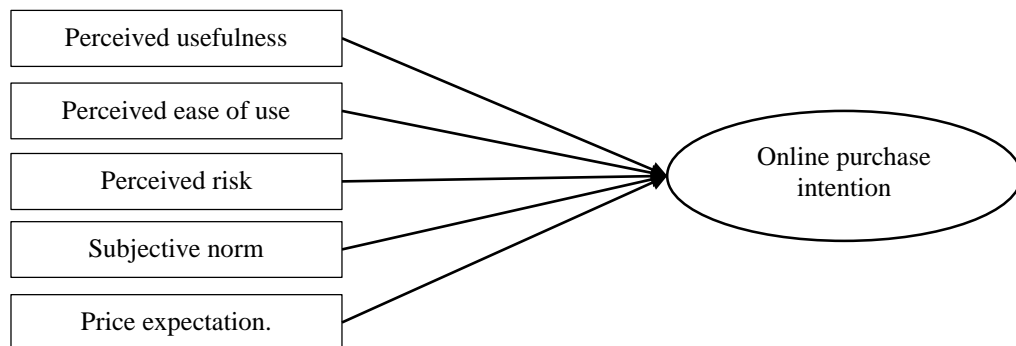


Fig. 1. Proposed research model

Research hypothesis:

H1: "Perceived usefulness" has a positive correlation with the online purchase intention (+).

- H2: "Perceived ease of use" has a positive correlation with the online purchase intention (+).
 H3: "Perceived risk" has a positive correlation with the intention to buy online (+).
 H4: "Subjective norm" has a positive correlation with the intention to buy online (+).
 H5: "Price expectation" has a positive correlation with the intention to buy online (+).

Table 1. Summary on the scale

Factor	Encoding	Observed variable
Perceived usefulness (HI)	HI1	Online purchase saves you time
	HI2	Online purchase saves you money
	HI3	Online purchase helps you find information easily
	HI4	Online purchase provides lots of products to choose from
Perceived ease of use (SD)	SD1	Online purchase makes it easy to search information about products at the website
	SD2	Online purchase makes it easy to compare features among products
	SD3	Online purchase makes it easy to order with a simple process
	SD5	Online purchase makes it easy to pay when ordering
Perceived risk (RR)	RR1	Personal information is protected at maximum level
	RR2	Products meet the requirements of quality
	RR3	Safety when making online purchase payment is ensured
	RR4	Customers always enjoy the warranty policy
	RR5	Delivery is always on time
	RR6	There is not any cost incurred when returning products
Subjective norm (CQ)	CQ1	Consultation from feedback of customers who have engaged in online purchase is available
	CQ2	Consultation from feedback of family is available
	CQ3	Consultation from feedback of friends is available
Price expectation (GC)	GC1	Online purchase makes it easy to compare prices with the same products
	GC2	Price of products upon online purchase includes type of fees involved
	GC3	Online purchase is cheap
Online purchase intention (YD)	YD1	I have an online purchase intention in the near future
	YD2	I will engage in online purchase more frequently than traditional purchase
	YD3	I will introduce online purchase to others

3. Research methods

The author used qualitative method for preliminary research and uses quantitative method for formal research to provide comments, assessments, analysis as well as practical solutions.

The preliminary research was conducted by qualitative method with group discussion and interview to gather

opinions from a number of customers. It was aimed at adjusting and adding factors that influence the online purchase intention to the scale

The formal research was conducted by quantitative method, using direct interview technique through questionnaires from 02/2018 to 04/2018 to collect information from customers who intended to make online purchase in Ho Chi Minh City. According to Hair and et al (2006) the sample size must be at least $\geq m \times 5$, where m is the number of observed variables. So, with 24 variables observed in this study, the sample size must be at least ≥ 120 . However, to ensure high reliability, the author conducted survey of 250 subjects from customers who intended to engage in online purchase in Ho Chi Minh City. All data collected from the questionnaire was encrypted and processed by SPSS 20.0 software. These variables must have a coefficient of correlation greater than 0.4 and a Cronbach's Alpha coefficient greater than 0.7 in order to ensure the reliability of the scale. The exploratory factor analysis (EFA) was used to abbreviate and summarize the data. Each observed variable was calculated as a factor called Factor Loading (> 0.5), which was used to classify the factors. After classification, the author considered to determine that KMO (Kaiser-Meyer-Olkin) coefficient must be about [0.5; 1 and Bartlett's test was statistically significant (Sig < 0.05) so that the observed variables were correlated in the overall. After measuring the scale using the Cronbach's Alpha coefficient and EFA, the author conducted a multiple regression analysis to test the model.

4. Research results and findings

4.1 The characteristics of the research sample

In order to collect research data, the author conducted to survey 250 candidates. After collecting the questionnaires and summarizing, there were a total of 241 questionnaires collected, including 15 invalid and 226 valid ones. Chi tiết bảng phân bố mẫu điều tra thể hiện ở bảng 2.

Table 2. The characteristics of the research sample

Category	Quantity	% ratio
Sex		
Male	135	59.73
Female	91	40.27
Total	226	100
Age		
25 - 30 old	110	48.67
31 - 35 old	64	28.32
36-40 old	30	13.27
Trên 41 old	22	9.74
Total	226	100.0
Education		
High school	54	23.89
College	62	27.43
University	75	33.19
Graduate	35	15.49
Total	226	100.0

4.2 Results of measurement scale

The reliability test showed that the Cronbach's alpha coefficients of scales were greater than 0.7 (the lowest coefficient was Perceived usefulness scale with $\alpha = 0.716$). The correlation coefficient for total variables was

greater than 0.4. Therefore, there were not any observed variables excluded and all observed variables were sufficiently reliable (see Table 3).

Table 3. Reliability test

Encoding	Factor	Cronbach's Alpha coefficient
HI	Perceived usefulness	0,716
SD	Perceived ease of use	0,898
RR	Perceived risk	0,819
CQ	Subjective norm	0,743
GC	Price expectation.	0,743
YD	Online purchase intention	0,828

4.3 Exploratory Factor Analysis – EFA

4.3.1 The independent variables

Bartlett test (table 4) with significance level sig. = 0.000 less than 0.05; coefficient KMO = 0.823. This result showed that the observed variables in the whole are correlated.

Table 4. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.823
Sig.	0.000

Table 5. Exploratory factor analysis

Variable	Symbol	Factor				
Perceived risk	.	0,864				
	RR3	0,773				
	RR4	0,744				
	RR2	0,648				
	RR5	0,632				
	RR1	0,626				
Perceived ease of use	SD2		0,842			
	SD3		0,759			
	SD4		0,746			
	SD1		0,691			
Perceived usefulness	HI1			0,787		
	HI3			0,726		
	HI4			0,697		

	HI2			0,658		
Subjective norm	CQ1				0,855	
	CQ3				0,845	
	CQ2				0,813	
Price expectation.	G1					0,772
	G2					0,770
	G3					0,652
Eigenvalue		5,903	2,061	1,972	1,742	1,136
Variance extracted (%)		29,514	10,306	9,861	8,712	5,680
Total variance extracted (%)		29,514	39,820	49,681	58,393	64,073

Exploratory Factor Analysis (EFA) results showed that the total variance extracted was 64,073% which was greater than 50%, which means that 64,073% of the model was explained by extracted factors while the remaining 35.927% will be explained by other factors. As Eigenvalue was greater than 1, it was retained. As can be seen from the results obtained, the Exploratory Factor Analysis (EFA) model was consistent with the data, compiled into five groups of factors and can be used for multiple regression analysis.

4.3.2 The dependent variables

Bartlett test (table 6) with significance level sig. = 0.000 less than 0.05; coefficient KMO = 0.749. This result showed that the observed variables in the whole are correlated.

Table 6. KMO and Bartlett’s Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.749
Sig.	0.000

Table 7. Exploratory factor analysis

Variable	Symbol	Factor
Online purchase intention	YD2	0,867
	YD1	0,877
	YD3	0,811
Eigenvalue		2,177
Variance extracted (%)		72,581%
Total variance extracted (%)		72,581%

Exploratory Factor Analysis (EFA) results showed that the total variance extracted was 72,581% which was greater than 50%, which means that 72,581% of the model was explained by extracted factors while the remaining 27,419% will be explained by other factors. As Eigenvalue was greater than 1, it was retained. As can be seen from the results obtained, the Exploratory Factor Analysis (EFA) model was consistent with the data, compiled into one groups of factors and can be used for multiple regression analysis.

4.4 Multiple linear regression analysis

Table 8. Multiple linear regression analysis results

Variable	Normalized Beta	T	Significance level
Perceived risk (X1)	0,214	3,769	0,000
Perceived ease of use (X2)	0,273	5,184	0,000
Perceived usefulness (X3)	0,175	3,212	0,000
Subjective norm (X4)	0,189	3,768	0,000
Price expectation (X5)	0,207	3,651	0,000
F – Value	46,410		
R2 – Value	0,513		
Adjuster R2 – value	0,502		
Durbin-Watson	1,975		

The results of regression analysis presented in Table 5 showed that $R^2 = 0.513$, which means that the linear regression model has an appropriate level of 51.3%. Adjustment $R^2 = 0.502$; which means that 50.2% variation of the dependent variable "Online purchase intention" was explained by five independent factors of the model. The remaining 49.8% were explained by other variables outside the model.

The value $F = 46,410$ and the sig value <0.05 showed that the regression model was consistent with the data collected and variables were statistically significant at the significance level of 5%. The variables included in the model have a linear relationship with the dependent variable, so the hypotheses H1, H2, H3, H4 and H5 were accepted. The linear regression model of factors is presented as follows:

$$Y = 0.273 * X2 + 0.214 * X1 + 0.207 * X5 + 0.189 * X4 + 0.75 * X3$$

(In which: Y: Online purchase intention of customers in Ho Chi Minh City; X1: Perceived usefulness; X2: Perceived ease of use; X3: Perceived risk; X4: Subjective norm; X5: Price expectation)

5. Conclusions and recommendations

Thus, after analyzing Pearson's correlation coefficient and multivariate regression analysis, the research model was consistent with five factors influencing consumers' online purchase intention in Ho Chi Minh City ranked according to the normalized beta coefficient as follows:

Table 9. The extent to which factors influence consumers' online purchase intention in Ho Chi Minh City

Variable	Regression coefficient
Perceived ease of use (X2)	0,273
Perceived risk (X1)	0,214
Price expectation (X5)	0,207
Subjective norm (X4)	0,189
Perceived usefulness (X3)	0,175

According to the analysis results, the above five factors have made influence and positively correlated with customers' online purchase intention in Ho Chi Minh City, depending on the level of influence: (1) Perceived ease of use; (2) Perceived risk; (3) Price expectation; (4) Subjective norm; (5) Perceived usefulness This is an important basis for enterprises in Ho Chi Minh City to develop the right directions and strategies in applying the extended TPB to the online purchase model.

Based on the results obtained, the author proposed solutions as follows:

In term of the perceived ease of use: As the perceived ease of use is considered to be most strongly correlated with the online purchase intention, it is the factor that needs to be improved and developed properly, specifically:

(1) Enterprises should pay attention to website design, fanpage, etc., with simple, impressive, easy to find design, (2) It is necessary to arrange the list of easy-to-find goods, and place any goods that customers have bought or seen and related items on the head, (3) The ordering process should be simple, with few operations, and the payment method should be diverse so that customers have many choices.

In term of the perceived risk: As the perceived risk is considered to be the second strongly correlated factor with the online purchase intention, it is the factor that needs to be improved and developed properly, specifically: (1) Online shopping service providers should have consumer protection policies that regulate the law governing online purchase, specifically regulating conditions for online trading, as well as measures to control this problem, (2) It is crucial to apply appropriate forms of payment to online purchasers, ensure maximum safety for customers during online payment, (3) The warranty and return policy must clearly state customers' interests when returning the products, as well as any provisions of goods exchange, customers' interests.

In term of the price expectation: As the price expectation is considered to be the third strongly correlated factor with the online purchase intention, it is the factor that needs to be improved and developed properly, specifically: (1) Providers should refer to prices of other websites to find out prices offered to their customers, which helps reduce the price difference among enterprises and improve the fair competition in the market. (2) The price offered must be appropriate to the products and acceptable to the customers so that it is possible to adjust the price offered in accordance with the current situation of providers and procurement situation of the market to be able to create profit for the providers and attract potential customers.

In term of the subjective norm: As the subjective norm is considered to be the fourth strongly correlated factor with the online purchase intention, it is the factor that needs to be improved and developed properly, specifically: (1) Providers should actively advertise their websites on the mass media as well as other media so that customers know the website from a variety of sources, (2) It is crucial to publish many articles about the providers to make customers approach and know the providers from various sources.

In term of the perceived usefulness: As the perceived usefulness is considered to be the fifth strongly correlated factor with the online purchase intention, it is the factor that needs to be improved and developed properly, specifically: (1) It is necessary to maximize the time by placing favorite items on the front page so that customers can select and buy quickly (2) Product information should be provided in detail to help purchasers save time and money.

6. Limitations and further research

Through this research, the author presents factors of the model influencing the online purchase intention. However, there are still some certain limitations as follows:

The very first limitation is about the scope of research. As the research was conducted through the survey of customers in Ho Chi Minh City, research results may not be applicable to other localities. Therefore, it is possible to expand the research scope as well as survey for different regions in Vietnam. This helps policy makers and business managers capture e-commerce development in order to continue to develop strategies in line with the development.

Secondly, in term of factors influencing the online purchase intention, there were only five factors influencing the online purchase intention provided, namely (1) perceived ease of use; (2) perceived risk; (3) price expectation; (4) subjective norm; (5) perceived usefulness based on the extended TPB model, while there are many other factors that may also influence the online purchase intention. Therefore, further research can be extended to new research models such as: Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM).

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Examining Factors Affecting Online Review Helpfulness in the Context of Vietnam: The Role of Review Characteristic

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ABSTRACT

This paper explores a kind of electronic word-of-mouth (e-WOM), the online consumer review (OCR). It has increasingly become important sources of information that help consumers in their decision-making since flourished e-commerce. In the recent years, OCRs have become an important information source that allow consumers to search for detailed and reliable information by sharing past consumption experiences (Gretzel, 2011; Fesenmaier et al., 2008; Yoo & Gretzel, 2008). In a sense, E. Brynjolfsson et al. (2003) has found that 64% of the online shoppers spend 10 min or more reading reviews and 68% of the online shoppers read at least four product reviews before purchasing. It has caused information overload, making it difficult for consumers to choose reliable reviews. J.R. Bettman et al., (1998) have indicated that 78% of participants in 26,000 participants trust recommendations from other consumers. Consumers seek more detailed product information from OCRs written by others because they find it difficult to make purchase decisions based on information provided by sellers when buying products from an online retail market. To succeed it is important for an online retail market to lead product reviewers to write more helpful reviews, and for consumers to get helpful reviews more easily by figuring out the factors determining the helpfulness of online reviews (Hyunmi Baek et al., 2012). By conceptualizing the online review helpfulness regards the peer-generated product evaluation that facilitates the consumer's purchase decision process. Online review helpfulness plays an increasingly important role in consumers' online shopping behavior. The aim of this study is to explore the factors that influence online review helpfulness while individuals gained review characteristics including readability, length rating, content, and sentiment in the context of Vietnam with social and cultural specificities that make a difference.

The second-data will be collected from Vietnam e-commerce sites such as Lazada.vn and Tiki.vn sites. A total of 30000 reviews expect to receive for data analysis. The results of the data analysis will support several findings: the review characteristics including rating, sentiment, length, readability, and content may significantly influence online review helpfulness. These findings provide insights for both academics and practitioners regarding the potential implications, which serve as new perspectives for researchers and online market owners to understand what determinants factors on e-commerce sites may affect online review helpfulness and leads to customer decision-making.

Keywords: Electronic word of mouth (e-WOM); online consumer reviews (OCRs); online review helpfulness (ORH); review rating; review length; review sentiment; review readability; review content.

1. Introduction

1.1. Research motivations

Word-of-mouth (WOM) also called word-of-mouth advertising in trade marketing, differs from naturally occurring WOM in the context of digital and online marketing, electronic word-of-mouth (e-WOM) is any

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positive or negative statement made by potential, actual or a former customer which is available to multitude of people via the internet (Hennig-Thurau et al., 2004) while in traditional WOM, the message disappears as soon as it is spoken. In case of e-WOM, the message remains over period. In recent years, e-WOM have flourished and played the important role on online customer behavior. Mudambi & Schuff (2010) have indicated that e-WOM (e.g. blogs, online reviews, forum, retailing websites, social media posts, and messages posted on online groups) rapidly impacted on business at any time and from anywhere. According to the Vietnam e-commerce indicator report 2018, e-WOM has an annual growth rate of 35% and along with that online marketing attempt to attract more and more consumers. Digital in 2017, the percentage of consumers who regularly search for product information before buying is 48%, and access to retail pages is 43%. These trends are creating the inevitable development of e-WOM in Vietnam, whereby consumer-generated online reviews will become increasingly important for both consumers and businesses.

Customer buying behavior has greatly influenced by online reviews (Singh et al., 2017). Walther et al. (2012) has pointed out that consumers often access consumer-generated sources when shopping online. A website usually provides at least three reference sources including (1) consumers' opinion or experience, positive or negative feedbacks, and recommendation; (2) Information of consumer's thank you for reviewing and rating helpfulness; (3) "Review the reviews" (Walther et al., 2012). In Vietnam, businesses and especially online retailers today are very interested in CORs because of their influence on customer's purchase decision-making. In a sense, Risselada et al. (2018) has shown that consumers trust online reviews provided by the virtual community over commercial information. Therefore, COR attracts the attention of many marketers, researcher, and practitioners. CORs created by consumers are the source of consumers when shopping online. What factors determinants in ORH and the effects of ORH on consumers' attitudes and behaviors haven't well understood in the previous studies (Hong et al., 2017; Wu, 2017). On the retail sites such as lazada.vn, tiki.vn, so on, customer-generated review sources day by day.

The above discussions highlight the importance of review characteristics on ORH which leads to customer's purchase decision-making. However, there have been few attempts to address how helpfulness score evaluates on Vietnam e-commerce sites. To fill these gaps, the aim of this study is to explore ORH while individuals gained review characteristics including readability, length rating, content, and sentiment. This study may contribute to the online review literature in several ways. First, from the perspective of rating, this study demonstrates how rating from review rating enables online review helpfulness score. Second, from the perspective of sentiment, this study explains how rating facilitates online review helpfulness score. Third, the concepts of review length and readability, content were employed to explain online review helpfulness score. In short, this study integrates the six different theoretical perspectives outlined above. It provides a richer model to better examine the online review helpfulness score in the context of Vietnam. Such the framework building may provide a complete understanding of how rating, length, readability, content, and sentiment may occur in turn lead to online review helpfulness score.

1.2. Research questions

From the discussions above, it is important to understand what factors effect on ORH and consequently leads to consumers' decision-making. To fill the gaps in the previous research on ORH, rating, length, sentiment, content, and readability associated with ORH, this study addresses the following research question:

What are the determinants of the online review helpfulness on Vietnam e-commerce sites?

2. Conceptual background

Ghose and Ipeirotis (2006) have indicated two methods which aim to evaluate ORH: (1) customers' helpfulness expectation for evaluating individual's ORH; (2) business's sales expectation for companies. Most of previous studies attempted to research on perspective of customers' helpfulness expectation.

How do consumers evaluate online reviews? According to Risselada et al. (2018), consumers' motivation, opportunity and ability influenced how consumers process information. Motivation is defined as goal-directed behavior, and opportunity is an extent to which the consumer is distracted from processing or has limited time. Ability is whether the consumer has sufficient skills to be able to process information. Online reviews are considered helpful when the customer reads and finds it helpful after reviewing and evaluating information for customer decision-making (Lee et al., 2018). In 2014, Risselad et al. (2018) has found that there are about 140 million product reviews and a product with thousands of reviews on Amazon.com site. Consumers could not read all the available reviews, they just picked up some reviews to evaluate, and so the concept of review helpfulness appears and is considered as an inevitable phenomenon. Consumers voluntarily vote for the online review helpfulness score and then this vote again guides consumer in their decision-making process and have a larger impact on the formation of consumes' attitudes toward the reviewed product.

Electronic word-of-mouth (e-WOM)

Different from traditional WOM, WOM on the Internet, called electronic word-of-mouth (e-WOM), is measurable since comments on a product are written and available in the websites (D. Godes, D. Mayzlin, 2004). e-WOM is defined as any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet (Hennig-Thurau et al., 2004). e-WOM allows consumers to socially interact with one another, exchange product-related information, and make informed purchase decisions via computer-mediated conversations (Blazevic et al., 2013; Hoffman and Novak, 1996). One type of e-WOM, OCRs, marketers can decide whether to allow OCRs to be shown or not, and if they are shown marketers can offer a specific review format in order to guide consumers to post their opinions in the way they want.

2.1. Online customer reviews (OCRs)

Online customer reviews (OCRs) can be defined as peer-generated product evaluations posted on company or thirdparty web sites (Mudambi and Schuff, 2010). It has been shown to improve customer perception of the helpfulness and social presence of the websites (Kumar and Benbasat 2006). In the recent years, OCRs have become an important information source that allow consumers to search for detailed and reliable information by sharing past consumption experiences (Gretzel, 2008; Fesenmaier, 2011; Lee, & Tussyadiah, 2011; Yoo & Gretzel, 2008). The difference between the information sellers and buyers important in purchasing experiential goods because people find it difficult to assess the quality of the intangible products before consumption OCRs listing on a shopping website, they may not have easy access to information about the true quality of the product and therefore may not be able to judge precisely a product's quality prior to its purchase (Fung & Lee, 1999). Hence, consumers tend to rely on OCRs that allow them to obtain sufficient information and have indirect purchasing experiences so as to reduce their level of perceived uncertainty (Ye, Law, Gu, & Chen, 2011).

2.2. Online review helpfulness (ORH)

Helpfulness of online product comments reveals how consumers evaluate a review. Based on information economics theories, Mudambi and Schuff (2010) defined a helpful customer review as peer-generated product evaluation that facilitates the consumer's purchase decision process and online review is helpful when consumers perceive value of online reviews while shopping online. Cheung, Sia, & Kuan have shown that (2012) some online review sites allow readers to "review the reviews" to maintain the value of online reviews and to address concerns about their credibility and quality. The most common approach is to rate a review as "Helpful" or "Not Helpful" (Baek et al., 2012; Li et al., 2013). A helpfulness score is then calculated as the percentage of "Helpful" votes among all votes. Helpfulness has also been referred to as the value of the review (Schindler and Bickart 2012). It is measured by dividing the number of people who find a review helpful by the total number of people who voted for that review (Mudambi and Schuff 2010; Sen and Lerman 2007). Reviews with a higher number of helpfulness votes were found to have a higher correlation with sales (Chen, 2013; Chen et al., 2007). Review helpfulness represents the number of helpful votes that the review has received out of the total number of votes that have been given regarding the helpfulness of the review. The helpfulness of reviews is also determined by review readability, review length, content, and sentiment. In addition to being a quality assurance tool, helpfulness can also be regarded as a subjective measurement of the potential value of the information contained in a review. A review that influences potential customers could logically lead to a purchase.

2.3. Factors influencing online review helpfulness

In the recent years, the researchers begin to explore the role of online reviews and have emphasized the impact of on review online. According to Agnihotri & Bhattacharya (2016), these factors can be grouped into two groups of quantitative factors and qualitative factors. The investigated qualitative factors such as content readability and associated sentiments in text and concluded that these are two important qualitative cues influenced on online review helpfulness. Hong et al. (2017) categorize the determinants of review helpfulness into two categories: (1) Review related factors that are derived from review ratings, contents, including review depth, review readability, linear review rating, quadratic review rating, and review age; (2) Reviewer related factors that are derived from reviewers' background and self-description, including reviewer information disclosure, reviewer expertise, reviewer expert label, reviewer friend number, and reviewer fan number. Thus, this study introduces review characteristics that affect ORH in the following factors:

2.3.1. Review length

Length of a review is an important predictor of its performance (Mudambi and Schuff, 2010; Schindler & Bickart, 2012). Reading longer reviews may decrease consumer's search costs through increased information diagnosticity (Johnson and Payne 1985). The average length of a sentence determines the readability of writing as much as any other quality (Garner, 2001). Short reviews are more likely to be shallow and lack the comprehensive evaluation of product features. In contrast, longer reviews contain more information and are more likely to contain deep analysis of the product, its features, and the context in which it was used. Longer reviews are more likely to receive attention from users (Garner, 2001). According to Huang et al. (2015), message length should not just be taken at the face value. Review length was indeed a significant predictor of review helpfulness.

2.3.2. Review readability

In general terms, the concept of readability describes the effort and the educational level required for a person to understand and comprehend a piece of text (DuBay 2004, Zakaluk and Samuels 1988). Online reviews are information resources that consumers utilize to gain knowledge about products and services. Zakaluk and Samuels (1988) stated that the extent to which an individual requires to comprehend the product information can present the level of readability. According to the linguistic characteristics, the method to calculate readability is considered as a scale-based indication of how difficult a piece of text is for readers to comprehend (Korfiatis et al., 2012). A communication is difficult to understand, the reader is likely to make negative inferences about the communicator (Schindler & Bickar, 2012). Thus, it is expected that the occurrence of style variables that reduce the readers' ability to comprehend a review will be associated with less valuable reviews. Such variables include misspellings, bad grammar, the use of inexpressive slang, the use of qualifications, and repetition.

2.3.3. Review sentiment

The sentiment of a message can be effectively communicated through the text and significantly influences the perceptions of the reader (Harris and Paradice, 2007; Riordan and Kreuz, 2010; Walther and D'Addario, 2001). Different people have different experiences with the same product. While some studies use human subjects to extract the sentiment of online consumer review, others use automated sentiment mining to extract sentiment from the text of reviews (Bai, 2011; Schindler and Bickart, 2012; Sen and Lerman, 2007). Sentiment is the vehicle for people to convey their emotions to others through text or a binary variable indicates whether a review conveys a mixture of positive and negative attitudes towards the product features (Schindler and Bickart, 2012). According to Harris and Paradice (2007), the emotions contained in a message transferred significantly influence how the message is processed and interpreted by the receiver (Riordan & Kreuz, 2010; Walther and D'Addario, 2001). One can argue that the sentiment contained in the review is the driver of the perceptions regarding its helpfulness rather than just the numerical rating. The receiver of a message can detect the sender's emotions through verbal cues such as emotion words (Harris and Paradice, 2007). According to Agnihotri & Bhattacharya (2016), online reviews with positive comment about firm's products and services can bring positive attitudinal changes in consumers' perceptions and negative feedback can bring about the reverse.

2.3.4. Review rating

People tend to find reviews with extreme numerical ratings more helpful (Mudambi and Schuff 2010). As consumers can expect that reviews with extreme ratings also contain more sentiment because the author is either very satisfied or very unsatisfied. The extreme levels of satisfaction or dissatisfaction are very likely to turn into strong emotions and consequently strong sentiment. Mudambi and Schuff (2010) attempted to analyze the relationship between review rating and review helpfulness. They indicated that review helpfulness increases when the rating is low or high for search goods and moderate for experience goods.

2.3.5. Review content

Review content, in this study, based on the qualify and functions of product, service (e.g. shipping, after-sales) and others. As for the consumer, review content based on the product quality represents a valuable information and can form consumer attitudes and shape buying intentions (Ghose & Ipeiroti, 2006; Glemet & Mira, 1993). Reviews that list product features may close information gaps for readers by disclosing product information. Based on product characteristics, functionalities and features, consumers make assessments about actual product quality. In a sense, Zeithaml (1988) has pointed out that product quality as a "consumer's judgment about a product's overall excellence or superiority". Product quality relatedness, the retailer focus readers on particularly determinant features such as the level of quality, functions or e-commerce services. A review providing such information helps to reduce the information asymmetry between the actual user of a

product and the reader of the review.

3. Proposed conceptual framework and hypothesis development

This essay pays much attention to demonstrate the relationship between the determinant review characteristics and online review helpfulness without exploring the reviewer's characteristics because Vietnamese seldom give many opinions and personal information due to cultural characteristic limits. This study highlights the role of online review helpfulness on search products instead of experience products. As for research products, online reviews play the important part in customer decision-making. Hence, negative reviews are considered to be more helpfulness. Experience products; in contrast, require customers' attention on evaluating quality so that negative reviews are less helpfulness than neutral reviews.

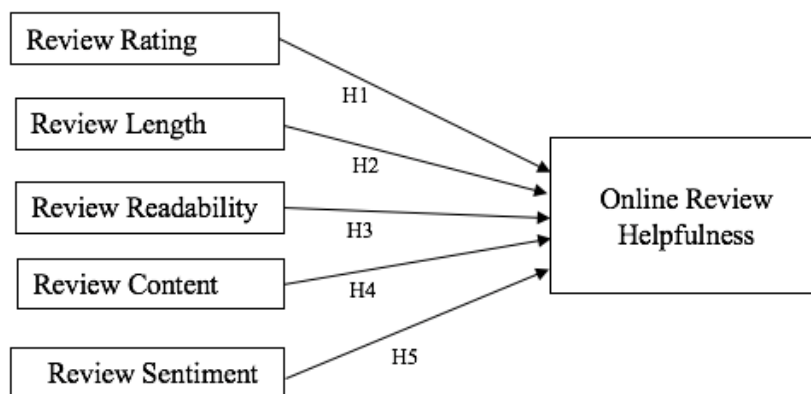


Fig1. Research proposal framework

3.1. Review rating and online review helpfulness

Rating score of review is an important factor predicting helpfulness of online review (O'Mahony & Smyth, 2010; Lee et al., 2018). It also is an important reference for quality products and services. Consumers tend to focus on different information sources of reviews. Specifically, peripheral cues such as star ratings of the reviews are helpful in the information search stage whereas the number of total words in a review and the number of negative words are influential in the evaluated stage. Hu, Liu, and Zhang (2008) concluded that online consumer reviews infer product quality and reduce product uncertainty, in turn aiding the purchase decision. This essay supposed that consumers get review rating, they are likely to be easy in the decision-making process. The following hypothesis is proposed.

Hypothesis 1: Review rating is positively related to online review helpfulness

3.2. Review length and online review helpfulness

According to Mudambi & Schuff (2010), the review length influences online review helpfulness and depends on the type of product. As for search products, the length has positively influenced on online review helpfulness. Longer reviews are more likely to be perceived helpful (Johnson and Payne, 1985). An individual's argument is more persuasive when it provides the larger amount of information (Schwenk, 1986). Increased number of reasons for a choice escalates the decision maker's confidence (Tversky and Kahneman, 1974). As review length gaining via e-commerce sites, consumers enable to get detailed and reliable information by sharing past consumption experiences. Thus, it became the important sources of information that help consumers in their decision-making. Accordingly, the following hypothesis is proposed to examine the effects of review length on ORH.

Hypothesis 2: Review length is positively related to online review helpfulness

3.3. Review readability and online review helpfulness

Readability, the quality characteristics, is considered as an important factor determining the ORH (Schindler & Bickar, 2012). According to the linguistic characteristics, readability is considered as a scale-based indication

of how difficult a piece of text is for readers to comprehend (Korfiatis et al., 2012). Reviews are widely read, understood and helpfulness once reviews are clearly written, easy to understand, good style (Agnihotri & Bhattacharya, 2016). High-quality information may be characterized as accurate, reliable, current, concise, fair, easy to understand, organized, and many other things (Huang et al., 2015). While review readability reached, consumers are likely to feel easy to understand and get detailed information, they are able to review the reviews to maintain the value of online reviews or rate a review as helpfulness. This essay took a specific interest in the work that review readability including spelling errors, style, Vietnamese from perspectives of qualitative characteristics plays on ORH on Vietnam e-commerce sites. We suggest that if an individual gained review readability provided by experience consumers, they are able to get helpful in their decision-making. Thus, review readability perceived by individuals may influence the ORH on e-commerce sites. Hence, the following hypothesis is proposed.

Hypothesis 3: Review readability is positively related to online review helpfulness

H3a: Spelling errors are negatively related to online review helpfulness

H3b: Review written in Vietnamese is positively related to online review helpfulness

3.4. Review content and online review helpfulness

According to Siering & Muntermann (2013), information reviews of product quality is judged to be more helpful than other information. The study of Weathers et al. (2012) examined information characteristics such as the description of situation, listing product feature, and confirmed that review content affected helpfulness. The review content, which is displayed in the body of the text along with review meta-characteristics such as quality, function, e-commerce services. We suggest that if individual gained the content of reviews, they are able to get reliable information. Thus, review content perceived by individuals may influence the ORH on e-commerce sites. The following hypothesis is proposed.

Hypothesis 4: Review content is positively related to online review helpfulness

3.5. Review sentiment and online review helpfulness

The reviews with positive and negative evaluation are associated with a high value review (Schindler et Bickart, 2012). Negative reviews often have a higher reference for consumers than positive ones. Sometimes positive reviews are not trusted because of the sales phenomenon and review consultants promoting their products. We suggest that review sentiment perceived by individuals may influence on ORH. Accordingly, the following hypothesis is proposed to examine the influence of review sentiment on ORH.

Hypothesis 5: Review sentiment is positively related to online review helpfulness

4. Methodology

The second-data conducted in the context of Vietnam e-commerce sites to measure the following six constructs proposed: (1) online review helpfulness, (2) length, (3) sentiment, (4) rating, (5) readability, (6) review content. Online review helpfulness studies commonly are conducted by two types of data sources (Hong et al., 2017): (1) First-hand data collected using surveys or questionnaires; (2) Second-hand data scraped from online review systems provided by e-commerce practitioners. Collecting first-hand data is often time-consuming and subject to common method bias. Second-hand data has the advantage of quickly collecting a large number of reviews and has been commonly used in online customer review studies. This study will use second-hand data to its advantage of collecting a large number of reviews.

Data collection

In order to collect the data and test our theoretical model, we will develop a web crawler to capture the contents of the high-involvement product reviews such as smartphone, laptop, tablet, reading books device, camera, IT product, TV on Lazada Vietnam (<http://www.lazada.vn>) and Tiki (<http://www.tiki.vn>).

Product

This article collected second-data from the reviews of high-involvement product reviews such as smartphone, laptop, tablet, reading books device, camera, IT product, TV. As for high-involvement products, online reviews are an important information source in the purchasing process (Mudambi & Schuff, 2010).

Online retailer websites

Lazada Vietnam (<http://www.lazada.vn>) and Tiki (<http://www.tiki.vn>) are choosing in this study as the e-commerce platform for the data source. Lazada.vn and Tiki.vn are online retail markets and have extensive

consumer review systems which have been developed and improved comprehensively. In Vietnam marketplace, Lazada.vn and Tiki.vn are the top to provide the helpfulness vote systems which create great values. Based on the helpfulness votes, Lazada.vn and Tiki.vn rank all reviews and reviewers. Therefore, we will collect actual consumer review data from these websites.

Coding of reviews

We operationalize the attribute “helpfulness”, rating score, review length, review readability, review sentiment, review content with the description in the following table:

Attributes	Measurement	Source
Helpfulness	The ratio of number of helpful votes to total votes	Huang et al. (2015); Walther et al. (2012); Hong et al. (2017); Seiring et al. (2018)
Rating	Rating score	O’Mahony & Smyth, 2010; Lee et al., 2018
Review length	Word count	Huang et al. (2015); Otterbacher (2009)
Spelling Errors	Spelling error count	Ghose and Ipeirotis (2011); Krishnamoorthy (2015)
Vietnamese	0: No 1: Yes	-
Review sentiment	5-Point Likert scale: 1: Negative 2: Quite negative 3: Neutral 4: Quite positive 5: Positive	Schindler & Bickart (2012)
Review content	1. Product: Quality, functions 2. Service: Shipping, after-sales 3. Others	Weathers et al. (2012) Siering & Muntermann (2013)

5. Limitations and future research

This essay explains the relationships between review rating, length, readability, sentiment, review content and ORH and provides some findings. Although this study had taken an initial step in exploring ORH on Vietnam e-commerce sites. Nonetheless, several limitations remained and are worth to be explored in the future research.

First, the data will be collected from Lazada.vn and Tiki.vn with seven groups of product. It may not claim that the results can be generalized to all reviews in the context of Vietnam e-commerce sites. This essay will collect 30000 reviews from Lazada.vn and Tiki.vn. To increase generalizability, the future research needs to consider sampling reviews from more e-commerce sites.

Second, data used for this study will collect from product type including Smart Phone, Laptop, Reading Books Device, Camera, IT Product, Tablet, TV. Generalizing the study conclusions to all products including eBook, clothes, shoes, and perspectives of reviewer characteristics should be well scrutinized with cautions. The future research may investigate the reviews from various product categories.

Third, the review characteristics in this study focused only on rating, sentiment, length, readability, content

gained from reviews of experience consumers. The future study should incorporate other types of review characteristics such as review aspects, content abstractness of product review, and authorship of product review into the research to widen the comprehensive understanding of ORH. Finally, this essay only investigated the review characteristics via reviews on e-commerce sites. Future research may examine both the effect of reviewer and review characteristics.

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Application of Clickstream Analytics for Decision Support in Marketing – A Recommendation for Vietnamese Small and Medium-Sized Enterprises

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ABSTRACT

New wave of technology in the connected age is fundamentally changing the way enterprises compete, operate, and do marketing. Today's empowered customers and prospects generate voluminous and diverse data through activity across channels. Clickstream analytics, an inter-disciplinary field associated with big data and web mining, is a powerful tool to help enterprises gain the most insight into customer trends and behaviors from clickstream data. Due to its high potential for analyzing customer behavior, clickstream data analytics has received high attention by marketing researchers and practitioners alike. However, despite overwhelming recognition of the need for clickstream data analytics, the application of clickstream data analytics for most Vietnamese small and medium-sized enterprises remains in its infancy as there is a lack of the proper foundation to collect and analyze clickstream data, and to integrate it into enterprise's value chain. Therefore, this paper provided an in-depth and manager-friendly coverage on clickstream analytics application for decision support in marketing and at the same time, it concluded with managerial recommendations to Vietnam government and SME owners in the matter of digital innovation strategy and clickstream analytics application in small and medium-sized enterprises.

Keywords: Clickstream analytics; connected age; decision support; fourth industrial revolution; marketing; small and medium-sized enterprises.

1. Introduction

1.1. Research goal and background

The overall goal of the paper is to make a strong and reasoned recommendation to Vietnamese small-medium sized enterprises (SMEs) on clickstream analytics. It is a promising information technology application for decision support in Marketing in the connected age. Specific objectives include providing an overview of the application of clickstream analytics in the context of the new wave of technology in the connected age, introducing a system approach to adopting clickstream analytics solutions in enterprise context, and making practical recommendations for Vietnam government and SME owners.

Geoffrey Moore said, "Without big data analytics, companies are blind and deaf, wandering out onto the web like deer on a freeway." [1]. According to Peter Sondergaard, "Information is the oil of the 21st century, and analytics is the combustion engine" [1]. These great quotes are incredible insights into the world of big data analytics, the benefits of metrics, and much more. They are messages about strategic value of big data (a

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valuable asset) and analytics (a specific and purpose-focused analysis). Together, big data and analytics fundamentally change the way enterprises compete and operate.

With the various disruptive technologies revolving around increased level of connectivity, consumers are most informed than ever before [13]. According to the third annual Digital Consumer Study [30], around 50% of consumers have performed shopping-related tasks on their mobile phones in the past three months. Consumers state they are using digital technology to search, browse and purchase, sometimes exclusively on one website.

When taking through a website, web user/customer will generate a large amount of the so called "clickstream data" or "digital footprint". The question is how to gain a holistic view of users'/customers' online journey? The answer is clickstream analytics, an inter-disciplinary field associated with big data and web mining. One of the main benefits of clickstream data is the derivation of customized user experience [19]. It is a powerful tool for businesses to leverage on. Online business can gain an edge to their competitors by having insights into customers' preferences and behaviors [28].

1.2. Business challenges

Although insight-driven marketing is already a major area under the modern marketing communication umbrella, clickstream analytics are much lesser known to laymen outside of the marketing industry. With the boom of start-ups and high proportion of family-run small and medium-sized enterprises (SMEs) in Vietnam, an in-depth and manager-friendly coverage on clickstream analytics could boost business performance and provide significant value to the public. This is the key motivation behind this paper: "Application of clickstream analytics for decision support in marketing in the connected age - A recommendation for Vietnamese small and medium-sized enterprises".

1.3. Research methodologies

In this research, we have applied a system approach to business problem solving with information technology to ensure that the recommendation for application of clickstream analytics is reasonable, reliable and feasible. The system approach is widely used in problem-solving in different contexts, including science and technology. The following steps are required for this approach: Defining the problem or opportunity, developing alternative solutions, selecting a solution, designing the solution, implementing the solution, and reviewing the solution.

Being a qualitative research-based paper, an IS-related literature review (Information System) was selected as the most appropriate methodology for a review and synthesis of existing knowledge. This is a systematic methodological data processing approach comprised of three major stages: 1) inputs (literature gathering and screening), 2) processing (following Bloom's Taxonomy), and 3) outputs (writing the literature review). The process of "Literature gathering & screening/ Literature processing/ Report producing" is applied repeatedly to ensure that the relevant knowledge was gathered [14].

Throughout the literature review process, we follow a consistent and coherent approach to application of the non-routine cognitive skills: abstract reasoning (the ability to make and manipulate models – *Models in Fig. 1, Fig. 2, Fig. 3, Fig. 4*), system thinking (the ability to model the components of the system, to connect the inputs and outputs among those components into a sensible whole that reflects the structure and dynamics of the phenomenon observed – *The Clickstream analytics value chain in Fig. 3*), collaboration (the ability to develop ideas and plans with others, ability to give and receive critical feedback – *In-depth interviews with experts from SMEs for current status of clickstream analytics application*), and experimentation (the ability to create and test promising new alternatives, consistent with available resources – *A strong and reasoned recommendation to Vietnamese small-medium sized enterprises with Web presence for clickstream analytics application*).

The following four sections will provide an introduction to the new wave of technology in the connected age and its implications for marketing (section 2), an overview of the application of clickstream analytics for decision support in marketing, including real-world case studies and research (section 3), a system approach to the implementation of clickstream analytics in the enterprise context (section 4); and finally some managerial recommendations for Vietnam government and SME owners (section 5).

2. New wave of technology in the connected age and its implications for marketing

2.1. New wave of technology in the connected age

Through the ages, human beings have witnessed many phases of extraordinary technological feats,

categorizing into four phases of industrial revolutions: *the first revolution* with the steam engine as the greatest invention (the original industrial revolution), *the second revolution* with electricity and the technique of mass production, and *the third revolution* with the wide use of digital computers and the appearance of the Internet connected the world. Now, the world is experiencing a new storm of the current and latest revolution, with an intensive and extensive change in size, scope, and complexity never seen before. This is *the fourth industrial revolution* (4IR). This is the evolution to cyber-physical systems with industrial Internet of Things (IoT) and decentralized intelligence in manufacturing, production, logistics and the industry.

Interestingly the concept of marketing has evolved through the exact same phases (Fig. 1.). The first phase is known as *Marketing 1.0*. It is a product-driven marketing where all activities were centered on the products, and mass production with the lowest possible cost was the thrust of the marketing strategy (product-centric). The second phase is known as *Marketing 2.0*, started early the third industrial revolution. It is the marketing practice in which customers become the first priority (consumer-centric). The third phase is known as *Marketing 3.0*, started to begin of the connected age, and is ongoing. It is not focused merely on products and or consumers but human-centric, or value-driven. The fourth phase, started to begin of the fourth industrial revolution (early 2010s), is known as *Marketing 4.0*. This is a holistic approach to marketing that combines online and offline exposure to consumers. It exploits the efficiency and effectiveness of interconnectivity of online data and services while balance it with the human touch on customer engagement [13]. Fig. 1. depicts the evolving of marketing tandem with the four industrial eras.

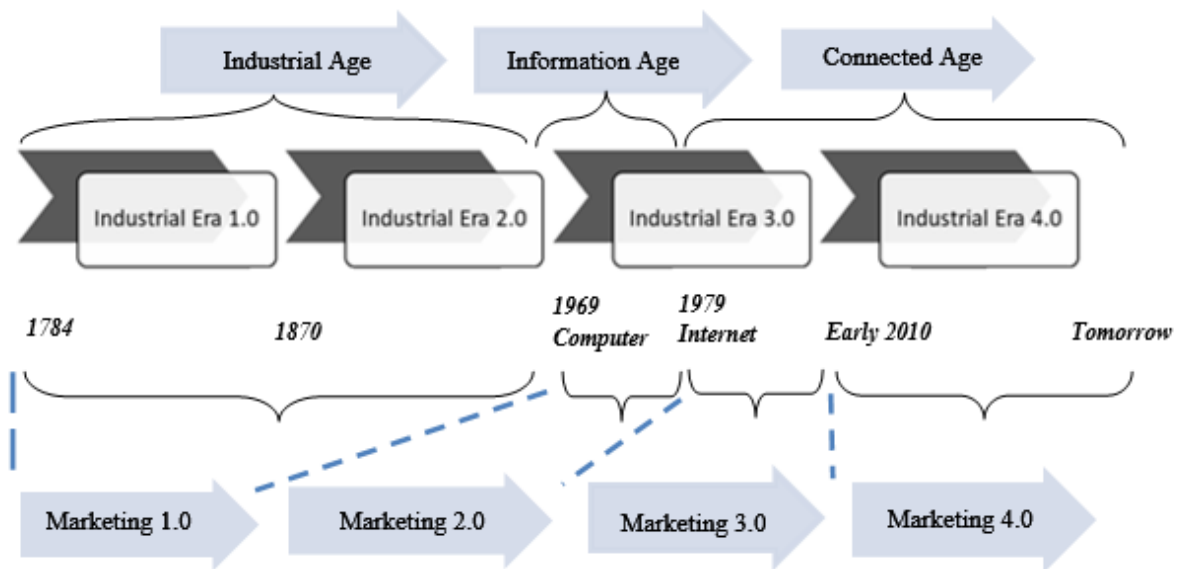


Fig. 1. Marketing evolving in tandem with the four industrial eras.

Source: Author's compilation from [13, 29]

In the 4IR, top innovations that have had the most significant economic impact include: Cloud Technology, the Internet of Things, mobile Internet, Social Media, Big Data & advanced Analytics, Artificial Intelligence, Reality/ Virtual Reality, Automation of Knowledge Work, Advanced Robotics, 3-D Printing, Blockchain Technology, and many others [3, 16]. Cloud Computing has gone mainstream for many enterprises, IoT is changing how both industrial and consumer-oriented businesses do business, and Big Data & Analytics have become the core platform.

2.2. Implications of innovative technologies to marketing

Having a clearer understanding of innovative technologies in the connected age, we can return to cover their impacts in shaping marketing industry in the past decade and the one to come. Technology becomes essential and integral to the operations of highly effective organizations. They have not only changed the consumer behavior, but also the marketing and business model.

Firstly, consumer behavior is evolving with the rise of the empowered customer. Technology is a powerful tool in influencing and changing consumer behavior, and digital tools have become integrated into the customer's shopping experience. With the booming IoT trend, people are moving most day-to-day activities to their mobiles, tablets, and computers. This includes entertainment, socializing, and shopping. The difference is that

most online platforms nowadays contain functions that allow two-way communications, between consumers and businesses, even on non-social media platform.

Secondly, new technologies have changed basic marketing activities. They help businesses perform vital marketing functions in the face of the rapid changes of today’s environment. Many digital marketing techniques, solutions, tools and models are developed for enterprises, such as marketing automation, social media marketing, mobile marketing, inbound marketing, outbound marketing, viral marketing, influencer marketing, mobile marketing, etc.

Thirdly, new technologies drive new business models. There are many new businesses founded on the community in the digital age, like Google, Facebook, Uber, Airbnb, Italki, Tesla, etc., They focus on understanding human digital relationship and harness the insights. Technology is the key to satisfied customers and successful business. Data can speak on behalf of people about what they want and need [22].

This paper will continue to explain the process of clickstream analytics from a business manager perspective. We will focus on application of clickstream analytics in marketing.

3. Clickstream analytics and decision support in marketing

3.1. Why clickstream analytics for marketing decision support?

Clickstream analytics refers to the management and analysis of pattern in clickstream and associated data collected as a result of user interaction with web resources. Clickstream analytics is not technologically radical, but it is only in the digital transformation that the discipline has been known to a wider group of researchers and practitioners and become increasingly more popular in the online retail space. Clickstream analytics can help to transform businesses into agile, insight-driven organizations.

Clickstream data is powerful and relevant for managers. Web users reveal what products they are interested in, at what stage the purchase process is aborted, what questions in FAQs is clicked most. Through A/B-Testing clickstream data can reveal which kind of product presentation leads to most purchases, how the website should be designed.

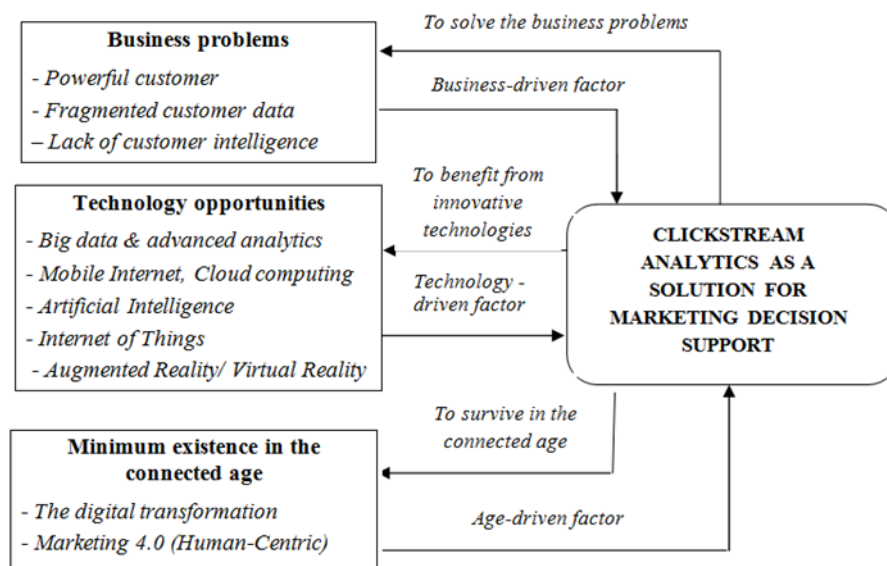


Fig. 2. Clickstream analytics as a solution for marketing decision support.

Source: Author

In business environment, the idea to develop an IT solution/ information system is kickstarted by one or more than one of the following factors: 1) a business problem, 2) an opportunity presents itself, and 3) a change in environment, competition, or regulation that forces the company to adapt to survive. With this approach, applying clickstream analytics into the value chain of the business is a given, and a smart choice for businesses going through digital transformation (Fig. 2.). *Firstly*, businesses are facing problems in terms of lack of

business intelligence on customers' behavior and preference, and also with customers being more well-informed. *Secondly*, many of the new disruptive technologies are bringing in a golden opportunity to businesses to compete in the global supply chain. *Thirdly*, the application of innovative technologies, particularly those based on big data and advanced analytics are key survival and success conditions to businesses. Fig. 2. describes the key considerations in choosing clickstream analytics as a solution for marketing decision support.

In the next section we explore the value-adding process of clickstream analytics.

3.2. Clickstream analytics value chain

In terms of getting to an outcome from big data & analytics, it is exactly the so called "five element data value chain", beginning with "data", through "information", "analytics", "insight", and finally to "action". It is also referred as "the data/information/analytics/insights value chain" [18]. Fig. 3. depicts the value chain of the clickstream analytics from system perspective, that helps extract web usage pattern/ insights from clickstream data. These insights can be used for multiple purposes, e.g. to increase the customer value, improve the website, or improve the data preprocessing. Simplified, the value chain of clickstream analytics is an operational feedback loop that sustains itself. There are five steps/ activities, each with a unique objective/ outcome and adds value to the value chain's output (Fig. 3.).

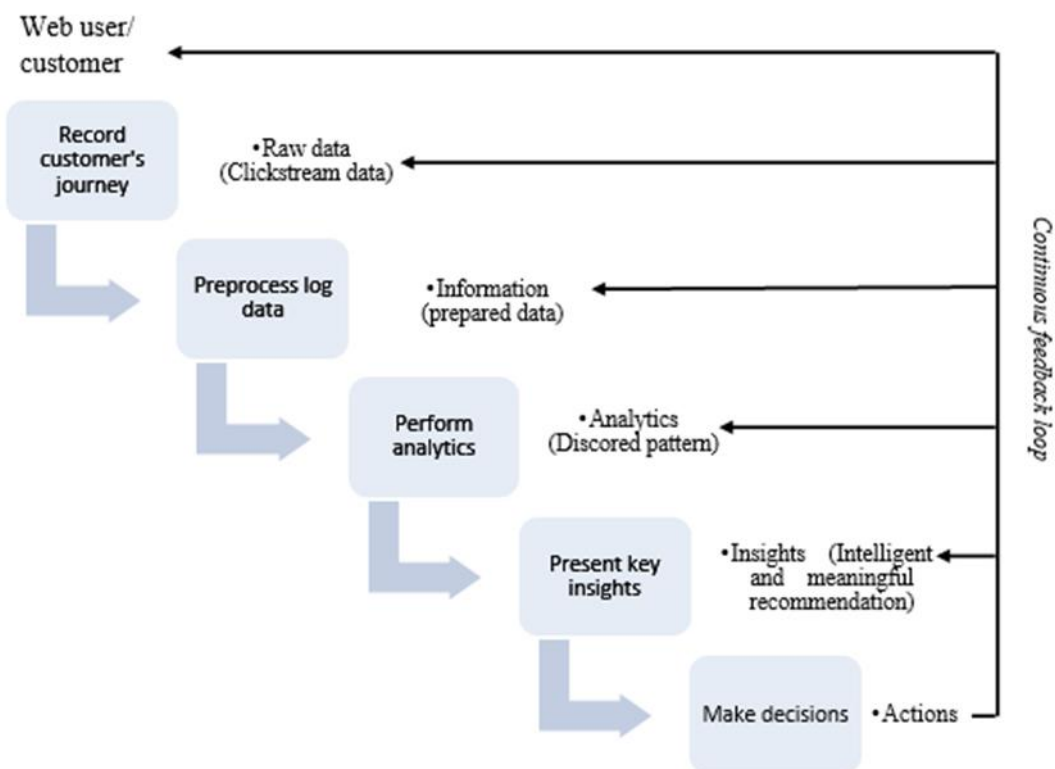


Fig. 3. Clickstream analytics value chain.

Source: Authors compilation from [18, 23, 25]

Step 1: Data collection. In this step, various user interactions with business's system are recorded (raw data). However, the load of raw data recorded is massive and messy, and the raw data themselves are not formatted to be mined and being not be directly used. There is a need for data preparation before clickstream analytics performance.

Step 2: Data preparation. The preprocessing in the second step encompasses collecting, merging, cleaning, and structuring relevant data. For example, when analyzing the demand for a new brand of household product, the manager need to be retrieved relevant search and purchase trend from web log file and transform them into mining-able format (prepared data). The outcome of the preprocessing is information.

Step 3: Analytics performance. In this step, the prepared data will be pulled and processed with analytics software to give relevant analytics (information that has been sorted through, using a range of algorithms and

programs, so that aggregated trends or results are visible, e.g. usage pattern, customer profiles, page profiles, visit profiles, customer value).

Step 4: Insight presentation. It is about presentation of key insights. Once the analytics/ data-driven metrics are obtained from the analytics software, human involvement is essential in drawing out the actual insights (key learning from the analytics, identified in terms of meaningful business conclusions that can be drawn). Sometimes it takes several metrics and other information combined to tell a story.

Step 5: Decision making. Management can base on the presented insights (in form of intelligent and meaningful recommendations) and consider the available resources to take actions to correct or exploit the results of all the work done in the data/information/analytics/insights value chain so far, that are fitting to the business' overall current performance, and forwarding strategy. The actions taken by the business ultimately leads back to user interactions. This closes the value-adding cycle and the data will continuously be used to shape future business decisions.

3.3. Application of clickstream analytics for decision support in marketing

For the uninitiated, clickstream data when captured, aggregated and processed can provide a lot of insightful information that can benefit businesses. A disclaimer note is needed that clickstream analytics is available only if you have any form of online presence. In association with big data analytics, clickstream analytics is a valuable tool for businesses to be used to drive sales by optimizing every aspect of the user experience on their websites from the first mouse click to the last. As sorted accordingly by [5], several of the top direct benefits are:

Click-path optimization. Optimization can pin-point which path has the lowest "conversion rate", meaning customer stop or exit before finishing the purchase. This would signal to you that you need to make changes to certain product page paths.

Market basket analysis. Basket analysis gives you a clearer understanding of aggregate consumption behavior. A customer can reach your product page via different path (direct, suggested item, external ad-placement, etc.). This valuable information allows marketer to identify and focus resources on the most efficient path to the product.

Website resource allocation. For slightly bigger businesses with multiple modules on their websites, web development and management can be human-capital intensive. It is a challenge to allocate human resources efficiently. Clickstream data analysis shows which part of the site is more heavily visited and need constant renovation and maintenance.

Customer segmentation. By categorizing customers by their behaviors, marketers have a way of segmenting the buyers and their relevant parameters (purchasing power, preferences, etc.). This gives marketers valuable and actionable insights.

This is a non-exhaustive list of benefits that clickstream analytics bring to the table. It should be enough, however, to justify serious considerations from any business with online presence to explore their options in adopting it.

The above benefits listed may sound foreign to the traditional business managers, especially in the Vietnamese market. We can take another perspective at how these data fit into businesses' three decision making levels.

Strategic level. Senior level decisions are high-level questions regarding what product to focus on, the development direction, and market awareness. Seasonal traffic to enterprise's online stores and purchase patterns help management to decide the category of products in demand and in the right cycles. The overall data profile of the users also let us know which features are more desired by users for future product development.

Tactical level. Middle level decisions are production and competition-based questions such as most efficient means of productions, best pricing strategy, advertising and promotion. Analysis of product choice, which is picked over other alternatives, provides insights for pricing analysis on price to feature preference.

Operational level. Decisions at this level are the day to day matters like tracking, documentation of operations, dealing with new operational issues. An example is how the career social network LinkedIn packages users' interaction. To get customers to visit the site, LinkedIn take data when other users search up the target customer's name or visit his profile. LinkedIn would send an email inform you like "23 people visited your profile this week".

3.4. Real-world case studies and research of clickstream analytics in marketing

Due to its high potential for analyzing consumer behavior, clickstream data has received high attention by marketing researchers and practitioners alike. In the following, some real-world case studies and promising research areas that apply clickstream data in the marketing context are highlighted. To get a holistic view,

examples are given for each of the 4 “Ps” of the marketing mix – product, place, price, and promotion.

There are numerous examples of firms leveraging clickstream data to improve their existing products or inform the process of developing new products, thus increasing success rates. The Financial Times (FT), for example, analyzes its readers’ clickstreams to measure engagement with topics. Supported by this information, FT decides which news stories to cover [2]. Similarly, streaming service Netflix is using the behavioral data collected from its users on their website and mobile apps to guide the creation of its original content, leading to hugely successful movies and series such as House of Cards [6].

While place used to stand for brick and mortar shops, in the online realm it signifies a company’s online store or mobile app. Here, the usage of clickstream analytics is immediately apparent, as nowadays, websites usually personalize what content we see based on our past clickstreams. Recently, researchers from the MIT have gone a step further by personalizing how the content on a website is presented. Using clickstream data, the researchers derived how each user processes information – in a detailed versus holistic manner or in visual versus verbal manner. Based on this prediction, the presentation of website content was automatically adapted to the personal information processing style. This system, called website morphing, has been successfully tested in the field with a large global telecommunications company, which was able to lift sales by 20% [24].

Personalizing prices online is a delicate topic as customers usually feel treated unfairly if they have to pay a higher price for an identical product than another customer. However, marketing managers can circumvent this perception of unfair treatment by using individualized price promotions and coupons. Microsoft feeds users’ clickstream information into a predictive system that creates individualized e-mail advertisements. The results are conversion rates up to 70% higher than for conventional e-mail campaigns [11].

Another aspect of marketing that has benefitted from clickstream data immensely are promotions. Based on users’ prior behavior online, predictive models can adapt who sees an advertisement and what is displayed in that ad. This type of behavioral targeting has been shown to double advertising effectiveness compared to untargeted advertisements [12]. Consequently, nowadays, behavioral targeting is widely used in the industry and offered by all major advertising agencies.

Beyond the 4 Ps, there are numerous other applications of clickstream data in the realm of marketing. As many firms nowadays try to establish relationships with their customers, they have also turned to clickstream analytics to make their customer relationship management efforts more effective and efficient. For example, data from clickstreams can be used to analyze the recency, frequency, and monetary value (RFM) of a user’s past online shop visits in order to estimate the strength of the relationship with her as well as her customer lifetime value (CLV) [9].

In the next section, we examine the process of implementation of clickstream analytics in enterprise context.

4. Implementation of clickstream analytics solutions in enterprises

4.1. Strategies for implementation of clickstream analytics

Referring to the process chart (Fig. 3. in 3.2.) on the step-by-step process of data analytics, managers can have a clearer look at what their options are in engaging into web analytics field. Our aim is to make it easy and user-friendly for managers to understand what resources they would need to acquire for each option, in terms of both human and asset resources. With reference to the criteria by Larry Chase [8], we see three main options businesses can consider. There are also other considerations to list the costs and benefits of each path. Fig. 4. depicts the three options for acquisition of a clickstream analytics solution.

Option 1: Complete in-house web analytics team. The company hires both the back-end IT team and the marketing analytics team. The back-end team works with the existing web development team and their job is the setting up and maintenance of the software analytics tools. The analysts of the marketing analytics team also need to have a strong understanding of how to navigate the analytics tool as users to extract relevant insights. Pre-requisite knowledge, experiences, or training courses are vital for potential staff in these roles. The company also needs to pay subscription fees for the analytic software. The advantages of in-house option are the full control of the team and workflow and higher efficiency from internal communication versus external communication. The disadvantages are administrative and salary expenses from hiring additional teams, and the need to source for talented and capable individuals to build the teams.

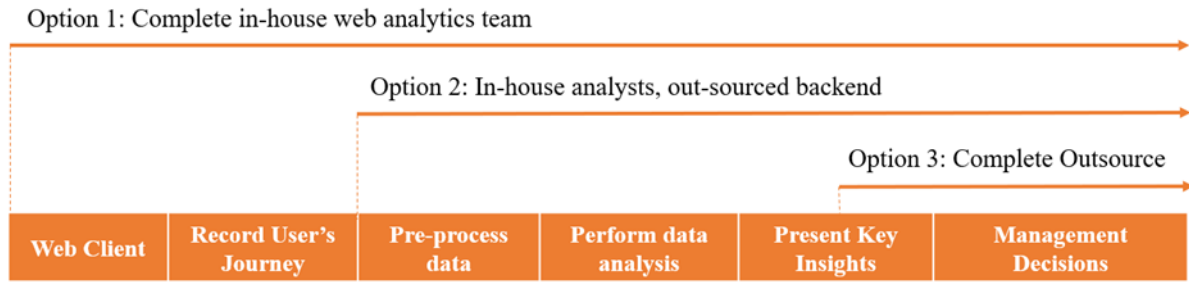


Fig. 4. The three options for acquisition of a clickstream analytics solution.

Source: Author

Option 2: In-house analysts, out-sourced back-end. The difference from option 1 is that you do not hire the back-end IT team. The company would then only need to hire the marketing analytics team who would frequently communicate with the out-sourced back-end services to maintain the information flow. This option has most of the benefits from option 1, while the business still maintain control over the main analytics process for efficient research and can choose a reputable company to provide back-end server services guarantee reliability of the system and data. The disadvantages are similar disadvantages to option 1 but to a lesser extent due to outsourcing the back-end IT staff.

Option 3: Complete out-source. This is a viable option for businesses with lean operations. The company would be fully out-sourcing the job to a marketing analytics agency. The agency would obtain the data on behalf of the company, perform the analysis, and make routine presentations to the management for a fixed fee. The company would then only need a traditional marketing team and do not have to hire extra data analysts. With complete out-source option, analytics package ensures high quality analysis and is a simple solution for SMEs and fixed service fees are easier to manager and budget for. However, there are some disadvantages, namely management is entirely reliant on the marketing agency to provide analysis and business has less control over timeline and quality of analysis reports.

4.2. Evaluating and choosing the right web analytics software solution

Regardless of which option a business goes with, from in-house to fully outsourcing, careful selection of the web analytics service suite can largely affect the success of a business' online presence. Managers need to have a clear understanding of their own business structure, characteristics, and thus, operational needs. The right software solution is one that allows the businesses to measure what is important to the business, fulfill the business needs, and works with the business situation. By carefully evaluating and choosing the best fit, a marketer can obtain reliable and comprehensive insights into user behaviors and make strategic decisions.

So how may a manager go about deciding on a web analytics tool, whether on their own or at the consult of a marketing agency? There is a three-step process that helps a business evaluate and choose the right clickstream analytics solution.

Step 1: Align website/ clickstream analytics application with business goal. It is about executive commitment for web analytics. The business need to understand how the analytics tool can help you. By first identifying the key goals the manager is looking at like customer retention, or conversion rate and making sure they fit the main goals of the business, the business can be sure that acquiring an analytics tool is the right move.

Step 2: Define business need and situation. Business needs and situations vary so much that listing and prioritizing them are complex task. For a clear understanding, we grouped factors to be considered into two main categories: business-specific and technology-specific. Business-specific aspects are KPI need, demand for integration of web analytics data with other data sources, the size and total analytics budget of the business, among others. On the other hand, type of processing (real-time, batch, or inline?), security & privacy requirement, needs for vendor's support are technology-specific considerations.

Step 3: Evaluate and select the right web analytics software solution. Having a broad picture of business' needs and situations, it is then key to rank and prioritize the top needs to be addressed by the web analytics tool. According to [4, 10], there is a long list of factors to be considered when choosing a solution. We can classify the relevant factors into two groups: functional and non-functional. Functional factors are reporting capability, compatibility issues, and scalability, among others. In opposite side, types of installation mode, total cost,

vendor's reliability, respecting legal requirements relating to data collection and data protection, capability to process data in real-time, availability of documentation in customer's language and support are considered as non-functional factors.

5. Recommendation for Vietnamese SME owners

5.1. Current status of information technology application in Vietnamese SMEs

In Vietnam, there is a huge surge in the number of SMEs throughout the past three decades with a large number of family businesses. The SMEs are essentially the main driver of the economy. According to a report from the Vietnam Chamber of Commerce and Industry (VCCI), nearly 98% of Vietnamese enterprises are SMEs, but they generate up to 51% of total employment and contribute 40% to the national GDP [27].

Digital technology has had a tremendous impact on Vietnamese enterprises. The question is: Are Vietnamese SMEs ready to tap digital economic potential? The answer is they are not! [20]. There are still many problems with the implementation of IT for this type of enterprises in terms of organization, management, and technology. In the following, we will present key findings from research that closely examines Vietnamese SMEs.

First, there is an issue with implementing IT into the overarching business strategy. Most managers have a less than ideal level of interest and attention on utilizing technology [15, 21]. Most SMEs do not have a plan for using IT in business, and do not have dedicated planning teams for IT strategies. Hence, there is an observable lack of considering IT solutions in order to achieve business goals [15].

Second, there is lack of specialized human resources. Decision making is mainly performed by enterprises' owners or leaders, but as shown above, most of them lack the strategic vision of IT application and not fully aware of the business value of new technologies, including social networks as well as internal collaboration tools. Even more critical is the lack of employees and managers with the knowledge to handle the complexities of data analytics and with the ability to simplify the output for daily use. Vietnam Democratic & Legal Magazine provides further statistics on this: Among business owners in Vietnam, up to 56% do not have any form of tertiary education. Only 40% are university graduates or higher or have some form of specialized training or polytechnic background.

Third, SMEs do not fully take advantage of the opportunities the Internet provides. Vietnam has great potential in Internet and mobile connectivity, but most businesses are not yet ready to tap on this potential. According to VCCI data, Vietnam has a 95% Internet penetration rate for SMEs, but 60% cannot effectively apply it to achieve business goals [27]. Vietnam ranks fifth in terms of number of people connecting online in the Asia-Pacific region with up to 55% of Vietnamese owning smart phones and some 52 million people connecting online [27]. With the millions of connected devices, there is huge potential in the market. However, according to Kevin O'Kane [26], managing director of small business operations at Google Asia Pacific, most Vietnamese SMEs are unable and not ready to tap into internet-based services' potential, such as e-Commerce.

Fourth, there is a lack of business process standardization. Business processes of SMEs are often poor and inefficient. There is a lack of coherence with the global standards for operations and supply chain with IT. Up to 50% SMEs do not have a functional documentation process for their standard operating procedure.

With this fundamental understanding established, our focus is of course on new technology marketing. According to Dave Chaffey and Mark Patron [7], for businesses with online presence, the top hindering factors to adopting data analytics for goals such as conversion rate optimization (how many people who visits your website actually make a purchase) are lack of resources, budget, and strategy. These three key factors are similar to the settings of local SMEs in Vietnam that we have established.

Taken together, the overarching challenges that SMEs in Vietnam face in successfully leveraging IT are a lack of 1) top management support, 2) specialized employees, 3) familiarity with online services, and 4) standardized processes.

As a consequence, most Vietnamese SMEs are lacking the proper foundation to collect and analyze big data – especially clickstream data – and to integrate it into their value chain. Therefore, they are unable to reap the various kinds of benefits of clickstream analytics as described in the previous chapters.

Managers' perception of data analytics is low, with no clear plan for investment into these technologies. Most marketing analytics teams in SMEs are minor and small part of the traditional marketing team. In-depth interviews with experts from SMEs from the service sector suggest that most of their companies have not looked at clickstream analytics as a data solution, nor do they have any concept of it. In terms of the data/information/analytics/insights value chain, most companies stop after extracting the information from transactional data. This limits the use of information to purely operational management level. Very few businesses are using these data for business intelligence that can be presented to support the decision-making

process at both managerial levels: the tactical and the strategic.

The current situation of IT and data analytics shows that Vietnamese SMEs are not ready to take advantage of the emerging opportunities of new wave of technology to improve their competitiveness and to join the global supply chain. Therefore, we will conclude with managerial recommendations to Vietnam government and SME owners.

5.2. Recommendations for Vietnam government and SMEs owners

The digital transformation has opened the doors to all types of organizations, including small businesses and startups. According to Kotler [13], smaller, younger, and locally based businesses will have a chance to compete against bigger, older, and global businesses. This is particularly applicable to Vietnam SMEs, as Vietnam is rated as one of the countries with the highest potential to build a digital knowledge-based economy with a strong start-up culture (#7 in the world) [26]. According to Google Customer Barometer, more than half the population is connected to the Internet and 43% of consumers' purchase were first started with online exposure. By correctly applying emerging innovative technologies, especially the Internet, and mobile connectivity platform, SMEs can perform a successful e-Business and e-Commerce.

From a marketing perspective, small businesses can be even more competitive if they can exploit the innovative technologies to connect with communities of customers and partners for co-creation and with competitors for co-opetition. FPT Group president Truong Gia Binh also said that the 4IR brings along new ideas and technologies that start-ups can exploit to break into new niche markets [17]. Due to its immense potential, digital innovation should be the number one strategy priority for SMEs. This is essential to their survival, success, and growth.

In recent years, the government has pushed out many SMEs development initiatives. They are decrees, resolutions, and decisions, that improve business environment, enhance SMEs competitiveness, and strengthen cooperation between SMEs and large businesses, promoting PPP. Among them Resolution 19/NĐ-CP (2014, 2015, 2016, and 2017) on improving business environment and national competitiveness, Decision 58/2013/QĐ-TTg on establishment and operation of the credit guarantee funds for SMEs, and the Prime Minister Decision 844/QĐ-TTg dated 18 May 2016 on promulgating the scheme to support the national innovative startup ecosystem through 2025 are the typical representatives.

Even with the policies, to successfully push for digital innovation strategy, there are some critical factors that should be ensured:

From government side. We need a strong digital infrastructure by focusing on the quality of Internet connection for both landlines and mobile connection. We need to focus on building the existing 4G network to the standard of first world countries, and at the same time research on 5G technology. This will help us get ahead of the IoT trend. A government provided Data Centers services will enable all SMEs to have access to a basic level of cloud services. This allows SMEs to take advantage of these innovations without having to heavily invest in their own system. The supportive role of the government, VCCI in legal, management, capital, and IT infrastructure issues will enable SMEs to break into the global market.

From the SMEs side. To compete effectively in the connected age, SMEs owners should change their perception of IT application in business and management, and improve the planning of emerging innovative technologies. Digital innovation should be the priority with the mantra 'think big, start small, and scale up fast'. Everyone should work together to push for the so called Vietnamese Digital Knowledge System that the government pushed out in Decision 677/ QĐ-TTg 18/5/2017, with the website <https://itrithuc.vn/>. This will be a complete ecosystem for SMEs to utilize digital innovations.

In terms of application of clickstream analytics, there are some managerial recommendations for SMEs owners. In deciding your course of action altogether, it is essential to establish that

(1) *it is not all about the data or how much of it the enterprise has. Instead, it is about the value one extracts from the data and how.* The most important product of a clickstream analytics process is business intelligence that analyzes patterns, trends, and relationships for marketing strategic decision making. To achieve high quality business intelligence enterprises need a professionally implemented clickstream analytics system. Above all else, the determining factor is how managers understand, interpret and utilize the business intelligence to support their decision-making. Solution guideline for this is managers need to understand precisely how clickstream analytics can provide value for their business, enterprises need to think carefully about whether they can create a genuinely workable clickstream analytics system and how the system relates to their overall business strategy as well as their marketing management goals;

(2) *during the development process there should be an effective collaboration between the back-end IT team and the marketing team.* In information system development and use, besides technology asset and human asset,

partnering relationship for joint IT-business decision making is considered as a relationship asset. Businesses can only have a high-quality analytics system if there is a strong collaboration between the technical staff and the business users. Solution guideline for this is for business to involve both IT team and marketing team when implementing a clickstream analytics system. They go hand in hand throughout the development process, from system analysis to system design, system operation, and system maintenance;

(3) *the biggest challenge is the integration and acceptance of analytical tools in the enterprise.* Choosing the right clickstream analytics software is of utmost important. Furthermore, how to integrate a clickstream analytics system as a new application smoothly into business practice, and how to overcome user's resistance are the two biggest questions. Solution guideline for this is that managers should put in place a change management plan for dealing with impacted groups within the enterprise as well as with customers and other business partners in the enterprise's network of value creation. It means that before embarking on clickstream analytics initiatives, managers will need to identify carefully the organizational changes required to make them work. To overcome user's resistance, your enterprise should seek to understand system's target users during the development process as soon as possible and put in place a user's training plan.

(4) *there is no one-size-fit-all solution to pick up and implement web analytics solutions.* On one hand, there are various types of enterprises with Web presence in term of sector, size, and others. The management requirements may be different from enterprise to enterprise. On the other hand, there are dozens of great solutions with various functionalities. Choosing an enterprise web analytics partner is hard. Solution guideline for this is that managers need to do a careful and reasoned analysis of selection factors and criteria from different dimensions (organization, management, and technology) when evaluating and selecting web analytics tools.

We suggest a three-pronged summary condensed from our above discussion.

First prong: Consider the size of your business. The marketing team should be proportional to the size of the company. A small company does not warrant a need for an in-house marketing analytics team. Small businesses should go for full package services outsourced to marketing agency (Refer to Option 3 in 4.1). This gives a good compromise between resources spent and reward from the analytics process.

Second prong: The second consideration is whether your core business is running sustainably with minimal operational issues. A business should first put its focus on delivering the proposed goods and services. Establishing stable inventory, logistics, and sales teams should be the focus of the business before attempting to upscale revenue via webs analytics. As a result, if a business has sufficient resources and size but still need to focus on building its core operations, a semi-outsourced solution would be the best fit (Refer to Option 2 in 4.1).

Third prong: The last consideration is based on the proportion between online and offline sales. Most SMEs in Vietnam operate within a city area or surrounding cities with both online and brick-and-mortar stores. Their sales are mostly driven by physical store sales. A handful provides delivery services across the country and rely on extensive online presence. When your online sale is a key driver of total revenue, there is an abundance of web data available, and the potential gain from utilizing analytics tool is equally immense. Therefore, it would be ideal to follow Option 1 and build an in-house team.

For the business following either option 1 and 2, it is essential to refer to 4.2. To familiarize with the process of selecting the best-fit analytics solution for the company.

6. Conclusion

This paper aimed at providing a holistic view of clickstream analytics application for decision support in marketing in the connected age, targeting Vietnamese SMEs. The general introduction to new wave of technology and its impact on marketing helps managers recognize the importance of digital transformation for marketers to guide customers throughout their journey from awareness and ultimately to advocacy. The in-depth and manager-friendly clickstream analytics is also covered to provide marketing managers and leaders crucial knowledge and better understanding about key issues of application of clickstream analytics for marketing: from theory to practice. Most importantly, managerial recommendations to Vietnam government and SMEs based on a comprehensive examination of the current information technology status in Vietnamese SMEs have been discussed to assist Vietnamese SMEs in implementing the digital innovation strategies and clickstream analytics solutions.

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Cultural Tourism and City Branding in a Digital Era: A Search Pattern Analysis of Three Tourist Cities in Central Vietnam

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ABSTRACT

Cities around the world brand themselves to build their images as memorable places in which culture is considered as an important element for the sustainable development. Cultural attractions can help cities get away from a seasonal pattern of tourism, focus on higher income inhabitants. Hence, cultural tourism has a strong relationship with city branding. Since a city cannot build separate brands for its different stakeholders, city branding aims to tourists who might be investors or residents in the future. In Vietnam, although some culture-led cities have been adopting various strategies, the understanding of searching trend of online travellers is still limited. This study investigates tourism searching patterns and keywords volume related to cultural information through search engines and social media. The research sites include tourism region in the middle of Vietnam which are Hue, Danang, and Hoi An. Successful examples of creative cities all over the world are reviewed for technological platform-based communication in three different levels: primary, secondary, and tertiary. The findings suggest implications for Danang city to use new technologies for city brand communication more effectively.

Keywords: Culture; cultural tourism; city branding; city image; digital communication

According to Turner and Freiermuth (2017), travel and tourism have an important role in economic development of cities/countries. In Vietnam, the direct contribution to GDP is 9.3 bn USD (4.6% of total GDP, 38th in world ranking) in 2016, and forecast to rise by 6% pa from 2017-2027. The employment total contribution of Travel and Tourism is 7.3% of total employment (4,003,000 jobs, including indirectly supported jobs). This figure is expected increased to 7.5% in 2027 (equivalent to 4,544,000 jobs). Among 185 countries, Vietnam is ranked as the 38th country in long-term growth as forecast in the period between 2017 and 2027. The visitor exports generate 51.9% of direct GDP contribution as compared to 48.1% for domestic travel spending. Foreign visitor spending is estimated to grow by 6.4% pa to 368,679 bn VND in 2027. Beside sea-island tourism, MICE tourism, in comprehensive planning in Vietnam tourism development to 2020, the vision to 2030, cultural tourism (heritage tourism included) is one of the most important section since culture places as the flagship of sustainable city development.

Hence, this study considers cultural tourism as an important element for sustainable city development through city branding. The objective of the study is exploring search patterns of cultural tourists to understand their attention on city brand images. Thence, cities can position themselves more properly. The study explores

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what the keywords related to cultural tourism attached to cities are. Research scope is three places in the central Vietnam – Hue, Danang, Hoi An since this region is a tourism cluster as planned by the government. Keywords analysis method is adapted by using Keywordtool.io. This is a new approach in city branding research not only for scholars but also practitioners. Some city branding implications are also proposed for Danang city – the representative of regional tourism in the central Vietnam.

1. Research context

1.1 Culture-led cities in a digital era all over the world

Digital cities are considered as ‘a set of web pages in the framework of a city/commune’ (d’Udekem-Gevers, 2001). When researching Belgian digital cities, d’Udekem-Gevers (2001) analyses city/commune websites in terms of context, technical modes of functioning, information, and communication. More briefly, the framework and the real content of the sites are objects to analyse. However, the finding showed that there was a lack of values in the visitor counters because of weak promotion at that time.

Michalis Kavatzis (2004) proposes a framework for city image communication in the context of city branding, based on the interaction between internal city and external city. The external city can be understood as identification of a city which is helpful in distinguishing one city to another city. The internal city can be understood as the city of mind related to society, a way of living, culture (Graham, 2002). Michalis Kavatzis (2004) divides image communication into three types: primary, secondary, and tertiary. The primary one reflects city actions’ communication regarding to landscape strategies, infrastructure projects, organisational and administrative structure, behaviours. Secondary communication refers to promotional practices such as advertising, symbol usage of a city. Tertiary communication expresses word of mouth communication which is similar to UGC (User Generated Content) messages. Besides, Green, Lim, Seo, and Sung (2010) give notes that the event’s negative pre-event media can have negative influences on the host destination. The authors suppose that organic destination image which usually comes from popular sources and culture can be extremely changed in a short period. Also, the induced image of destination is emphasized by the authors in relevant to the role of pre-event media.

According to Fernández-Cavia and Huertas-Roig (2010), the World Wide Web today is the main tool for city brand communication. The authors classify city brands into three categories: graphic, functional conceptual, and emotional conceptual. The latter two types are equivalent to cognitive dimension and affective dimension of destination brand image. However, in cases of cities analyzed, the official cities’ web sites are often limited in terms of interaction between users, lead to lack of city brand communication. Instead of the emotional aspects, the functional aspects often are centred when cities position themselves. Furthermore, there is a tendency of building more than one brand per city shown in some cases such as Barcelona (adventurous, friendly, diverse, cosmopolitan, innovative), Edinburgh (friendly, imaginative, diverse, innovative), Amsterdam (creative, diverse, cosmopolitan, innovative), Toronto (creative, imaginative, innovative). The 40 chosen tourist cities are considered based on the usability, the interactivity, and the treatments of city brands through official city web sites. The results show that Hong Kong is the 1st ranked city regarding usability, the 2nd destination in inactivity, and the 2nd in city brands treatment on the website. Additionally, almost tourist cities still focus on consumer-message interactivity, especially interactive travel organizers. Consumer-marketer interactivity and consumer-consumer interactivity are still limited. Amsterdam, the city with the highest position in terms of city brands treatment, emphasizes in on both functional and emotional brand and investigates much more in graphic and visual aspects.

As argued by Govers (2011), place branding is similar to corporate branding which also is affected by popular media. Social media can create a social network in which residents and visitors interact with each other and enhance the brand of a city. Among many digital channels, social media is the more efficient mean of communication toward city governments, lesser budget, wider spread and much easier to show presence (Sevin, 2017). However, the author concerns about the different platforms employment since tourism-related information often be shared through generic sharing websites (Facebook, Twitter, Instagram) and tourism-specific websites (TripAdvisor, Booking.com). The former type might affect travel decisions because of the frequency of visit even without travel plan. However, the most important role is a habit of electric users, not technology solely. Considering technology as supplementary, the trend of creating material space supported by online art museum – an attraction of cultural visitors – is discussed by Herzog (2010, pp. 25, 26). The digital city concept is proposed as a space based on a technology platform which allows information exchange.

Xiang and Gretzel (2010) investigate the extent of travel-related content searches through social media by search engines. The authors develop a framework that expresses online traveller, online tourism domain, and search engine interactions. Five main types of social media as mentioned are: virtual community sites, review

sites, personal blogs and blogs aggregators, social networking sites, media sharing sites. Search results for nine U.S cities show that virtual communities are the most popular one (40%), next followers are consumer review sites (27%), blogs (15%), social networking sites (9%), and media sharing sites (7%).

Recognizing the smart, creative, knowledge city concept in the narrow sense is similar to informational city concept in a broader sense (Fietkiewicz & Stock, 2015). Showing consensus toward the perception of Herzog (2010), the authors suppose that places spaces in parallel with flows spaces form an informational city. Development of informational cities also is mentioned in studies of (Kaja & Sandra, 2014) with characteristics related to technology, knowledge and culture, information flow. Four Japanese megalopolis cities include Tokyo, Osaka, Kyoto, and Yokohama are considered as the most proper ones for investigation because of their digital, smart, or knowledge infrastructures. In terms of the digital city, Osaka has the 1st position, followed by Yokohama, Tokyo, and Kyoto. Tokyo is the most developed city in knowledge infrastructure, followed by Kyoto, Osaka, and Yokohama. Creative cities are manifested by cultural infrastructure such as museums, theatres, opera houses, galleries. They are measured by the visitor amount, the arts and culture expenditure. Kyoto and Tokyo are evaluated as the most creative cities, followed by Osaka, and Yokohama.

Mentioning new technologies applied for cultural tourism, Garau (2017, pp. 71, 72) divides platforms into three different types: informative, connection, and integrated. Not merely display information as informative platforms, connection platforms take the role of mediation between suppliers and users. Integrated platforms offer further interactions. Radio Frequency Identification (RFID) can be used to track tourists’ actual transactions through their smartcards. Moreover, the author also appreciates achievements of virtual reconstruction, the geolocation of user, and the presence of tags, cameras, sensors for guidance presented through projects especially in Europe such as i-MIBAC Voyager (Italy), ARCHEOGuide (Greece), Streetmuseum (London), Digital Pen (New York), Smart Glasses (San Francisco, Paris). To help tourists in enhancing their experiences on cultural tourism in Italian cities, the ICT platform is applied for customization during Christmas event (Clarizia, Lemma, Lombardi, & Pascale, 2017a). The smart city concept as the result of this must be linked with urban cultural tourism. Some collected applications adapted to enhance cultural experience of tourists in creative cities shown in Table 1.

Table 1. Technological platforms applied in creative cities

Reference	City/Nation	Channel/Platform	Audience	Description
Schuler (2005)	Seattle	SCN – web-based community network www.scn.org	All	A free public-access computer network for exchanging and accessing information.
Carroll (2005)	Blacksburg, USA	BEV – Web-based community network www.bev.net	Residents, businesses, visitors	An electronic house for community groups of all sorts offers some online services.
van den Besselaar and Beckers (2005)	Amsterdam	DDS – (De Digitale Stad) Virtual public domain www.dds.nl	Habitants, inhabitants	A global virtual community allows inhabitants to build their virtual houses on the city domain, encourages information exchange, innovation, IT services.
Linturi and Simula (2005)	Helsinki	Helsinki Arena 2000	Inhabitants, habitants	Creates electronic communication routes, links the physical and virtual events.
Sevin (2017)	Amsterdam	www.iamsterdam.com	Visitors, residents, businesses	Great place to live and work with beautiful museums and neighbourhoods listed, instructions for relocation.
Garau (2017)	Italy	www.luoghigiottoitali a.it/en/	Tourists	Customized tours across six cities – Padova, Milan, Bologna, Florence, Assisi, Naples – Italy to discover Giotto.
	Italy	Tuscany+	Tourists	Information of monuments and services around, co-creative offers.
	Trento	RFID for festival	Visitors	Evaluates and analyzes actual behaviours of tourists based on the movements and preferences.
Clarizia et	Salerno	Mobile Context-aware	Tourists	An app is similar to CyberGuide,

al. (2017a)	(Italy)	app		Sensay, AnonySense, SOCAM, GeoNotes that supply customized services and resources based on tourist's position and global profile.
Clarizia, Lemma, Lombardi, and Pascale (2017b)	Different towns in Italy or abroad	Adaptive telling app	Visitors, revisitors	An app similar to FaTe2, Wikinovel, Casting that gives visitors their own tailored story based on their visiting places and information from Facebook, Google Places and TripAdvisor.

Source: Authors' summary

1.2 Vietnam cities in a digital era

Digital communication channels

Hanoi capital city, Hue ancient capital, Danang city, Ho Chi Minh city are salient representatives of Vietnam regarding tourism and city branding. Taking advantages of information technologies and modern communication channels, four cities promote themselves through their official websites, apps serving tourism needs, social media such as Facebook, Twitter. With efforts of Vietnam government to promote the image of Vietnam Timeless charm, the information of all cities and towns can be found at the official website vietnamtourism.vn since 2016 with the elegant display. Hanoi, Danang, Ho Chi Minh are representatives of Northern Vietnam, Central Vietnam, Southern Vietnam respectively ('Places to go' tab). In the tab 'Things to do', culture, art, and entertainment appear in almost activities. Trip recommendations and requirements are very useful for visitors. Heritage tourism is an indispensable component. Visitors can experience a virtual tour through texts, images, sounds, videos from the Northern to the Southern of Vietnam. Ten Instagram accounts are introduced to follow include @trantuanvietsui, @nhanlephotography, @milessofsmiles, @hlinhngg, @quinnryanmattingly, @dinhvietphoto, @rdeboodt, @vietnamfoodstylist, @soaipham, @rehahn_photography. All of them are photographers who love to memorize Vietnam images through their lens. As can be seen, Vietnam has chosen visual communication to create memorable city images in visitors' mind.

In addition, every city has an official website as a web portal toward all city stakeholders with the suffix gov.vn after the name of the city. Almost these websites have traditional displays in which information, government documents, news, events are regularly updated. These websites are inclined to primary communication instead of secondary communication. There is a lack of graphic design, interaction and city brand identification. Beside the official websites, Hue and Danang have some additional tourism websites (Table 2). In case of Hue ancient capital, launching three additional websites seems not to be a wise strategy. The tourist website dananafantasticity.com focus on the induced image at secondary communication level as compared to the remaining cities. Graphic and functional conceptual aspects are conducted quite good by city tourism planners. However, it is not easy to gain emotional conceptual purpose. In other words, based on the classification of Michalis Kavartzis (2004), Danang is better in communicating image of the external city than internal city. It is about city of mind regarding society, a way of living, culture. Some more the brand images of cities are still inconsistent. For example, Danang aims to a worth-living city, an entrepreneurial city, and a fantastic city at the same time. Also, there is an existence of more than one logo in a city. The city governors remain one logo as a formal one for all activities and the different one only for tourism. This can confuse different stakeholders and not easy to promote the city.

Similarly, all the cities have fan pages (Facebook accounts) run by themselves. It is very useful to reach visitors' emotion. In spite of city identity lack, Ho Chi Minh city is better than Danang in posting contents through social media in English. In general, all these cities have not exploited the power of hashtagging.

Table 2. Communication channels of Vietnam cities

	Hanoi	Hue	Danang	Ho Chi Minh
Websites	vietnamtourism.vn			
	Hanoi.gov.vn	www.thuathienhue.gov.vn dulichhue.com.vn visithue.vn huefestival.com	danang.gov.vn danangfantasticity.com	Hochiminhcity.gov.vn
Apps	ThangLong app, Bus WebGPS	Hueinfo, inHue, Festival Huế	InDanang, Chatbot	Vibrant Ho Chi Minh City

Facebook	Hanoi Creative City (@hncreativecity)	Huế City (@huecity.net), Thừa Thiên – Huế (@CityHue), Du Lịch Huế (@huetourism)	Danang City – Vietnam (@danangcity123), Danang – FantastiCity (@Dnang.sk), Danang FantastiCity* (@visitdanang)	Ho Chi Minh City (@hcmc.sgn)
Twitter	No official twitter account	No official twitter account	Danang FantastiCity (@visit_danang)	HCMC Travel Guide (@HCMC Guide)

Source: Collected by the authors May 2018

Hashtags

Marketing principles can be adapted for tourist behavior with five stages in the purchase process. Hence, after needing recognition about cultural tourism in particular places, the sources of information toward cultural tourists are promotional materials, groups of reference, digital channels. In order to search destination information, potential visitors can use digital utilities as the most convenient tool to decide their journey. As mentioned earlier, social media is the most useful way to promote city image. Along with increasing trend of social media usage, the tourist cities in Vietnam have been using these kinds of channels as the cheapest tool of city branding. Using hashtags has been becoming popular among electric users. As can be seen in Table 3, all hashtags of four tourist cities belong to three different areas of Vietnam – Ha Noi (the north), Hue, Danang (the central), Ho Chi Minh (the south) are attached by #vietnam.

Hanoi capital city has a strong connection with Ho Chi Minh - the second biggest city and some Asian places such as Thailand, Taipei-Taiwan. Ho Chi Minh City (Saigon is the former name) is in relevance with business activities and become familiar in Japanese with hashtags ホーチミン (Ho Chi Minh), ベトナム (Betonamu – means Vietnam). In the middle, hashtags related to Danang focus on travel much more than Hue. Almost hashtags for Hue are about makeup art, even #maquillaje – a Spanish word means makeup. English is the main language used by social media users. In spite of the smallest popularity of Danang hashtags, all these words reflect the appropriate image of Danang such as cuisine (#fishandchips, #food), entertainment (#infotainmentawards), nature (#beach) and benefit from regional tourism (#Hoian, #hue).

However, social media is one of the digital channel generated by the user. The negative information about cities can spread even much faster than the positive one since users can search by a simple click on the hashtag. Cities can keep balance by creating positive cultural contents actively not only limited on Facebook. After visiting a city, cultural tourists tend to share their cultural experiences through social media. The hashtags used by them are the significant viral sources.

Table 3. Vietnam cities Hashtag trends

	Ha Noi	Hue	Danang	Ho Chi Minh
Hashtags	Vietnam, hcmc, travel, saigon, Thailand, Taiwan, news, taipei, blogger, Asia	Vietnam, makeupartist, huenumakeup, maquillaje, smarthome, makeup, huenuzapatamakeup	Vietnam, Hoian, travel, fishandchips, beach, hue, saigon, food, Hanoi, infotainmentawards	Vietnam, Saigon, travel, stocks, ホーチミン, ベトナム, acquisition, merger
Languages used	English 65%, Vietnamese 21%, Unrecognized 6%, French 3%, Spanish Castilian 3%, Italian 2%	English 56%, Spanish Castilian 12%, French 10%, Portuguese 10%, Unrecognized 9%, Vietnamese 3%	English 54%, Indonesian 17%, Unrecognized 12%, Vietnamese 9%, Japanese 6%, Tagalog 2%	English 60%, Vietnamese 12%, Japanese 11%, Unrecognized 7%, Spanish Castilian 7%, French 3%
Spelling variants used	Hanoi 59%, hanoi 37%, HaNoi 2%, HANOI 2%	hue 52%, Hue 32%, HUE 16%	danang 45%, Danang 34%, DaNang 18%, DANANG 3%	HoChiMinh 52%, hochiminh 45%, Hochiminh 3%
Popularity	50%	44.9%	38.8%	40%

Source: Collected by the authors through hashtagify.me - May 2018

2. Literature review

2.1 Cultural tourism

Cultural tourism can be defined as tourism related to cultural facilities, such as “heritage site, historic cities, and art attractions, such as festivals” (Towse, 2010). Resources like monuments, museums, visitor attractions, art galleries, cinemas, concert venues, theatre are manifestations of a cultural city. These resources are used by the resident and the local visitor, holiday maker, business, conference delegate, city worker without connection between city worker and monuments (Ashworth & Page, 2011, p. 10).

According to Smith (2009), cultural tourism is a multi-disciplinary subject in international context related to history, politic, society, geography. Nowadays, cultural tourism is a diverse tourism term led by culture. Cultural tourism is viewed as an instrument allowing identity forming of new plural-ethnic/state configuration (Lanfant, 1995). For this aspect, identity can be considered as a type of product need to be placed in relation to others. In addition, cultural tourism is in relation to globalization that is summarized by Appadurai (1990) into five trends including ethnoscaples, technoscaples, finanscaples, mediascaples, and ideoscaples. Along with this trend, especially in a digital era, it is not easy to clarify the line between illusion and reality (Smith, 2009). Blurring this line is also mentioned in urban tourism context (Massey, 1995) which based on culture and entertainment. Some brands have become cultural tourism icons such as McDonald’s and Disney since globalization has been increasing (Ritzer & Liska, 1997).

Mentioning cultural tourism, especially without commoditization, Getz (1994) highlights the role of authenticity in relevance with post-tourist experience. Authenticity can be divided into three categories: objective authenticity, constructed authenticity, and personal authenticity (Jamal & Hill, 2002). The former includes artefacts such as traditional or historical sites. The latter is related to artificial attractions such as or art objects. These two types are covered by heritage tourism and arts tourism respectively as proposed by some scholars (Richards, 2001; Zeppel & Hall, 1992). The last one expresses experiences relating to personal identity and meaning. In general, cultural tourism can be understood as ‘all movements of a person to specific cultural attractions... outside their normal place of residence’ (Richards, 2005) to satisfy their cultural needs. Among cultural tourism sectors, arts tourism is more experience-oriented than heritage tourism (Zeppel & Hall, 1992). However, in terms of cultural production, it is difficult to distinguish them (Smith, 2009).

2.2 City branding based on cultural tourism

The concept of nation brand is proposed by Anholt (1998) regarding to the provenance of exported brands. Deriving from this concept, Govers (2011) argues about the necessity of distinguishing place branding from place marketing. The differences are a multi-brand strategy seem not to be adapted to place and the need for cooperation between cities as regional brands. The author supposes that building strong place brand not merely based on exporting qualified products. Depending on which place is focused, place branding can become nation branding or city branding. Today, place branding and city branding are usually used yet distinctly (Sevin, 2017).

According to (Mihalıs Kavaratzıs, 2005), similar to countries/regions, cities borrow marketing techniques to attract their target audiences. The application of marketing theory to places can be divided into two trends: non-business/non-profit approach and urban crisis/de-industrialisation approach. The second trend shows similarities between cities and businesses. Mentioning place branding trend, he reviews the literature about the place of origin branding, nations branding, destination branding, culture/entertainment branding, and place/city branding. Among them, cultural/entertainment branding spread widely all over the world, contribute to forming the city’s image. Mihalıs Kavaratzıs and Ashworth (2005) differentiate place branding into three kinds: Geographical nomenclature, product-place co-branding, and place management. City branding should be understood as a place management form with the creation of unique identity to gain the positive perception from different stakeholders. Jensen and Richardson (2005) have the same opinion with Mihalıs Kavaratzıs (2005) and Florian (2002) in transition context from industrial cities to cultural cities. In which urban branding is attached to a creative class, cities of culture, knowledge, and entertainment. City branding is thus overlapped with urban branding in cities with high urban growth.

Many cities all over the world today brand themselves with cultural manifestations such as museums (Paris, London), architecture institutes (Rotterdam, Singapore, Taipei), art (Birmingham, Beijing, Hong Kong). The salient target audiences they aim to no one else than cultural tourists. According to Sevin (2017, p. 114), tourists can be positioned as external stakeholders are invaluable co-creators of city branding processes. This tendency of cities promotion is supported by Towse (2010, p. 513) in line with images of culture since cultural activity also attract creative people. Along with the development of cultural tourism, residents also benefit from plenty choices of cultural products. When mentioning economic aspects of cultural tourism, cultural tourists are

supposed to “have higher levels of income and education” as compared to common tourists. They have higher willingness to pay for the experience.

The interrelationship between cities and tourism is discussed in the work of Ashworth and Page (2011). Cities need tourism and cities are the origins and the destination of most tourists as well. The author recognises that new city landscape for tourism is based on the cultural districts growth. This perception has consensus from Mihalis Kavatzis (2005) in terms of the role of culture in local economic development. Culture and entertainment districts have been replacing uninhibited industrial areas. Therefore, city branding must be attached by culture, especially cultural festivals and events which are considered as the major materials of cultural tourism. The author mentions two sides of city branding through culture and entertainment including place management aspect and influence of tourism since the cultural tourism trend is growing. Along with this trend, the city brand image and the identity of cities need to be connected to culture. Many cities have rebranded themselves based on urban culture and heritage with signs and symbols orientation. Furthermore, to attract the creative class people who look for high-quality experiences, cities should put culture in the heart instead of solely based on physical attractions (Florian, 2002, p. 218). These creative people can be current or potential visitors of cultural tourism.

Manuela, Silvia, Annette, and Nigel (2009) define the linkage between cultural attractions in a city with tourism offers in the case of Milan’s brand image. In order to enhance city brand image, cities should differentiate themselves based on artistic, architectural and cultural heritage to get away from creating the pattern of seasonal pattern tourism. The imprint of Milan is represented through sights, sounds, touch, taste, and smell in tourists’ perception. Some cities are mentioned as outstanding examples to help Milan identify which cultural personalities of Milan should be strengthened. The Italian destinations such as Florence, Rome, Venice are popular with international heritage tourism. While European destinations such as Barcelona, Berlin, Vienna are successful cases in terms of cultural attractions. According to Green et al. (2010), the host culture is a component of event image and destination image also. Having similar ideas, Fernández-Cavia and Huertas-Roig (2010) recognize cities brand themselves based on specific events. In spite of this, the authors suppose that it can be the negative effect toward a sustainable city brand if city image is attached by political events or any private attraction.

Place images also are affected by TV shows, diplomacy, popular culture, tourism advertising. Whenever need place imagination, people tend to think about the position of potential visitors in their minds. In spite of negative place images already existed in one’s mind, he/she still can travel to that place because of attractive promotions. As similarity to the corporate brand, a city cannot build separate brands for its different stakeholders. Therefore, city branding is often attached by destination branding aims to tourists who might be investors or residents in the future. At the same time, internal city branding toward residents must also be positive. Hence, city brand needs to be built based on “the sense of place and identity of the local population and societal actors” (Govers, 2011, pp. 229, 230). This base is connected to the genetic approach of culture as the classification of Kroeber and Kluckhohn (1952) in relation to society, individuals, environment, and artefacts. That is the reason why nowadays building city brand image based on culture have a strong connection with cultural tourism. Turku, the old capital cultural city of Finland, is another example which is proved that has a contribution on city branding, increases city awareness, nurture a long-term relationship with city visitors (Hakala & Lemmetyinen, 2013).

Additionally, Sasajima (2013) remarks the concept of the creative city in accordance with creative city projects in Yokohama’s Kogane-cho neighbourhood in Japan. As entrepreneurial perspective, cultural activities that usually aim to visitors also contribute to investors attraction. Hence, the relationship between cultural tourism and city branding is enhanced as well. In the other hand, Sevin (2017) supposes that cities have been branding themselves as touristic destinations since tourism has brought income from visitors to cities. Moreover, travellers can be seen as temporary residents, not only are influenced by cities’ reputation but also influence their brands.

Festivals and events are the most noticeable attractions of cultural tourism destinations. Quinn (2005) indicates that festivals growth expresses city branding to use cultural facilities needed to attain competitive advantages in the global market. The author proves the role of the festival as city image-maker, tourist attraction through Glasgow case. Consequently, festivals can be the vehicles of urban generation or fixers of city image problems. A study of Absalyamov (2015) shows that the cultural heritage of a host-region, an important element of cultural tourism, also be positively affected by mega-event in the case of Kazan city, considered as the 3rd capital of Russia. The event 2013 Summer Universiade brings many opportunities for the capital city of the Republic of Tatarstan in creating its positive image. Along with the improvement of infrastructure and local businesses, the reputation of the city is also improved. The correlation between event image and destination brand is supported by co-branding approach of Xing and Chalip (2006). Also, according to Arnegger and Herz (2016), events include mega-events, hallmark events, local community events or periodic events that have interconnection with a certain place. The significant impact of Eurovision Song Contest (ESC) that is considered

as a cultural mega-event calculated by the authors in case of Azerbaijan’s image. Intangible effect of mega-event is proved to change the image of the host destination thus can increase the number of visitors and economic benefits in the future. Overall media coverage related to the event also affect people’s destination knowledge and visiting intention even they do not attend the event. In this case, the host destination’s image is improved after the event. Dave and Bart (2013) supply the supplemental fact that long-term positive image of the host city in event attendees’ perception will only remain if having a connection between the event and the city aspects. Also, city brand attitude of residents can be improved through cultural mega-events experiences (Vila López, Kuster Boluda, & Marín Aguilar, 2016).

Similarly, the image of a mega-event is affirmed to have effects on destination image at all construct, sub-construct, factor levels with cognitive, affective, overall dimensions in the case of 2008 Beijing Olympic Games (Lai, 2018). The author also collects five types of the relationship between event image and destination image: correlational, intersecting, causal, inclusive, and irrelevant. The evidence is shown through studies of Lyon’s Tennis Grand Prix, an amateur bicycling event, the 2004 Athens Olympic Games, the 2010 Shanghai Expo, the football games, the 2012 Guangzhou Asian Games. Despite the influences are not the same, affective image dimensions are dominant.

3. Methodology

Nowadays, online cultural tourists have trend to search information of cities through the search engines. Xiang and Gretzel (2010) illustrate the interactions between travel information searcher, search engine and online tourism domain. The authors confirm the essential role of the search engine based on previous studies in term of traveler’s perception and decision making. Search engine could be considered as an information space for competition not only for firms but also for cities. Hence, a data mining approach with content analysis is applied for this study.

After investigating how Vietnam cities brand themselves through digital channels, this study quantifies the trend of using keywords related to cultural tourism in the middle of Vietnam. English is chosen as the language used through Google search engine. After collecting keywords with using Keywordtool.io, noise filtering is conducted to categorize keywords. All keywords are defined in relation to the city brand name. In other words, they are combinations between the name of cities and cultural contents. Deriving from these keywords, the expansion can be added. Keywordtool.io helps in looking for keywords through Keyword suggestion and Related keywords offerings. For example, after typing ‘da nang museum’, 20 unique keywords are suggested such as danang museum, cham museum danang, danang museum of cham sculpture, danang military museum, and so on. The set of these keywords then are saved as excel format in order to filter noise.

Furthermore, search volume and trend of every keyword are displayed in the results. Then, keywords are grouped into cities and the cultural tourism contents. The noise filtering and classification must be ensured by understanding the keyword meanings related to cultural characteristics of each city. On the next stage, supplement keywords will be added to improve the keywords set. This task needs the knowledge in cities culture of researchers. After categorizing keywords, the researcher can define the number of keywords in every subject, the average searches per month, the increase/decrease trend as compared to the previous year. The researcher also knows which the most popular content on every subject related to cultural tourism is. Then, the comparison between cities in the middle region is made regarding keywords quantity, average searches, searching trend growth.

4. Research results

In total, there are 758 keywords explored. Table 4 expresses the number of keywords merely related to city brand name (volume keyword), average search volume per month (the third column), and the growth of these keywords as compared to the previous year (trend). In terms of city brand name, the average search volume per month of Danang is highest. It can be explained by the representation of Danang in central Vietnam. However, the searching trend of Hue is slightly higher than Danang. This number for Hoi An ancient town is increased strongly within a recent year.

Table 4. Average searches per month on city brand name

City	Volume Keyword	Search Volume (Average)	Trend (%)
Hue	34	355.88	13.44
Danang	37	1133.51	12.81
Hoi An	58	757.76	26.03

Source: Authors' data analysis

Table 5 shows a specific searching trend in cultural tourism including museum, festivals and events, iconic building, cuisine, nightlife, leisure, art, park, nature, village, handicraft. As can be seen, Hoi An attracts attention of cultural tourists by museum with keywords 'Hoi an museum/museum in hoi an/hoi an museums'(333%) and 'hoi an war museum' (200%), much higher as compared to 'Da Nang museum' (200%). More details, Danang is popular with 'Cham museum/cham museum danang' (27%/56%), Hue is attached by 'hue museum of royal antiquities' (100%).

In terms of festivals and events, the searching trend reflects the tourism development of Danang as a festivals and events centre with high searching growth (157.14%). Keywords 'event/events' are attached to Danang much more than Hue and Hoi An. Danang celebrates many international festivals and events but still has not marked the featured ones in visitors' memories. In addition, the neighborhood is famous with some festivals such as Hue festival 2018, Hoi An lantern festival, Hoi An full moon festival 2018. This is an advantage for Danang to attract international cultural tourists since the international airport is built in Danang. However, visitor retention is always a noticeable issue in this city. Hence, cities need to brand themselves as memorable images which can be formed through visual identifications such as iconic buildings. Danang is ranked as the first position in searching volume per month, followed by Hoi An and Hue respectively. Danang is famous with bridges across Han river, the lady buddha statue – the symbol of residents' spirit. Hue cultural manifestations such as Hue imperial, emperor tombs, especially Hue citadel are historical architectures. Among them, Hue citadel or forbidden/imperial city attracts the most attention with keywords 'hue imperial city', 'hue citadel' (highest search volume per month), 'hue imperial city map' (highest growth – 600%). Heritage tourism also develops in Hoi An ancient town and My Son sanctuary which are linked to each other since belonging to Quang Nam province. Japanese bridge and Hoi An market are considered as symbols of Hoi An toward visitors (search volume 720, trend 83%).

Table 5. Categories of cultural tourism keywords

	City/Town	Volume Keyword	Search Volume (Average)	Trend (%)	Salient subjects
Museum	Hue	5	26	20	Hue museum of royal antiquities
	Danang	20	69	16.95	Cham museum
	Hoi An	8	108.75	147.75	Hoi An museum of history and culture, Hoi An war museum
Festivals and events	Hue	7	10	57.14	Hue festival 2018
	Danang	7	34.29	157.14	Danang event, Danang festival
	Hoi An	10	94	37.5	Hoi An lantern festival, Hoi An full moon festival 2018
Iconic buildings	Hue	39	133.03	38.06	Hue citadel, Hue imperial, Emperor tombs
	Danang	11	320.91	44.09	Lady buddha, dragon bridge
	Hoi An	54	298.70	48.78	My Son holyland/ruins/sanctuary, Hoi An Japanese bridge, Hoi An market, Hoi An old houses
Cuisine	Hue	20	69	13.3	Hue cafe, restaurant
	Danang	62	85.16	31.18	Local food, Danang breakfast, best coffee, (family/seafood) restaurant, buffet, street food, street food tour
	Hoi An	42	285.48	47.24	Cooking class/school, food tour, taste of Hoi An, 9 grains, chicken rice, cafe, pho, (old town) restaurants, pancake, cao lau
Nightlife	Hue	1	30	0	
	Danang	19	233.68	50.79	Night market
	Hoi An	25	77.6	34.8	Night market, ancient town at night
Leisure	Hue	6	20	50	Club, walking tour
	Danang	54	48.70	20.70	Bars, sport bar, casino, clubs, beach club, golf club, golf courses, golf resort, surfing, cinema

	Hoi An	4	195	8.25	Sport bar
Art	Hue	14	10.71	-39.29	
	Danang	15	12.67	-40.33	Review Danang
	Hoi An	17	22.35	14.06	Photo tour, photos, music
Park	Hue	16	91.88	30.44	Bach Ma national park (tour/trip),
	Danang	8	32.5	2.63	Theme park, Asia park, water park
	Hoi An	6	40	196	Impression theme park, terracotta park, water park, national park
Nature	Hue	19	22.11	1.32	
	Danang	42	186.90	21.38	Beach, My Khe beach, cave, (Son Tra/monkey) mountain, Hai Van pass, Han river
	Hoi An	65	212.77	8.18	Beach, Cam An beach, caves, morning glory, mountain, river,
Village	Hue	0	0	0	
	Danang	14	168.57	10.86	Non Nuoc stone carving village, marble mountain
	Hoi An	7	157.14	26.43	Silk village, Thanh Ha pottery village
Handicraft	Hue	0	0	0	
	Danang	0	0	0	
	Hoi An	12	81.67	16.75	Gifts, lantern,

Source: Authors' data analysis

Hoi An is also successful with cuisine features such as chicken rice, pancake, Cao Lau, leads the searching trend (47.24%), followed by Danang (31.18%). Danang is popular with seafood restaurants and street food. Keywords of Hue cuisine is still not specific. This situation of Hue is repeated when searching for nightlife. On the contrary, Hoi An is looked for through keywords about the legendary night, food tour by night, more diverse than Danang with general contents such as night market, nightlife (although attaining highest search volume and trend). However, the diversity of Danang leisure activities is reflected by the first ranking on searching trend (20.7%) and average volume (48.7) (see more details in the last column of Table 5). Also, visitors can experience culture in Bach Ma national park of Hue, Danang theme park, Danang water park, Hoi An impression theme park, Hoi An terracotta park, Hoi An water park. Among them, Hoi An owns the best keywords which are appropriate for the town promotion.

Turning to art (natural and artificial), Hue is left behind on searching trend. Danang and Hoi An are famous with preferential nature including beaches, river, mountains. Interestingly, although Hai Van pass is the shared landmark of Danang and Hue, these keywords appeared along with Danang, not Hue. Regarding artificial art, Hoi An is ranked as the first one with keywords related to photography and music. In spite of fine arts education developing, Hue has not taken advantage from this to brand itself. Hue also disappears on traditional village and handicraft searching trend. In relevance with every place, these keywords reflect the reality of cultural features in Danang and Hoi An (Non Nuoc stone carving village, Hoi An silk village, Thanh Ha pottery village, gifts, and lantern).

As can be seen, Danang is popular with cultural manifestations such as Cham museum, Lady Buddha, Dragon bridge, Theme park, Asia park, water park, My Khe beach, Son Tra mountain, marble mountain with Non Nuoc stone carving village, Hai Van pass, Han river. In term of cuisine, Danang is considered as an ideal choice for the family with breakfast, coffee bar, seafood, street food. For entertainment, Danang brings more diverse options than the neighbors such as bars, casino, clubs, golf, surfing, cinema. In spite of this, the keywords for art, festivals and events of Danang are very general. Danang International Firework Festival – DIFF does not appear in this list although Danang can attract many domestic tourists to this event.

5. Implications for city branding in Danang

As compared to the neighborhood, Danang city image communication is quite efficient. However, the utilities of digital channels need to be exploited more effectively. Danang needs to consider identification of the city to ensure the consistence through websites, facebook, twitter, apps since one city should not promote more than one brand image. Danang can not orient as a worth-living city, an entrepreneurial city, a fantastic city at the same time. One memorable and meaningful logo with a slogan is sufficient for Danang. Basing on culture, Danang can harmonize the benefits between residents and non-residents. This orientation is also appropriate with

the international trend of cities all over the world. Furthermore, Danang can position herself in competitive and cooperative relationship with Hue and Quang Nam (more specific is Hoi An).

The web portal of Danang (<https://danang.gov.vn/>) needs to be improved as a digital marketing tool in linkage to Danang tourism website. The website needs to have directional maps to enhance users' experience. Primary communication related to landscape and infrastructure should be reformed. The landmarks such as Cham museum, Dragon bridge can be used as memorable attractions of Danang. The city should declare heritage planning, urban design architecture, green spaces, public spaces. In addition to modification of logo usage for secondary communication, Danang should increase graphic designs usage instead of too much traditional photos. Parks, beaches with entertainment, mountains, the river with seafood, nightlife with street food and bars should be the inspiration to promote Danang images. To enhance the emotional conception toward different stakeholders, interactivities need to be encouraged. Interactivity can be improved by using a search engine, user support, display option customization, virtual reality display, multimedia integration, virtual leaflets. The city even can create an official Youtube channel, a virtual community for users or activate the interactive function linked to users' social media accounts.

In addition, Danang needs to be more active in using search engine optimization (SEO), social-cultural hashtags relevant to the strong keywords as mentioned in the previous section. The keywords/hashtags should be more specific, such as #diff, #chammuseum, #ladybuddha, #streetfood, #nonnuocvillage. Noticing that more than one hashtag can be used for the same marketing content. As discussed earlier, Danang can brand herself as a cultural destination for tourists. The creative class people hence will be attracted, and they can contribute to the sustainable development of the city as well.

6. Conclusion

The study has achieved the goal of exploring search patterns of cultural tourists on cities of the tourism cluster in central Vietnam and knows the strength of each city. Among 758 keywords, 629 keywords are about cultural characteristics for tourism. This searching trend is beneficial for these tourism cities reconsider their branding strategies, especially on city image positioning. However, the study has not categorised where the online users come from and which online channels the searching results display. Hence, further research can solve this limitation. Additionally, a comparative study can be conducted on big cities in Vietnam which are representatives of three regions in the future.

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Internet Service Provider Switching Intention: The Case of Hanoi Consumers

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ABSTRACT

Research on service provider switching behaviour of consumers is a new research topic in Vietnam. According to Push-Pull-Mooring (PPM) Migration Model of Switching Service Provider, this research proposes Internet Service Provider Switching Intention of Hanoi consumers Model with three factors originating from present service provider and one from alternative service provider. The research makes use of both qualitative method and quantitative method. The research model is tested with the survey data of 260 Hanoi consumers. Results show that the model is suitable for research into Internet service provider switching intention of Hanoi consumers. This research also considered a suggestion for the scholars and businesses to broaden knowledge of stimulating customer's relationship.

Keywords: Service provider switching intention; PPM Migration Model of Switching Service Provider.

1. Introduction

Over the globe, the topic of switching behavior is receiving great attention from scholars, who have carried out researches both theoretically and practically to find effective ways to maintain and cultivate relationship with consumers. In order to understand, analyse and predict switching behavior, many a researcher gives special consideration to switching process approach.

Specifically, Service Provider Switching Behavior Model (PPM) of Bansal Irving, P. G., and Taylor, S. F., (2005) has been developed by researchers over the world to explain and predict service provider switching behaviors in different service sectors such as Information Technology (Lui, S. M, 2005), IT products (Chen Ye, 2009); online services (Zhang et al, 2012); airline service (Jishim Jung et al, 2017).

Previous researches have presented that during the switching process, switching intention is a central factor, which decides the service provider switching behavior of consumers. However, in Vietnam, there has yet to be research into the topic of service provider switching behavior of consumers.

This study makes use of PPM Model by choosing suitable factors as to the Internet service context, building research model to explain Internet provider switching intention of consumers. The result contributes to the increase in awareness of service provider switching behavior, which is more and more ubiquitous in Vietnam, from the perspective of PPM Model.

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2. Theoretical background and Hypotheses Development

2.1. The Push – Pull – Moor Framework

Switching behavior is a concept that has interested numerous scholars, especially in a competitive market condition. The first study was by S.M. Keaveney (1995) and there have also been numerous studies in recent years. The majority of researches show that switching behavior of consumer is the decision to switch from using the service of present provider to buying from its competitors. Studies on switching behavior have 3 approaches, including: reasons leading to switching (S.M. Keaveney, 1995; Colgate and M., Hedge, 2001; Gerrard, P. and Cunningham, J. B., 2004...), switching process (Bansal, H. S., and Taylor, S. F. 1999, 2002; H.S. Bansal, S.F. Taylor, Y.St. James, 2005; Zhang, K. Z. K., Cheung., C. M. K., Lee, M. K. O, 2012; Roos, 1999, 2004; Inger Roos, Margareta Friman, 2008) and consumer commitment (Bansal, H. S., Irving, P. G., and Taylor, S. F., 2004).

According to Push-Pull-Mooring theory in geographical documents, the immigrants from one region to another are pushed away by pushing or negative factors namely natural calamity or are attracted by pulling factors such as better job opportunities. In addition, there also are personal and social factors, specifically transportation expenses as a mooring factor which is either advantageous or disadvantageous for migration (Moon, 1995).

In order to implement migration strategies, 3 aspects have to be examined. Firstly, perception of the present accommodation of immigrants can push them to switch to another place (pushing factor). Secondly, perception of the destination of immigrants can attract migration activity (pulling factor). Thirdly, perception of personal and social aspects of immigrants can stimulate or hinder the migration process (mooring factor).

H.S. Bansal, S.F. Taylor, Y.St. James (2005) are the first authors to study and apply the push-pull-moor theory to the marketing field. According to H.S. Bansal, S.F. Taylor, Y.St. James, there are similarities between migration and service provider switching behavior, therefore, pushing, pulling and mooring factors have their roles in explaining switching process of consumers. Service Provider Switching Model (PPM) of H.S. Bansal, S.F. Taylor, Y.St. James (2005) is a comprehensive theoretical framework and model, which identifies particular variables and explains switching behavior of consumers in the service field. In PPM model, switching intention plays a central role and has decisive impact on switching behavior. Individual variables fall into 3 categories influencing switching intention of consumers, namely: pushing factor group, pulling factor group and mooring factor group.

Pushing factors (Push) are factors which originate from present service provider and stimulate consumers' switching, including: low quality, low satisfaction, low value, low trust, low commitment and high price perceptions.

Pulling factors (Pull), factors originating from alternative service provider (destination), are identified attractiveness of alternative service provider (Alternative attractiveness).

Mooring factors are personal, social, atmospheric factors can promote or hinder switching intention, including: high switching costs, unfavorable subjective norms, infrequent prior switching behavior, low variety seeking. The PPM model puts an emphasis on the importance of mooring variables as control variables as to service provider switching intention of consumers.

2.2. Hypotheses Development

Switching intention describes consumers' ability to switch from present provider to a different provider (Chuang, 2011). Service provider switching intention is one of the bases for providers to predict consumers' behavior, whether they plan to stay or leave.

Satisfaction

Satisfaction is an important concept in researches into consumer relationship and it has attracted a great deal of interest from scholars in the previous decades. According to Oliver (1980), satisfaction is the response of consumers to the fulfillment of their demands. As reported by Kotler (2001), satisfaction is the level of emotional state rooting from comparing the result of the product/service with consumers' expectation. In studies concerning consumer relationship, satisfaction plays an important part in distinguishing 2 consumer's groups: those who are loyal and those who have had service provider switching behavior. Between two groups, there is significant difference in their satisfaction with present provider (Ganesh, J., Arnold, M. J., and Reynolds, K. E, 2000).

Researchers have identified that consumers' satisfaction have a reverse effect on switching behavior as consumers have a tendency to buy from a different service provider if they are not satisfied during experimental stage (Bansal et al, 2005; Lui, S. M, 2005; Yi-Fei Chuang et al, 2008; Chen Ye, 2009; Zhang et al, 2012).

In studies which apply PPM model to research on consumers' switching intention, satisfaction is one of the pulling factors. Consumers will have switching intention when their satisfaction is low and vice versa (Bansal et al, 2005; Lui, S. M., 2005). In order to study the relationship between satisfaction and Internet service provider switching intention, this study proposes a research hypothesis:

H1: Consumers' satisfaction has a negative effect on Internet service provider switching intention.

Service price fairness perception

Price is an exchange correlation in the market. With regards to consumers, the price of a product or service is the amount of money they have to pay to gain ownership and usership of a product or service. Price is usually the primary factor deciding consumers' choice (Engel et al, 1995). Perceptions of one price tend to vary among consumers. According to studies on switching behavior, price is an essential factor in models of service provider switching behavior (Keaveney, 1995; H.S. Bansal, S.F. Taylor, Y.St. James, 2005; Zhang, K. Z. K., Cheung., C. M. K., Lee, M. K. O, 2012; Chen Ye, 2009; Lui. S.M, 2005; Yi-Fei Chuang, Yang-Fei Tai, 2016...)

As reported by the majority of studies on service provider switching behavior, consumer's price perception is measured by consumer's perception process of present provider's price compared with alternative provider's price (Lui, 2005).

In PPM Model – service provider switching behavior, price perception is a factor pushing consumers to alternative service provider (H.S. Bansal, S.F. Taylor, Y.St. James, 2005). As far as IT is concerned, Lui. S.M (2005), who studies IT service provider switching behavior (the surveyed IT service includes mobile phone and Internet), supposes that the price factor is influenced by consumer's conception, therefore, consumer's disapproval of the price will give rise to switching intention.

Consumer approves of a price when the price is considered fair (the price is equal to or less than that of other service providers), the price is not extortionate, the consumer is contented to pay the price, the price is lower than the consumer's paying capacity. As a result, this study proposes a research hypothesis reflecting the relationship between service price perception and Internet provider switching intention:

H2: Service price fairness perception has a negative effect on Internet provider switching intention

Subjective Norm

Subjective norm is regarded as the influence of social surroundings on individual's behavior. This is a personal belief of how others are going to perceive one's behavior. If a person expects and believe that one's behavior leads to positive results and important people (those who have influence on a personal scale) encourage and support that behavior, intention to implement the behavior will be formed. In other words, individual's behavior stems from one's expectation about positive outcome and one's belief of support from others.

Subjective norm has been proved to be influential towards intention whereby it affects behavior as reported in Ajzen's study (1991). Subjective norm is the pressure which society has on each individual when consideration is made on whether to conduct a behavior or not. Subjective norm also reflects the belief that observation and judgment towards one's behavior can be made by close and important people.

In the field of research, service provider switching intention of consumers witnesses an upward trend if their close ones expect them to conduct switching behavior (ex: Bansal, H. S., Irving, P. G., and Taylor, S. F., 2004; Chen Ye, 2009). On the basis of the given arguments, this study proposes a research hypothesis:

H3: Subjective norm has a positive effect on Internet provider switching intention

Alternative attraction perception

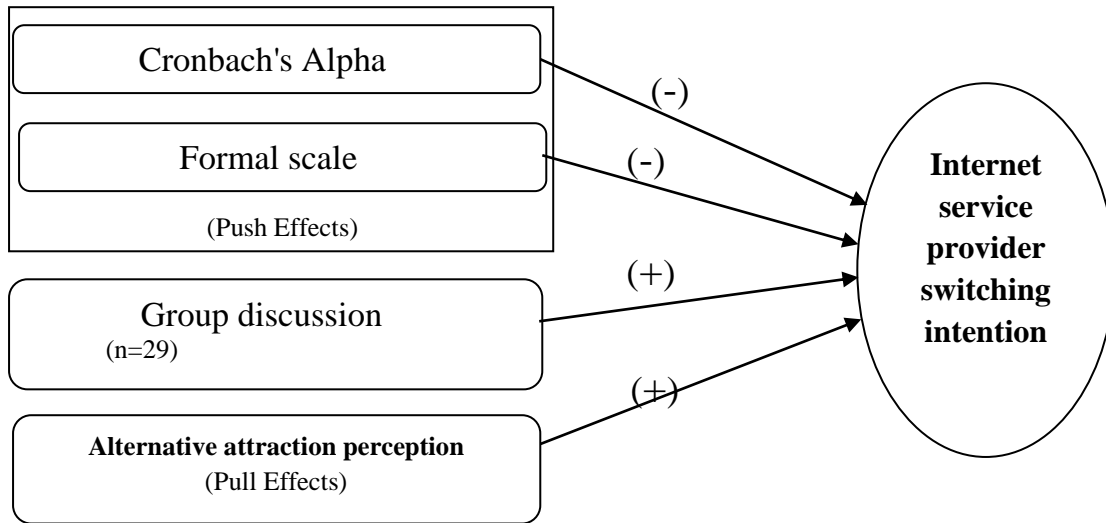
Sheth and Parvatiyar (1995) assert that while making buying choice, consumers have the tendency to choose merely several alternatives according to their subjectivism to reduce the complication of the buying process, therefore information processing is facilitated. That being said, when using a product/service, consumers tend to search for better alternatives, this pushes them to switch their provider. Alternative attractiveness is defined as estimation of consumers about the satisfaction they could have in another relationship.

Previous studies on switching behavior assert that alternative attractiveness affects service provider switching intention (Bansal, Taylor, & James 2005; Lui, S. M., 2005, Carmen, A., Carmen, C., Mirtha, 2007...). The great attractiveness of alternatives can have a direct impact on switching behavior (Kim et al, 2006). Alternative attractiveness perception is a pulling factor in the PPM Model (H.S. Bansal, S.F. Taylor, Y.St. James, 2005; Lui, S. M., 2005; Chen Ye, 2009; Zhang, K. Z. K., Cheung., C. M. K., Lee, M. K. O, 2012). Consumers invariably compare values among companies based on give information, they are pushed by perception of the benefits, values and service quality which is promised by a company (Bansal, Taylor and James, 2005; Keaveney, 1995). Therefore, consumers may not be willing to switch their service provider if conditions namely benefit, values and service quality of their present provider have been improved. In other words, if a company offers more attractive solutions than its competitor, it pulled its consumers to stay. As a result, in terms of this factor, this study proposes a research hypothesis:

H4. The alternative attraction perception has a positive effect on Internet provider switching intention

Image I illustrates a proposed research model on factors effecting Internet service provider switching intention of Hanoi consumers.

Fig. 1. Proposed research model



3.1. Qualitative study

Qualitative research is conducted with the intensive interview method with an aim to examining and filtering individual variables, which effect Internet service provider switching intention in the tentative research model, as well as identifying preliminarily the relationship between variables in the research model. In addition, intensive interview method also allows our research group to carry out necessary alterations to the questionnaire.

Our research groups have conducted intensive interviews with 10 Hanoi inhabitants including: 06 Internet service consumers, 02 experts of the marketing field, 02 managers working in Internet service enterprises. Interviews took place in private homes, offices, cafes... in order to ensure that interviews will not be interrupted and create a friendly atmosphere. Each interview lasts from 30 to 45 minutes with pre-prepared content. Qualitative research results in general support the proposed model of this study.

3.2. Consumer survey

3.2.1. Scale

The concepts used in this study include: service provider switching intention, satisfaction, Service price fairness perception, subjective norm, alternative attractiveness perception. Each and every scale is succeeded from previous studies and altered as necessary based on the suggestion of qualitative research result. A 5-point Likert scale is used in all scales, in which 1 means strongly disagree and 5 is strongly agree.

Service provider switching intention scale is inherited from Arvind Malhotra's scale (2013), consisting of 5 observation variables (example: I don't have any intention to use Internet service of my present provider permanently).

Satisfaction scale is inherited from Wenhua Shi, Jianmei Ma and Chen Ji's scale (2015), including 4 observation variables (example: I am satisfied my my present Internet provider).

Service price fairness perception scale is inherited from Lui (2005), comprised of 4 observation variables (example: The service price is reasonable regarding its quality; The service price is equal to that of similar service provider)

Subjective norm scale is inherited from Bansal, H. S., Irving, P. G., and Taylor, S. F. (2004), consisting of 3 observation variables (example: The most important people in my life consider that I should switch to new Internet service provider).

Alternative attraction scale is inherited from Lui (2005), including 4 observation variables (example: All things considered, alternative Internet provider is better than my present provider).

The questionnaire is constructed based on observation variables used to measure studied concepts in the model. Questions in the questionnaire are examined thoroughly according to a strict procedure to ensure

consistency of meaning between the original and the translation. After that, the questionnaire is perfected using the survey result on small and convenient sample.

3.2.2. Sample and data collection

This study is officially conducted with the qualitative method and via direct interview technique. A convenient sample includes 260 consumers currently using Internet service over 10 Hanoi districts.

This study makes use of the method of choosing convenient sample based on particular criteria such as: gender, education level, age... in order to make sure the data has the highest representativeness.

The sample consists of consumers from 18 years old, in which those between 26 and 54 account for 82%. In the sample, female and male makes up for 34% and 67%, respectively. In terms of education level, roughly 50% respondents receive university education or higher, over 10% surveyed consumers have graduated high school. With regards to household's average income, the sample includes object groups with more than 10 million dong: households with income of 15 to 25 million dong per month comprise 50% and about 9% of the total sample belongs to household with over 25 million dong per month.

4. Results

4.1. Properties of measures

This study utilizes Cronbach alpha coefficient to rate the reliability of each scale and exploratory factor analysis (EFA) is conducted to rate the convergence value and differentiation of scales. Analysis result presents that the reliability of every scale is qualified (Hair et al, 1998).

Specifics: Cronbach alpha coefficient of every variable shows high reliability (> 0.7). EFA is conducted individually for dependent variable (switching intention) and simultaneously for 20 observation variables. EFA result shows that the scales are qualified in terms of KMO, with total variance explained >50% and factor loading >0.5.

4.2 Structural Model

This study uses correlation coefficients to reflect the relationship of variables in each research hypothesis. Correlation coefficient reflects the relationship between two quantitative variables. Correlation coefficient always accepts value between -1,1.

Table 1. Correlations of Constructs

		Switching intention	Satisfaction	Service price perception	Alternative attraction perception	Subjective norm
Switching intention	Pearson Correlation Sig. (2-tailed) N	1 260	-.642** .000 260	-.718** .000 260	.622** .000 260	.537** .000 260
Satisfaction	Pearson Correlation Sig. (2-tailed) N		1 260	.461** .000 260	.528** .000 260	.350** .000 260
Service price fairness perception	Pearson Correlation Sig. (2-tailed) N			1 260	.524** .000 260	.202** .001 260
Alternative attraction perception	Pearson Correlation				1	.311**

	Sig. (2-tailed)					.000
	N				260	260
Subjective norm	Pearson Correlation					1
	Sig. (2-tailed)					
	N					260

** . Correlation is significant at the 0.01 level (2-tailed).

The positive correlation coefficient reflects that the two variables have proportional relationship. The negative correlation coefficient shows that two variables have inverse relationship. The upward correlation coefficient of 0 reflects that two variables are not closely related. Research hypotheses are accepted when the significance level of the correlation coefficient is less than 0.05.

The correlation coefficient (Table 1) shows that most of the correlation coefficients between the independent variable and the dependent variable have a significance level of 99%. Thus, the hypotheses given by the research team in this case are accepted.

The research team utilizes multiple-variable regression to analyze factors affecting Internet service provider switching intention. Results illustrate that, all factors influence Internet service providers. The adjustment factor of the regression model is 0.746, reflecting the independent variables are 74.6% explained for Internet service provider switching intention.

The significance level of the regression coefficients for independent variables was all less than 0.05, reflecting the regression coefficients of the independent variables are statistically significant in the model. The VIF values of the independent variables in the model are less than 10, reflecting the model is with multi-collinearity but still acceptable.

Table 2. Results of Hypotheses Testing

	Unstandardized Coefficients	Standardized Coefficients	Sig.	Collinearity Statistics VIF
Constant	-1.014		.000	
Satisfaction	-.306	-.235	.000	1.475
Service price fairness perception	-.462	-.464	.000	1.170
Subjective norm	.340	.312	.000	1.562
Alternative attraction perception	.209	.157	.000	1.647
Dependent: Internet service provider switching intention Adjusted R Square: 0.746				

Research results show that, satisfaction and Service price fairness perception have opposite effect to service provider switching intention because regression coefficients are negative (-), subjective norm and alternative attraction perception have same effect service provider switching intention. Among factors affecting service provider switching intention, price perception is the most influential factor because the regression coefficients are 0.464. Level of impact of the following factors respectively are subjective norm (0.312), satisfaction (0.235) and alternative attraction perception (0.157).

5. Discussion and conclusion

This study is based on PPM Theoretical Model to examine the impact particular factors have on Internet service provider switching intention of Hanoi consumers. Specifically, this study proposes a model with 4 hypotheses researching the effect of 4 factors (satisfaction, Service price fairness perception, subjective norm, alternative attraction perception). Theses factors are found in order to verify pushing, pulling, mooring factors concerning Internet service provider switching intention of Hanoi consumers. The analysis result has pointed out 4 research hypotheses. Similar to previous studies, the result has proven the positive effect of ‘Subjective norm’ and ‘Attractive alternativeness’ factors on ‘Internet service provider switching intention’ as well as the negative

of 'Satisfaction' and 'Service price fairness perception' factors on 'switching intention'. This study has suggested decisive factors concerning Internet service provider switching intention of Hanoi consumers and proposes that enterprises currently or wanting to be involved in the Internet service market need to construct strategies building and maintaining relationship with consumers.

Future studies can expand research sample beyond Hanoi, to cities such as Hồ Chí Minh city and Đà Nẵng. This research focuses on factors affecting Internet service provider switching intention. In the future, choosing different service fields in order to compare the effects of factors on switching intention can give rise to intriguing results.

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Advanced Application Solutions to Mobile Marketing in Vietnam

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ABSTRACT

Mobile marketing is a trend of strong and highly applied development in strategic marketing activities of enterprises in Vietnam and worldwide. This is an important marketing type in e-marketing that today's businesses, organizations, and customers are extremely interested in its superiority. This paper presents the theoretical background of mobile marketing and analyzes the potential and current status of mobile marketing in Vietnam in the period of 2005 - 2017. The analysis shows that Vietnam is a country with many potential opportunities for extensive mobile marketing applications. However, the application of mobile marketing has not matched the potential and there have been some certain limitations because of using simple tools, not having promoted effective tools of mobile marketing and the rudimentary expression. Based on that, the article offers some recommendations to promote mobile marketing in Vietnam in the coming time.

Keywords: E-marketing; mobile; Vietnam

1. Introduction

In recent years, the growth of the telecommunications market as well as the increasing penetration of mobile phones worldwide, especially the smartphones, has opened up opportunities for marketing on mobile phones. Technology has grown, the number of people using smartphones is increasing, the shift in the trend of using the internet on the computer to mobile, the check mail, SMS is easy to implement quickly on the mobile instead of the computer as before. Along with that growth, the emergence of Mobile Marketing is an indispensable trend and is gradually becoming an indispensable component in the communications industry in general. Mobile marketing is not only a new media channel but also a powerful communication tool with high accessibility.

Vietnam's telephone market is a key market in Southeast Asia with 119.7 million mobile subscribers, which means more than 119.7 million devices are attached and is capable of conveying very high information to consumers. Therefore, mobile marketing in Vietnam is a potential market for businesses to exploit in the world of Digital marketing to bring information about brands, products and services to customers with the highest efficiency. In Vietnam in recent years, mobile marketing has been popular and has promised a strong development of the benefits that this service brings. However, the reality of mobile marketing in Vietnam is just a tool to transmit simple advertising messages, download tools, and download music or some other value-added services on the SMS network but has not yet taken advantages of all the basic differences and exploit the full

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potential of the Vietnamese market to bring the highest efficiency.

Therefore, the study of the potential and reality of mobile marketing in Vietnam in the context of the 4.0 industrial revolution to make recommendations for promoting the application of this activity is truly necessary and practical meaning. Based on the above reasons, the authors undertake this study with three specific objectives: (i) Overview of the theoretical background of mobile marketing; (ii) Analyzing the potential and current status of mobile marketing in Vietnam; (iii) Proposing some recommendations to accelerate the application of mobile marketing in Vietnam in the coming time.

2. Rationale and methodology

2.1. Theoretical background on mobile marketing

2.1.1. The concept of mobile marketing

Mobile marketing is no longer a new concept in the world economy. Accordingly, many researchers have come up with the concept of mobile marketing. There are two perspectives on mobile marketing in the world today: The first is that mobile marketing is marketing activities that involve mobile communication channels or moving activities such as electronic board; posters mounted on buses, signal lights etc. The second opinion is that mobile marketing includes marketing activities through mobile phones. In particular, the second view is a new approach, more common and used by many researchers.

According to Nester & Lyall (2003), mobile marketing includes the ways in which target customers interact with their mobile marketing campaigns.

Scharl et al. (2005) argue that mobile marketing involves the use of wireless devices to provide consumers, at appropriate locations and times, with personal information promoting services and ideas. This will create value for all stakeholders.

According to Bauer et al. (2005), mobile marketing is the use of mobile phones as a channel for the transmission of commercial content to consumers. The characteristic noted here is that mobile marketing refers to the use of mobile channels to transmit personalized information to consumers.

Other studies look at transmitting information to consumers via mobile devices as mobile ads. In particular, Leppäniemi et al. (2006) argue that mobile marketing is used to convey the message by means of mobile devices that affect the attitudes, intentions, and behaviors of the target audience. Similarly, Haghirian et al. (2005) note that mobile marketing includes the use of interactive wireless media such as mobile phones to deliver personalized advertising messages to consumers, with the main purpose of promoting their goods and services.

However, the use of mobile phones to communicate to consumers is not limited to mobile marketing and mobile advertising. Accordingly, Leppäniemi (2008) has identified mobile marketing as the use of mobile channels as a marketing medium. Through this, mobile marketing allows the transmission of both commercial and social information.

The Mobile Marketing Association (2008) defines mobile marketing as a set of activities that enable organizations to communicate and interact with the public through any mobile device or network.

As such, mobile marketing can be understood as marketing the use of mobile phones as a tool for connecting businesses and customers.

2.1.2. Tools of mobile marketing

(1) Text messaging - SMS: A form of mobile marketing through text messages. SMS can be sent to customers for information on new products, new promotions, or happy birthday messages etc. These can be developed in various forms, depending on the content of the business communicator.

(2) Multimedia message - MMS: Multimedia message including text, image, audio, and video. The cost for MMS messages is bigger and not all clients have the function of sending/receiving MMS messages on the phone. However, due to the richness and vibrancy of the message, it will attract the attention of customers and bring more efficiency.

(3) Mobile Website - WAP: Mobile websites are the same as Internet sites. Use the website to put some information about the products and services of the business to WAP. In addition, the mobile website also allows customer care, online consultation directly on the website to increase interactivity and create confidence for customers.

(4) Wireless Connectivity - Bluetooth: The process of transferring content through Bluetooth wireless

technology to potential customers. Content included: Coupon; Message; Image; Games; Clips TVC ads; MP3, JPG, MP4, TXT etc; Promotions; Collect customer data. Bluetooth waves will scan within a 100m radius and send the message; the content should be transmitted to the customer's mobile phone. If more distances are required, more equipment should interfere.

(5) 2D Code - Quick Response Code (QRC): A graphic image storage information, read by some smartphone applications by taking pictures of the barcode. Customers who capture these barcodes can receive images, video introductions, products or links to corporate websites.

(6) Mobile application: An application written specifically for a mobile phone in the programming language of that device. These mobile applications are usually downloaded directly to your mobile phone over a wireless network or via Bluetooth. These applications provide many conveniences such as gaming, downloading ringtones, social networking etc.

(7) Location-based service (LBS): Provides personalized service to subscribers based on their current location. In this application, the Global Positioning System (GPS) will be integrated into the mobile phone so that the location of the subscriber can be detected as they move into the coverage area of the LBS stations. Through this system, businesses can know the exact location of potential customers and send information that suits their situation. For example, sending information about restaurants, cafés around them, help them know the information about the shops with attractive promotions etc, from then on, attracting the attention and encouraging the customers to buy.

2.2. Research process

In order to achieve the objective of the research, with the systematic approach, the study was conducted in the following steps:

(i) System approach: With this approach, mobile marketing is approached as a part of digital marketing, in which digital marketing is the use of the Internet and mobile devices as a means for marketing activities and media.

(ii) Data collection and processing: To collect data related to the potential and current status of mobile marketing applications in Vietnam, the study uses a desk research methodology to collect data needed to serve for research purposes. With data source GSO, appota.com, emarketer.com etc Data collected after sorting, aggregation, cleaning and inputting into Excel software to calculate the required index and draw diagrams.

(iii) Analysis of data: The research uses descriptive statistics and comparative analysis to find the variance of the analysis criteria.

3. Research results and discussion

3.1. Potential of mobile marketing application in Vietnam

- Population size:

As a Southeast Asian nation, with more than 95 million people (2017), Vietnam is the 14th largest country in the world and third in the region, which is a large and potential consumer market.

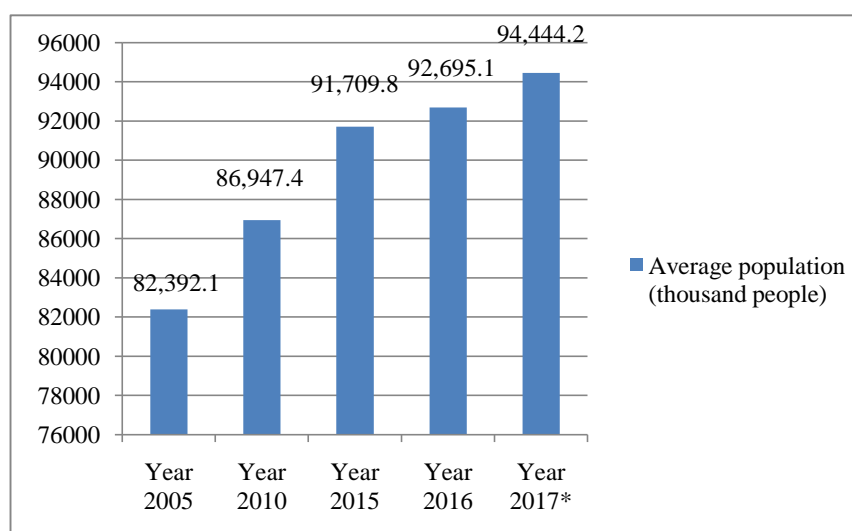


Fig. 1. Average population of Vietnam in the period of 2005 - 2017

(Source: General Statistics Office)

* Data from danso.org

In the period of 2005 - 2017, the population of Vietnam is continuously increasing at a high rate. In particular, the population aged from 0 to 14 accounts for the largest proportion, followed by the population aged 25-49 (Table 1). One of the most prominent features of our population nowadays is the declining fertility, which makes the proportion of the population under 15 decreases from 45.50% in 2005 to 41.27% in 2016. Vietnam officially entered the golden population structure period in 2007, with a plentiful young labor force, according to the General Statistics Office. This period will last about 34 years and end in 2041. By 2017, the population aged 15 and over is 72.70 million. This population structure will be easier to apply technology in all aspects of life because young people will be potential customers of mobile marketing. These are the customers who use multilateral services and mobile internet; this will help businesses to reach customers in a variety of ways, rich in mobile marketing applications.

Table 1. Vietnam's population structure by age

Unit: thousand persons

Targets	Year 2005		Year 2010		Year 2015		Year 2016	
	Population	%	Population	%	Population	%	Population	%
0 - 14 years old	37,487.6	45.50	36,554.5	42.04	37,725.6	41.14	38,249.8	41.27
From 15 to 24 years old	9,168.0	11.13	9,245.4	10.64	8,012.4	8.74	7,510.6	8.10
From 25 - 49 years old	28,432.5	34.51	30,939.2	35.58	31,970.3	34.86	32,418.3	34.97
From 50 years of age and over	7,304.0	8.86	10,208.3	11.74	14,001.5	15.26	14,516.4	15.66
Total	82,392.1	100	86,947.4	100	91,709.8	100	92,695.1	100

(Source: General Statistics Office)

Besides the potential for market size, income and expenditure per capita of Vietnamese people also increased over the years (Table 2).

Table 2. Monthly income and expenditure per capita at current prices

Unit: thousand persons

Targets	Year 2006	Year 2008	Year 2010	Year 2012	Year 2014	Year 2016
Average income / person / month	636	995	1,387	2,000	2,637	3,049

Average expenditure per capita / month	511	792	1,211	1,603	1,888	2,157
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(Source: General Statistics Office)

As the population grows rapidly, the per capita income rises, people's education is improved, the demand for mobile phones and the internet is growing.

- Number of mobile subscribers are using:

Table 3. Number of telephone subscribers in Vietnam for the period 2005 - 2017

<i>Unit: Thousand of subscribers</i>					
Targets	Year 2005	Year 2010	Year 2015	Year 2016	Year 2017
Number of telephone subscribers	15,845	124,311.1	126,224.1	130,168.1	127,400
Number of mobile subscribers	8,718.1	111,570.2	120,324.1	121,268.1	119,700

(Source: General Statistics Office)

The number of telephone subscribers has continuously increased, in 2016, the number of telephone subscribers is 8 times as big as in 2005 (from 15,845 thousand in 2005 to 130,168.1 thousand in 2016). In particular, the number of mobile subscribers is very high. However, the number of mobile subscribers in 2017 is down in comparison with 2016 according to the General Statistics Office, which is due to the network operators to collect the trash sim in accordance with the Ministry of Information and Communications. The increase in the number of mobile phone subscribers, especially smart phones, is a favorable condition for enterprises to deploy various mobile marketing campaigns (Figure 2).

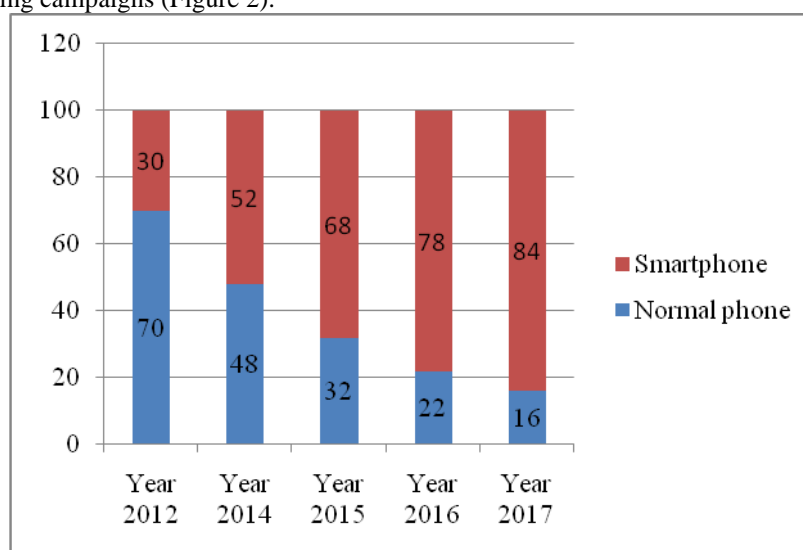


Fig. 2. Percentage of smartphone users compared to the number of normal telephone users in key cities of Vietnam

(Source: nielsen.com)

Number of mobile internet users:

2017 is the year marking the 20th anniversary of the official internet presence in Vietnam, not only serving the need to connect, search, share information, the Internet has crept into all aspects of social life, becoming The platform connects everything.

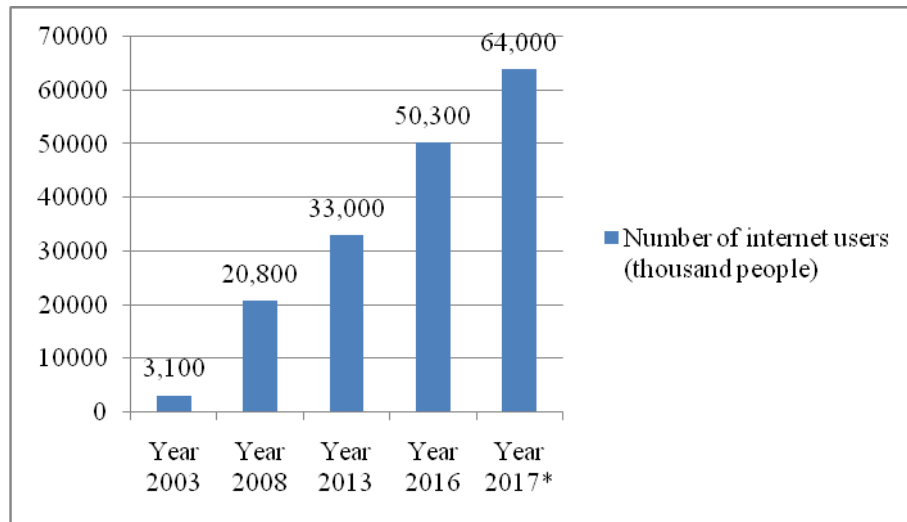


Fig. 3. Number of Internet users in Vietnam

(Source: General Statistics Office)

* Data from Internetworldstats

According to Internetworldstats - a website dedicated to the internet users of the world's countries, in 2000, Vietnam has only 200,000 internet users, by the end of 2016, our country has 50.3 million people. Internet usage, which accounts for about 54% of the population and is higher than the world average. By mid-2017, Vietnam has 64 million users, equivalent to over 60% of the country's population. This data shows that our country has the highest number of internet users 12th in the world and the 6th in Asia. Accordingly, in 2016, there are 12,996,179 mobile subscribers using mobile internet (2G, 3G), and 36,188,417 mobile broadband subscribers using mobile internet (3G subscriber numbers), of which, the majority is young (Ministry of Information and Communications, 2017).

According to Appota (2017), in the third quarter of 2017, most e-commerce customers are aged 18-25, followed by ages 26-30, 30-35. With the user spending more time using e-commerce, especially on smart phones, marketing messages can work best if they are passed on.

- Consumer attitudes to mobile marketing:

In a small survey of attitudes of Vietnamese consumers to mobile marketing, in the form of advertising (via mobile phones, via television, through print media ...) 29% of consumers prefer the form of advertising on products, services through mobile phones. According to the survey, 52.73% of respondents are interested in advertising their products or services via mobile phones, while the remaining 42.47% said they do not care. It is because they see "It is information with deceptive content" (Vo Thi Ngoc Trinh, 2013). Thus, Vietnamese consumers also have interest and preferences for mobile marketing. Although the rate is not really high, this is also the premise to be able to apply mobile marketing. At the same time, this requires businesses to have solutions to impact consumers to change the attitude of consumers to mobile marketing in a more positive direction.

- Legal and technological infrastructure:

In addition, the legal basis and technology infrastructure in our country has made significant steps to create favorable conditions for businesses to conduct mobile marketing, especially in big cities. Vietnam has created a legal basis for the information technology sector, legal regulations related to internet activities and services through the Internet has been increasingly improved, the Law on Information Technology is also being incorporated into the revised roadmap to meet the requirements in the new situation and in accordance with the development. In fact, in Vietnam, mobile marketing is being regulated and regulated through three main legal documents, namely the Law on Consumer Protection in 2010, the Ordinance on Advertising in 2001 and the Law on Advertising. Decree on anti-spam (Decree No. 90/2008 / ND-CP on anti-spam; Circular No. 12/2008 / TT-BTTTT Guiding the implementation of a number of contents of the Government's Decree No. 90/2008 / ND-CP of August 13, 2008, on anti-spam; Decree No. 77/2012 / ND-CP amending and supplementing a number of articles of the Government's Decree No. 90/2008 / ND-CP of August 13, 2008, on anti-spam) has established a comprehensive legal framework for mobile marketing. In particular, the Decree 90/2008 / ND-CP is the most practical, closest to the management of Mobile Marketing in Vietnam (Prime Minister, 2008). In addition, the ministries, departments, and networks also have more detailed regulations, regulating activities of mobile service

providers in the market.

In addition, fiber-optic broadband infrastructure providers, 4G and IPv4 deployments are facilitating the development of enhanced connectivity infrastructure both in terms of the quality and variety of telecommunications services, from which, for the development of information technology. The development of information technology infrastructure along with the increasing number of smartphone users will allow users to use functions such as MMS, WAP, 2D barcodes... However, due to the status of spam is still popular so many consumers still have not responded positively to mobile marketing.

3.2. Current situation of mobile marketing application in Vietnam

Mobile marketing was launched in the US in 2004, and in 2006, new mobile marketing was known and applied by most Vietnamese businesses to send information about products and services through SMS to customers especially are the network service providers and they usually send information to the subscribers within their network. This takes advantage of the technical infrastructure, not the use of third parties and identifies the customer object exactly, the right demand and the right product or service.

Since launching in Vietnam, many mobile marketing campaigns have been successfully implemented. Firstly, the campaigns of the banks like Vietcombank, Agribank, ACB, Techcombank etc applied mobile marketing to send information about deposit interest rate, installment loan service etc or account balance alert and mobile banking. This has contributed to changing the behavior of consumers, especially in the industrial revolution era 4.0.

In the field of telecommunications, the telecommunication companies, apart from sending promotional messages, advertisements, subscriber switching etc, are also associated with the internet to provide instant messaging programs. The message comes with free messages sent from the websites of mobile operators such as Viettel, Mobifone, Vinaphone etc.

Since 2008 so far, mobile marketing applications are not only used to send advertising messages but also are used in a wide range of business activities, such as providing information on Products, new services of the company, promotion etc according to the request of customers, organizing TV shows through entertainment programs, TV specials with 19001750 phone numbers and beautiful photo shoots on your Nokia phone "Nokia - moments live "with nearly 30,000 people voted through mobile.

Next came a series of programs, games predicted, voted contests, programs on the chart as "I love Vietnam" of Honda, texting favorite singer of "Star tomorrow" , "Vietnam Idol" etc; Organizing promotions when companies introduce new products or business strategies of the business; the form of sending messages to target customers as well as potential customers about the company's latest information and upcoming promotions; Text messaging to participate in the winners such as message to be donated Levi's T-shirt; virtual post office or download mobile entertainment applications via wap; . All of these campaigns were highly effective by combining the effects of mobile communications with other media such as newspapers, television, leaflets. At the same time, also marked the positive contribution of mobile marketing in the business activities of enterprises.

Since launching in Vietnam, there have been many mobile marketing campaigns implemented and have brought remarkable results. To date, mobile marketing has been applied to almost all areas of life. Contributing to this success is the contribution of mobile marketing companies. Currently, in Viet Nam more than 200 companies providing mobile marketing services are prestigious such as VietGuys Joint Stock Company, Gapit Media Joint Stock Company, Vietnam Multimedia Corporation(VTC), software and media company(VASC), VHT Telecommunication JSC, Centech Media JSC, FPT Promo JSC, FPT Corporation, Goldsun Vietnam JSC etc.

Although the application of mobile marketing in Vietnam has had positive results, however, many Vietnamese consumers still have not responded actively to mobile marketing. The cause of this is the fact that businesses collect their mobile numbers, then send a series of messages to customers without market segmentation, regardless of age, content... And sending unrelated information, even cheating consumers, has created dissatisfaction and consumer self-defense when mobile marketing chapters are deployed. In addition, Vietnamese enterprises are facing difficulties because of this trend soon be abused, transformed generally. Specifically, the use of text messages over the phone to advertise superstitious services, online games are not useful. This leads to the strict control of the state management agencies, the regulation of advertising messages must follow the template, causing many businesses afraid of registration procedures to advertise, so the ads evolve early generates the sentiment of the recipient, leading to, when the message is advertised as wanting to remove, do not want to read, do not care. Therefore, want to advertise through mobile phone development, can not lack management, a direction of the state. Businesses themselves also need to plan to promote products, services, and long-term to exploit this advantage.

3.3. A general assessment of the status of mobile marketing in Vietnam

3.3.1. Result

As a potential market for mobile marketing with a growing number of mobile subscribers and the number of carriers offering telecom services that meet the needs of mobile customers, Mobile marketing in Vietnam has made remarkable signs of progress and results, in particular:

Firstly, mobile marketing has been applied and deployed in various fields such as mobile telecommunications, finance - banking, insurance, consumption, entertainment etc.

Secondly, mobile marketing is applied in many forms, for example with SMS, there are forms of messaging, message voting, message winning, payment of electricity, water etc; With WAP there are search forms, internet access, ringtones downloads, wallpapers, games, applications etc.

Thirdly, have successfully implemented a number of large-scale campaigns that have, in turn, made a positive impact, created positive effects and credited marketers with the effectiveness of mobile marketing. Strengthen and expand mobile marketing application in Vietnam.

3.3.2. Limit

Despite the good results, the application of mobile marketing in Vietnam has not been as deep and unmatched as potential. Specifically:

First of all, mobile marketing is well known and applied in Vietnam since 2006, the experience of deploying mobile marketing in Vietnam is not much so companies are hesitant in using this tool to interact with customers.

Secondly, not many tools of mobile marketing, focusing on simple tools like SMS, WAP, not take advantage of the tools. In addition, the form of mobile marketing of Vietnamese companies is rude and easy to lose sympathy with customers.

4. Conclusions and recommendations

In the context of the 4.0 technology revolution, with the explosion of mobile technology, mobile marketing has become a boon in brand marketing and customer service. This is also one of the potential areas and will become an important factor promoting the development of the advertising industry, as well as the online shopping channel in Vietnam.

It can be said that mobile marketing is part of e-marketing, and mobile marketing is available thanks to the e-marketing activities that businesses are doing as well as business customers are sharing. In order to make good use of mobile marketing, businesses need to pay attention to the differences and types of mobile marketing. In the coming time, to accelerate the application of mobile marketing and develop into an effective field requires the participation of many parties, specifically as follows:

(i) For the government:

Firstly, to build and develop a telecommunications infrastructure with modern technology with wide coverage, effective operation, safe and reliable with high capacity and high quality. At the same time, to provide telecommunications and Internet services with good quality and reasonable charges in order to meet the diversified demands of service users; upgrading the system, deploying new technologies and services (GPRS, W-CDMA, HSDPA etc); To diversify services, to step up the development of mobile telecommunication networks, to reach the 4G mobile information system.

Secondly, the development of supportive environment and policies for the development of mobile marketing, such as the promulgation of the advertising law, the simplification of the procedures for advertising and communication permits to create favorable conditions for businesses to promote the image of the product and the business; Build enterprise training program to adapt to the context of the 4.0 industrial revolution.

(ii) For Enterprises:

First, businesses must constantly learn and update their knowledge of mobile marketing; At the same time, it is necessary to build a customer database, promote market research, find out the consumers' consumption habits in the regions and types of phones used by the users, and time to access the internet, the content approach and their response anticipation.

Secondly, there must be a specific direction and plan, selecting a reputable, relevant and experienced content service provider (CP) in the field of mobile marketing to assess customer feedback. By tracking the download, application activation, from which to evaluate the effectiveness of the mobile marketing program.

Thirdly, use mobile phone combination with other traditional media such as newspapers, radio, television etc; At the same time, there is the creation of content to attract customers, thus forming a mobile advertising campaign to achieve the necessary effect.

(iii) For mobile marketing service providers:

Firstly, investment in facilities and technology for the company can provide the best mobile marketing services for businesses need. At the same time, diversify and expand the services provided to businesses. As the service evolves, many customers are willing to use information retrieval services if they are sponsored, so if used properly, putting the information on the mobile will increase the ability to recognize the brand of the business, thus building trust for the units that provide mobile marketing.

Secondly, regularly monitor the state policies in the field of communications, advertising activities to have policies as well as appropriate changes in time.

(iv) For the people:

Some people are still prejudiced and think that SMS is spam, cheat. Therefore, to promote the application and development of mobile marketing, it is important to change the perception of people - customers on mobile marketing. In addition to businesses need to promote, introduce mobile marketing and guide customers to use the services of mobile marketing, the customer must also find out and see again to see the role of mobile marketing. It is not only an effective tool for business to reach customers but also a tool for customers to get information about products and business quickly, conveniently and economically.

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An Evaluation on the Utilization of Website Marketing Activities in Danang Upscale Hotels

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ABSTRACT

This study intends to gain the better understanding on current status quo of website marketing activities among enterprises in Danang hotel industry. An observation form was constructed based on the ICTR model proposed by Wang & Russo (2007) with four dimensions including Information, Communication, Transaction and Relationship, to examine all 47 4- & 5-star hotels in Danang. The findings indicated that these hotels mainly utilized their websites to providing information. The implications are then discussed.

Keywords: hotel; website marketing; website marketing activities.

1. Introduction

Since its first emergence in the late 1990s, hotel's website has undoubtedly become an indispensable part of any enterprise within this industry (Law, 2018). Characterized by the information-extensive nature, hotel site is an ideal instrument for marketing initiatives from information dissemination, communication, promotion to transaction between enterprises and their target customers (Li et al., 2015). Marketing activities utilizing website benefit hotel in terms of cost reduction, revenue increasing (Bui et al., 2014; Shuai & Wu, 2011) or better customer retention from better communication (Chiou et al., 2010). Moreover, from the demand side, hotel website eliminates the confinement of time & space, and create a convenient platform for customer not only to explore the information of product & service, but also to process the transaction (Chiappa, 2013; Díaz & Koutra, 2013). It has also been witnessed that tourists have been increasingly employing internet and website for planning their trips (Xiang et al., 2015), or processing their lodging reservation (World Tourism Organization, 2014). As a result of above circumstances, websites take a significant importance to the hotel business outcome and hoteliers should completely maneuver the potential of this tool (Leung et al., 2016).

However, empirical evidences illustrated that, the potential of hotel's website have not been completely utilized. The study of Li et al. in 2015 with members from the three largest hotel associations in USA, indicated that websites of these hotels solely focused on providing information and their current usage of website regarding marketing activities is limited (Li et al., 2015). Ting et al., (2013), with the examination on the websites of the top 100 hotel, also indicated that merely a half of sample utilized their websites as a means to effectively interact with their customers. These authors suggested that this circumstance demonstrated the confinement in completely employing the usage of hotel's website. Findings in these previous studies might indicate that hoteliers seemed to employ their websites without any cohesive understanding on the usability of this tool; and probably imitate the success from other hotel's sites (Schmidt et al., 2008; Li et al., 2015). Regarding the scarcity of firm's resources, hotel's managers need to completely comprehend the criteria that

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composed in an effective website in order to possibly excavate the capability of their websites rather than taking a “me-too” approach and wasting their effort (Schmidt et al., 2008).

Nevertheless, literature indicated the escalating controversy without any unified scheme to evaluate the hotel’s website usage in term of marketing initiatives (Law, 2018; Leung et al., 2016; Li et al., 2015). In order to better employ the potential of website for Hotels in Danang, we conduct a study that provides the coherent understanding toward the framework to evaluate the usage of website marketing activities, which in turn, portrays out the accurate information of the utilization. The study would be implemented in the context of Danang upscale hotels, with 47 firms in which approximate a third of these firms originate from the global hotel chain as Sheraton, Hilton, Accord...(Danang Department of Tourism – DDT, 9/2016). As the importance in terms domestically economic contribution, understandings on the current usage of website marketing activities in domestic firm, and the confrontation with other global participant, is valuable as it partially provides a consolidated foundation to develop the domestic upscale hotel. To accomplish this purpose, this paper would first introduce the definition of website marketing to consolidate the understanding on the concept that have been used throughout the study. Then, the paper continued to present the controversy regarding the evaluation of website marketing activities and came up with the rationale for the selected framework. The following parts discussed the methodology and result; and finally, concluded with the overall discussion on our research.

2. Literature Review

Definition of Website Marketing

Since the introduction of internet platform, the pace of changing and launching new forms of marketing initiatives using internet is unimaginable (Law, 2018; Leung et al., 2016) and so the terminologies to define these forms. In order to unify the understanding within this study, this part would discuss the prominent terminologies that are usually handled interchangeable in practice but needed clarification in this study.

Internet marketing – this definition witnessed the changing regularly since its first mentioned. Internet marketing was suggested as the use of latest technologies and internet connection in order to achieve the marketing objectives (Atshaya & Rungta, 2016). The frequently mentioned channels of internet marketing include website, search engine marketing, social media marketing, content marketing, email marketing, mobile marketing, banner advertising (Aleksandar & Oljia, 2018).

Website marketing – or corporate website marketing, referred to the marketing initiatives using corporation owned website (Aleksandar & Oljia, 2018). In this context, corporation owned website is the central hub of the overall internet marketing campaign, where contains the information of product, firms and other related service (Atshaya & Rungta, 2016)

Evaluation of Website Marketing Activities

Since the emergence in the second half of 1990s of hotel website, the discussion that aiming to propose a proper approach regarding the website evaluation, has been diversifying (Law, 2018). Reviewing the literature since 1995 revealed three classification based on the research approaches comprising evaluation by (1) phases, (2) features & (3) features & effectiveness (Li et al., 2015, Ting et al., 2013; Ip, Law, & Lee, 2011; Schmidt et al., 2008).

Evaluation by Phases

The typical paradigm in the evaluation approach by phase is the Model of Internet Commerce Adoption (MICA) proposed by Burgess & Cooper in 1999 and latterly modified into the extended MICA (eMICA) by Doolin et al., in 2002 (Schmidt et al., 2008). In the promotion stage, the static information of products and services is introduced. The provision stage includes the features that enhance the capability of website to communicate and interact with its target audiences internally and externally. The processing level emphasizes the functions that promote the happening of online transactions (Doolin, et al., 2002). Merono-Cerdan and Soto-Acosta in 2007 also acquired this essence. They classified three types of marketing initiatives using website comprising e-information, e-communication & e-transaction. While e-information emphasize the aspect of information dissemination using website toward their direct and indirect stakeholders, e-communication involved the functions that promote the capacity of communication and interaction, and e-transaction focuses on executing online transaction (Merono-Cerdan & Soto-Acosta, 2007). Empirical evidences from the studies adapting this model suggested that the first stage (information dissemination) has been implemented by the hotel across continents and the stages with greater maturity (promoting communication, interaction & transaction) have been proceeding but the level of implementation is relatively limited regarding the first stage (Chiou et al., 2010; Ting, et al., 2013).

Evaluation by Features

Contrary to the evaluation by phases, evaluation by features focuses on analyzing the presence of website functions and features. Within this realm, the proposed models were diversified in the category and the activities within each category. Leung et al. (2016) suggested 5-dimension model comprising (1) hotel reservation information – including the items of “policy”, “guarantee”, and “real-time” booking system; (2) facilities information – including “Hotel description”, “location”, and “facilities”; (3) contact information including the detail of “email”, “telephone”, “fax” and “instant messaging”; (4) surrounding information area including “distance to main attractions”; “nearby facilities” and “local weather report”; and Peripheral information including the items of “language”, “site map” mk, “brand description” ...

Li et al. (2015) illustrated their evaluation in terms of Information, Communication, Transaction & Relationship. According to these authors, the fourth dimension is the most challenging dimension for enterprise to attain and the attainment of this dimension might provide a considerable source of firm’s competitive advantage. Ting et al. (2013) stated seven categories in classifying website features including “interactivity”, “navigation”, “functionality”, “marketing”, “service”, “innovativeness”, and “online processing”.

Evaluation by Features & Effectiveness

The last approach combined the website effectiveness into the evaluation consideration. Liu & Zhang (2014) consider the booking channel selection as a measurement for effectiveness and “information quality, service quality and privacy protection” for the criteria of website functions. Shuai & Wu (2011) utilized three dimension of website marketing activities including information, communication & transaction to estimate the impacts on hotel performance.

Generally, evaluation by (1) phases, (2) features and (3) features and effectiveness reserves its own advantages and drawbacks. It is arduous to assess the degree of effectiveness among these three categories of evaluation. While evaluation by phases provides the practitioners a specific way with details in each stage for the development, evaluation by features provides the diversified lists of website features that could be considered in utilizing website. Evaluation by features and effectiveness might fulfill the needs of practitioners in terms of performance measurement. However, the standards to measure website effectiveness are different from varied standpoints.

3. Methodology

Research Instrument

This study utilized the ICTR model proposed by Wang & Russo in 2007 with four interrelated dimensions including information, communication, transaction & relationship. These authors elaborated that a website’s success rely on the the alignment of four elements including: (1) up-to-date and accurate information provision; (2) effective and constant communication with consumers; (3) reliable and seamless electronic transaction; and, (4) appropriate and sustainable relationship building programs” (Wang & Russo, 2007). It has also been indicated that the components should be executed relatively following that order and the features that promote the relationship establishment, retention and development, are the most arduous to progress (Li & Wang, 2011).

Based on the classification that mentioned above, the model proposed by Wang & Russo (2007) was categorized into the evaluation by features (Li et al. 2015) as this model focused mostly on the website features. Despite the diversification in terms of the function categories, which created the complexity in validating proper an evaluation into a means of measurement, ICTR model reserved the distinctions to be utilized in this study. It was proposed in 2007 and was employed in the highly prestige study as the study of Li et al. in 2015 on the evaluation of website marketing activities among members of the three largest hotel associations in US or accounted recently in the study of Law (2018) invited paper for ‘luminaries’ special issue of International Journal of Hospitality Management. The structure also accounted the essence of evaluation approach by phases, as firm should implement these features comparatively following the order of information, communication, transaction and relationship, respectively, due to the increasing complexity involved in the following stage. This order partially provides the practitioners with a guidance for implementation in practice.

This study reproduced the initial stage of CPA (changing propensity analysis) technique from the study of Li et al. (2015) in evaluating the current usage of website marketing activities and forecasting the future pattern of the usage. Past literature review was conducted to gather the items accounted in each dimension. Lately, the enlisted items were reviewed by a group of professional body including the researchers with tourism and hotel expertise, and the representatives from Danang Hotel Association, hoteliers to assure the appropriateness. The finalized list comprised 16 items of information dimension, 5 items of communication dimension, 10 items of transaction dimension, and 9 items of relationship dimension, illustrating the consistency with the study of Li et al. in 2015 (Appendix 1). (enlisted by the DDT in “2016 annual report”)

Data Collection

This study collected data on the whole population as the size of population stayed within the reach, and the capability of the authors to conduct within the limitation of time frame. 47 websites of upscale hotels referred in 2016 annual report (DDT, 2016) was searching on google and then verifying with the DDT before conducting the observation.

The websites of these hotels were observed with the answer of “yes” or “no” for data collection. We also control the factors of time and technology infrastructure, so all the website’s observation was conducted in the same period of time in a day, in the second week of June (June 11th – June 17th), using the same laptop and browser, with other conditions remain constant.

4. Results

Table 1. Applications of hotel website marketing activities
Information Dimension

Information Dimension	% of Hotel
Accommodations information	100.00%
Information about the hotel	100.00%
Property overview	100.00%
Photo gallery	100.00%
Maps/driving directions	97.87%
Amenities information	97.87%
Virtual tours	97.87%
Products/services offered	93.62%
Restaurant information	93.62%
Meetings and events information	91.49%
Media/press	68.09%
Employment opportunity	48.94%
Destination attraction information	36.17%
Shopping information	8.51%
Events calendar	2.13%
Links to regional/city/area pages	0.00%

Regarding the information dimension, 11 over 16 features of this dimension was employed by one half of the investigated hotels, and on average, approximately 71.01% of 4-5 star hotels in Danang implemented the information dimension features on their websites “Accommodations information”, “information about the hotel”, “property overview” & photo gallery are the most popular functions that was deployed on all of examined hotel websites. Other features as “Maps/driving directions”, “amenities information”, “virtual tours”, “products/services offered”, “restaurant information” and “meetings and events information” are also extensively executed by more than 90% of hotels in this study. While the main features that provide the information of core products/ services offered, were forceful implemented, there were variances in the implementation of supportive information functions, especially with “shopping information”, “events calendar” and “links to regional/ city/ area pages” with less than 10% usage level. “Media/ press”, “employment opportunity”, and “destination information” were not as favorable as other core informative features as they were offered on the websites of 68.09%, 48.94% and 36.17% of observed hotels respectively.

Table 2. Applications of hotel website marketing activities
Communication Dimension

Communication dimension	% of Hotel
Contact information	100.00%
Other language options	97.87%
Search functions	70.21%
Interactive forms	23.40%
Frequently asked questions	12.77%

In terms of communication dimension, this component includes the features that promote the information exchange effectively. On average, roughly 60.85% of observed hotel implemented forms of communication functions, in which “contact information” was accounted as the most popular application (100%), while “frequently asked questions” was referred as the least popular function (12.77%). The multi-language function was also considered as popular as “contact information” with the application by 97.87% of observed hotels. The popularity of “search functions” and “interactive forms” was followed with 70.21% and 23.40% respectively.

Table 3. Applications of hotel website marketing activities
Transaction Dimension

Transaction dimension	% of Hotel
Online reservation	91.49%
Secure transactions through SSL	78.72%
Dining packages	44.68%
Spa packages	44.68%
Online group bookings	19.15%
Airline and hotel packages	8.51%
Online gift shop	6.38%
Attraction tickets	4.26%
Event tickets	4.26%
Merchandize/themed products	2.13%

In respect with transaction dimension, only 30.43% of observed hotel implemented the application of transaction dimension on average. In specific, hotels in this study solely focuses the transactions of their core service. “Online reservation” was the most popular functions that deployed on 91.49% hotel websites, and followed by “secure transactions through SSL” (78.72%). The application of “dining packages”, “spa packages” and “online group booking” were less popular than other two functions that mentioned above with 44.68%, 44.68% and 19.15% respectively. The features as “airline and hotel packages” (8.51%), “online gift shop” (6.38%), “attraction tickets” (4.26%), “event tickets” (4.26%), “merchandize/themed products” (2.13%) were the least favorable features within this transaction dimension.

Table 4. Applications of hotel website marketing activities
Relationship Dimension

Relationship dimension	% of Hotel
Web seal certificate (e.g., Trust)	78.72%
Special deals and packages	76.60%
Privacy policy	61.70%
Customer loyalty programs	42.55%
Personalization/customization	40.43%
Cross-selling/up-selling opportunities	36.17%
Customer support	29.79%
Incentive programs to attract new customers	0.00%
Community function like chat rooms	0.00%

In case of relationship dimension, on average, roughly 40.66% of observed websites processed the features of relationship dimension. “Web seal certificate” and “special deals and packages” were the functions with greatest popularity with 78.72% and 76.60% respectively, privacy policy was followed with the implementation on 61.70% of hotel websites. “Customer loyalty programs”, “personalization/ customization”, “cross-selling/ up-selling opportunities”, and “customer support” were not as popular as other above mentioned features with the proceeding on 42.55%, 40.43%, 36.17%, 29.79% of hotel website consecutively. The functions as “incentive programs to attract new customers” and “community function like chat rooms” were not available in any hotel site within this study.

5. Conclusions & Implications

Generally, a substantial level in the usage of information and communication features, were maintained throughout the hotels in this study, or in other word, Danang upscale hotels focused on the dimension of information of their website marketing application. The findings implied that the hotels in Danang yet fully and effectively employed their corporate website as a marketing tools. It was also unveiled that in each component, the features with direct involvement with the core products/ services would be stressed to deployed, while other supportive functions seemed to be neglected.

Nonetheless, the findings also unveil the pattern that indicate the lack of co-operation between the hotel and its surrounding actors. Only one third of hotel in this study provide the information of destination and the link to local actor's websites. And even lesser the hotel facility that support the purchasing of local offered products/ services. In comparison with the study of website marketing activity in US hotel industry, it has been witnessed the substantial differences with the deployment of destination attraction information by more 90% of hotel in that study.

It is necessary to provide the accurate and up-to-date information on firm's website, but it would not be substantial to survive and develop regarding the intensifying competitiveness in business environment recently, unless these firms commence to commit with more effective and proper marketing functions (Shuai & Wu, 2011) as transaction-oriented or relationship-oriented functions (Wang & Russo, 2007). Moreover, in the position of initial information point for customers outside their home countries, it has been suggested that the website marketing activities in these facilities should shift their focus onto the information of their surrounding actors in order to attain more benefit from greater customer experiences (Lipianin-Zontek & Zontek, 2017).

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Appendix

Appendix 1: The application of website marketing activities
Data collecting instrument

	Yes	No
Information Dimension		
Accommodations information		
Information about the hotel		
Property		
Photo gallery		
Maps/driving directions		
Amenities information		
Virtual tours		
Products/services offered		
Restaurant information		
Meetings and events information		
Media/press		
Employment opportunity		
Destination attraction information		
Shopping information		
Events calendar		
Links to regional/city/area pages		
Communication dimension		
Contact information		
Other language options		
Search functions		
Interactive forms		
Frequently asked questions		
Direct email campaign		
Transaction dimension		

Online reservation		
Secure transactions through SSL		
Dining packages		
Spa packages		
Online group bookings		
Airline and hotel packages		
Online gift shop		
Attraction tickets		
Event tickets		
Merchandize/themed products		
Relationship dimension		
Web seal certificate (e.g., Truste)		
Special deals and packages		
Privacy policy		
Customer loyalty programs		
Personalization/customization		
Cross-selling/up-selling opportunities		
Customer support		
Incentive programs to attract new customers		
Community function like chat rooms		



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Measuring Consumer Brand Engagement by Using Big Data: The Case of Mobile Phone Brands in Vietnam

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ABSTRACT

Consumer Brand Engagement (CBE) is getting great attention from the marketers because of its explanatory and predictive value. However, CBE measurement faces many obstacles, both theoretical and practical. This study, by using a big data mining tool, demonstrates the ability market measuring CBE as well as CBE's value in explaining and forecasting the real-time status of the market and competition such as market share, revenue, customer interest in Vietnam mobile phone market. The results confirmed the ability to use big data mining tools in Vietnam, especially for businesses that are limited size and resources.

Keywords: Consumer Brand Engagement; big data; engagement measuring; mobile phone brands

1. Introduction

Since the term of customer engagement is recognized as a major priority in research (Bolton, 2011), there is growing interest in understanding consumer behavior and interaction engagement on the social media. There are many studies of consumer engagement in social networking environments (e.g., Lorenzo-Romero et al., 2011; Park et al., 2009, Shao, 2009; Raacke and Bonds-Raacke, 2008). However, these studies primarily explored the motivations for using or not using social network sites without providing insight specific users' behavior. To fill in these research gaps, Ross et al. (2009) have pointed out that future research should focus on a specific behavior or activity rather than general research, which would be a comprehensive way to understand users' behavior on social network sites. Behavior engagement on social network sites is described as "Likes" or "Comments", which are important for making brand interaction strategy. The popularity of likes and comments, it is a great challenge for researchers and practitioners to gather, select and timely update the acts of millions of consumers on social network sites. In addition, there is very few research on consumer engagement because of the limited methods of data collection. Therefore, big data seems to be a useful mining tool to gather timely the acts of millions of consumers on social network sites at the same time (Mayer-Schonberger & Cukier, 2014).

Recently, there are many tools in the world as well as in Vietnam, which have been launched to measure customer brand engagement using big data platform. However, the reality has shown some limitations of these tools as follows:

- Cost-in-use these tools are very large from several thousand dollars to tens of thousands of dollars. Thus, they are only suitable for businesses of major brands.
- Not focusing on comparisons on specific a customer need. These tools are able to be customizable upon suggestions but the cost is very high.

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- The data source is not reliable and repetitive. Some companies are addressing this issue because of using humans to review the accuracy and reliability of the data.
- This study aim, on the one hand, is to examine the feasibility of measuring consumer brand engagement by using big data mining tool in the context of web 2.0. On the other hand, this study finds the relationship between consumer brand engagement and several factors such as sales, market share and sales of each product line.

2. Conceptual Background

Customer brand engagement derived from relationship marketing concept (Fournier, 1998). It has significant improvements over current customer-related theories and brand relationship. Vivek, Sharon, and Morgan (2012) have found out that the added value has been created through customer engagement, which is described as the number of customer interactions and the customer relationship experience by extending customer purchase behavior concept. While customers created engagement with a specific brand, they are able to show more the traditional buying behavior and relationship which logically are mutually generating value from the customers' perspectives (Vargo & Lusch 2004). Although the notion of customer brand engagement is a new academic concept, there is the debate; however, its application efficiency has been practically proven. According to McKinsey (2014), Gallup (2016), and PeopleMetrics (2008) consumer engagement would bring many practical benefits such as increasing revenue, brand loyalty, the number of purchase per buyer, and the purchase rate of value-added services and products. Therefore, consumer engagement has become a conspicuous issue for operators to preserve and enhance their competitiveness. It's also a challenge for researchers and practitioners to understand how a customer interaction platform enrich the customer interactions and manage relations properly. The work of Brodie, Hollebeek, Juric & Ilic, (2011) have risen the greater interest in explaining and applying consumer brand engagement in the context of customer behavioral interplay and brand efficiency field. Techniques as well as influenced on practical applications (Vivek, Beatty, Dalela and Morgan, 2014).

According to the dictionary.com website (2017), engagement refers to the act of engaging or the state of being engaged. Different scholars deal in very different ways, only concentrate on the act of engaging, or on the state of being engaged from psychology perspectives. Thus, engagement is not well understood in previous studies.

2.1. Application perspectives

Within the interactive context, the phenomenon of customer engagement refers to customer interactions. Consumer engagement is the action which involved in social network sites and therefore must be recorded by measuring customer behavior (e.g., likes, comments, shares) (ARF, 2006; Econsultancy, 2008).

2.2. Academic Perspectives

The notion of customer engagement was studied in many academic fields including education (e.g., student interaction), psychology (e.g., social activities), sociology (e.g., civic engagement), political science (e.g., political commitment), and organizational behavior (e.g., work/commitment). Marketers have different perspectives on how they reach out to engage consumers with the brand. Some scholars argued that the engagement must be the concept of the single attribute. Other scholars view engagement as multi-attribute including cognition, emotion, and behavior, in which engagement subjects are addressed by both consumers and customers.

Some researchers considered engagement as participatory behavior from physical aspects. Van Doorn et al. (2010, p. 254) have defined customer engagement behavior as the customer behavior with brand and business, not merely a purchase, or the result of a motivational factor. It can be argued that the behavior engagement is similar to the practitioner's perspective on engagement such as focusing on customer-to-customer interactions, blogging, or so on in interaction context (Verhoef et al., 2010). In this regard, customer brand engagement is described as a psychological state (Schaufeli & Bakker, 2003, Kahn, 1990). Hollebeek (2011b, p. 560) has indicated consumer brand engagement refers the level of consumer motivation, brand awareness, context-dependent cognitive status, forms, emotions, and behaviors that focus on specific brand interactions. Other researchers supported both state and behavior, which aims to make the approach the psychological perspective. Reitz (2012) argued that the notion of consumer brand engagement should include measurement of status categories and engagement behavior.

The concept of customer engagement should be considered with dependence and the process, which develops and fluctuates over time. According to Hollebeek (2011a, 2011b), there are two-way interactions in term of related objects and objects in specific contexts that are able to increase the degree of engagement at a particular moment, represent related states, and be inherent in change but involve interaction process. Van Doorn et al. (2010) has shown that engagement is classified as positive or negative from the valence standpoint. Customer brand engagement is also based on motivation. Motivation is defined as “the internal factors that stimulate desire and energy in people to be continually interested and committed to making an effort to attain a goal” (Higgins & Scholer, 2009) or “the reasons for behavior” (Guay et al., 2010). Von Krogh et al. (2012) has shown that consumer brand engagement would be a motivational process, formed by internal and external motives. Therein external motives derived from important aspects of social practice (e.g., social media).

2.3. Consumer Engagement and Social Media

Social media facilitates the creation and sharing of information, ideas, career interests and other forms of expression via virtual communities and networks, which is able to reach out to many people including customers and social network friends and followers. Brands have engaged in these channels to establish long-term relationships with customers and reach potential customers (Kaplan & Haenlein, 2010). While users’ social media are able to create content, the brand still plays an important role. Customers share their favorite brands via Twitter, YouTube, and Facebook. Some even help their customers deal with the issues that related to the product for free, reducing the cost of services (Mathwick, Wiertz, & De Ruyter, 2008). Therefore, social media is not merely exchange, social media provides the various ways to reach customers, communicate with them, and measure their communication, or browsing and shopping (Hennig-Thurau et al., 2010). These choices related specifically to the management of customer brand relationship, using individuals’ knowledge to make marketing action planning (Hennig-Thurau et al., 2010). Take advantage of social media requires operators to understand why consumers are attracted and how social media affects users’ emotions and behaviors (Hennig-Thurau et al., 2010). Consequently, new marketing methods must be developed and consistent with the characteristics of social media. Some important characteristics of social media are that the value does not come from the platform but from the way in which social media platform is used for various purposes (Culnan, McHugh, and Zubillaga, 2010).

3. Research Objectives and Research Methods

The research measurement method in this study is created by using big data and knowledge from the behavioral perspective, which used to measure consumer engagement with mobile phone brands on the two leading websites of the mobile retail sales field in Vietnam (www.fptshop.com.vn and www.thegioididong.com). The primary data is collected from using big data. The measurement objects are selected by CBE that is clear and able to collect through “Comments” of the consumer. At the same time, the secondary data is collected from the company’s announcements and the publications of market research firms. The purpose of this study is to demonstrate the feasibility measurement of using big data as a platform to build consumer brand engagement in Vietnam, and more importantly to find the relationship between consumer engagement with mobile brands and market share, sales of each brand, sales of each product line.

Two types of data collection are conducted. First, the primary data in this study is collected consumer brand engagement by using big data tool. And then, the second data including sales and market share is gathered directly from the publications of companies and the market research firms. The study aim is to find the relationship between the consumer brand engagement and sales, market share. Therefore, the researchers in this study compared the primary data with the secondary data. To collect engagement data, the scholar in this study created the software that can read and count “Comments” functions for cell phone brands and automatically save to the databases. Therein, the “Comments” of each brand equals sum the “Comments” for all phone lines of each brand. The software operates continuously and collates the existing database with the new data. It is also able to update any changes at the same time and the results instantly displayed in real time.

Time to collect data: From 1 June 2017 to 15 July 2017

4. Results and Discussion

By comparing the consumer brand engagement data from using big data mining tools to sales and market share from the publications of companies and market research firms. This study examined the relationship

between consumer brand engagement and market share, consumer brand engagement and sales of different channels, and consumer brand engagement and sales of each product line.

4.1. Consumer brand engagement and market share

As shown in Figure 1, consumer engagement with mobile phone brands collected from using big data and the market share of the brands is announced by GFK.

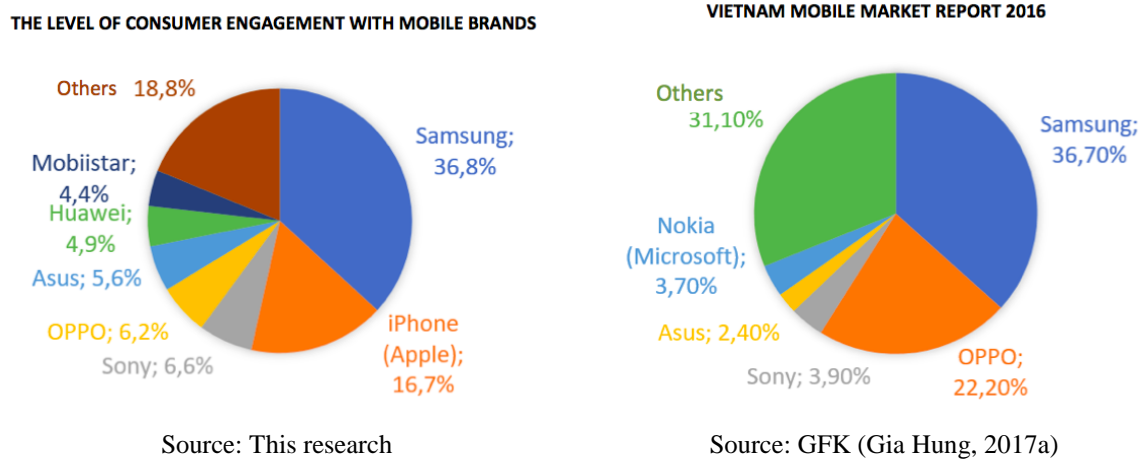


Fig. 1. Consumer engagement with mobile brands and market share

As shown in Figure 1, the scholar suggests the comparable results in Table 1.

Table 1. Consumer engagement and market share of the five best-selling mobile phone brands

No.	CBE (using Big Data)	Sales	Interference
1	Samsung	Samsung	Samsung
2	iPhone (Apple)	OPPO	OPPO
3	Sony	Sony	Sony
4	OPPO	Asus	Asus
5	Asus	Nokia	

This study pointed out that the market share of brands is quite similar to the level of consumer engagement with those brands. While the Samsung, OPPO, Sony, Asus brands get the high level of the consumer brand engagement. They are able to get high sales. The relationship would explain as follows:

- Samsung achieved the greatest customer interest and its corresponding sales are also the highest.
- OPPO, Sony, and Asus are voted on the list of top five brands which consumer interest and sales of these brands also ranked among the top five.
- Interference rates are high. While four brands are voted on the list of top five brands, these brands are also in the list of the top five highest sales.

The iPhone (Apple) has gained consumer interest; however, it is not listed among the high-margin brands, which can explain as follows:

- In terms of brand names, the iPhone (Apple) currently is one of the biggest global brands, not only in the

Vietnamese market (T.Thanh, 2017). Therefore, the iPhone easily gained a lot of attention from Vietnamese consumers.

- The iPhone's market share is counted from the genuine while there are many Vietnamese consumers use Apple's portable iPhones (non-genuine).
- The iPhone's product portfolio is less than the rest of the brands. However, if this study only considered the smartphone line, the iPhone would vote on the list of the top three highest sales (Duong Le, 2017).

4.2. Consumer brand engagement and sales of different channels

According to market reports (Ha Duong, 2017; Doan Phong, 2016), OPPO sales in 2016 at Thegioididong are higher than FPT shops. As shown in Figure 2, this study pointed out that the level of consumer engagement with the OPPO brand at Thegioididong is far better than in FPTshop (36,496 comments at Thegioididong, 9,412 comments at FPTshop). Therefore, there is the relationship between sales and consumer engagement with the same brand in different channels.

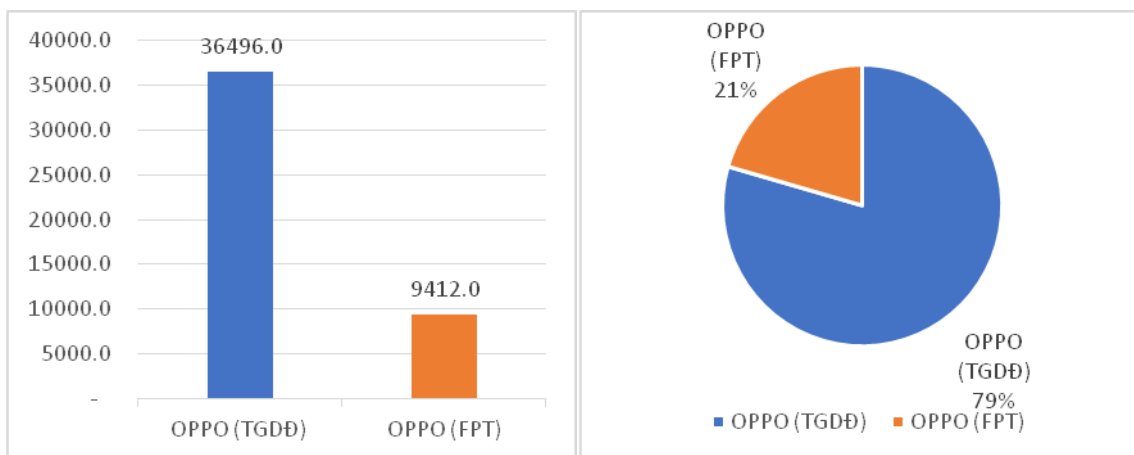


Fig. 2. Consumer engagement with OPPO brands at www.thegioididong.com and www.fptshop.com.vn
 Source: This research, 2017

4.3. Consumer engagement and sales of each product line

We compare the CBE by product line to sales of each product line. Figure 3 shows the products with high CBE levels. Top 10 CBE products were compared to the top 10 best sellers in the first quarter of 2017 (Table 2).

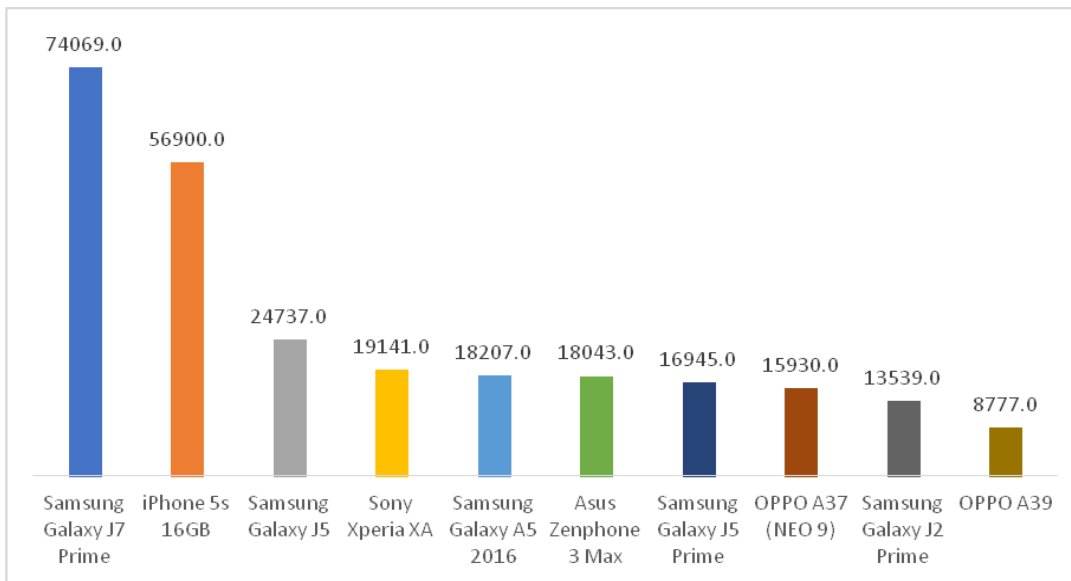


Fig. 3. CBE by product line (number of comments)

Source: This research, 2017

Table 2. Consumer Engagement and Top Selling Q1, 2017

No.	CBE (using Big Data)	Sales (Q1/2017)	Interference
1	Galaxy J7 Prime	Galaxy J7 Prime	Galaxy J7 Prime
2	iPhone 5s 16GB	Oppo F1s	iPhone 5s 16GB
3	Galaxy J5	Galaxy J5 Prime	Galaxy J5 Prime
4	Sony Xperia XA	Galaxy J2 Prime	Galaxy J2 Prime
5	Galaxy A5 2016	Oppo A37	Oppo A37
6	Asus Zenphone 3Max	iPhone 7 Plus 128 GB	Galaxy A5 2016
7	Galaxy J5 Prime	iPhone 7 Plus 32 GB	Oppo A39
8	Oppo A37	Oppo A39	
9	Galaxy J2 Prime	Galaxy A5 2016	
10	Oppo A39	iPhone 5S	

As shown in Table 2, this study pointed out the relationship between consumer engagement and sales of each product line. The relationship would explain as follows:

- Samsung Galaxy J7 Prime has the highest consumer engagement, and its corresponding sales is also highest.
- The product lines with much interest and engagement of consumer are voted on the list of 10 best-selling products of the first quarter of 2017 such as Samsung Galaxy J5 Prime, Samsung Galaxy J2 Prime, OPPO A37, Galaxy A5, Oppo A39.
- **The ratio of the engagement/sales is 7/10**, which presents a very close relationship.

5. Limitations and suggestions for future research

Although this study had taken an initial step in measuring consumer brand engagement by using big data and provides some interesting findings. Nonetheless, several limitations remained and are worth to be explored in the future research. First, the data came from two websites. It is not claimed that the results can be generalized to all sites. To increase generalizability and ensure accuracy, the future research needs to consider sampling views from more websites. Second, the time is limited to collecting data. Thus, this study has not made comparable cycles, seasons, and years to understand the multidimensional perspectives. Third, the research measurement method by using big data hasn't measured and analyzed the content of comment such as positive, negative content, or related to shape, design, price, color, feature, so on.

State in these points of view above, we suggest the future research should, firstly, extend the research measurement method by using data on social networking sites (e.g., Facebook, Zalo, etc.) for comprehensive and multi-dimensional information. The research aim is to find other factors such as influencer, key opinion leader to help marketing managers easily make their marketing strategy or discover the different sources with spread news. In order to have a way to prevent and deal with rumors that something bad is going to happen at the beginning. Second, future research should create the software with sentiment tool to help identify the positive or negative comments so that there are timely solutions or make policy formulation aim is to prevent spreading rumors in negative situations. Third, the research measurement method in this study only measures consumer brand engagement in the mobile retail industry. We suggest that future research should develop a measurement method that can be able to measure in many industries. Therefore, the findings will help to make a forecast, or assess the market, and serve a wide range of users in different regions such as education (e.g. school, study choice), retail (e.g., consumer orientation), and fashion (e.g., fashion trends). Fourth, to understand deeply consumers, future research should synthesize, extract, and analyze customer behavior to identify trends, needs, personal characteristics, and take the appropriate approach. Finally, this study proposes a number of broader applications such as the construction of the emotional barometers to measure the people and customer emotions in an event and to provide measurement method to manage movements.

6. Conclusion

From the successful research measurement method, which created by using big data in measuring the relationship of consumer engagement with mobile brands, demonstrating the feasibility of measuring consumer brand engagement on social media. In addition, the research measurement method by using big data is a useful tool in tracking branding as well as tracking competitors' brands. By comparison the secondary data from the publications of companies and market research firms with the primary data from using big data, this study indicated that there is the relationship of consumer brand engagement and sales, market share, and sales of each product line. This research measurement method also offers benefits in terms of quick, updated, versatile, multidimensional, and useful tool for collecting data from the various audiences rather than traditional measurement method.

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Appendix A. The definitions and the scope of engagement

Field and Scholar	Definition	Research Method	Scope of engagement
Organization behavior			
Kahn (1990)	People engagement (related to work)	Experiment	Multi-attribute: Physical Awareness Emotion
Schaufeli et al. (2002)	Staff engagement	Experiment	Multi-attribute: Absorption (awareness) Dedication (emotion) Willpower (behavior)
Rich et al. (2010)	Work engagement	Experiment	Multi-attribute: Physical Awareness Emotion
Marketing			
Algesheimer et al. (2005)	Social Brand Engagement	Experiment	Multi-attribute: Benefit (awareness) Enjoy (emotion) Social (behavior)
Patterson et al. (2006)	Consumer engagement	Concept	Multi-attribute: Absorption (awareness) Dedication (emotion) Willpower / Interaction
Higgins (2006)	Degree of engagement	Concept	Single attribute: Awareness
Heath (2007)	Advertising engagement	Experiment	Single attribute: Emotion
Calder & Malthouse (2008)	Interaction/ Communication Engagement	Experiment	Multi-attribute: Stimulation and inspiration Society promotion Temporary Self-esteem and citizenship Inner enjoyment Uncomfortable Involvement and Socialization Public

Higgins & Scholer (2009)	Engagement	Concept	Single attribute: Awareness
Calder et al. (2009)	Interactive/Online engagement	Experiment	Multi-attribute: Personal Social interaction
Sprott et al. (2009)	Brand engagement itself	Experiment	Single attribute
Bowden (2009a)	Consumer engagement	Concept	Multi-attribute: Awareness Behavior Emotion
Pham & Avnet (2009)	Behavior engagement	Concept	Multi-attribute: Awareness Behavior
Vivek (2009)	Consumer engagement	Experiment	Multi-attribute: Awareness Enthusiasm Interaction Activity New Experience
Vivek et al. (2010)	Consumer engagement	Experiment	Multi-attribute: Awareness Behavior Emotion
Mollen&Wilson (2010)	Online brand engagement	Concept	Multi-attribute: Awareness Emotion
Van Doorn et al. (2010)	Consumer behavior engagement	Concept	Multi-attribute: Valance: Form Scope Essence Target customer
Kumar et al. (2010)	Consumer value engagement	Concept	Multi-attribute: Customer value Customer value Customer reference value The influence value of customer

			The knowledge value of customer
Verhoef et al. (2010)	Consumer engagement	Concept	Multi-attribute: Customer - Customer Interaction (e.g., word of mouth) Co-creation Blogging
Hollebeek (2011)	Consumer Brand Engagement	Concept	Multi-attribute: Awareness Behavior Emotion
Brodie et al. (2011b)	Consumer engagement	Concept	Multi-attribute: Awareness Behavior Emotion
Sashi (2012)	Online Brand Society Engagement	Concept	Multi-attribute: Intrinsic motivation Behavior Engagement
Gummerus et al. (2012)	Consumer engagement	Experiment	Multi-attribute: Community behavior engagement Transaction behavior engagement
Jahn&Kunz (2012)	Consumer behavior engagement	Experiment	Similar with Van Doorn et al. (2010)
Verleye et al. (2013)	Consumer behavior engagement	Experiment	Similar with Van Doorn et al. (2010)
Wirtz et al. (2013)	Online Brand Society Engagement	Concept	Concept - not presented
Jaakkola & Alexander (2014)	Consumer Engagement	Experiment	Concept - not presented
Chandler&Lusch (2014)	Engagement	Concept	Multi-attribute: Temporary engagement Relationship engagement

Hollebeek et al. (2014)	Consumer brand engagement	Experiment	Multi-attribute: Cognitive processing Affect Active
Franzak et al. 2014)	Brand engagement	Concept	Multi-attribute: Not clear
Wallace et al. (2014)	Consumer engagement	Experiment	Single attribute A number of “like”
De Villiers (2015)	Consumer brand engagement	Experiment	Multi-attribute: Awareness Affect Behavioral trends
Dwivedi (2015)	Consumer brand engagement	Experiment	Multi-attribute: Willpower Dedication Absorption
Schamari & Schaefer (2015)	Consumer engagement	Experiment	Single attribute Intention engagement
Dessart et al. (2015)	Consumer engagement	Experiment	Multi-attribute: Affect Awareness Behavior

Source: Authors, 2017



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Effects of Communication Crisis on Consumers' Attitude: The Case of Vietjet Air with Bikini Images

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ABSTRACT

Communication crisis can be a source of unpredictable consequences that needs to be forecast and controlled carefully for any organizations, corporates and individuals. At the beginning of 2018, Vietjet Air took the advantage of transporting the U23 national team after their success in the 2018 AFC U-23 Championship to advertise their image with a tactless bikini show on the flight. So what is the influence of Vietjet Air's event on customer's attitude and brand image? This study aims to determine and evaluate the impact of communication crisis towards consumer's attitude in the case of Vietjet Air by three primary methods: qualitative research, quantitative research and social listening. The results have indicated that: (1) Communication crisis has negative relationship with consumer's attitude, for example, consumers have strongly objected and boycotted Vietjet Air; (2) Crisis management has positively influenced consumer's attitude; (3) Consumer's attitude has a positive relationship with purchase intention; (4) communication crisis has many consequences namely "lose faith from consumer and community", "decrease the firm's competitiveness", "lead to a boycott from the consumers".

Keywords: communication crisis; consumer attitude; Vietjet Air; U23 Vietnam; bikini image

1. Introduction

In the current global economic context, communication crisis has occurred more frequently and in a highly complex manner. It can happen in any aspect: economics, business administration, politics, social life, psychology and organizational structure. In the explosion of mass media, news spreads rapidly with the internet (especially by social networks) from the Fourth Revolution Industry, any organization can be troubled with communication, even though it was big or SMEs, with weak or strong competitive position in the worldwide market.

W. Timothy Coombs (2007) showed that a crisis may cause a source of threats to a corporate namely public safety issue, financial loss and damaging to a firm's reputation. Specifically, consumers tend to grow negative attitude towards corporate image during and after a crisis. This situation can instantly damage the firm's long lasting reputation.

In Vietnam, several corporates recently encounter a serious communication crisis such as Tan Hiep Phat, Formosa, Vedan and Vietjet Air. Social network and Internet users had ignited a boycott wave that showed anger and resistance to these firms. Consequently, Tan Hiep Phat lost 2.000 billion VND and decreased 20% of market share; Vedan were rejected by both suppliers and consumers... For Vietjet Air, the airline was in charge of transporting the U23 national team after their success in the 2018 AFC U-23 Championship back to Vietnam; however, there was a bikini show evaluated tactless on the flight. As soon as images of this event are public on

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social networks, mass media and internet, there are many arguments and divided opinions on this event from the consumers as well as marketing experts. Moreover, many consumers got angry, evaluated the bikini show as tactless and called for boycotting this firm.

This study aims to determine and evaluate the impact of communication crisis toward the consumer's attitude with the Vietjet Air's event occurred on January 28th. Based on the results, the authors propose some recommendations for Vietjet Air in particular and other corporates in general to face and solve the problem when encountering communication crisis. The paper includes five main parts: (i) Introduction; (ii) Literature Review; (iii) Research Methodology; (iv) Results; (v) Conclusions.

2. Literature Review

According to Coombs (2015), crisis is "the perception of an unpredictable event that threatens important expectations of stakeholders and can seriously impact an organization's performance and generate negative outcomes". In other words, crisis is "a sudden and unexpected event leading to major unrest amongst the individuals at the workplace is called as organization crisis" or, "any emergency situation which disturbs the employees as well as leads to instability in the organization". Crisis affects an individual, group, organization or society on the whole.

How do we know when a crisis is a crisis? The answer is – when the media tell us. So, most of crisis can be consider as communication crisis and crisis management need to solve by manage the media. When communication crisis occur, it means an unexpected event occurs that could have a negative impact on the corporation's reputation. In that situation, most of corporation's efforts have to raise to communicate with the public and stockholders, to inform employees or the public of a potential hazard such as an impending storm which could have a catastrophic impact.

As Margaret Rouse (2013), crisis management is the application of strategies designed to help an organization deal with a sudden and significant negative event. In other words, the art of dealing with sudden and unexpected events which disturbs the employees, organization as well as external clients refers to crisis management. In simplest definition, crisis management is the process of handling unexpected and sudden changes in organization culture. Practically, a crisis can occur as a result of an unpredictable event or as an unforeseeable consequence of some event that had been considered a potential risk. In either case, crises almost invariably require that decisions be made quickly to limit damage to the organization. For that reason, one of the first actions in crisis management planning is to identify an individual to serve as crisis manager. Crisis management is the nature of activities to respond to a major threat to a person, group or organization.

As American Psychological Association (APA, 2018)'s definition, communication crisis is the effort taken by a company to communicate with the public and stockholders when an unexpected event occurs that could have a negative impact on the company's reputation. In fact, crisis communication refers to a special wing which deals with the reputation of the individuals as well as the organization. Crisis communication also can be seen as an initiative which aims at protecting the reputation of the organization and maintaining its public image. There are many factors such as criminal attacks, government investigations; media enquiry can tarnish the organisation's image. Crisis communication specialists have to fight against several challenges which tend to harm the organization's reputation and image.

In the generation of internet of things, overall people and corporations need to think to communication crisis and prepare for solving solutions. Facing crisis, organization's customer may pause purchasing products or community members may no longer assist the organization. Coombs and Holladay (2001) and Siomkos and Kurzbard (1994) showed that, post-crisis reputation is relevant to behavioral intentions namely buying intention and support for an organization. This relationship plays a significant role because of changing reputation may impact on the consumer's perception, attitude and behavior.

According to Icek Ajzen (2008), consumer attitude may be defined as a feeling of favorableness or unfavorableness that an individual has towards an object. As we know that an individual with a positive attitude is more likely to buy a product and these results in the possibility of liking or disliking a product. Consumer attitude basically comprises of beliefs towards, feelings towards and behavioral intentions towards some objects. Lars Perner (2010) defines consumer attitude simply as a composite of a consumer's beliefs, feelings, and behavioral intentions toward some object within the context of marketing. A consumer can hold negative or positive beliefs or feelings toward a product or service. A behavioral intention is defined by the consumer's belief or feeling with respect to the product or service.

W. Timothy Coombs (2007) indicated in the paper "Protecting Organization Reputations During a Crisis: The Development and Application of Situational Crisis Communication Theory" that a communication crisis has a negative influence on consumer's behavior. With the same result, in the research "Crisis Communication and Image Repair Strategies: Audience Attitude and Perceptions of Toyota in an Online Environment", Ashley

Cooper (2011) pointed out: (1) Consumer proved their attitude such as frustration, negativity, fear and loss of trust in Toyota’s products after a communication crisis, (2) Consumer had become more positive with the brand after Toyota took a corrective action strategy. Respondents from blog posts believed that attempts to manage crisis by Toyota was ethical.

According to prior studies, this research seeks to address the following hypotheses:

[H1]: Communication crisis has a negative impact on consumer’s attitude.

[H2]: Crisis management has a positive influence on consumer’s attitude.

[H3]: Attitude affects the consumer’s purchase intention.

Collectively, these studies investigate to affirm the relationship between communication crisis and customer’s attitude, purchase intention, focusing on a wide range of crisis around Vietnam that Vietjet Air facing in the March, 2018. The research model is proposed with two independent variables: “Communication crisis”, “Crisis management” are coded as “KH”, “XL” respectively. Two dependent variables are “Consumer attitude after communication crisis”, “Consumer’s attitude after crisis management” are coded as “TD”, “TDXL”, “YDM” respectively.

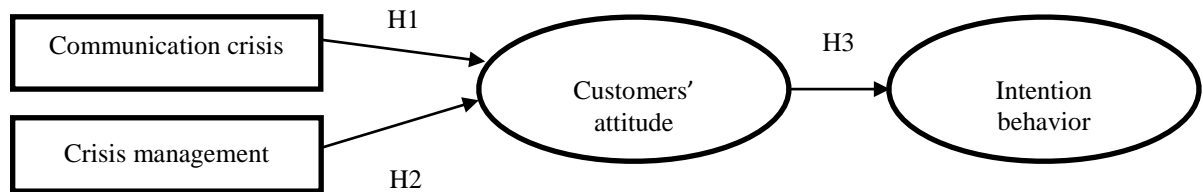


Fig. 1. Proposed research model

Source: Proposed by authors (2018)

3. Methodology

Research process includes four stages: desk research, qualitative research, quantitative research and social listening. Firstly, desk research is executed to gather, search for information and research models about communication crisis. After that, a questionnaire is designed with quantitative questions to understand, evaluate the consumer’ attitude toward Vietjet Air’s event. Consequently, items measuring scale that is suitable for variables of research model: nominal, sentimental differential (7 points from -3 to +3), ordinal (using level, Likert). Quantitative research is executed then data which is classified and analyzed with SPSS 23.0 and Excel software. After that, consumer’s attitude is analyzed by not only the quantitative research but also by social listening. Social listening is carried out with 100 data units with the purpose to have an objective analysis.

Tabachnick and Fidell (1996) indicated that the minimum sample size in regression analysis should be bigger than n , with $n = 50+8m$, in which, n : Survey sample size; m : numbers of independent variables. With 12 elements for 2 variables, so the sample size should be larger than 146 respondents. The authors have interviewed with 180 people from 18-55 year-old in Hanoi with several other demographic characteristics to ensure the sample’s representativeness..

Table 1. Sample’s demographic characteristic

<i>Criteria</i>	<i>Specific criteria</i>	<i>Freq.</i>	<i>Proportion (%)</i>
<i>Gender</i>	<i>Male</i>	88	48.89
	<i>Female</i>	92	51.11
	<i>Others</i>	0	0.00
<i>Age group</i>	<i>From 18 to 25</i>	78	43.33
	<i>From 24 to 40</i>	65	36.11

	<i>From 41 to 55</i>	37	20.56
<i>Occupation</i>	<i>Student</i>	86	47.78
	<i>Worker</i>	15	8.33
	<i>Office worker</i>	34	18.89
	<i>Businessman</i>	21	11.67
	<i>Public servant</i>	14	7.78
	<i>Others</i>	10	5.56
<i>Income/month</i>	<i>Under 3 million</i>	57	31.67
	<i>From 3 to 5 million</i>	35	19.44
	<i>From 5 to 10 million</i>	68	37.78
	<i>Over 10 million</i>	20	11.11

Source: Summary of the survey (2018)

The table 1 demonstrates the sample's demographic characteristic is gathered from participants. Most of the participants are 18 to 40 years old, making up 79.44% of total respondents. Because Vietjet Air's event is widespread on the Internet and Social networks and this age group have the easiest access to news regarding this event. Therefore, the result for age group ranging from 18 to 40 has the highest proportion within group criteria.

4. Results

4.1. Proportion of participants aware of Vietjet Air's event

Within 180 respondents, the proportion of people have never heard or known about this event is 91.1%. Only 8.9% of respondents is unaware of this event. The figure shows that the bikini image of Vietjet Air's communication is very popular.

Table 2 illustrates the perception of communication crisis's consequence. The proportion of people indicating a crisis may "Lose faith from consumer and community" is 70%. The figure for "Decrease the ability of competition", "Lead to be boycott from the consumer" and "Decrease return and profit" are lower, at 58.8%, 55%, 51.2% respectively.

Table 2. The perception of communication crisis's consequence

	<i>Proportion (%)</i>
<i>Lose faith from consumer and community</i>	70
<i>Decrease return and profit</i>	51.2
<i>Lead to be boycott from the consumer</i>	55
<i>Decrease the ability of competition</i>	58.8
<i>Ability to leave of employee</i>	12.5
<i>Others</i>	3.8

Source: Summary of the survey (2018)

Consumer’s attitude toward Vietjet Air in communication crisis

Most people have a negative to very negative attitude towards the brand. They answered that the bikini image on the flight was tactless, showing the disrespect to the customers. Participants indicate that “This action of Vietjet Air should be condemned, not agreed” accounting for 31.25%. The proportion of “No sympathy and dissatisfaction for the brand” is 13.75%, following by “Dudgeon” (7.5%) and “Boycott” (2.5%). They will even reconsider using the service of the firm or will stop using it. Moreover, the group of participants feels normal about this action accounting for 11.25% because of knowing that Vietjet Air has used this strategy before.

However, the promotion campaign with bikini image of Vietjet Air does bring lot of attention, not only from Vietnamese people in the world, who were very excited with the results of U23 Football team, but also people who have relation with Vietnam at that time. That's for sure, the people from Asia people, who love football and still in suprised with Vietnam team also take track to the team right after match. In other words, inform and remindful objectives have been absolutely completed.

The influence of communication crisis, crisis management on consumer’s attitude and the relationship between attitude and purchase intention

The coefficient alpha (Cronbach’s alpha) of communication crisis variable - “KH” and Attitude variable are both over 0.6. Therefore, there aren’t any factors eliminated. Sig. = 0.000 < 0.005 is the proof for rejecting Ho: The factors don’t correlate each other. After that, Pearson correlation coefficient is executed to verify the relationship between variables. Table 3 demonstrates that it is a very strong relationship between factors. The coefficient between communication crisis and attitude is -0.72 that indicates a negative relationship. The impacts between Crisis management factor and attitude, attitude and purchase intention are both strong positive relationship.

Table 3. Pearson correlation coefficient

	<i>Pearson coefficient</i>
<i>Communication crisis and attitude</i>	- 0.72
<i>Crisis management and attitude</i>	0.873
<i>Attitude and purchase intention</i>	0.685

Source: Summary of the survey (2018)

Simple linear regression is used to evaluate the extent of variable impact. Measuring the “Communication crisis” (KH) impact on consumer’s attitude coded as “Thai_do”: Results for the unstandardized coefficient is - 0.731 meaning communication crisis has a negative impact on consumer’s attitude. The formula is: Thai_do = 5.391 – 0.731*KH.

Measuring the “Crisis management”(XL) impact on consumer’s attitude (TDXL_5.12): Results for the unstandardized coefficient is 0.936 meaning communication crisis has a strong positive influence on consumer’s attitude. The formula is: TDXL_5.12 = 0.238 + 0.935*XL. Moreover, as mentioned, attitude is proved to have an impact on purchase intention with Pearson correlation coefficient is 0.685. All three hypotheses are supported.

The agree level of respondents with statements

Consumers almost object to or disagree with statements with the meaning that this bikini show of event isn’t a crisis, the bikini show is still suitable to the fine custom and members of the U23 football team. Meanwhile, the score of respondents agree with statements about negative attitude is 3.72/5. Especially, participants show disagreement with the event and brand image evaluating a very high score at 4.14 and 3.87 respectively. The figure shows that most the respondents have a negative attitude after Vietjet Air’s crisis. The evaluation of statements about crisis management and attitude after crisis management are 3.96 and 4.04 showing that participants agree with crisis management of corporate. They suggest that it may influence their attitude about brand more positively.

Social listening results

Big Data is gathered at Social Media Command Center. After eliminating valueless data, there are 100 data units that relevant to the Vietjet Air's event are selected and analyzed.

4.1.1. Attitude toward brand

91% of emotional response rate, which accounts for the highest proportion, is the negative attitude. Meanwhile, the figures for positive attitude and neutral are significantly lower, at 6% and 3% respectively. Most of users have a strongly negative attitude. The attitude "Unsupported" accounts for the highest proportion, at 21.1%, flowing by "Critical" (20%), "Dudgeon" (15.6%)... They indicate that Vietjet Air's action is unethical, uncivilized by taking advantage of women or blaming the model. Moreover, some users have a negative attitude because this event defames to the national identity.

The results from social listening results reveal that, the proportion of facebookers, twitters and LinkedIn around the world are affected by the crisis and the bikini's image of Vietjet Air makes negative impact to their mind on Vietjet Air.

Table 4.12. The proportion of attitude types toward brand

	<i>Attitude types toward brand</i>	<i>Ratio (%)</i>
<i>Negative</i>	<i>Dudgeon</i>	<i>15.6%</i>
	<i>Boycott</i>	<i>12.2%</i>
	<i>Unsupported</i>	<i>21.1%</i>
	<i>Critical</i>	<i>20%</i>
	<i>Impolite</i>	<i>1.1%</i>
	<i>Sudden</i>	<i>1.1%</i>
	<i>Pressing</i>	<i>1.1%</i>
	<i>Disgraced</i>	<i>1.1%</i>
	<i>Anxious</i>	<i>1.1%</i>
	<i>Condemned</i>	<i>7.8%</i>
	<i>Despised</i>	<i>1.1%</i>
	<i>Irritating/provoke</i>	<i>2.2%</i>
	<i>Protested</i>	<i>4.4%</i>
<i>Ashamed</i>	<i>1.1%</i>	
<i>Positive</i>	<i>Supported</i>	<i>3.3%</i>
<i>Neutral</i>	<i>Normal</i>	<i>4.4%</i>
	<i>Fair</i>	<i>1.1%</i>

Source: Summary of the survey (2018)

4.1.2. Attitude and evaluation toward model at event

88% of emotional response rate, which accounts for the highest proportion, is the negative attitude toward the models. Meanwhile, the figure for positive attitude is considerably lower, at 12 %. Most of the users have a significantly negative attitude toward the models at the event. The attitude of “Distasteful” accounts for the highest proportion, at 31.1%, flowing by “Inappropriate appearance” and “Inappropriate action” (9.1%). “Ridiculous” and “Vulgar, over weighted” are comments about model making up 7.78%... The proportion of positive attitude “Favorable” is only 11.6%. That results once more time support for the above statement of backward impact of the promotion campaign of Vietjet Air with bikini image.

Moreover, the reasons for users’ negative attitude toward model at the event are that he model has an inappropriate appearance, unsuitable context (for a formal atmosphere), inappropriate action with footballers in the U23 team. However, some users expressed that they sympathized with the model because of the Vietjet Air’s trick is so popular.

5. Conclusions

Based on the above results, we can go to the conclusions that, communication crisis has a strongly negative relationship with consumer’s attitude (as both Pearson correlate and Beta standardized coefficient are at minus 0.72). Crisis management influences on consumer’s attitude positively with Pearson correlate coefficient and Beta standardized are 0.873 and 0.5 respectively. Moreover, respondents suggest that they have a negative attitude won’t use Vietjet Air’s service anymore. They will be more positive toward the brand and support the firm if Vietjet Air has a crisis management and apologizes to consumer. Consumer’s attitude has a positive relationship with purchase intention along with Pearson correlate coefficient = 0.685, among them, female respondents between 18 and 25 years old with monthly income less than 3 million VND tend to be more negative than the others.

About the of impact of communication crisis on consumer’s attitude, most of the participants didn’t highly valued the bikini image promotion campaign of Vietjet Air; even some got angry. So, it is not sowed that can be encounters to communication crisis as a consequence. Vietnamese consumers have a decrease in favor of the brand; even they boycott Vietjet Air.

Before the crisis, consumers considered Vietjet Air as an economy airline. They have been quite fond of the firm although Vietjet Air had encountered a crisis relating to Ngoc Trinh wearing a bikini before the firm launching. Consumers suggest that bikini show, in this case, is inappropriate with the formal atmosphere (transporting the team) and extremely tactless. After the communication crisis, consumers have a significantly negative attitude and boycott the brand or reconsider the decision of using this firm’s service. 45.5% of respondents will not select this firm. In conclusion, consumer’s attitude has the positive influence on consumer’s purchase intention. The negative attitude toward corporate, product, brand may lead to the negative purchase intention and vice versa.

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Factors Affecting Brand Love, Brand Loyalty and Word-of-Mouth: The Case of Honda Brand

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ABSTRACT

The purpose of the study was to examine the impact of brand experience, brand image and brand trust on brand love, and the impact of brand love on brand loyalty and word of mouth. The primary data collection technique that is questionnaire was used for the purpose of analyzing the data. It was distributed to 400 respondents from customer who using the product of motorcycle brand. The data collected was analyzed through a Structural Equation Modeling – SEM. The findings of the study revealed that one statistically significant factor affecting brand love is brand experience, and brand love affecting brand loyalty and word of mouth. Factors that do not affect brand love includes brand image and brand trust.

Keywords: brand experience; brand image; brand trust; brand love; brand loyalty; word of mouth.

1. Introduction

The new brand with new strategy, attractive promotion will be the best of customer's choice. However, there are many brands still in the top choice of customer, although these brands have not attractive promotion for customer. So why are customer still choosing those brand?

In fact, previous studies were suggested that a customer's emotional attachment to a brand is the most reliable measure of a strong brand and should therefore be a primary objective for brand management or customer relationship marketing (Pawle and Cooper, 2006). Fournier (1998) founded that consumers were able to emotionally bond with brands in a similar way to that observed in personal relationships. This has been supported by more recent research, which shows that consumers can develop a relationship with a brand that evokes emotions similar to love (Albert et al., 2008; Carroll and Ahuvia, 2006; Wallace et al., 2014).

To develop brand love, a consumer must have a positive brand attitude and positive experiences, as well as a feeling of psychological proximity to the brand (Joji and Ashwin, 2012). A beloved brand is an integrated part of the consumer's self-expressiveness, and by using a certain brand and demonstrating love toward it, the consumer expresses his or her self to others (Albert et al., 2008; Huber et al., 2015; Wallace et al., 2014).

Brand trust is an antecedent of brand love (Albert and Merunka, 2013; Drennan et al., 2015). As in interpersonal relationships, trust leads to love between people (Hazan and Shaver, 1987; Shaver, Schwartz, Kirson and O'connor, 1987). According to Chaudhuri and Holbrook (2001), brand trust occurs when consumers believe the brand keeps its promises. It is a promise of brand with their customers to fulfil their expectations. It is considered a driver of consumers' emotional attachment to a brand (Chaudhuri and Holbrook, 2001).

In today's highly competitive business environment, a well positioned brand image is very important (Arnold, 1992). Marketers strive to create a brand image that similar to (congruent with) the self-image of the target consumers (Aaker and Biehl, 1993; Kapferer, 1992). When consumers believe that they can rely on the brand, it

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has facilitated the development of sentiment.

The purpose of this study is to figure out the affect of brand experience, brand image, brand trust to brand love and outcome of it. The findings of this research will be the direction for company which are trying to win the consumer's love.

First, literature review and study model are presented. Hypotheses are built in this step. Then, we describe the methodology and data collection procedures. After the results are shown, there are conclusion, recommendations based on our findings and directions for future research.

2. Literature view and hypohese development

Brand Love

Fournier (1998) was among the first scholars to provide evidence that consumers are able to emotionally bond with brands in a similar way to that observed in personal relationships. Brand love includes passion for the brand, attachment to the brand, positive evaluation of the brand, positive emotions in response to the brand, and declarations of love for the brand' (Carroll & Ahuvia, 2006; pg. 81). Various studies demonstrate that consumers can actually experience a feeling of love for their brand (Albert et al., 2008a; Albert and Merunka, 2013; Batra et al., 2012; Carroll and Ahuvia, 2006). Rossiter (2012) proved that consumers who exhibit love toward a brand use it more frequently and have the intention to recommend the brand to others compared to brands they just like or feel neutral toward.

Brand Experience

Previous studies show that a long period of time and extensive experience of a brand is needed for brand love to develop (Holmes, 2000; Mikulincer et al., 2001). This study adopts three dimensions of sensory, intellectual and behavioral, proposed by Brakus et al. (2009), because of the following reasons: these dimensions fit the choice of the context of this study. Its definitions and measurements are widely used in marketing literature, i.e., better validity and reliability. The affective experience is overlooked in this study because the results show its low validity (Cronbach's α $\frac{1}{4}$ 0.36). Following the rationales of the hierarchy of effects, i.e., the cognition-affect-behavior (C-A-B) model, customers' cognitive responses, e.g., sensory and intellectual experiences, and their behaviors, e.g., behavioral experience, might arose their emotions, e.g., brand love (Breckler, 1984; Solomon, 2014). There is not too many studies investigating the relationship between brand experience, however Sanjit. K. R, Abdolreza. E., Abhigyan. S. (2012) figured out the antecedents and consequences of brand and brand experience included in the model. They built that relationship based on the research of Kumar (1996) which was identified the feeling characterized by high levels of joy and surprise in connection with a consumption experience may be an antecedent of brand love. Therefore, it can be argued that when the customer gain the brand experience, their love toward the brand could increase.

H1a: Sensory experience impacts to Brand Love

H2a: Intellectual experience impacts to Brand Love

H3a: Behavioral experience impacts to Brand Love

Brand Image

Brand image has been defined as the consumer's mental picture of the offering (Dobni & Zinkhan, 1990). It is seen as the representation of a brand in the consumer's mind that is linked to an offering (Dobni & Zinkhan, 1990), or a set of perceptions about a brand the consumer forms as reflected by brand associations (Keller, 1993). Hence it can be defined as the reasoned or emotional perceptions consumers attach to specific brands (Low & Lamb, 2000). In business markets brand image can also be expected to play an important role, especially where it is difficult to differentiate products or services based on tangible quality features (Mudambi, Doyle & Wong, 1997). In today's highly competitive business environment, a well positioned brand image is very important (Arnold, 1992). Marketer and advertisers recognize that products (and services) have symbolic image that are often more important to a product's success than are its actual physical attributes and characteristics (Aaker, 1991; Pettijohn et al., 1992; Triplett, 1994). They strive to create a brand image that similar to (congruent with) the self-image of the target consumers (Aaker and Biehl, 1993; Kapferer, 1992). As Reichheld (2001, qtd in Hsieh and Li) perceptively state that preferable brand image will lead consumers to conceive a perception of an organization's public relationship practice, which matches the corporate reputation better. In Ismail and Spinelli (2012) research, they found the strong relationship between brand image and brand love. Moreover, Aaker (1997) and Fournier (1998) defined brand image was human attributes to the brand they consumes therefore it gained brand love or brand emotional of customers.

H2: Brand Image impacts to Brand Love

Brand Trust

Trust is used as a mental shortcut to reduce uncertainty and the need for mental processing (Moorman et al, 1992), and is a focal factor of the formation of any long-term relationship (Morgan and Hunt, 1994). As in interpersonal relationships, trust leads to love between people (Hazan and Shaver, 1987; Shaver, Schwartz, Kirson and O'Connor, 1987). According to Chaudhuri and Holbrook (2001), brand trust occurs when consumers believe the brand keeps its promises. It is a promise of brand with their customers to fulfil their expectations. It is considered a driver of consumers' emotional attachment to a brand (Chaudhuri and Holbrook, 2001). The characteristics of brand trust are considered to be the driving force of consumer sentiment toward the brand (Chaudhuri and Holbrook, 2001; Langner et al., 2015).

H3: Brand Trust impacts Brand Love

Brand Loyalty

It is widely considered that loyalty is one of the ways with which the consumer expresses his/her satisfaction with the performance of the product or service received (Bloemer and Kasper, 1995). Like Filser (1994), Odin, and Valecre-Florence (2001) assumed that the repurchase of the same brand under conditions of strong perceived brand differences characterizes brand loyalty. One way to measure customer loyalty is to focus on the behavioural dimension of loyalty (Caruana, 2002), and have a scale to measure repurchase intention or the intention to remain with the company (de Ruyter & Wetzels, 2000). Brand love includes a variety of emotions such as passion, positive attitude and appreciation, likes, commitment, etc. (Albert et al., 2008, Batra et al., 2012, Carroll and Ahuvia, 2006). Shimp and Madden, 1988, Sternberg, 1986). Thus, it includes emotional component. If consumers love branding, they may feel loyalty to the brand, want to use it, willing to invest more resources to buy the brand, that is loyalty to the behavior, participation moreover, positive word of mouth (WOM) and attitude loyalty (Carroll and Ahuvia, 2006, Batra et al., 2012). Related studies have also shown significant effects of these emotional components, such as attachment, brand loyalty (Aurier and de Lanauze, 2012, Davis-Sramek et al., 2009), Fuchs et al., 2015, Johnson et al., 2006). Thus, this study hypothesizes the influence of brand love on brand loyalty as the following:

H4: Brand Love impacts Brand Loyalty

Word of Mouth

There is recent focus on WOM in the literature on relationship marketing as a potential responses that can emerge from efforts directed at forming relationships with consumers (e.g. Sheth and Parvatiyar, 1995; Verhoef et al., 2002). Harrison-Walker (2001) defined WOM as "informal, person-to-person communication between a perceived non-commercial communicator and a receiver regarding a brand, a product, an organization or a service" (p. 63). Consumers imitate each other following a social or vicarious learning paradigm (Hawkins et al., 2004), but perhaps more importantly, they also talk to each other. WOM is described as the process that allows consumers to share information and opinions that direct buyers toward and away from specific products, brands and services (Hawkins et al., 2004). Kudeshia *et al.* (2016) show that a strong positive relationship exists between brand love and WOM. Most recently, Batra et al. (2012, p.1) confirms that love is "a positive relationship with oral sex." Nowadays, brand love is a vastly debated subject because it is linked to high levels of brand loyalty and a positive word-of-mouth (Carroll and Ahuvia, 2006). Consumers who feel love for brands are more willing to talk about them through a process of identity construction (Batra et al., 2012), and the influence of brand love for a positive word-of-mouth has been demonstrated (Ahuvia and Carroll, 2006; Albert and Merunka, 2013).

H5: Brand Love impacts Word of Mouth

Figure 1 shows the study model in this research. The model is built to examine the impacts of brand experience, brand image, brand trust factors on brand love, brand loyalty and word of mouth.

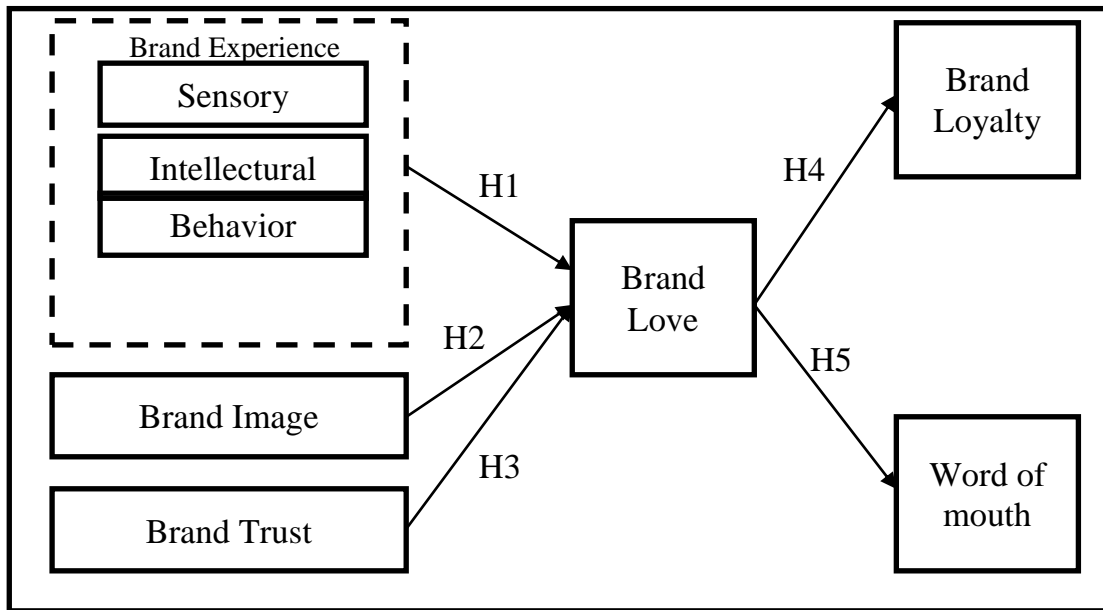


Fig. 1. The conceptual model of this study

3. Methodology

Measurement Items

The approach of this study is quantitative. The questionnaire developed for the study consists of three major parts. The first part comprises of 16 items measuring three subcategories including: brand experience, brand image and brand trust. The second part comprises of brand love (Carroll & Ahuvia, 2006). The third part comprises of two subcategories brand loyalty (Shimp & Madden, 1988; Carroll & Ahuvia, 2006; Albert et al., 2008; Batra et al., 2012) and word of mouth (Carroll & Ahuvia, 2006; Albert & Merunka, 2013).

Each of these variables was measured by seven-point Likert-type scale, ranging from 1-strong disagree to 7-strong agree. A neutral response “neither disagree nor agree” was adopted to reduce uninformed responses.

The data of the study was gathered from a sample of consumers in Ho Chi Minh City who used the product of Honda brand. Sample was randomly selected. A total of 700 surveys were sent and 700 surveys were recovered. 300 surveys have excluded because of wrong and lack of information. The remaining 400 surveys were used to analyze (57% of the total survey). This study used online and offline channel to collect the data. Most of the online surveys are not reliable and full of the information, thus, it is the main reason of high rate elimination.

Sampling and data collection procedure

According to Hoang Trong and Chu Nguyen Mong Ngoc (2005), the size of the sample is equal or more than $n \geq 5$ (n : item). Thus, with 36 items are measured by seven-point Likert-type scales, the minimum size of the sample was $n=180$ (36×5). Within the time allowed, this study conducted 400 questionnaires.

Data Analysis

The next step is to filter the errors in data entry, encode and analyze the data by SPSS and AMOS (version 20) software. Specifically, SPSS and AMOS was used to analyze the descriptive statistics, Cronbach’s Alpha, Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) to examine the relationship between the constructs in the study model.

4. Results

A total of 400 valid questionnaires were approved. More than 72% of the respondents were male, indicating that the sample was unbalanced in terms of gender, and more than 46% of them were age between 26 and 32 years old. In addition, more than 36% of respondents were employee.

Cronbach’s Alpha

The Cronbach's Alpha coefficients ranges from 0.700 to 0.920, higher than the rule of thumb of 0.6 (Nunnally & Burnstein, 1994), thus confirming the internal consistency of the items. There were five eliminated items after Cronbach's alpha analysis: one item of brand trust (NT1), three items of brand love (TY1, TY2, TY9) and one item of brand loyalty (TT1).

Exploratory Factor Analysis (EFA)

With regard to construct validity, as recommended by Hair et al., 1998, Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were used to assess construct validity. Thus, EFA was performed to test the uni-dimensionality of the research construct so as to examine the degree to which the items are tapping to the same concept. It has been recommended that CFA, derived from structural equation modeling (SEM), is a more rigorous test of uni-dimensionality (Garver and Mentzwe, 1999). Thus, CFA was also utilized to confirm and sometimes to refine the uni-dimensionality of results from EFA.

All items of the research model were analyzed by Factor Extraction using the principal axis factoring method, promax rotation. Statistical package for social sciences was used to show which variables "clump together". For commonly used assumptions followed (Hair et al., 1998); sampling adequacy (Kaiser-Meyer-Olkin measure greater than 0.5); the minimum eigenvalue for each factor to be one, considering the sample size, factor loading of 0.5 for each item was considered as the threshold for retaining items to ensure the greater confidence.

There were eliminated items which displayed factor loadings below 0.5 (Hair et al., 1998) after EFA analysis: one item of brand experience (KN2) and one item of brand image (HA5).

The brand experience factor was formed by six observational variables, including HA1, HA4, KN1, KN3, KN4, KN5. This factor is to measure the customer experience when they using the product of brand. Although this factor has mixed two observational variables of brand image (HA1: Being fashionable and trendy and HA4: Being sophisticated) but the factor is still brand experience because when customer using the product of brand, and compare with other brand, they feel like the design of brand and they are at a higher level. It is also experience of customer.

After exploratory factor analysis, the variables of brand experience, brand trust, brand image, brand love, brand loyalty and word of mouth exhibited evidence of convergent and discriminant validity. The factor loadings of all items were more than 0.5. These remaining items were continued to Confirmatory Factor Analysis (CFA).

Confirmatory Factor Analysis (CFA)

Actually, when building a model, the data usually do not match the original model. This is expressed through the indicators used to evaluate the fit of the model, so the Model Adjustment Index (MI) is used to add or remove relationships in the model to create the best model (Schumacker and Lomax, 2010). Based on the Model Adjustment Index (MI), we eliminate variables to increase the fit of the model; 10 variables were eliminated, including: TT5, TY4, NT3, TY7, KN4, TM1, TT4, TY8, TM3, NT2, HA1, KN5, HA2 and HA3. Model results satisfy metric conditions, namely $CMIN / df = 2558 (\leq 3)$; $GFI = 0.945$, $TLI = 0.915$, $CFI = 0.968$ (all ≥ 0.9); $RMSEA = 0.062 (\leq 0.08)$. Since all of the indicators met theoretical conditions, the CFA model was consistent with the data collected.

Structural Equation Modeling (SEM)

In this section, the SEM has the role of testing the Measurement Model for the proposed hypotheses. The measurement indicators used to evaluate the SEM are similar to those to evaluate the appropriate model in CFA analysis, including: CMIN/df, CFI, GFI, TLI and RMSEA. The results of SEM analysis, for the first time showed that the model is not suitable because these indicators are not satisfactory. Based on the Model Adjustment Index (MI), we eliminate variables to increase the fit of the model. In addition, one variable was eliminated to increase the relevance of the model, namely: TM5. SEM results satisfy metric conditions, namely CMIN / df = 2620 (≤ 3); GFI = 0.948, TLI = 0.919, CFI = 0.968 (all ≥ 0.9); RMSEA = 0.064 (≤ 0.08). There is a match between the data collected and the model given.

Bootstrap is a repetitive sampling method that use replacement, so the number of samples when testing Bootstrap can be increased. In this study, the repeatability of the Bootstrap test was 500 times (N = 500). The results of this test are shown in Table 3:

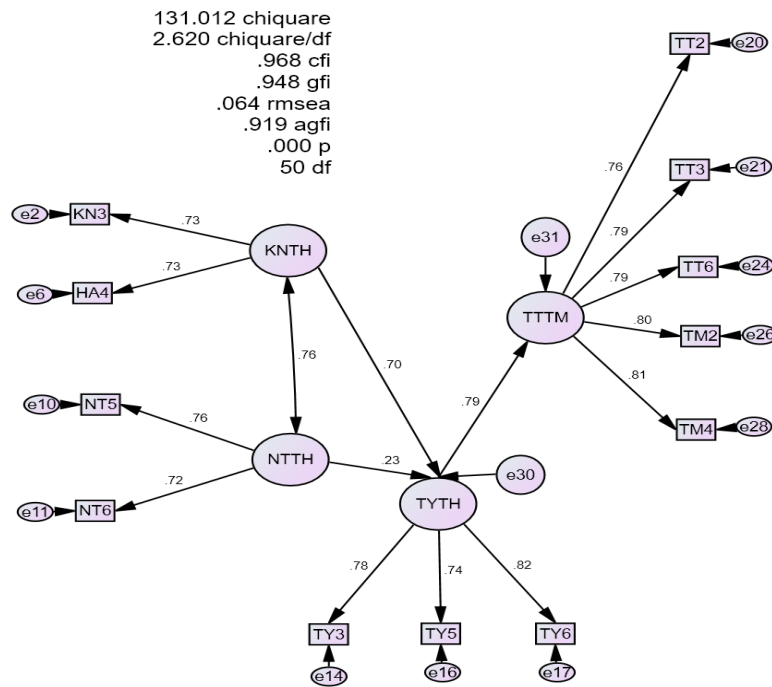


Figure 2. Structural Equation Modeling – SEM

Table 3. Bootstrap test results

Regression Weights: (Group number 1 - Default model)							
Parameter			Estimate	Lower	Upper	P	Statistical significance
TYTH	<---	KNTH	0.719	0.502	1.028	0.004	Has statistical significance
TYTH	<---	NTTH	0.273	-0.016	0.494	0.121	Does not have statistical significance
TTTM	<---	TYTH	0.772	0.676	0.885	0.004	Has statistical significance

TT2	<---	TTTM	0.89	0.804	1	0.004	Has statistical significance
KN3	<---	KNTH	1.194	1.067	1.338	0.004	Has statistical significance
HA4	<---	KNTH	1	1	1	0.000	Has statistical significance
NT6	<---	NTTH	1	1	1	0.000	Has statistical significance
TM2	<---	TTTM	1.034	0.936	1.134	0.004	Has statistical significance
TM4	<---	TTTM	1.068	0.976	1.165	0.004	Has statistical significance
NT5	<---	NTTH	1.034	0.884	1.189	0.004	Has statistical significance
TY5	<---	TYTH	1	1	1	0.000	Has statistical significance
TY3	<---	TYTH	1.08	0.967	1.211	0.004	Has statistical significance
TY6	<---	TYTH	1.423	1.291	1.576	0.004	Has statistical significance
TT6	<---	TTTM	1.1	0.993	1.239	0.004	Has statistical significance
TT3	<---	TTTM	1	1	1	0.000	Has statistical significance

After a chain of steps of data analysis conducted prudently, objectively and in accordance with stringent theoretical requirements the hypothesis of the proposed inital relationships has been adjusted:

Table 4. Relationships and the level of impact in the SEM

	Contents	Results	Level of impact
H ₁	Brand experience impacts brand love	Acceptable	0.702
H ₂	Brand trust impacts brand love	Unacceptable	
H ₃	Brand image impacts brand love	Unacceptable	
H ₄	Brand love impacts brand loyalty and word of mouth	Acceptable	0.793

5. Discussion

Brand Experience

To increase high brand love, brands needs to provide the experience for customer. Previous studies have shown that the better the brand experience is, the higher the level of the brand love is (Holmes, 2000; Mikulincer et al., 2001; Brakus et al., 2009; Solomon, 2014). Specificly, brand experience has positive impact on brand love with the second highest impact level is 0.702, Sanjit et al.,(2012) also found the relationship between the brand experience, brand love, WOM and loyalty, it is plausible to argue that affective component of brand experience

contributes to generating romantic brand love by inducing brand- related arousa

Brand Image

This factors does not affect brand love. The cause may be that in competitive business enviroment, brands recognize the importance of building brand image. Company tries to build brand image similar to the image of the target customer (Aaker and Biehl, 1993; Kapferer, 1992), thus, it is hard to customer to remember the signal of particular brand . Furthermoer, start-up companies increases every year and they create many creative brand image, it makes customer easy change their minds easily.

Brand Trust

This factors does not affect brand love much. Although in the theoretical modeling, brand trust is expected to positively impact on brand love, but statistical data have shown the opposite: brand trust does not affect brand love much. This is reflected in the index only 0.229. Strong trust in a brand leads to positive outcomes such as positive attitudes, stronger commitment and loyalty (Knox et al, 1993) and is a focal factor contributing to brand love (Albert et al, 2008; Drennan et al., 2015). However, in the present context, brand trust is not big enough to affect brand love.

Brand Loyalty and Word of mouth

If consumers love the brand, they might feel greater brand loyalty, desire to use, willingness to invest more resources to purchase the brand, i.e., behavioral loyalty, to be more involved, and to spread positive word-of-mouth (WOM), and attitudinal loyalty (Carroll and Ahuvia, 2006; Batra et al., 2012). The results of the survey agree with many conclusions of previous studies, such as Carroll and Ahuvia (2006), Batra and cộng sự (2012), Aurier and de Lanauze (2012), Davis-Sramek et al. (2009), Fuchs et al. (năm 2015), Johnson et al. (2006). Specificly, brand love has a positive impact on brand loyalty and word of mouth with the highest impacts is 0.793

6. Conclusion

The purpose of this article was to identify antecedents and consequences of brand love. As a new concept in consumer behavior and marketing, brand love promises to offer important insights to unexplored research domain to the scholars. According to the survey data of 400 customers who using product of motorcycle brand in Ho Chi Minh City, the findings of the study revealed that one factor affects brand love is brand experience. In fact, customer will choose the product of the motorcycle brand based on their experience, or the experience from their family, friend (up to 49% customer asked opinion of their family or their friend when they have a need to buy a motorcycle). Therefore, brands need to organize practical programs to increase the experience of customer. In addition, the results show that brand trust does not have affect brand love, this opposed the conclusion of Patwardhan and Balasubramanian, 2011; Albert and Merunka, 2013. If this belief is not big enough, customer can switch to another brand.

This research aims to be found the relationship between brand experiences, brand love and WOM which impressed the manager should increase more activities for customer to experimental in product. Then, they would love company brands in mind and propose them to the others.

7. Limitations and future research

In addition to the results obtained, the research has certain limitations. First the research conceptual model is a generalized conceptual frame- work focusing on brand love, the probable roles played by those mediating and moderating variables have not been discussed.. Secondly, the topic conducted through the survey in Ho Chi Minh City, may not accurately reflect the factors affecting brand love, brand loyalty and word of mouth. With futher research, we have proposed the following research should discuss more in the other industry, especially in service industry in order to increase implement practical of brand love concept.

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Appendix. All measurement items of key constructs

Construct	Items	Source
Brand Experience	<p>KN1. H makes strong impression</p> <p>KN2. I feel H interesting</p> <p>KN3. When I encounter H, I engage in a lot of thinking</p> <p>KN4. I am willing to participate in activities organized by H</p> <p>KN5. Overall, I have experience with H</p>	Brakus et al. (2009)
Brand Image	<p>When you think of the overall impression you have of H products and brands, how do you rate them on:</p> <p>HA1. Being fashionable and trendy</p> <p>HA2. Having a popularity for quality</p> <p>HA3. Being Being well known and prestigious</p> <p>HA4. Being sophisticated</p> <p>HA5. Generally, I have a good impression of the brand image H</p>	A.E. Cretu, R.J. Brodie. (2007)
Brand Trust	<p>NT1. I trust H's brand</p> <p>NT2. H is an honest brand</p> <p>NT3. H's brand is safe</p> <p>NT4. H's brand meets my expectations</p> <p>NT5. I feel confidence in H's brand</p> <p>NT6. Summary, I have faith in H</p>	Arjun Chaudhuri; Morris B Holbrook (2001)
Brand Love	<p>TY1. H is wonderful brand</p> <p>TY2. H makes me feel good</p> <p>TY3. I am passionate about H</p> <p>TY4. I am very attached to H</p> <p>TY5. I feel connected with H</p> <p>TY6. H is my only choice</p> <p>TY7. I would buy H again even I hear bad things about it</p> <p>TY8. I am prepared to defeand H in every situation</p> <p>TY9. Overall, I love H</p>	Carroll and Ahuvia (2006)
Brand Loyalty	<p>TT1. H is my first choice</p> <p>TT2. I have often participated in discussions about H</p> <p>TT3. I will advise relatives and friends choose H's product</p> <p>TT4. I have often followed information about H</p>	Fournier (1998)

	<p><i>TT5. I do not care about other brands</i></p> <p><i>TT6. I am loyal to only one brand of H</i></p>	
<p>Word of mouth</p>	<p><i>TM1. I have recommended H to lots of people.</i></p> <p><i>TM2. I “talk up” H to my friends.</i></p> <p><i>TM3. I try to spread the good-word about H</i></p> <p><i>TM4. I give H tons of positive word of mouth advertising</i></p> <p><i>TM5. I will continue positive word of mouth for H</i></p>	<p><i>Carroll, B.A. and Ahuvia, A.C. (2006)</i></p>



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Brand Experience: A New Approach to Attract and Satisfy Consumers in the Connected Age

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ABSTRACT

This article explores the role of brand experience in marketing strategy vision in the Connected Age. The brand experience is considered as the most relevant approach in strategic marketing nowadays because of recent changes of markets and consumers. Therefore, the article focuses on describing market characteristics and consumers' behaviours, and how these lead to the brand experience. Then, it shall define the brand experience as a new concept with specific attributes and components. Finally, some tactics to conduct the brand experience are recommended in order to attract and satisfy the consumers.

Keywords: Brand; brand experience; marketing strategy.

1. Introduction

The foundation of marketing activities is generally based on the demands and desires of people. That said, the marketing activities are closely associated with people and human society. Therefore, these activities should be always updated and improved to meet the increasing needs of the consumers.

It is the aggressive development of technology in the modern time that it has created a connected age. The technology which plays an important role in meeting the people's essentials is automation, power, robots, and so forth. Particularly, the technology of advanced low-cost things like smart phones has improved mostly the consumers' awareness and behaviour. With the smart phones at a reasonable price, and the developed internet infrastructure at a very low cost, if not to say it is free, widely and seamlessly accessing to the Internet has been almost entirely changing the consumers' behaviour. At this time, most people possess at least one smart phone and seamlessly access to rich data sources on the Internet, anywhere and anytime. This impacts on the customers' purchase decisions more and more. In addition, the new forms of online business and payment have challenged marketing activities more than ever. By getting advices and recommendations from social communities on the Internet and in reality, a customer now can easily place an order per click. Because of the changes of customer awareness, quality and behaviour, the marketers need to knowingly build up the marketing activities and approaches accordingly.

One of the marketing approaches which get much attention from managers and researchers is the brand experience. This is the latest approach to dominate the markets that managers have to know [23] because the consumers are actually the human beings with their needs in experimentation. Therefore, the marketers must intentionally use services and products in a wiser and more tactful way in order to create a genuine experience to the consumers [20], especially brand experiences. The next part herein shall clarify the brand experience in details.

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2. Characteristics of the Market and Consumer Behaviour in the Connected Age

Globalization

Globalization has been increasingly set as the trend and target by nations to orientally emerge into the global economy. Accordingly, manufacturers have globally provided the market with a large number of branded products and services. In some cases, there are the products and services which are similar or even identical. That means the products and services which their markets have become saturated, and the power of the selling – buying relationship much belongs to consumers. The consumers have more and more options for each type of products or services, and they can choose what ever they want to meet their need.

Technology Development

Technology development, especially automation and its applications, has basically changed the consumers' knowledge and behaviour [12]. It is acknowledged that the technology plays a key role in meeting and satisfying the essential needs of the consumers. Particularly, information and data storage technology or digital technology strongly and broadly impact on the consumers' lives.

It is the development and innovation of the Internet and its infrastructure, and the invention of the mobile devices, which important the most is computers and smartphones, that have been increasingly improving their knowledge and behaviour. The computers and smartphones are most commonly used, but the smartphones would become the primary digital platform [16]. The mobile devices and data infrastructure have been continuously upgraded at a lower and lower cost. Besides, there are a large number of users accessing to the Internet and going online. It is estimated that one thirds of the world's population accesses to the Internet every day, reported by the International Telecommunication Union (ITU) that there are around 7.318.776.000.000 users, and they spend at least 7.5 hours per day to take part in online activities. According to researchers, this number is predicted to increase up to half of the world's population, and a user would spend 15 hours per day [12].

Thanks to the development of technology, it seems easy for most people to connect with each other. The connection allows consumers to believe that they possess the power to control their success and that all would be in their hands, particularly smart phones. It is entirely within their discretion whether to choose anything or not to do so. As a consequence, receiving information of a brand is regarded as an active behaviour, and it is much different from before. Now a consumer may say: "If I want to know or buy anything, I'll do it myself" [12]. This means that whenever the consumers are on demand or interested in a particular brand, they might find several ways to verify that brand. They can simply search for, analyze and determine what they want through a number of reliable sources, excluding what are from that brand. What's more, the consumers in the Connected Age have been well educated and dedicated to their communities so the campaigns of marketing, searching for information, or listening to success stories and powerful people would no longer work efficiently like years ago. More than that, they believe in "the power in our hands" (which the smartphones are a good example), especially in what experienced ones share and review about the brand in forums, online groups, communities and relationships in the real life (e.g. friends, families, Facebook fans, Twitter followers, etc.). Consequently, this represents that the consumers not only connect with each other but they also participate in the activities associating with their lifestyle personally and connectedly, anywhere and anytime. In short, the characteristics of the consumers at this time consist of both their offline and online activities.

Appearance of the Integration of the Ecosystem

The development of e-commerce, online payments combined with digital content, online information and advanced reservation applications (typically car application, bike application, airline ticketing application or on-demand home cleaning service application, etc.) has created the aggregation of the ecosystems that has changed the way and behaviour of shopping accordingly. For example, when you want a book or anything such as foods, medicines, electric equipments,... you just search for the product information online, choose what brand you want and order it by a click on websites. Then, your order will be done and delivered to your home, or where ever you want in a short time, instead of physically going to the store and buy them as the traditional method. The payment is even done online as well. It is definitely easy and convenient. Convenience is really the glue that makes online shopping, and behaviour and habit stick together.

Searching and shopping in the Connected Age are a very different idea compared to what I have experienced in my generation. Searching and shopping activities are usually done on digital mobile devices (e.g. smartphones, laptops, tablets, etc.), and payments are all virtual. A huge searching-for-information and shopping revolution is happening around the world. Searching for information, shopping behaviours and also technology platform have evolved sharply than ever before.

Increase of Online Communities and Associations

The development of the Internet and social network like Facebook, YouTube, Twitter, Google+, Messenger, and the like have changed the consumers' behaviour. The social networks become so popular that almost people have their own account. The desire to connect and become a member of online community in order to always stay connected is properly the humans' real demand in the Connected Age. Connecting with friends and their relationships through the social networks is the key point to attract a huge number of users, and they – also the consumers, would spend more time online. They are not only exchanging personal information, daily works but also share views on politics, poverty, economy, environment and education. In reality, online users also have the communities to participate in, and have an intrinsic need to make the connections with others. They want the online social communities to acknowledge and adore them more.

While communicating with the online community, their point of view influences on the others as well as they are affected by those ones. In other words, connecting with the others via mobile devices allows the consumers to access to the knowledge of a crowd (from online information, comments, reviews and what a community is interested in), and make better decisions to or not to place a purchase order, or to say that purchase decisions are made socially. Therefore, it is not only an individual but the whole network and society is authenticating all the dimensions of a brand. That said, every single consumer wants to know the authenticity of the brand; thus, social awareness becomes the new consumer perspective which is the criteria that the consumers rely on to decide which brand and what product or service to purchase.

To sum up, the increase of online communities and associations not only gives the consumers a chance to become more sophisticated but also useful for the communities. Because of their wise and desire of being a useful user to the communities, the consumers in the Connected Age are attracted to inspirational organizations, and they want to make sure that their money is contributing to an ethical, responsible, and sustainable brand. An ethical, responsible, and sustainable brand is defined as a brand with no deceit or fraud, to guarantee its promise and commitment, take responsibilities to the society, bring benefits to the society, comply with the government's laws and rules, and especially have the activities to protect our planet and living environment. In other words, the consumers are seeking more of a relationship from the brands they choose to support.

3. Brand Experience as a New Approach to Satisfy the Consumers in the Connected Age

Branding theory proves that the brand plays a central role in the marketing strategies. Besides, the consumers increasingly make choices based on the experiential factor that the product offers [22]; especially an emotion-rich experience provides not only brand differentiation and consumer loyalty but also sales increase and promotion of the brand [17]. Thus, the brand experience is an effective combination to meet the consumers' requirements. In fact, there are a large number of researchers and marketing practitioners who pay more attention and concentrate on the brand experience in recent years [1]. Furthermore, Philip Kotler, known as the father of modern marketing, confirmed that marketing practitioners who ignored the brand experiences made a big mistake named marketing myopia [11]. That said, the brand experience becomes a marketing trend. Therefore, it is important to understand what the brand experience is.

3.1 Definition of Brand Experience

Experiences occur whenever the consumers search for products, when they are shopping for products or receiving services, and also when they actually consume products or services [2, 7]. Furthermore, when the consumers search for, purchase and consume a brand, they are exposed to various brand-related stimuli such as brand identity, brand design, brand communications, brand advertisements and brand distribution locations, and consequently transfer those to brand experiences in long-term memories [18]. The consumers' brand experiences are formed through different interactions between the brands and the consumers [19].

The brand experience is subjective, internal consumer responses (sensation, feelings, and cognition) and behavioural responses evoked by the brand-related stimuli that are part of brand identity, packaging, design, environment and communications [1, pp. 53].

The brand experience is a multidimensional concept [26] and it varies in valence, strength and duration [1]. According to Zarantonello and Schmitt [28], the brand experience could be positive or negative, short-term or long-term. For instance, some brand experiences may be more positive or negative than others, and also could be perceived to be stronger or more intense than others. Besides, other brand experiences may occur spontaneously or deliberately, and could be short-lived or be sustained over time. After all, the brand experience in the customer's memory over a period of time may influence on how he/she feels about the brand [21].

Brand experience includes three types of experience which are products, shopping and services, and consumption [1]. First, product experiences occur when the consumers interact with products [6]. Second, shopping and service experiences occur when the consumers interact with a store's physical environments, its policies and practices [10]. Third, consumption experiences which occur when the consumers consume and use products [1] are multidimensional and contain hedonic dimensions, such as feelings, fun and fantasies [8]. The brand experiences not only occur directly when the consumers shop, buy and consume a brand but also occur indirectly when they are exposed to advertising and marketing communications [1]

3.2 Brand Experience Construct

In 1982, Holbrook and Hirschman [8] developed the consumption experience concept based on three main elements which were fantasies (dreams, imagination, and inconsistent desires), feelings (emotion such as love, hate, anger, fear, joy and sadness) and fun (pleasure derived from fun and aesthetic activities). Based on Dewey's categorization [3], Schmitt [22] proposed five dimensions of experience marketing which comprised of sensory experience, emotional experience, intelligence experience, dynamic experience, and relationship experience. These types of experience marketing are considered as experiences from the consumers' perception. In order to make an impressive experience, the brand managers should focus on six categories of experience producers. The experience producers are composed of communications, corporate identity, product presentation, co-branding, physical environment, websites and staff [22]. In particular, the communications consist of advertising, external or internal communications and public campaigns. The corporate identity consists of names, logos and colours. The product's presentation consists of design, packaging and exposure. The co-branding consists of marketing events, sponsorships, partnerships and product placement. The physical environment consists of exterior and interior designs. And, the staffs consist of sales force and company's representatives.

According to the collected information of the previous researches, Brakus, Schmitt and Zarantonello [1] developed the construct and measurement of brand experience through four dimensions which are sensory, affective, intellectual, and behavioural elements. The sensory element refers to the consumer's sense (visual, auditory, tactile, gustative, and olfactory stimulations) about a brand [28]. It means that all brand-related stimulations can make strong visual impression on the customer. The affective element includes of the feelings produced by brands, and the emotional connection between the consumer and a particular brand [28]. The intellectual element implies the ability of the brand to make the consumers feel curious and innovative. The behavioural element means the creation of brand experience related to physical body, long-term behaviour and lifestyle, including those obtained through the interaction with the brand [28].

3.3 Role of Brand Experience in Marketing Strategies

Nowadays, the application of experience marketing, especially brand experience, has become popular and common in many companies because of its effectiveness. Some practice managers said that brand experience activities were much more effective than newspaper advertisements and other media, even word of mouth among friends or colleagues. For example, 73% consumers of L'oréal said that they would not buy this brand's products without their brand experience [9]. In order to meet the consumers' brand experience requirement, L'oréal applies Augmented Reality named L'Oréal Paris Makeup Genius, which has attracted millions of consumers [9]. Moreover, approximately 60 percent of consumers suppose that the brand experience would positively influence on their purchase decisions and encourage them to make the decisions more quickly (Jack Morton Worldwide research).

Furthermore, the brand experience activities would bring long-term values to the brand. The key values of brand experience activities are customer satisfaction [25], relationship quality [14, 21], and brand loyalty [5, 27]. Let's take Apple as an example. They offer the consumers with the experiences so innovative and impressive that they persuade and encourage the consumers not to be able to deny this brand. The experiences Apple brings to the consumers actually surpass what they have expected so they become the consumers of the brand and even widely promote the brand.

3.4 Recommended Brand Experience Tactics

- Humans are the key. Human beings should be the focus of any brand activity. The nature of doing the brand activities is to serve people, so they need to present and meet all the requirements of functions (i.e. Product/service functions not only meet the consumers' essential needs but their personal and inner desires) and emotion (i.e. to meet their expectations of sensation and feelings). Therefore, meeting the demand on the functions, the managers would need to launch out high-quality products/services to the market and even

outstanding ones with more advanced features, important and impressive functions which are over their expectations. For the emotion, the brand managers should be aware that the consumers in the Connected Age always desire to be connected, shared and admitted; therefore, the marketers need to (1) personalize their brand by positioning and selecting particular characteristics and brand-oriented values (2) connect and share through similar brand and consumer characteristics, and successful experiences. However, be advised that thanks to its mission to always connect and share feelings and orientation, so branding should always connect and share online activities with the reality. For example, Starbucks understands that people not only needs a cup of coffee but also wants far beyond the cup - a place to meet up friends, a relaxing hour with a book, a mobile workspace, a familiar and comfortable living room atmosphere no matter where they go in the world. Then, Starbucks decorates its stores like a welcoming community space that fosters feelings of safety and inclusion. This creates the perfect environment in which to connect face-to-face relationships, and the more people connect like that, the more face-to-face connections they crave. That said, Starbucks success is because it knows the way to create the positive brand experiences: product experiences – delicious coffee, shopping and service experiences – professional, friendly and well-trained employees, consumption experience – consumers' feelings, and marketing communication experiences.

- Multi-channel communications: It is a need to apply multi channels into branding so that the consumer experience should be consistent and seamless. To do so, the marketers have to knowingly arrange all the channels, targets and strategies. In other words, the branding targets and strategies need to be unified to convey a message in a clear and consistent manner across all the channels. Be noted that the brand message has to be true and especially encourages the consumers and the community to trust it because the truth is the new purchase standard in this digital age, and also many studies confirm that the consistency and reliability are the important factors affecting the brand equity, the quality of the brand-customer relationship and the brand loyalty [4, 24]. Omni-Channel Experience is the best example of the multi-channel synchronization experiences to consumers [9].
- Knowingly to balance between profits, relationships and our living planet. What people expect in the Connected Age is not just to easily make decisions based on the knowledge of a crowd, but they also want to buy a branded product based on the brand's contribution to the planet. Specifically, a brand impressive and attractive to the consumers is similar to a person healthy (high quality), unique, able to share things with, trustworthy, and reliable to the society and community.

4. Conclusion

The environment and climate have been rapidly changing, and at the same time, the consumers basically change their expectations and perspectives. In the industry of technology 4.0, it values the engagement which is meaningful, and not to be copied or fraudulent. The technology allows the consumers to apply various tools into managing and designing their own lives: to easily join in online groups or communities to share information, raise their point of view, post their comments or reviews about a favourite brand, or otherwise they can also refuse or block any notifications, advertisements or promotions which they dislike. This causes the appearance of brand experience. The approach of brand experience represents the strategic process of designing experiences for the consumers. It analyses the different types of experience (product experiences, shopping and service experiences, and consumption experiences), stimuli and touch-points. Moreover, the brand experience approach focuses on the consumer's emotion rather than the consumer's judgements. Therefore, it is believed that the brand experience goes beyond the traditional marketing.

In conclusion, the brand experiences can meet the complicated experience requirements of the consumers as well as satisfy them through the touch-points. Once they get satisfied with a brand, the consumers would repeatedly purchase it with their brand loyalty, and even increasingly introduce and promote the brand to the others. In the Connected Age, the brand experience is, therefore, the best method to convey brand honesty to customers, and make the brand more and more reliable in branding.

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Research Model of The Impact of Brand Experience on Brand Equity - Application in Service Industry

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ABSTRACT

Modern economy with increasingly fierce competition intensity among enterprises. Thus, the brand increasingly play an important role to achieve a competitive position in the battle on the marketplace. Brands are considered as the most valuable asset of the enterprises. Since brand management has become very urgent, recently, development trends related to brand value which is "brand experience." The impact of brand experience on the brand loyalty components, brand relationships are widely studied. But the relationship between the brand experience and the brand equity in terms of composition and overall is just taken by a small number of studies. On the other hand, the customer experience trend is getting higher, especially in the service sector, characterized by invisibility, non-ownership, so the experience is the decisive factor to the success of a service business. In the practical context in Vietnam, the concept of brand experience has not been studied and applied widely. Therefore, it is necessary to propose a research model about the relationship between brand experience and brand equity in the service business field in Vietnam. The article covers the concept of brand experience, brand equity, theoretical model and the scale that explores the relationship between the brand experience and the brand equity.

Keywords: Brand experience; brand equity; customer-base brand equity, service industry, aviation service.

1. Introduction

The development trend of the economy is now oriented to an economy of experience. Marketing mentality in the 21st century is a marketing experience that is how to bring interesting experiences for consumers. In other countries around the world, most marketers have started to apply marketing experience in their marketing strategies.

The concept of customer experience has been around for a long time, but the term "customer experience" or "brand experience" has just been explored and studied in terms of the effect of the brand experience to consumer behavior by economic researchers. The study aims to assess relationships between brand experience and brand loyalty, brand personality, or the impact of brand experience on brand equity, such as public consciousness, branding commitment, etc. However, in the context of the research in Vietnam, the concept of brand experience is quite new, not interested by researchers as well as not applied in practice. Therefore, to conduct a study related to the relationship between brand experience and brand equity, it is necessary and appropriate to the real

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situation in Vietnam for some researches and synthesis from foreign researches in the service sector and product areas which are the basis for proposing and developing a research model. At the same time, businesses come up with many solutions to increase the value of brand experience for customers, one of the best solutions to improve the value of brand assets based on customers, and simultaneously to help improve the competitiveness for businesses in the current context.

2. Theory of brand experience and brand equity

2.1. Brand experience

2.1.1. Definition

From a marketing perspective, brand experience is defined as the experience of the customer, which is derived from customer interactions with the company's products/ services. This experience has a variety of degrees of feelings of customer perceptions, in other words, the experience of each customer is different when using the same product / service. (Gentile, 2007).

Likewise, Brakus et al (2009) defined brand experience as "*intrinsic and subjective responses (sensory, emotional, and cognitive one), and behavioral responses triggered by brand agents involved in brand identity, packaging, design, environment and communications*". As such, brand experience is a multifaceted concept that embraces the sensory, emotional, thinking and action experience of customers to the brand (Iglesias et al, 2011; Brakus et al, 2009).

2.1.2. Components of Brand experience

According to Brakus et al. (2009), the brand experience includes the following components:

Sensory experience: Experience is from the five senses, customer value is created based on visual, olfactory, auditory, tactile and taste provided by a brand. Thus, the sensory aspect means that the brand can create a strong impression of sense when interacting with the customer.

Emotional experience: Emotional experience of the customer including feelings was created by the brand and emotional link with the consumer. The positive mood that customers get with a brand is made by the strong emotion, joy and pride of using that brand.

Thinking experience: The customer is motivated to create and develop thinking by the interaction with the brand.

Behavioral experience: The customer gained this kind of experience when using the brand, it gives the customer physical action. Customer value is the change of action and lifestyle by the interaction with the brand.

2.2. Brand Equity

2.2.1. Definition

2.2.1.1. Brand Equity (BE)

If the brand is considered as the tip of the iceberg, the sink lying beneath the ice - the part that determines the survival of the company is the brand equity. According to Aaker (1991) and Keller (1993), brand equity is an extremely important concept in practical business. Enterprises can only achieve sustainably competitive advantages through a strong brand equity. A strong brand with a large brand equity will generate higher returns, greater sales, greater branding opportunities, greater media effectiveness, intense customer's interest and buying intention. (Keller, 1993).

It is the fact that businesses do not just stop at developing their business by having a name, a symbol or a message, but they try to get the name, logo, and message into the mind of the customer. Then, the brand brings the value to the customer, and the company has created a position for its brand, this value can be said to be the brand property that the business owns. "When a company creates a strong brand, it can create customer preferences and set a defensive wall against its competitors," said Doyle.

According to Farquhar (1989), brand equity is the value added to a product by its brand name (a comparison between a branded product and a non-branded product). According to Aaker (1991), brand equity is a collection of assets and liabilities that increase or decrease the value provided by a product or service of a brand based on the name and symbol of the brand for a company or (and) its customers. Keller (1993) argues that brand equity is like a distinct influence of brand knowledge in consumer feedback on brand marketing, and high brand

knowledge does increase brand choice. Next, Yoo & Associates (2000) proposed brand equity as a difference in consumer choice between well-known brands and non-branded products in the same level of product characteristics.

2.2.1.2. Customer-based Brand Equity (CBBE)

According to Keller (2003), Customer-based Brand Equity (CBBE) is the different effect that brand knowledge creates in customer response to marketing activities of the brand or CBBE is value added that reflects the way consumers think, feel and act to the brand (Kotler and Keller, 2011). In fact, a brand has positive CBBE if the customer reacts well to a product and how it is marketed when they know that the product is branded rather than do not know anything (such as when the product is given under a false or unnamed name). This means that customers will be more likely to accept a new sub-brand of a brand that has a higher CBBE, is less sensitive to price increases and the withdrawal of promotional support, or willingness to seek branding in a newer distribution channel. In contrast, a brand will have the lower CBBE if customers react less favorably to products and marketing activities when they know the product belongs to this brand, compared to when they do not know about it.

Based on the above definition, it can be seen from the perspective of the CBBE model that brand equity derives from the difference in customer response that is generated by the customer's brand knowledge: What the customer knows, how he/she feels, what he/she sees and hears about the brand based on their previous experience. In short, "brand knowledge is the key to create brand equity." The brand knowledge that marketing managers create in the minds of consumers in the past will determine the true value and prospects of the brand in the future. Therefore, what marketing managers need is to find a way to reproduce the brand knowledge in customer memory.

By using a model of memory in psychology, the CBBE model identifies that brand knowledge consists of two components: Brand awareness and brand image. Knowing the brand is the ability to recognize a brand and remember the brand in different conditions. This is a necessary step, but not always enough to create brand equity, usually the more important concept in this process is the brand image or the customer perception of a brand reflected by associations in the minds of consumers. Getting to know the brand and the brand image are the components of brand equity. Keller (2008) identifies "customer-based brand equity appears when customers have a high level of awareness and familiarity with the brand and also have strongly significant and unique associations of brands in their minds. "

2.2.2. Components of Customer-based Brand Equity (CBBE)

2.2.2.1. Brand awareness

Identifying brands is an important component of brand equity in most models of research (Aaker, 1991). According to Aaker, brand awareness is the ability of a customer to identify and distinguish the characteristics of a brand in a set of brands available in the market. Brand awareness includes: Brand awareness (have you ever heard of this brand?); recall the brand (brand products you can recall); first recognition (What is the first brand name that you can recall among the brand names you know?); The superiority of the brand (the only brand to be remembered). According to Keller (1993), brand awareness refers to the presence of a brand in the minds of consumers. Knowing the brand includes: recognizing the brand (Recognition) and remembering the brand (Recall).

Knowing the brand plays an important role in buying intentions because consumers tend to buy a familiar brand and the product well known (Keller, 1993). Knowing the brand can help consumers identify a brand from one type of product and make a purchasing decision. Knowing the brand has a great influence on choice and can be a basis of consideration before a customer decides to buy a product. Knowing the brand also serves as an important factor in consumer buying intentions, and certain brands will accumulate in the minds of consumers to influence consumers' purchasing decisions. A product with a high degree of perception will be strongly preferred by the consumer because of its higher market share and quality evaluation (Dodds et al., 1991; Grewal et al., 1998).

In short, recognizing a brand is the ability to recognize a brand and remember the brand in different conditions. Knowing the brand is argued as primary and necessary thing, but not enough to lead to trial and repeating purchase. This is an essential step, but it is not always enough to create brand equity, but the more important concept in this process is the brand image or the customer's perception of a brand reflected in the associations in the minds of customers. Brand awareness is measured by two components: recall and recognition. There are 4 levels of brand recall that include completely unrecognized one, awareness with hints, awareness

without hints, top-of-the-mind awareness or first recognition when prompted. come. Identifying brands that are measured through the level of customer recognition of brand names, brand identity such as logos, colors, slogans, ...

2.2.2.2. Brand associations

According to the American Marketing Association (AMA), brand associations are defined as the perception of a brand in the minds of consumers. AMA also considers the brand image as a reflective mirror of brand personality or the existence of the product. According to Keller (1993), a collection of brand associations existing within the memory of consumers can form the brand image.

According to Aaker (1991), branding associations are anything in the customer's memory that is tied to the brand. Branding associations are a component of brand equity. Branding associations are the premise for purchasing decisions and brand loyalty. A collection of relevant brand associations in the customer's memory of a brand, usually is some meaningful associations creating a brand image in the mind of the customer (Aaker, 1991).

2.2.2.3. Perceived quality

Perceived quality is the result of consumer's subjective evaluation of a product (Zeithaml, 1988; Dodds et al., 1991). Aaker (1991) also considered the perceived quality as a rationale for the consistency of product specifications or an appreciation of the added value of the product. Perceived quality is the objective evaluation of the customer for the overall excellent or outstanding service of the product (Zeithaml, 1988). The objectives of quality refer to technical characteristics, measurement and verification of products / services, processes and quality control. Perceived quality is the customer's subjective assessment of the product, is the consumer perception of the quality or superiority of the product (Aaker, 1991).

Zeithaml (1988) classified concepts of perceived quality into two groups of factors: intrinsic and external attributes. The intrinsic properties are related to the physical aspect of the product (eg, color, taste, form); On the other hand, external attributes are related to the product, but not in the physical part (for example: this brand name, the imprint of quality, price, store, packaging and information of the production). Perceived quality is based on customer perception. As the quality of customer perception increases, brand equity is also increased (Yoo et al., 2000).

Perceived quality refers to the perceptions of consumers about the product or service that the brand provides. This is the customer's perception of the overall quality of the product / service, which is the difference between the total value of the customer received versus the customer's expectations. High quality gives the customer a reason to buy the brand, allows the brand to distinguish itself from the competitors. Aaker (1991) argues that perceived quality can show a striking difference in a product or service from that one of the competitor and become a selective brand in the minds of consumers. In summary, perceived quality is the customer's subjective assessment of the product/service after the customer experiences in buying, using, and removing it.

2.2.2.4. Brand loyalty

Customer's loyalty is important to the development of the customer at a business and has a significant impact on its profitability. Other studies have shown that attracting new customers makes business cost five times more than maintaining existing customers (Kotler and Armstrong, 2012), so businesses need to maintain customer's loyalty.

According to Aaker (1991), brand loyalty is a key component of brand equity, a measure of customer engagement with the brand. Brand loyalty is a deep commitment of the customer that they will buy a product or return to a service they fancy in the future.

Brand loyalty is conceptually defined in many different ways. Brand loyalty is defined as the behavioral response (buying) expressed over time by some buying decisions on one or more labels of a brand and is a function of the Psychological process and emotional responses (Jacoby, 1971).

One of the most cited definitions of brand loyalty is that "brand loyalty is a deep and consistent organizational commitment that leads to repeat buying or reusing of favorite brands in the future." "Oliver, 1999. Loyalty to the brand is often approached in terms of behavior and attitudes, which is in line with the integrated conceptual framework proposed by Dick and Basu (1994) Customer's loyalty is "the power of the relationship between the attitude and the relative repetition of the behavior of an individual.

2.2.3. Service-specific factors affecting the customer's brand experience

2.2.3.1. The quality of core service

The core service concept (understood as the core benefit of service) was reviewed by Palmer (1994), Zeithaml et al. (1996), McDougall & Levesque (2000), Grace & O' Cass (2004). Core service is considered as the basic benefit of the service provided to customers when they use the service. The various benefits of core service will meet the different needs of the customer. For example, for hotel services, the core service for customers is to stay, rest, relax while the core service of air services is the passenger transporting service. Consumers tend to evaluate the ability of the core service whether meets their needs and expectations when they use the service. Does the core service provide customers with experience when using the service that impact customer's loyalty to the service? If the core service meets or exceeds the customer's expectations when using the service, they tend to use the service more often and be loyal to the service provider and vice versa. By studying the customer service experience, Bitner (1992), Grace & O'Cass (2004), Palmer (1994), Zeithaml et al. (1996), McDougall & Levesque (2000) have shown that core services have a positive impact on the customer experience. The experience gains when customers interact with the core image of the service that brings the emotions and perceptions of customer about the value of the service (Reynolds and Beatty, 1999). So, it can be said that core service is one of three factors that bring the service experience to the customer and affect the brand experience.

2.2.3.2. Service employee attitude

The factor of employee attitude proposed by Cronin & Taylor (1992); Bitner (1992) and Grace & O'Cass (2004) in customer service experience measurement, which is viewed as the ability to respond, assure, empathize, and trust the employees in the process of contacting and serving the customer. Some of the studies cited for employee influence on service perception and customer experience, such as Harel and Terzir (1999); Parasuraman et al. (1985); Bitner (1990).

The process of providing services to customers is the process of the contact and delivery of services performed by the staff of service provider. By that, personnel service is considered as a very important factor in the delivery of services and the value to customers (Broderick, 1999). Service providers have a great influence on customer's service quality, customer's satisfaction (Crosby et al., 1990), and consumer's behavior in the future (Chandon et al., 1997). On the other hand, employee is seen as a communication agent for the service when making contact, interacting with the customer, so the process of contact and communication between the employee and the real customer becomes good, employees contribute to create positive perceptions or service experiences for customers. Thus, service personnel are considered at the individual level without generally considering with the core benefits. For aviation services, the relative level of interaction between employees and customers in the pre-flight, in-flight and post-flight services, instructions staff gives during the prior check-in process, the ability to serve customers in flight as well as after the flight will bring the customer feelings as well as thinking about the service of the airline, also is a factor for customers to give the perception of the quality of service of the airline. Consequently, the service agent is considered as the one that brings the brand experience to customers in this study.

2.2.3.3. Servicescape

The servicescape is a term popularized by Zeithaml & Bitner (1992), two American researchers in the field of marketing. The servicescape considered to be the elements from the facilities, the exhibits, the backgrounds, the design, the sound, the lighting ... all of which are noticeable for Decoration to create positive emotions for customers when interacting and using the service (Kotler, 1973; Bitner, 1992). In the field of aviation services, the servicescape is considered to include factors such as the arrangement of seats in the aircraft compartment, boarding lounges, parking lot, color decoration, music, or blankets for guests, seats and other items served in the flight. When customers are in a servicescape that gives them comfort, they tend to stay longer and spend more money and also, when the servicescape does not create positive emotions, consumers tend to avoid it. It can be said that the service is intangible, but customers feel and evaluate the service well, which will be based on the factors including service personnel and servicescape. And the factor of servicescape will provide the customer with the senses of sighting, smelling, touching, hearing...etc.

2.3. Research models and hypotheses

Derived from domestic and international research backgrounds about brand experience, brand equity and the relationship between brand experience and brand equity, the authors found that the approach to measuring brand

experience from the perspective of Brakus & Partners (2009) has been measured in a wide range of studies in many different countries and research results the similarity between many authors in many fields. Therefore, the brand experience research model of Brakus & Partners (2009) is reliable. Customer Based-Brand Equity, theoretically, has two main viewpoints: Aaker (1996) and Keller (1993). The point of view of Aaker (1996) is that the majority of the authors study Customer-based Brand Equity because it adequately reflects consumer perceptions and behaviors. While Keller's (1993) view merely reflects perceptions, even if a consumer is well aware of the brand, they do not show the buying behavior and loyalty, it can not deliver the value of property for the brand. Thus, in this study, the author approaches measuring brand equity from the perspective of Aaker (1996) and brand experience from the perspective of Brakus et al. (2009). In addition, the authors consider some intermediate elements in the model being appropriate to the context of practical research in Vietnam.

In Vietnam, the study of shoppers' feelings conducted by Pham Thi Lan Huong et al. (2012) showed that there was a positive influence of the factors of store environment such as the atmosphere, display, color, music (as a component of the servicescape) to the customer's buying emotion, in addition, the study also showed that the staffs are also important factors, which affect the customer's shopping feelings. Another study on the factors affecting the customer experience in shopping for entertainment conducted by Le Van Huy et al. (2011) showed that customer experience in shopping for Entertainment was influenced by many factors including the characteristics and the environment of entertainment services. Thereby, the service experience's components from the perspective of Grace and O'Cass (2004) including core services; Service employees and the servicescape affect the customer experience when using the service of a certain brand. In addition, Rashmita Saran (2016) also showed that the impact of service experience's components was measured by the following components: core service, service employees, and servicescape to brand experience. Consequently, the components of the service experience from the perspective of Grace and O'Cass (2004) were proposed in the model of research to explore the components that create a positive, enjoyable brand experience for the customer.

Based on the above argument, the author chose to approach the concept of brand experience in the view of Brakus & Partners (2009), the concept of brand equity of Aaker (1996) and stimulants affecting the brand experience from the perspective of Grace & O'Cass (2004). Suggested models of research and research hypotheses are as follows:

2.3.1. Research hypotheses

2.3.1.1. The impact of many elements: Core service, service employees and servicescape to the brand experience

According to a study by Grace and O'Cass (2004), results of the customer service experience research showed that the elements of customer service experience include core service, service employees and servicescape that deliver personalized service experiences to customers when using the service. That the experience gained when the customer exposed the core image of the service brings the emotions and perceptions of customers about the value of the service. Service employees is the most important factor as it affects the level of customer satisfaction (Gwinner et al., 1998), it also affects perceptions of service quality (Crossby et al., 1990) and determines consumption behaviors in the future (Chandon et al., 1997). According to Bitner (1992), setting up services can affect the emotional, cognitive, and physiological responses of consumers, thereby affect their evaluations and behaviors, and even create brand experience. "However Surrounding environments, spatial layout and functionality are the key determinants of the servicescape that create service experiences for the brand (Bitner, 1992). Experience in contact and use of services brings experiences to the senses such as sight, smelling, hearing, touching or tasting plays a role in creating customer satisfaction and bringing about brand experience for customers (Hulten, 2011). In a study by Rashmita Saran (2016) on brand experience in the aviation sector showed that there was a positive impact of the component of the service experience on service factors, service employees, and servicescape to the brand experience. "Another study of the factors affecting the experience of the customer, conducted by Le Van Huy et al. (2010) in the field of shopping and leisure, also demonstrated the influence of the shopping atmosphere, these are the components of the servicescape according to O'Cass and Grace (2004). The other study conducted by Pham Thi Lan Huong et al. (2012) on the environment at the store in the formation of purchasing emotions. Research showed that the store environment plays a big role in creating positive emotions for customers when window-shopping and shopping. Store environment has a positive influence on the customer's emotions. That said, it can be seen that factors from service experience such as core services, service employee and servicescape will bring feelings, thoughts and perceptions to customers on the service and tends to form the brand experience for customers when using that service.

From the above arguments, the following hypotheses are proposed.

- H1a: The quality of core service has a positive impact on the brand experience.

- H1b: The service employee attitude has a positive influence on the brand experience.
- H1c: The servicescape has a positive impact on the brand experience.

2.3.1.2. The impact of brand experience on the components of brand equity (CBBE)

Branding associations are considered as all of the information that is linked to the memory of the customer when they think of the brand (Aaker, 1991; Keller, 1993). Brand associations are reinforced when customers experience the brand. Each experience can enhance association in the sensory system (Fiske & Taylor, 1995). Supphellen (2000) found that there are sensory associations in association networks. Sensory and emotional experiences can reinforce brand associations (Aaker et al., 2000). Brand associations are also the result of experiences and shared experiences of the customer (Franzen, 1999).

Results of the Research by Kumar et al. (2013) showed the influence of the components of brand experience on brand awareness and brand association, in which the most powerful is the sensory experience component. Similarly, in a study by Thomas Cleff et al. (2014), there was also a positive relationship between the brand experience components and the brand associations, thinking experience influences the branding associations based on attributes, interests and attitudes in the brand association.

Brand experience was defined as the result of customer interaction with companies, including interaction with employees, services, and the servicescape. Interactions affect not only what they think and how they feel about a brand but also the power to form brand associations, images, or brand names (Grace and O'Cass, 2004; and Chieng, 2006; Xu and Chan, 2010). The positive influence of customer experience on association, brand image was shown in a study by Juthamard Sirapracha et al. (2012) in the field of telecommunications services in Singapore.

Brand experience is the result of activation and leads to fun, happy emotions, so consumers will repeat the behavior that brings about these results. Thus, brand experience not only brings satisfaction and loyalty to customers by repeating buying behavior but also recommends others to buy the brand (Brakus et al., 2009). The more the customer experience achieved overall experience index, the more loyal the customer is, which was proven by many studies (Brakus et al., 2009; Ishida and Taylor, 2012, Sashin et al. Kim et al., 2015; Forrester, 2009).

Based on the arguments, the following hypothesis are suggested:

- H2a: Brand experience has a positive effect on brand awareness.
- H2b: Brand experience has a positive influence on brand association.
- H2c: Brand experience has a positive effect on perceived quality.
- H2d: Brand experience has a positive influence on brand loyalty.

2.3.1.3. The relationship between the components of brand equity (CBBE) and the overall brand equity (Overall CBBE)

Knowing the brand plays an important role in buying intentions because consumers tend to buy a familiar brand and well known product (Keller, 1993). Knowing the brand can help consumers identify a brand from one type of product and make a purchasing decision (Percy & Rossiter, 1992). Knowing the brand has a great influence on the choice and may be a pre-requisite for a product (Hoyer & Brown, 1990). Knowing the brand also serves as an important factor in consumers' buying intentions, and certain brands will accumulate in the minds of consumers to influence consumers' purchasing decisions. A product with a high level of brand awareness will be preferred by consumers because it has higher market share and quality evaluation (Dodds et al., 1991; Grewal et al., 1998).

Brand equity is a multifaceted concept, in which different measurement components appear such as brand perception, brand association, perceived quality and brand loyalty (Aaker, 1996; Yoo & associate, 2000). Getting to know the brand is one of the dimensions of customer-base brand equity. It is the ability of a customer to recognize or recall a product or brand (Aaker, 1991). Aaker (1991, 1996) suggested that brand awareness was one of the components of customer-based brand equity. Keller (1993), argued that brand knowledge includes brand awareness and brand image as a component of customer-based brand equity. Branding association is the second component of customer-based brand equity, it is the set of points, images in the customer's memory of the brand (Aaker, 1996). Perceived quality and brand loyalty were also mentioned by Aaker (1996) in the measurement of customer brand equity. Yoo & Associates (2000), Pappu (2006) determined that identifying brands, brand associations, perceived quality, brand loyalty are components of customer-based brand equity.

Some of measurement of customer-based brand equity on the overall approach were measured based on brand awareness components, brand associations, perceived quality and brand loyalty. One of these studies was carried out by Kumar & Associates (2013), which showed the positive relationship between the components of customer-based brand equity, including brand awareness, brand associations, perceived quality and brand loyalty. Shamim (2013) used a scale that measures the composition of brand equity, though was not specific in the brand equity component of the research model.

Based on that, the following hypothesis is proposed:

- H3a: Brand awareness has a positive effect on the overall brand equity.
- H3b: Brand associations have a positive influence on the brand equity.
- H3c: Perceived quality has a positive effect on the overall brand equity.
- H3d: Brand loyalty has a positive effect on the brand equity.

2.3.1.4. The impact of brand experience on the overall brand equity (Overall CBBE)

Brand experience that affects directly client-directed brand equity may not be as strong as assessing the impact of brand experience that affects brand equity indirectly through the intermediaries- brand attitude (Shamim & Butt, 2013). Brand equity can be described through the components of brand equity, on the other hand can be expressed through the experience gained in the process of branding (Berry, 2000). Kumar & Associates (2013) study shows the impact of each brand experience component on overall brand equity, which has the greatest impact on behavioral experiences and thinking experiences. Other studies also show the impact of brand experience on brand equity.

Based on these arguments, the following hypothesis is proposed:

- H4: Brand experience has a positive effect on the overall brand equity.

2.3.2. Proposed Research models

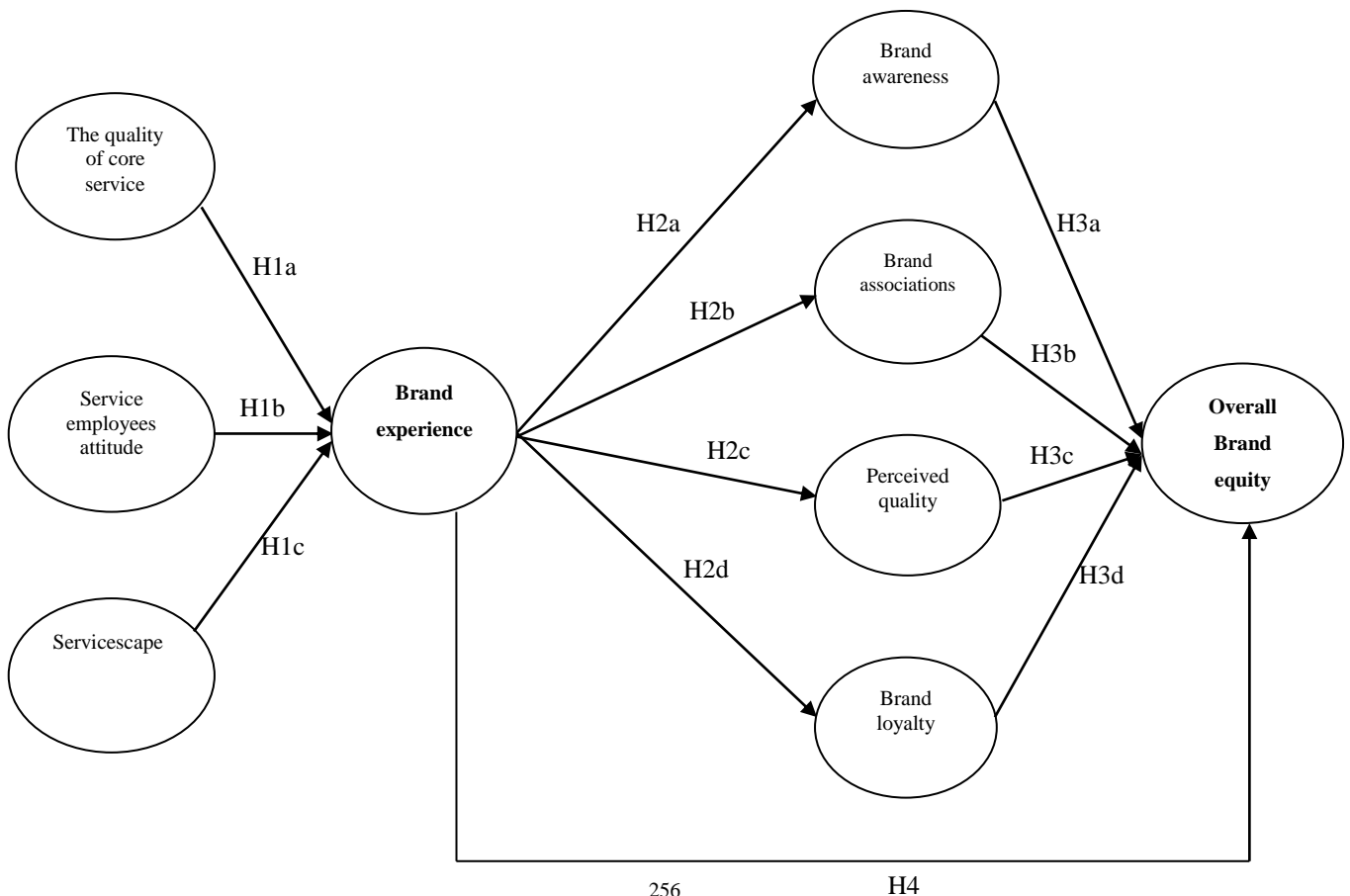


Fig. 1. Proposed research model

2.4. Suggested scale

The scale is proposed on the basis of the baseline scale which the previous studies verified in the studies on the relationship between brand experience and brand equity in the service sector. The author proposes a draft scale and conducts many research steps to explore and adjust the scale in line with the realities of the aviation industry in Vietnam. Qualitative research methods used by the authors include in-depth interviews with a number of clients; expert interview. The results of the selective scale are shown in the following table (Table 1)

Table 1: Recommended scale for the model of research

Concept	Encode	Indicator content	Sources
The quality of core service	CS1	The quality of service provided by Airline X meets my needs	<i>Garce & O’Cass (2004)</i> <i>Rashmita Saran (2016)</i>
	CS2	The services provided by Airline X are reliable	
	CS3	Airline X offers good basic service.	
	CS4	Airlines X provides services with quality assurance	
	CS5	Airline X offers superior service to other airlines	
Service employee attitude	SE1	Airline X ‘s employees provide service quickly	<i>Rashmita Saran (2016)</i>
	SE2	The staffs of Airline X are always ready to help me.	
	SE3	The staffs of Airline X are always considerate and thoughtful to customers	
	SE4	I can trust the staffs of Airline X	
	SE5	I feel safe in the payment transaction made by the employees of Airlines X.	
	SE6	Employees of Airline X are polite to customers	
Servicescape	SC1	Suitable temperature	<i>O’Cass and Grace (2004)</i>
	SC2	Good air quality	
	SC3	No noise	
	SC4	The equipment used on display is appropriate	
	SC5	Clear instructions for customes	
	SC6	Decoration in a suitable and scientific way	
Brand experience	CG1	I feel very impressed when using the service of Airline X	<i>Brakus & et.al (2009)</i>
	CG2	I feel very excited when using the service of Airline X	
	CG3	Airline X’s service does not appeal to my senses	
	CG4	I feel safe when using Airline X services	
	CG5	I have peace of mind when using Airline X services	<i>In-depth interview</i>
	CG6	I feel comfortable when using the Airline X service	
	TC1	The service of Airline X brings me many feelings and emotions	<i>Brakus & et.al (2009)</i>
	TC2	I have no feelings to Airlines X	
	TC3	Airline X is an emotional brand	
	HV1	I travel more when using Airline X’s service	<i>Brakus & et.al (2009); In-depth interview</i>
	HV2	Position of instruction signposts and instructions by Airline X’s staffs don’t give a good direction for my trip when using the service.	
HV3	Airline X’s service provides a lot of physical experience for me		
SN1	It activates my thinking when I use Airline X service		

	SN2	Using the service of Airline X does not make me think	(2009)
	SN3	Airline X triggers my curiosity	
	SN4	Using the services of Airline X makes me think about the comparison with other services of the same type	<i>In-depth interview</i>
	SN5	Using the service of Airline X, I think that the service is worth as I pay	
	Brand awareness	BA1	Know the name of airline X
BA2		Read the correct name of airline X	
BA3		I easily distinguish Airline X from other airlines	
BA4		I recognize the logo of Airline X	<i>In-depth interview</i>
BA5		I know the colors of Airline X	
BA6		I recognized the brand X through the costumes of the hostess	
Brand associations	BAS1	Some features of Airline X come to my mind quickly	<i>Yoo & et.al (2000)</i>
	BAS2	I can quickly relate to the symbol or logo of Airlines X	
	BAS3	I have trouble imagining the characteristics of Airline X in my mind.	
	BAS5	When it comes to the brand name of Airline X, I think it is the airline with friendly, enthusiastic and professional staffs.	<i>In-depth interview</i>
	BAS6	When it comes to the Airline X's brand name, I think of the cost and service fare	
	Perceived quality	PQ1	Airline X provides good quality service
PQ2		Compared to other airlines, Airline X offers high quality services	
PQ3		Compared to other airlines, Airline X is one of the airlines offering the best service	
Brand loyalty	BL1	I will consider using Airline X service in the future	<i>Yoo & et.al (2000)</i>
	BL2	I consider myself a loyal customer of Airline X	
	BL3	I would recommend Airline X to others.	
	BL4	Airline X is the first choice when I have a need	<i>In-depth interview</i>
	BL5	I always highly appreciate Airline X	
Overall Brand equity (Overall CBBE)	BE1	If there is another airline with the same characteristics as Airline X, I still choose Airline X	<i>Yoo & et.al (2000); Yasin & et.al (2000)</i>
	BE2	If there are other airlines with the same quality as Airlines X, I still choose Airlines X	
	BE3	If I had to choose between Airlines, I would definitely choose Airlines X	
	BE4	If there is another airline at the same price with this airline, I still choose its service	

3. Conclusion

By collecting and researching materials from previous studies, the author has synthesized the theoretical things and proposed a model that studies the effects of brand experience on brand equity in business in Vietnam. This is a rather new research because the field of "brand experience" has not been done research much. However, the article only achieves the objective of proposing a model of research and establishing a scale. In the future, this study should be continued with a higher goal of verifying the scale and evaluating the impact of brand experience on the components of brand equity and total brand equity. In addition, the study investigates service-specific factors that affect the brand experience of the customer. Based on that, suitable solutions are proposed for many firms involved in the service area. At the end, the research will be developed in many services, with many customer groups at different gender, age, education level, income level...

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Destination Marketing Network: A Case in Da Nang, Vietnam

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ABSTRACT

Tourism destination is a collection of various individuals, groups, and organizations directly or indirectly participating in tourism development at destination. Interactions and collective actions of these actors are necessary to promote and market a destination. This is the reason for a wide recognition of collaborative marketing in tourism destination and networking between actors, aimed to get people visiting the destination. However, involvement of external stakeholders from other sectors and other destinations is less concerned in destination marketing network research compared with internal stakeholders; subsequently, aim of this paper is to fill this research gap by identifying involvement and position of external stakeholders in destination marketing network. Da Nang city, located in central of Vietnam, is selected as a specific case of networking for tourism destination marketing. A quantitative network analysis is conducted, using secondary data collected from news articles in Da Nang, Vietnam. The result identifies a network of inter-organizational relationship for marketing Da Nang tourism between a range of stakeholders including stakeholders from other sectors, other destinations, and countries. The findings also show a significant participation of tourism business sectors and less involvement of local residents in marketing activities as well as a less interaction between local residents and other stakeholders.

Keywords: tourism destination; destination marketing; marketing network; social network analysis, Da Nang tourism

1. Introduction

A tourism destination consists of various stakeholders from many sectors in local, national, and international level (Del Chiappa & Presenza, 2013). Almost all activities related to tourism development and management in a destination involved a set of actors who interact and communicate with each other. Subsequently, network analysis is highly appreciated in tourism destinations studies regarding to destination management, marketing, and governance (Scott, Baggio, & Cooper, 2008).

Networking between organizations and individuals within and outside a tourism destination is recognized as an important condition for the effectiveness of destination marketing (Aarstad, Ness, & Haugland, 2015, Del Chiappa & Presenza, 2013, Morrison, 2013). Although in tourism literature, network approach has been employed to understand structure of tourism destinations and roles of tourism stakeholders in marketing activities (see for example Del Chiappa & Presenza, 2013, Nogueira, & Pinho, 2015, Presenza and Cipollina,

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2010), these studies focus on internal stakeholders of destinations and tourism industry. Meanwhile, external stakeholders from other destinations and other sectors might be involved and play an important role in promoting destination image in regional and international level. Furthermore, there is no scholarly academic research using network analysis in Vietnam to understand tourism destination marketing. Therefore, this study tries to bridge this research gap in marketing network research and Vietnam tourism research by providing an application of network analysis in the context of tourism development in Vietnam.

In doing so, a social network analysis is conducted to visualize the position of tourism stakeholders and their linkages into a graph of destination marketing network. The destination selected in this paper is Da Nang city – a provincial destination located in central coast of Vietnam. Interactions between tourism organizations gathered from news articles and previous relevant academic studies are used to analyze destination marketing network. The result of this analysis reveals a network of around seventy organizations for marketing the destination. In this network, provincial destination management organizations play a critical and central role in connecting various organizations in marketing and promoting tourism destination. This paper has demonstrated the involvement of multi-stakeholders and their connections in marketing a tourism destination, which contributes to the success of destination marketing.

The paper is constructed around four sections. The first two sections provide a theoretical background of this research, including definitions of tourism destinations and destination marketing, aimed to inform the importance of networking in destination marketing. The third section presents the case of destination marketing network at Da Nang, which is resulted from a quantitative social network analysis based on secondary data. The final section discusses findings, contributions, and practical implications for managers and practitioners.

2. Tourism destination

In literature, tourism destination is a fundamental and primary unit of tourism study. World Tourism Organization (UNWTO) defined a local tourism destination as “a physical space in which a tourist spends at least one overnight”, which “includes tourism products such as support services and attractions and tourist resources within one day’s return travel time” (UNWTO, 2007, p. 1). Traditionally, a tourism destination has been considered as a geographic territory such as a country, a region, an island or town, a rural area, a city, a resort or a range of experience (Hall, 2000; Page & Connell, 2006). They are separated with others areas by physical boundaries and have their own administrative management (UNWTO, 2007). Destination is a combination of different kinds of products, services, and tourism experience that locally provide for tourists (Buhalis, 2000). According to this perspective, it is undoubted when Saraniemi and Kylanen (2011) considered a destination as a unit of action to co-create experiences through the interaction of different private and public stakeholders such as firms, organizations, hosts, and guests.

From a marketing perspective, tourism product of a destination is a combination of different components (single services such as transportation, hospitality and entertainment) that build up a complete and systemic product to match needs of tourists. Therefore, a tourism destination has been regarded as agglomerations of facilities and services conducted to satisfy and serve customers (Cooper, Stephen, Fletcher, Gilbert, & Fyall, 2005). Providers in tourism industry make efforts to understand customers’ behaviours, culture, and characteristics, then design and deliver exclusive products to satisfy customers’ desire, as “a destination can also be a perceptual concept, which can be interpreted subjectively by consumers, depending on their travel itinerary, cultural background, purpose of visit, educational level and past experience” (Buhalis, 2000, p. 97).

From a customer perspective, tourism destinations are places where they travel to, visit, and stay temporarily for one or many purposes but not making money or migration purposes (Page & Connell, 2006). With them, a destination might be a resort, an event place, a conventional and business centre, an environmental destination, a daily-visit or a short-break destination (Page & Connell, 2006). In addition, with tourists, tourism products are experiences and feelings that they perceive after consuming these products. Subsequently, a tourism destination is seen as a whole product (Saraniemi & Kylänen, 2011), and suppliers try to deliver as much as positive experiences and emotions for their customer.

There is no single definition of a tourism destination, and no independence between these approaches, as tourism destinations are taken more about granted than defined (Pearce, 2014). The view of a tourism destination as a geographic entity with cultural characters and image is the most important for marketing (Raun, Ahas, & Tiru, 2016). These create unique selling proposition and unique emotional proposition that are used for destination branding and positioning (UNWTO, 2007).

Generally, from all above-mentioned definitions and approaches, there are several key characteristics of a tourism destination. Firstly, a tourism destination is a geographic area where has administrative boundaries, which means that a tourism destination can be a country, state, province, territory, region, city, and locality

(Morrison, 2013). Secondly, a tourism destination is a place for tourists to have at least an overnight (Morrison, 2013; UNWTO, 2007). Thirdly, key elements of destination are attractions, public and private amenities, accessibility, human resource, image and characters, and price (UNWTO, 2007). More importantly, all of definitions and perspectives on tourism destination recognize the co-location, proximity, and interconnectedness of a variety of international, national, regional, and local individuals, groups, and organizations and a complexity of their relationships and interactions. Agglomerations of tourism destination stakeholders including private sectors, government agencies, non-profit organizations, other individuals and entities related to tourism (Morrison, 2013) have given a rise for a kind of tourism organizations that play as coordinators and work based on a network of inter-organizational relationship, called destination management organizations.

3. Destination marketing network

Destination marketing is one of the functions of destination management, aimed to get people visiting destinations through marketing and promotion programmes (figure 1) (UNWTO, 2007). Destination marketing is defined as “a continuous, sequential process through which a destination management organization plans, researches, implements, controls and evaluates programmes aimed at satisfying traveller’s needs and wants as well as the destination’s and destination management organizations visions, goals and objectives” (Morrison, 2013, p. 9). Marketing a tourism destination is a systematic process including five functions: planning, research, implementation, control and evaluation, called PRICE model for destination marketing (Morrison, 2013). The PRICE model is corresponding with destination marketing system and an integrated approach of tourism planning that tries to address five questions: Where are we now?; Where would we like to be?; How do we get there?; How do we make sure that we get there?; How do we know if we got there? (UNWTO, 2007).

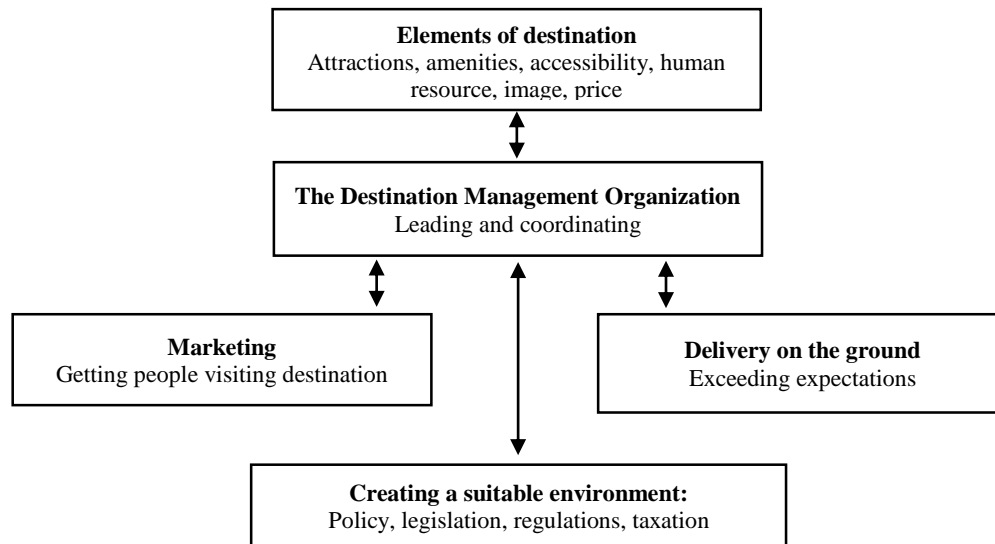


Fig. 1. Destination management roles (UNWTO, 2007, p. 4)

An important condition for the effectiveness of destination marketing is a broad and intensive involvement of many organizations and individuals within and outside the destination, connected and coordinated by destination management organizations (Morrison, 2013). Partnerships and collaborations between destination management organizations and other organizations, and between organizations related to tourism destinations are a key for effectiveness and efficacy in destination governance and in branding strategy and positioning (Del Chiappa & Presenza, 2013). Aarstad, Ness, and Haugland (2015) emphasised that destination marketing and branding depend on collaborative relationships and stakeholder involvement, as these relationships bring great benefits for the destinations, such as budget, shared information, greater expertise, increased marketing appeal, and shared facilities (Morrison, 2013). Moreover, with the impact of the Internet, “destination marketing has changed from passive to active promotion, from one-way to interactive marketing” (Mistilis, Buhalis, & Gretzel, 2014). Breukel and Go (2009) had found the evidence of impact of information and communication technologies on destination marketing, suggesting a more dependence and interaction between organizations.

The interdependence of various stakeholders and the fragmented resources of a tourism destination makes tourism destination marketing become a more complex task (Lemmetyminen & Go, 2009). Potential partners for

destination management organizations in destination marketing are tourists, other destination management organizations, tourism organizations (hotels, attractions, airlines, travel agencies, tour operators), other non-tourism organizations (banks, automobiles, consumer goods, food and manufactures), digital alliances (social media, websites), local residents, and social organizations (Morrison, 2013). Furthermore, a tourism destination is perceived as a social network of interactions and connections between various stakeholders in international, national, regional, and local level (Presenza & Cipollina, 2010). Therefore, a network approach is perceived as “fits naturally with tourism destination research” (Scott, Baggio, & Cooper, 2008); and networking is crucial and effective for mobilizing information and resources, and cooperative processes among tourism businesses (Bramwell & Sharman, 1999; Buhalis, 2000; Jamal & Getz, 1995; Scott et al., 2008). Therefore, it is recognized that networks are beneficial for destination management organizations in implementing its functions, as networking helps to gather intelligence in a destination about opportunities and ideas and to identify resources needed for the opportunity to be realized (Sheehan, Ritchie, & Hudson, 2007).

Network approaches have been employed in tourism marketing to understand interactions and connections between stakeholders and the roles of each stakeholder in marketing activities and marketing network (Aarstad et al., 2015; Del Chiappa and Presenza, 2013; Nogueira, & Pinho, 2015; Presenza and Cipollina, 2010). In these studies, social network analyses were employed to visualize tourism destination networks, including management network, marketing network, and human resources management network; then, role and position of tourism stakeholders in these networks were exposed differently in each network. In their research, Presenza and Cipollina (2010) found that in terms of the marketing activity, the most important stakeholder is the tourism bureau, while the least preferred are tour operators, travel agencies, and tourism consortiums. This finding is resulted from network centrality index. Closeness and betweenness index from this study show that provincial government and travel agencies place in an intermediate position in the preference scale of hospitality firms. Another study has demonstrated that the network position of a firm in co-branding strategy has an important and unique role in the success of destination branding as it impacts on the likelihood of co-branding (Aarstad et al., 2015). Therefore, Marzano (2008, p. 142) asked for a network analysis perspective to gain “an understanding of how the centrality of one or more stakeholders within the destination enhances or reduces the ability” of successful destination branding. Del Chiappa and Presenza (2013) suggested that using network analysis to access the inter-organizational relationships in a tourism destination could help destination managers improve their knowledge of the influence of these relationships in destination branding and positioning. Subsequently, destination managers can implement marketing activities through the collaborations and interactions between stakeholders. Conversely, this contributes to increase networking between stakeholders in order to increase commitment of stakeholders towards tourism planning and destination brand strategy and shape a strategic consensus. Although, network analysis has been applied in tourism research, it is still quite limited in destination marketing research. Furthermore, these studies focus on networks of internal stakeholders of a tourism destination. The involvement of external stakeholders is less concerned.

4. Destination marketing network in Da Nang, Vietnam

The case of destination marketing network in Da Nang, Vietnam is selected because of recent achievements of Da Nang in tourism marketing and branding that leads to a significant growth of tourists visiting Da Nang compared with other provinces in Vietnam. Da Nang is the centre of economics, political, and socio-culture of the central Vietnam. Social network theory is used to analyse the interactions of organisations, businesses, and other relevant organisations who participate in marketing Da Nang tourism between 2014 and May 2018.

4.1. Introduction of Da Nang tourism

Da Nang city is the third largest city of Vietnam, located midway between Hanoi and Ho Chi Minh City, and is bounded by Imperial City-Hue and Quang Nam in the northern and southern respectively. The ideal location along with various interesting attractions makes Da Nang as a perfect destination for most types of tourists. For those who keen on exploring culture, Da Nang is an ancient land, closely related with the Sa Huynh cultural traditions. Many rich collections of Cham artefacts are still to be found in Cham Museum; meanwhile Monkey and Marble Mountains preserve several historical and religious symbols. For those who looking for out-of-doors activities, there are many stunning beaches, like My Khe and Non Nuoc. Moreover, if tourists want to get away from crowded city centre, they can choose to visit Ba Na tourist site that is considered as a miniature of Da Lat. Da Nang is also a place for authentic local cuisines. The flavourful dishes, such as Mi Quang, Bun cha ca, and Bun mam are well known through Vietnam and growing in popularity internationally.

With all above advantages, Da Nang is turning tourism into one of spearhead economic sectors and exploiting a variety of different types of tourism. The three main groups of tourism products are being prioritized

for development including luxury recreation tourism products; MICE and shopping; and group of products for cultural, ecological, and handicraft villages tourism (Van Son, 2017). Besides that, the city also diversifies its tourism products such as religious tourism, culinary tourism, medical and beauty tourism, and beach sports and recreation tourism. In recent years, there is a significant increase of 4 to 5-star hotels and resorts, convention centres, entertainment centres and transport infrastructure, which contributes to tourism development in Da Nang. It can be said that Da Nang has full of necessary elements to become a luxury, MICE, and entertainment destination.

Looking at the achievements of Da Nang tourism in the past few years, Da Nang continuously affirms its position on the world tourism map. In 2013, the United States' Forbes Magazine selected My Khe Beach as one of the six most appealing beaches in the world. In 2015, Da Nang was listed in fifty-two places where must visit by the United States' New York Times. Recently, Airbnb – a website offers online booking accommodation service - has publicized top 10 global destinations for the 2018, in which Da Nang ranked fifth in booking, increasing approximately 250 percent. Moreover, the reputation of Da Nang is also reflected in the growth rate of visitors to the city. According to the Da Nang tourism department, during 2013-2017 period, the number of tourists to Da Nang increased by an average of 20.06 per year. In 2017, the city welcomed 6.6 million tourists, in which 2.3 million are international tourists. This number of arrivals rises double those in 2013. The majority of foreign visitors is from the Republic of Korea, Japan, and China. Interestingly, more than 500,000 Korean tourists visited Da Nang during the first five month of 2018, accounting for the largest portion of the foreign arrivals in the city. As analysed by a Korean tour operator - Ticket Monster Inc. – Da Nang was ranked second out of 10 most popular destinations for South Koreans.

4.2. Social network analysis

A social network is “a specific set of linkages among a defined set of persons, with the additional property that the characteristics of these linkages as a whole may be used to interpret the social behaviour of the persons involved” (Mitchell, 1969, p. 2). Each social entity is called as an actor of a social network. The linkages between actors are called ties. There are more than one ties between two actors (Wasserman & Faust, 1994). These ties might be risen from friendship, kinship, and interactions (Borgatti, Everett, & Johnson, 2018). A social network is the space in which individuals/organisations link, are linked, influence, and are influenced by other actors.

Social network analysis is a mathematical-informed theory that focuses on the relationships among the entities of a system (Borgatti et al., 2018). Social network analysis can assist to understand the impact of a social structure and its regularities impact on behaviours of entities (Otte & Rousseau, 2002). Because relations between entities are “a fundamental component of network theories” (Nogueira & Pinho, 2015, p. 327), network analysis can help to visualise nodes and links between nodes into graphic models. Thus, network analysis provides a way to simplify complex relationships between entities by mapping and visualising positions and connections between them into different graphs. This facilitates a better understand of relationships and the influence of each actor in other actors. The position of each individual/organisation can be identified within network structures by conducting quantitative methodology (Shih, 2006). Moreover, network analysis can be used to analyse organisational interaction (Scott et al., 2008), as network theory also focuses on understanding organisational structures that connect public and private sectors and build collective actions (Dredge, 2006). Accordingly, this paper uses network analysis techniques to graph linkages between nodes (tourism organisations), which helps to identify a network of organisations to achieve a common goal – promoting Da Nang tourism.

4.3. Methodology

The data for social network analysis is relational data such as contacts, ties, connections, and the group attachments, used to investigate the structure of social interactions (Scott, 2012). This study focuses on organisational network; subsequently, the nodes of this network are tourism organisations involved in marketing Da Nang tourism. A connection or interaction among organisations is identified as a linkage. Network data might be primary or secondary data (Borgatti et al., 2018). Due to the limitation of time and funding for this study, secondary data is collected in this study. More specifically, sources of secondary data are news articles related to marketing activities in Da Nang in the official website of Da Nang tourism department, Da Nang government, and other formal online journals that are published between 2014 and May 2018. Other research studies related to marketing activities in Da Nang are collected in scholarly academic research journals. Totally, there are 256 documents are gathered. Although using secondary data, this still satisfies the requirement of a

research paper in terms of validity and reality because linkages between nodes of a social network are any interaction between these nodes.

The data is then imported in NVIVO software that is a computer programme used to support qualitative data analysis. Content of qualitative data after imported in NVIVO is coded into two themes: organisations involved in destination marketing and marketing activities. The next step is to import the data of interactions between organisations involved in a table in excels to identify the connections between organisations. Finally, this excel file is imported in UCINET software – a computer programme to analyse social networks. Network centrality is employed to identify position of each actor in Da Nang marketing network. Network centrality presents the position of an actor within network, which is measured by degree, betweenness, and closeness. Degree is the number of connections that each actor has, which includes in-degree (number of linkages from other actors) and out-degree (number of linkages to other actors). The higher the degree value is, the more central the actor is. Betweenness refers to the way an actor connects to other actors; and closeness indicates the proximity of an actor to all other actors (Del Chiappa & Presenza, 2013). In this study, network degree is used to assess the position of each actor in marketing network.

4.4. Findings

Various marketing activities are recorded with collaborations between a wide range of tourism stakeholders. This study found that there are about 70 organisations participating in marketing Da Nang tourism. These organisations are divided into governmental bodies, non-profit organisations, business sectors (tour operators, hospitality firms, transportation firms, marketing and advertising companies, and destination business firms), tourism associations, media, local residents, and tourism departments from other provinces and countries. A half of these stakeholders are fundamental hospitality firms and tour operators.

An analysis of out degree and in degree index showed that Da Nang Department of Tourism has the highest in and out degree, followed by Sun Group (table 1). This means that Da Nang Department of Tourism plays a central and critical role in marketing network; and this stakeholder has shown its ability in connecting a broad range of organisations in local, national, and international level (see table 1 and figure. 2). Sun Group is a hospitality and entertainment group invested fundamental tourism facilities and infrastructure in Da Nang. This business group has arranged events and festivals to attract tourists and promoting Da Nang image and participate in other marketing activities held by national and provincial governmental officials in tourism. This firm also has a close relation with other actors in business sectors, particularly in hospitality business sector. National Administration of Tourism, Ministry of Culture, Sport, and Tourism, Da Nang tourism associations, and Da Nang government hold a significant position in this network as the bridge between Da Nang and organizations from other sectors, provinces, and countries to promote Da Nang tourism image (see table 1 and figure. 2).

Table 1. Critical stakeholders

No.	Stakeholders	Out degree	In degree	No.	Stakeholders	Out degree	In degree
1	Da Nang Tourism department	104	100	9	Muong Thanh hotel	12	12
2	Sun Group	39	40	10	Eden Plaza	11	11
3	Ministry of Culture, Sport, and Tourism	19	19	11	Avatar hotel	11	11
4	Vietnam National Administration of Tourism	27	28	12	Novotel hotel	11	11
5	Da Nang People's committee	23	20	13	Premier village hotel	11	11
6	Sea Media travel	23	23	14	Hue tourism department	11	11
7	Da Nang Travel association	15	16	15	The Blossom Resort	10	11
8	Vietnamairlines	14	16	16	Quang Nam Tourism department	10	10

This paper also found other stakeholders participating in destination marketing network, although their participation is still limited and they have less connections with other stakeholders. They are students from a high school (in and out degree = 1) and other governmental departments in Da Nang (Da Nang television center and Construction department). The findings also reveal that several national and international stakeholders are involved in Da Nang tourism marketing network. More specifically, Hue, Quang Nam, Hanoi, and Ho Chi Minh are some provinces and cities that collaborate with Da Nang in marketing and promotion activities. Particularly,

Hue, Da Nang, and Hue are seen as a regional destination positioned as the Essence of Vietnam (Thanh Tâm, 2017). These provinces have many collaborative activities to promote the image and tourism at the region in other regions and countries (Nhat Ha, 2017). Furthermore, Da Nang destination marketing network involves international actors such as tourism department from other countries (e.g. Thailand, China, and Indonesia), World Tourism Organisation, and international media (see table 2).

Table 2. International organizations involved in Da Nang marketing network

No.	Name of stakeholders	Out degree	In degree
1	World Tourism Organisation	5	2
2	Ministry of Indonesia tourism	4	4
3	Thailand administration of tourism	7	7
4	Taiwan tourism department	3	4
5	China travel association	3	3
6	China tourism department	5	5
7	Smart Travel Asia journal	1	1

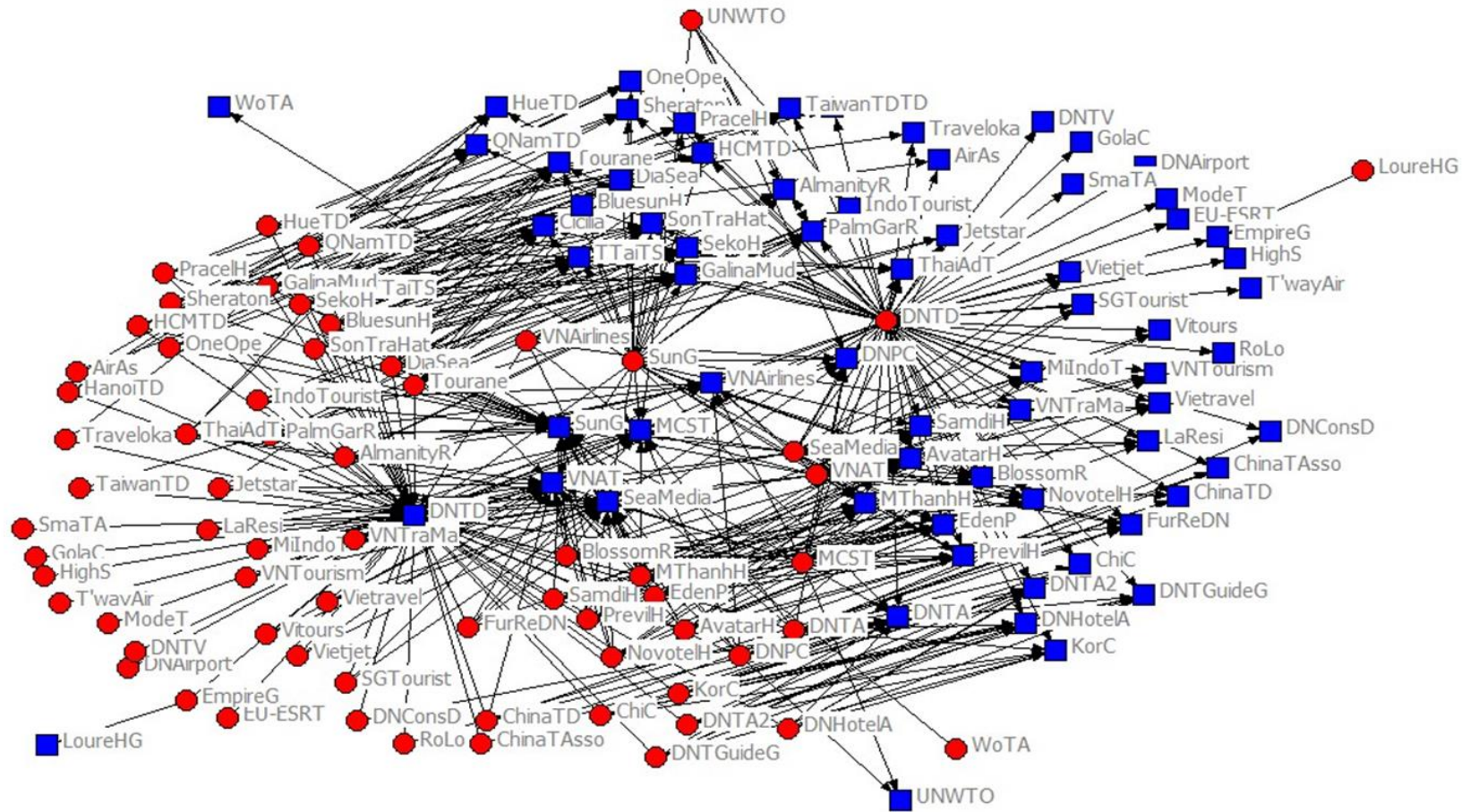


Fig.2. Da Nang Destination marketing network based In-degree and out-degree index

5. Discussions and conclusions

This paper aims to identify a network of organizations who involve in destination marketing of Da Nang (figure 3). The finding confirms a central and critical role of Da Nang Department of Tourism in this network and its ability to connect other organisations in the network. This result is consistent with those in other studies. In this network, stakeholders are not only from Da Nang and tourism industry, but also from other sectors, other provinces, and countries. They are involved in marketing activities under the coordination and connection of Da Nang Department of Tourism, Vietnam National Administration of Tourism, and Da Nang government. A half of actors of this network are from business sectors, including hospitality firms, tour operators, transportation firms, media, and marketing and advertising companies. The result of this research facilitates the argument that “the destination management organization must create a strategy for tourism promotion, match resources (from the destination management organization and other entities) to the strategy, and implement it through the tourism stakeholder network (Sheehan et al., 2007, p. 72). Importantly, Da Nang also cooperates with tourism department of other provinces and other countries to promote Da Nang tourism and attract visitors to Da Nang. This finding is different with those in other studies, as in the previous studies, involvement of actors from outside destinations were not recorded. This might be explained by the reason that these studies were limited in exploring the involvement of actors located within destinations. In addition, there is a fact that getting contact and collecting data from stakeholders outside destination are a difficulty if researchers have a limitation of time and budget for their research.

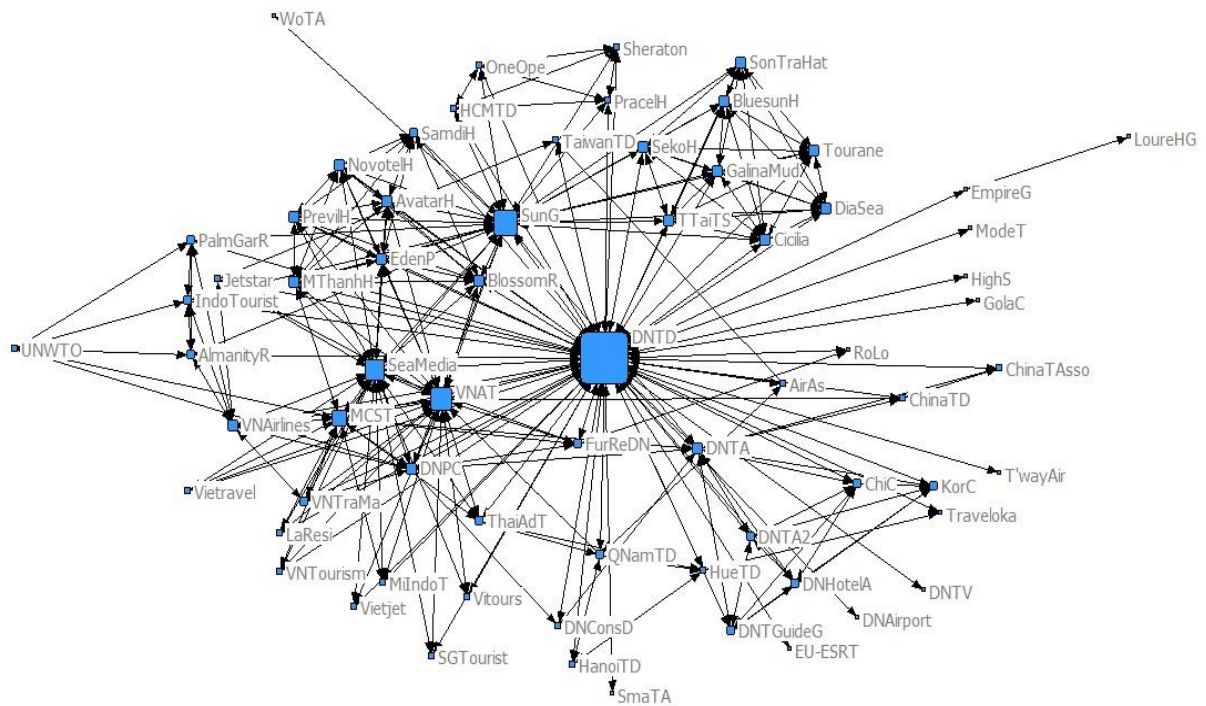


Fig.3. Da Nang marketing network

It is worth noting that the finding of this study shows that the involvement of local residents who do not participate in tourism is extremely limited. Only an actor from this type of stakeholder is recorded, which is students from a high school. This might be because of the reason that local community is often one of the stakeholders least linked with tourism destination governance and development processes (Bornhorst, Ritchie, & Sheehan, 2010). Moreover, to implement marketing and promotion activities for destinations, a large amount of budget is required; hence, destination management organizations usually encourage involvement of large firms who have financial resources, ideals, knowledge, and experience in marketing and promotion activities. However, it should be noticed that local residents have a crucial role in providing ‘hospitality atmosphere’ or uniqueness of a destination, which means that local people might be a unique selling proposition to differentiate

between destinations because local residents by themselves are a tourist attraction of local destinations. Then, because local resident's behaviours can influence on tourists' feelings, this could contribute to create unique emotional proposition. Accordingly, hospitality of local residents is one of significant factors in creating positive emotions and experiences for tourists; and involvement of local residents is particularly beneficial for tourism product development and destination branding.

This research provides a graph of inter-organizational relationships in Da Nang marketing network including actors and their position in the network. The data used in this research is collected from news articles and previous academic studies. This is a limitation of the study, as not all actors who participate in marketing activities are provided in these documents. Therefore, there is a need for further studies that have a more intensive investigator of stakeholders involved and their connections.

However, the actors mentioned in collected documents usually have a fundamental role in the marketing activities. This is due to the reason that marketing a destination is a common and public target that not all individuals and organizations willing to be involved; hence, organizations who have a significant contribution in these activities tend to publish their involvement as a way to promote their organization. Moreover, as above-mentioned, there is a difficulty to investigate involvement of stakeholders from other destinations and countries by using methods like quantitative survey and interviews, as contacting and approaching these stakeholders is not an easy work, even impossibility. In this case, secondary data has been considered as an alternative way that enables researchers to achieve the research objectives. This means that, although this paper based on secondary data, it still satisfies requirements of a research work in terms of validity and reality.

In conclusion, this paper provides an evidence of a wide collaborative marketing network at a tourism destination. In Vietnam, Da Nang is considered as successful in promoting its image and tourism, which is illustrated through the growth of tourists and tourism development in Da Nang. It is undeniable that networking is unavoidable in all tourism activities and development in tourism destinations. This is due to the characteristics of tourism destination and tourism industry; conversely, networking benefits information and knowledge sharing and transfer, communication, cooperation, and innovation; subsequently, networking contributes to achievement of tourism development, marketing, and management.

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An Exploratory Study of the Perception of Co-creation Experience in the Tourism Industry: A Case Study in Danang City, Vietnam

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ABSTRACT

This study examines the perception of co-creation tourism experience from a tourism expert perspective in Danang city. Reviewing literature and applying in-depth interview with tourism experts who hold the management level in tourism organization of both government and business level are used to explore the perception of current tourism co-creation experience and the evaluation of the potential for development of co-creation tourism in the city. Findings suggest that tourism managements had perceived the co-creation tourism experience, however; the city's investigation into the development of co-creation products is still spontaneous and straightforward. The potential tourism products of the city developed from the advantage of natural resources such as sea, river, and mountain, which currently stressed on sea tourism only. Natural resources and location of Danang create the most robust capacity to develop co-creation tourism experiences. The results also reveal the lack in both development strategy and management from tourism destination management to co-creation tourism experiences of Danang city. The study also provides some future suggestion for Danang city tourism management.

Keywords: co-creation; tourism experience; exploratory research; Danang city; perception

1. Introduction

Recent studies on tourism experiences stress the role of tourists as co-creators of their own experience (Prebensen, Vittersø, & Dahl, 2013) and that tourism organizations and destinations need to deliver memorable experiences (Neuhofer, Buhalis, & Ladkin, 2013). These trends are leading businesses (Ramaswamy & Guillard, 2010) and destinations (Prebensen & Foss, 2011) to involve customers in the design, production, and consumption of experiences. Experiences are considered desirable due to their contribution to the meaning of individuals' lives (Pine, Pine, & Gilmore, 1999) as they connect the affective, cognitive, and behavioral dimensions on a moment-to-moment basis (Scott, Laws, & Boksberger, 2009).

The idea of co-creation experience tourism requires the corporation between the service provider and receiver to delivery a co-creation tourism products however it is not easy to build a system supporting for this. Business and destination management should understand the meaning and benefits of co-creation experience in tourism strategy in both company and country level. Danang city is well-known as tourism city of Vietnam thus the city is expected to create a healthy tourism industry that concentrates on co-creation tourism experience. However, to achieve this goal, the city's business and management in tourism should perceive and understand about current

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and potential tourism of Danang before thinking about how to develop. Thus, we raise a question on how does tourist organization/destination business and management in Danang city recognize the co-creation tourism products, and their evaluation of current co-creation tourism experience in the city?

This study aims to investigate the perception and evaluation of tourism practices creating co-creation experiences of Danang city. The study begins with the brief of literature related with co-creation experience in tourism. The research method was discussed and the findings were provided later. Conclusions and implications also were reported in this paper.

2. Literature Review

Tourism co-creation experience

The theoretical and empirical studies of co-creation in the context of tourism have increasingly examined in recent years. The previous studies in the tourism literature concentrated to co-creation in both theoretical (Scott et al., 2009) and applied perspective (Bertella, 2014; Mathisen, 2013). The scope varies from specific tourism experiences contexts (Bertella, 2014) to wide industry or destinations analyses (Eraqi, 2010). Co-creation in tourism studies has been used to explain the changes in tourism supply chain (Räikkönen & Honkanen, 2013), analyses destination experience (Zouni & Kouremenos, 2008), customer satisfaction with destination, memorable tourism experiences and new approaches to marketing (Lichrou, O'Malley, & Patterson, 2008).

Co-creation theory (Prahalad & Ramaswamy, 2004) emphasized the active role of customers in creating co-creation experience. Notably, the consumer is an active participant rather than a passive recipient (Morgan, 2006). In the tourism context, the visitor play as a co-creator of the experience in a creative space (Morgan, 2007). The experiences were created through the interaction between visitors, organizers, performers, and local businesses. Tourism co-creation was defined as a relationship between producer and consumer (Azevedo, 2009, p. 6), or the contribution of consumers in the design of the experience in order to create value for themselves (Haahti, 2006, p. 11). Developing from experience economy literature, co-creation of experience by visitors came from the co-production, personalization, and engagement with tourism destination or providers (Minkiewicz, Evans, & Bridson, 2014). Developing from psychology-based, Campos, Mendes, Valle, and Scott (2018) proposed the definition of co-creation tourism experience: "a co-creation tourism experience is the sum of the psychological events a tourist goes through when contributing actively through physical and/or mental participation in activities and interacting with other subjects in the experience environment." Campos's definition draws a relationship between tourist participation, interaction and interaction to create overall tourism experiences. Campos et al. (2018) suggested the effect of experiencescape (e.g., physical, social and organizational) on co-creation tourism experiences can lead to creating experience memorability of tourist. Thus, co-creation is not just come from the tourist side only; it has been the corporation between tourist provider, consumer, and the most important is tourism environment that can build from both tourist organization and destination management.

Previous studies in tourism co-creation can divide into two main perspectives. The first is tourism supplier perspective that includes tourism business organization and destinations. In tourism destination and organization points of view, they share the vision of co-creation as a business orientation and strategy towards competitiveness to be dealt with management and marketing principles and thinking (Campos et al., 2018). In both, the concern includes mechanisms, processes, and systems of engaging tourists in co-creation (Ciasullo & Carrubbo, 2011; Jauhari & Bharwani, 2017) so that they can live a memorable consumption experience (Jauhari & Bharwani, 2017). With this thinking, co-creation can be thought of as occurring before, during and after the travel (Neuhof et al., 2013) and its affected by the mobilization of all organization's or destination's networks and processes to encourage tourist participation and interaction to generate the total value and well-being (Ciasullo & Carrubbo, 2011; Eraqi, 2010). However, tourists need to uses their resources (i.e., knowledge, time, and creativity) in contextual, personalized, and interactive experiences to gain value of co-creation.

As a business orientation, co-creation involves willing to participate in the design, production, and consumption of experience with tourism provider (Eraqi, 2010; Zouni & Kouremenos, 2008) or to collaborate with the tourism provide in creating new products or services (Santos-Vij & Rodriguez, 2013). To apply the co-creation tourism mindset, the management operation is required changes to management and staff behaviors and competencies (Haahti, 2006; Lugosi & Walls, 2013). For example, the frontline staff is essential to facilitate co-creation activities due to their interaction with the customer. However, internal marketing activities are needed to help foster their willing to co-creation and build a co-creation culture in the company that encourages their participation in service design and improvement (Santos-Vij & Rodriguez, 2013).

The second perspective is the consumer or tourist perspective. In the relationship between producers (tourism organization and destination) and consumers (tourists), consumers are described as co-creators of value (Li &

Petrick, 2008) through their engage in design, produce, and consume the products or services (Zouni & Kouremenos, 2008) in their consumption experiences. In another word, the tourist perspective analyses the co-creation in tourist sphere, encompassing the psychology and behavior involved in experiences, before, during and after the travel (Campos et al., 2018).

3. Research Method

Research setting

This research was conducted at Danang city, a tourism city in the middle of Vietnam; the city was given the title “the best city for living” in Vietnam. Danang city was known as an attractive destination for both international and domestic tourists in the country, with famous and beautiful beaches, abundant natural resource (i.e., river, mountain, sea), well-developed tourism infrastructure, and stable social and political environment (Wang, Tran, & Tran, 2017). Danang has developed a diversity of tourism products including sea tourism, river tourism, cultural tourism, ecotourism, business tourism, and travel to visit relatives. Moreover, Danang provides different types of services with various products with the aim of meeting the diverse needs of tourists, such as excursion services, food service, accommodation services, shopping service, and services for leisure and entertainment. In addition to that, after successful host for APEC 2017, Danang rise as a right place for MICE tourism in Vietnam.

Data collection

Qualitative interviews are a data collection tool adequate to qualitative research design (Finn, Walton, & Elliott-White, 2000; Jennings, 2005). This method is based on the assumption that human subjects (respondents) can account for their own experience and meanings, shape situations and events, and are not mere passive respondents to external stimuli (Finn et al., 2000).

Qualitative interviews are considered suitable for developing knowledge, understanding, and learning because they use an exploratory approach to find the phenomena (Jennings, 2005). The information gained from the interview process of respondents is valuable information for the development of a subsequent quantitative data collection instrument (Dong & Siu, 2013).

In this study, the primary data were obtained from semi-structured questionnaire through in-depth interviews conducted to how tourism experts (the person who hold the management position in tourism-related organizations and companies) expressed and reflected their thinking, perceptions, and thoughts about the co-creation tourism experiences in the tourism strategy of Danang city.

The sampling procedure adopted the snowball sampling method, which is relevant to the research objectives or who is expertise about the research topic (Jennings, 2005; Ritchie, Lewis, Nicholls, & Ormston, 2013). With the snowball sampling, the previous respondents were asked to introduce another one that they think suitable for the research topic. Because this research targeted the experts, who have extensive knowledge and experience in running the tourism business or state management.

In this case, there are ten respondents involving in this research reflect the diversity in many aspects of tourism (e.g., travel agent, hospitality, restaurants, state and non-state management level, and professional association). Respondents were chosen to represent a mix of gender, age, and working areas. As seen in Table 1, respondents were approximately equal numbers of male and female (six male and four female) and from 31 to 63 years old who has a management position. Name of respondents was changed to the Latin alphabet for a private purpose.

The interview was conducted between December 10 and December 20, 2017 (Raining Season) at respondents' office. This time is suitable for an interview with the managers of the tourism companies due to the lower visiting rate period; the respondents have more time to spend on the interview process.

Respondents' profile

Table 1. The respondent information

Respondents	Gender	Age	Genre	Position
A	Male	51	Travel Agency, Hospitality, Restaurant	Vice President
B	Male	41	Travel Agency, Hospitality, Restaurant	Vice President
C	Male	64	Hospitality (five-star beach resort)	CEO

D	Male	61	Hospitality (three-star hotel in the central city)	CEO
E	Female	44	Destination Management (state level)	Vice President
F	Male	59	Tourism Association, Destination Management (non-state level)	Chair
G	Female	35	Destination Management (state level)	Department Head
H	Female	35	Destination Management (state level)	Vice Director
I	Female	51	Hospitality (five-star hotel in the central city), Tourism Association	CEO
J	Male	45	Tourism, Training, Tourism Association	CEO

Interview process

The interviewing process followed the Jennings (2005) guidelines to qualitative interviewing. Preparation for the interviews involved several procedures and decisions. Firstly, the researchers directly contacted respondents and arranged the time for the meeting. Secondly, the researchers informed about the purpose of the study and asked for recording all the discussion before the interviewing process begin. During the interviews, researchers applied active, interpretive, and process listening, as recommended by Jennings (2005). All the interviewing was recorded, all communication materials were composed of transcriptions of oral communication, and some notes were taken regarding paralinguistic communication captured during recording (voice pitch, volume, pauses, laughter). The duration of the conversations, ranging from 45 to 80 minutes, depending on the responses from the participants, was found sufficient to allow all relevant information to emerge and achieve data saturation. Interviews were in Vietnamese, and the main questions were showed in table 2.

Table 2. Themes, Questions, and Focus used in the interviews

Theme	Questions	Focus
Perception about current co-creation tourism experience	<p>How does tourist organization/destination recognize the co-creation tourism products?</p> <p>(1)What is the tourism products of Danang city? Which one is the most interesting and attracting with a tourist?</p> <p>(2)How do you understand about tourist experiences? Give some example of the experiences that tourist can get in Danang city. (3)Which one are memorable experiences?</p> <p>(4) Do Danang have co-creation tourism products? Do it create memorable experiences?</p> <p>(5) What are programs or products in both state level and company level allowing tourist to engage with tourism providers to develop memorable experiences in co-creation value chain?</p>	<p>- understanding of respondents about co-creation in tourism experiences</p> <p>- list current tourism products in Danang city that contains co-creation experiences</p>
Evaluating the potential of co-creation tourism experience	<p>How you evaluate the current tourism products of Danang city creating co-creation experiences?</p> <p>(1) Which experiences you think is the most memorable with tourist in Danang? Which products in your company create a co-creation tourism experiences (for business respondents)</p> <p>(2) Which actions or strategies you create to promote the co-creation tourism experiences for Danang city? (for authority respondents)</p> <p>(3) Do you think the government care and support local</p>	<p>Evaluation of Danang city tourism products that concentrated on building co-creation experiences</p>

	business to provide the co-creation tourism products for tourist in Danang city? (4) What is a government strategy to promote the development of co-creation tourism in tourist providers in Danang city?	
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3. Findings and discussions

In this section, the results confirmed the questions that stated at the beginning of the study. The perception of strong tourism products of Danang city concentrating in co-creation experience showed the majority supporting for sea and the combination of sea, mountain, and river in eco-tourism. The advantage and drawback of each tourism products were revealed via analyzing the respondents' data.

3.1. Perception about tourism practices that is potential to develop co-creation experience in Danang city

Researchers scan more than 50 pages of text data to count the keywords and build the central themes of the results. There are five central themes were revealed, and the findings were presented follow these themes.

Table 3. Summary keywords related to tourism product in Danang city

Themes	Keywords
The combination of sea, mountain, a river in ecotourism	Sea and related to the sea (e.g., sand, seafood, beach)
	Leisure
	Sea sport activities
	Diving
	Seacoast
	Seafood
	River
Great location for tourism experience	Mountain
	Near Hue and Hoi An
	Good transportation
	Well infrastructure
Cultural and spiritual tourism	Diversity tourism places
	Value
	Local culture
	Heritage
	History/ historical monument
	Pagoda/church
	Living style
	Cham/ Cham culture
Museum	
MICE tourism	High-quality infrastructure
	Good service quality
River tourism	Han River
	Co-Co river
	Waterway transportation

The combination of sea, mountain, river in ecotourism - current the most developed product

As a tourism and hospitality city, Danang has potential to develop ecotourism because the advantaged of natural condition that includes sea, mountain, and river in the city. Currently, the city investigates more in sea tourism. However, the river and mountain also show their potential.

According to the data analysis, all respondents mentioned the sea as a most robust tourism product of Da Nang city, with the word "sea" repeatedly appears in text data. G (female, 35 years, destination management) mentioned sea as the strength of Danang tourism

"... on marine tourism products can be said is not only characteristic of Da Nang tourism. However, tourism products related to sea receive large investment from local businesses. I think Da Nang has a beautiful sea,

compared with other places. I think the sea is a unique product and attractive to visitors when coming to Da Nang.”

Continuing with this line, other respondents also expressed their support about considering “sea” as the most potent product of Danang tourism industry.

I (female, 51 years old, CEO of the five-star hotel) also expressed her opinion that “Especially we have the sea. Everyone that talks to Danang are like going to the sea only. However, to stand on the concept of her, to save the guests back to the only sea, the people come and return so many times because they like the sea. They come back not because Ba Na, they turn Not because of delicious food or not because of Ba Na Hill or Linh Ung Pagoda or something else that just because of the only sea.”

In our data, the other products that develop base on “sea” were mentioned. The respondents also highlight that the ecosystem related to the sea is also an important point of Danang tourism. J (male, 45 years old, CEO of travel agency) addressed “the most prominent of Danang’s sea is the marine ecology and infrastructure relating with beach, i.e., coast, beach resort. Also, C (male, 64 years old, CEO of five-star beach resort) said that “the sea of Da Nang has a particular attraction regarding peaceful, beautiful beach, great sand, clean, more specifically management marine environment of the Da Nang government. A (male, 51 years old, Vice President of travel agency) thinks it will be a mistake if we do not count seafood as a feature tourism advantage of Danang comparing with other destinations. With the natural advantage and the developed fisheries, Danang city has potential to build tourism products based on the “gift from the sea” (D, male, 61 years old, central-city hotel CEO).

Beside beach, some respondents addressed the most durable products of Danang tourism is the combination of diversity products related with leisure, activities, visiting, food and festival (B, 41 years old, Vice-President Tourism agency). This diversity came from the “great position” of Danang that located in the middle of Vietnam World Heritage and had an international airport. He also added, “the tourist highly recognize Danang city is the unique combination of sea, mountain, and river, all perfectly natural condition combine in one place, that maker this city is unique.” After the interviewing analyze, the data showed that the majority of respondents considered “sea” as the primary product of Danang tourism. Also, another products and activities related to the sea also an advance (i.e., sea leisure, festivals, beach resorts, and so on). Due to the unique natural resources containing sea, river, and mountain in one place, Danang has the advantage to combine these resources to develop diversified tourism products. This the main reason allowing the city creates multiple tourism products, such as leisure, discovering nature, experiencing the culture, playing activities and so on.

Great location for tourism experience

As a transportation hub for central Vietnam, DaNang located near several UNESCO World Heritage Sites, including the Imperial City of Hue, the Old Town of Hoi An, and the My Son (former Champa kingdom capital and religious central) ruins much of its tourist activity. Tourist come to Danang not only want to visit this city but also want to visit other tourism places then this city becomes a center of “The Road of Heritage Sites in Central Vietnam.” The road links World Heritage Sites in the Middle of Vietnam, namely: Phong Nha-Ke Bang National Park (Quang Binh province), the ancient capital of Hue, ancient trade port city (old town) of Hoi An (Quang Nam province) and My Son Champa ancient capital.

Cultural and spiritual tourism

Receiving the benefit from its location, Danang city also contains the diversity and fascinating culture. C (male, 64 years old, five-star beach resort) emphasized that “... Besides the value of natural resources, Danang is the place of two rich cultural flows. The first flow came from the North affecting Chinese culture, and the West flow contained an Indian cultural value. Danang city naturally has Champa cultural that dominated the central of Vietnam in the past. Danang has a mixed and diversified culture that can be good for attracting tourists who want to find about culture and local history”. In addition to that in the North of the city has Katu people – a minority community of local ethnic people with specific cultural and living condition can be great for developing the combination between cultural and natural discovery (B, 41 years old, Vice-President Tourism agency). It is noticed that Danang city is a small city but a center for transportation, that why tourist usually came to Danang before going to other tourist places. J (male, 45 years old, tourism agency) argued that the tourist might not recognize the difference in borderline among tourism sides in several cities in the middle of Vietnam near Danang.

River tourism

Danang’s river systems are potential to become tourism products. The most famous river in Danang is Han River located in the central of the city. The river divided the city into two parts that create the advantaged in developing a landscape both side of the river. It is noticed that one of the characteristics of Danang city is “the city of bridges” because of the original of these bridge’s architectures. For example, the Dragon Bridge attracted many visitors come to see and enjoy the ejection of fire and water from the dragon’s head - the unique activity of

this bridge in the weekend. The river is also a host and stage for the performances in International Firework Festival celebrated every year.

J (male, 41, CEO of tourism agency) thought the city is still lack in the number of tourism activates on the river. He suggested that the authority need to allow more develop tourism activates instead of just allowing some floating restaurant and tourism boat are exploiting the river. In addition to, the walking stress along two sides of the river demanded more activities to gain the attraction from tourists (G, female, 35 years old, state management for tourism).

MICE tourism

“Danang was chosen to host APEC 2017 is the strongest evidence to confirm for the MICE tourism of the city” said by G (female, 35 years old, state management). Danang has many five-star hotel and resort that can offer extensive accommodation including indoor and outdoor venues with world-class service. For example, the infrastructure was built to serve for an APEC meeting will be used to developing MICE tourism in the city. J (male, 41, CEO of tourism agency) believed that Danang city has enough condition to host world-class level meeting or conference. The success of the celebration of APEC proved the capacity and the forte to host events and festivals. The evidence is the city was named as the city of exhibitions and events in Travel World Magazine in both 2015 and 2016 (C, male, 64 years old, CEO five-star beach resort). In addition to, with the good position that is near other tourist attractions, Danang can develop MICE and connect with other types of tourism to support for the diversity of the city tourism products.

3.2. Evaluation tourism products creating co-creation experiences in Danang city

The majority of respondents knows and understand about co-creation tourism creating experiences that require the participation of tourists in the service delivery process. The respondents showed their perception of co-creation tourism products in Danang city. J (male, 45, CEO tourism agency) said “... we have a beautiful beach and a fisherman village; we can develop a co-creation tourism, I guess, for example, tourist can go to the sea in basket or ship with fisherman, try to use fishing-net...” Also, tourist can learn how to make a dish with seafood and local vegetables. E (female, 44 years old, destination management) mentioned about some events celebrating recent years, namely International Marathon completion, Triathlon (Ironman 70), Asia Golf tourism convention 2017 that attracted the tourist to participate and gain experiences. In the business level, several co-creation experience activations like mountaineering in Marable Mountain, tracking Bach Ma National Park and Son Tra Mountain received the positive signs in tourism development. C (male, 64 years old, five-star beach resort) gave an example of how his company creates a memorable tourism experience through co-creation activities of tourist. He proved in this resort has a garden that tourist can grow their tree or plant and give the name for it. This plant is the local or protected pants in Vietnam that were encouraged to cultivate for protection and environment. He optimized that guested like this activity and will return in the future to watch their plant growing.

However, the respondents agreed that the development of co-creation tourism products in Danang city is spontaneous, occasional, small, undiversified and disconnected. Although several co-creation tourism already had in the city, it is just an effort of an individual business or single activities from the destination management. J (male, 41, CEO of tourism agency) thought in the city level (destination management) co-creation tourisms happened in significant events (e.g., color me run, international marathon or street musical festival), thus they are not able to celebrate more or in another activity, then it leads to the interrupt in co-creation tourism activities of the city. The respondents showed their concern about the big event might attract the massive people at the time, however, do not keep they visit at other time of the year. In the business level, co-creation may occasionally happen in a big organization (e.g., five-star resort/hotel) for their guest only, activities that encourage the engagement of community is not favorite in Danang tourism product (Chi, female, 51 years old, CEO of the five-star hotel).

About the size and frequency of co-creation tourism activities, the respondents also mentioned that the co-creation tourism products of Danang city are small and simple in both ideas and size, comparing with Hoi An [the old town - the most tourist attraction place in middle of Vietnam], We [Danang] still have a far distance (Lan, female, 35 years old, state tourism management). The tourism activities without the support and management of authority will be spontaneous and less professional. Agreeing with the destination management organization (DMO) need to take a role to establish, support and manage the development of co-creation tourism activities. J (male, 41, CEO of tourism agency) believed that DMO might know the form of co-creation however, not recognize its essential role in creating a co-creation tourism products entirely. He added, “DMO need to have real research about co-creation tourism and provide a strategy, policy and a professional team to lead this transformation.” The co-creation tourism required the change in the mindset of tourism management about the role of customers in the service delivery process, the role of the business organization in running the service and the role of DMO in managed and supported the co-creation tourism delivery.

The final drawback of co-creation tourism in Danang city was mentioned in the data is about the lack of community orientation of co-creation tourism products. The co-creation tourism is not just tourist viewing the history and culture in the beautiful museum (e.g., Champa Museum), it requires the real experiences that gain from engagement with the life, activities of local culture. C (male, 64 years old, five-star beach resort) suggested that the city authority not be only investigated to build a beautiful museum, hotel, resort, the tourist do not just look at these things, they look the aboriginal of sea, the peaceful and skilled of fisherman in Tho Quang fishing village, making a personal handicraft from baked clay in Hon Lan, etc.

4. Conclusions and implications

This study has contributed to the research and practice of tourism by studying perception and evaluation of co-creation tourism experience of Danang city. The results were achieved by conducting a literature review of the relevant theories and researches related to co-creation tourism and customer experience. Based on this, several tourism products was revealed as strong and potential to develop co-creation tourism including sea, mountain, and river tourism play as main areas. The evaluation of co-creation tourism practice in Danang reveals that this type is still new and in the beginning stage of the development cycle. The development of co-creation tourism requires the changing in the thinking of both destination management organization and tourism business.

Table 4. Evaluation of current co-creation tourism experiences in Danang city and future suggestions

Some example of Co-creation experience tourism products	Current evaluation	Some suggestions in the future
<p>Sea tourism</p> <p>Activities on the beach and under the sea, such as diving, rowing, water-skiing, sailing, fishing, canoeing</p>	<p>Already had, however, happen occasionally in small size</p>	<p>Need to update to daily activities and give for business to invest and run</p>
<p>Mountain tourism</p> <p>Tracking in Bach Ma National Park or Son Tra Mountain</p> <p>Mountaineering in Marble Mountain</p> <p>Camping in mountains Wildlife viewing tourism (e.g., restricted animals like birds,)</p>	<p>Individual and freelance hosted a tour only</p> <p>Recent years, attract tourists and local people, however, marketing activities and the size still small</p> <p>Don't have in tourism area and activities are personal without management</p>	<p>Authority should have a guideline for this types of activities.</p> <p>Need to promote and connect with visiting Marable Mountain in a tour.</p> <p>Potentially and need to invest in infrastructure to support a group of tourist, diversity activities connect with protecting the environment</p>
<p>River tourism</p> <p>Riverboat tour only in a part of Han River (e.g., viewing the landscape, eating on the boat)</p> <p>Connecting with another river in the system, using the boat as transportation and develop the tourist places along both sides of the river. The historical places, traditional handicraft villages, local food villages and another tourism place near the river can be connected to develop new ways of visiting.</p>	<p>Fewer activities on the boat, simple viewing tour, less attractive with tourists</p> <p>Not yet develop</p>	<p>Develop river tourism that uses the boat as main transportation method to tourism places. For example: + Han-Co Co River tour visiting local handicraft villages, Marable Mountain, "Quan The Am" pagoda, K20 cultural village + Cu De – Truong Dinh River tour visiting Nam O culture area: Historical well, fish sauce</p>

		village, Temple of Lady Bo Bo, Tomb ò Tien Hien + Han – Tuy Loan River tour visiting Cam Ne Sedge village, Tuy Loan Temple
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For tourism practices, our study offers some suggestions for local tourism provider; Table 4 showed some examples of areas that the respondents and researchers suggested the development of co-creation tourism experience products. There are some limitations associated with this study. The qualitative interview has its limitations. The interpretation depends considerably on a researcher's skills and background. Therefore, there is no one truth or right result. Another limitation is that the study was conducted by researching only tourist experts who keep a management position in tourism organization both business level and authority level. As it was mentioned in the literature review, the tourist perspective of co-creation tourism should be studied in order to confirm that the perception and evaluation about co-creation tourism experiences in Danang city are the same with expert's perspective. It would be a benefit for local tourism in making the strategy that meets the expectation from all dimensions. Future research may use a quantitative method to re-examine in the large sample to confirm this study's results.

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The Influence of Service Quality in Tourism on Tourist Satisfaction: The Case of Hanoi Old Quarters

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ABSTRACT

This paper presents the results of an empirical study on the influence of tourism service on tourist satisfaction in the case of Hanoi Old Quarters. Statistical techniques have been applied to analyze the data collected from 200 international and domestic tourists had visited Hanoi Old Quarters. Analysis results indicate that Core-tourism experience, Hospitality, Value for money, Amenities and Food have a significant impact on tourist satisfaction.

Keywords: Service quality; service quality in tourism

1. Introduction

Tourism is a growing industry not only in the domestic economy but also in the world. In Vietnam, the value of contribution of tourism and travel service sector to national GDP is estimated as 279.287 billion VND, which is equivalent to 6.6% of GDP (According to Vietnam National Administration of Tourism, 2016). With those remarkable contributions, the development of “smoke-free industry” has been more caring and focused. On 30 December 2011, The Prime Minister signed a decision approving the “Vietnam Tourism Development Strategy to 2020 with a vision to 2030” with the objective of developing tourism into a spearhead economic sector.

With the advantage of thousands years cultural, which has been remaining in large system of heritage, featured landscapes and special lifestyle of local people, Hanoi Old Quarters is a potential place to develop destination tourism. Representative tourism products include cultural tourism (visiting cultural relics, historical sites, ethnic cultural studies, scenic spots in Hanoi Old Quarters), shopping tourism (visiting, shopping handicrafts, fine arts, craft villages), culinary tourism (discovering traditional specialties) ... However, the tourist area has not fully promoted its potential and not been invested in service quality management. Even so, many foreign visitors visiting tourist area had made negative comments on social networking sites, which were main focus on hygiene, difference in price and security. In order to preserve and promote the tourism status of Vietnam in general and Hanoi Old Quarters in particular, it is necessary to focus on improving service quality and tourist satisfaction due to this is the prerequisite to create the image of tourist area.

This study provides an analysis and assessment of tourist satisfaction on Hanoi Old Quarters tourist area. Hanoi Old Quarters was classified by the Ministry of Culture and Information as a national historical and architectural monument in accordance with Decision No.14/2004/QĐ-BVHTT dated 05 April 2004. According to Decision No.6398/QĐ-UBND dated October 24, 2013 by the People's Committee of Hanoi, Hanoi Old Quarters had a total area of 82 hectares, including 10 wards, 79 streets and 83 streets in Hoan Kiem district. The

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characteristics of this area can be referred as: Old Quarter areas dedicated to one specific trade; ancient tube house architecture with tiled roof; a rich religious heritage through the temples, pagodas, congregations; many rich and unique food;...

2. Literature review on service quality in tourism

2.1. Service quality

Parasuraman et. al. (1985) defined service quality is a measure of how well the service level delivered matches customer expectation. The customer satisfaction theory sees these expectations as predictions of what might happen during the transaction, while service quality theory sees these expectations as the desire of the consumer (Kandampully, 2002). Backman & Veldkamp (1995) stated that service quality is an essential factor involved in a service provider's ability to attract more customers. Unlike the quality of goods, which may be measured objectively by such indicators as durability and number of defects, service quality is an elusive construct that is difficult to measure (Crosby, 1979). Mackay and Crompton (1990) defined service quality as "the relationship between what customer's desires from a service and what they perceive that they receive". Additionally, service quality is also a way of thinking about how to satisfy customers so that they hold positive attitudes toward the service they have received (Ostrowski, O'Brian, & Gordon 1993).

Quality in service industries has both static and dynamic dimensions (Day and Peters, 1994). The static dimension represents the expectation of the customers, that always changes over time as extra facilities such as in-flight meals become the rule rather than the exception. Dynamic dimension of quality occurs during service delivery and offers opportunities for the customer to be delighted by the extra efforts of staff to, for example, address the customer tangible product which is a primary cause of customer dissatisfaction, but dynamic quality is not achieved easily. By definition, spontaneous acts of dynamic quality, cannot be pre-arranged or scripted, but are nevertheless an important means of customer satisfaction (Ingram et al., 1997).

Service quality is an extremely important component of the structure of a travel product, and visitor satisfaction is affected by service quality. If the service quality is good, tourists will be very satisfied, then, they will be willing to return to the destination again and introduce the destination for many more (Cronin & Taylor, 1992; Parasuraman et al., 1985; Zeithaml et al., 1996). Therefore, evaluating the service quality in tourism is very important for tourism management. The results of these evaluation will help tourism manager improve service quality, increase customer satisfaction and retain as well as attract more tourists.

2.2. Service quality in tourism

According to Baker and Crompton (2000), the literature related to quality in the tourism and recreation field dates back to the early 1960's. The tourism literature has revealed various attempts to make sense of how tourists evaluate the quality of services they receive while on vacation and so forth. However, as Frochot (2004) points out, "the nature of tourism services, based as much on the sale of utilitarian services as on the provision of service through which consumers can achieve deep-rooted needs, renders its evaluation reasonably complex".

Hudson and Shephard (1998) have argued that "service quality has been increasingly identified as a key factor in differentiating service products and building a competitive advantage in tourism."

Managers in tourism strive to improve the quality of their services and the level of customer satisfaction in the belief that this effort will create loyal visitors. Loyal visitors will return to the destination and recommend it to others (Tian-Cole & Crompton, 2003).

Sparks and Westgate (2002) suggest that service failure can have devastating effects on an organization because customers frequently switch to a different provider when they experience a service failure. However, among customers who experience service problems, those who receive satisfactory resolution are more likely to remain loyal to the service provider.

Atilgan et al. (2003) suggest that cultural characteristics have an effect on perceptions of service quality in tourism. They found that different cultural groups can have different levels of expectations and perceptions in terms of service-quality dimensions.

2.3. The relationship between tourist satisfaction and service quality in tourism

Customer satisfaction is the emotional state of product or service used (Spreng et al., 1996). Philip Kotler (1995) defined customer satisfaction as the level of a person's sense when comparing the results obtained from the consumption of a product / service with his expectations.

While there are many approaches to explaining customer satisfaction or dissatisfaction, a widely used

concept has been developed by Richard Oliver, the inventor of "expectancy disconfirmation" (1980). Expectation disconfirmation theory is to predict that customers make in advance of consumption act as a standard against which customers measure the firm's performance (Oliver, 1997). This model considers satisfaction is a function which includes the difference between observed outcome (product) performance and prior expectations about the outcome's (product's) performance (Kopalle and Lehmann, 2001). It also be considered as belief probabilities of what the consequence of an event will be (Oliver, 1980).

Service quality and satisfaction are two different but closely related concepts in service research (Parasuraman & ctg, 1988). Service quality is commonly noted as a critical prerequisite for establishing and sustaining satisfying relationships with valued customers. In this way, the association between service quality and customer satisfaction has emerged as a topic of significant and strategic concern (Bolton and Drew, 1991; Cronin and Taylor, 1992; Taylor and Baker, 1994)

Pizam et. al. (1978) identified eight factors of tourist satisfaction with Cape Cod, Massachusetts (USA) as a tourist destination area, which were: *beach opportunities, cost, hospitality, eating and drinking facilities, accommodation facilities, campground facilities, environment, and extent of commercialization*. Sureshchandar (2002) considered customer satisfaction as a multi-dimensional structure such as quality of service and argued that: Customer satisfaction was driven is operated in the same way as service quality. Zeithaml & Bitner (2000) stated that service quality as a factor impact on customer satisfaction.

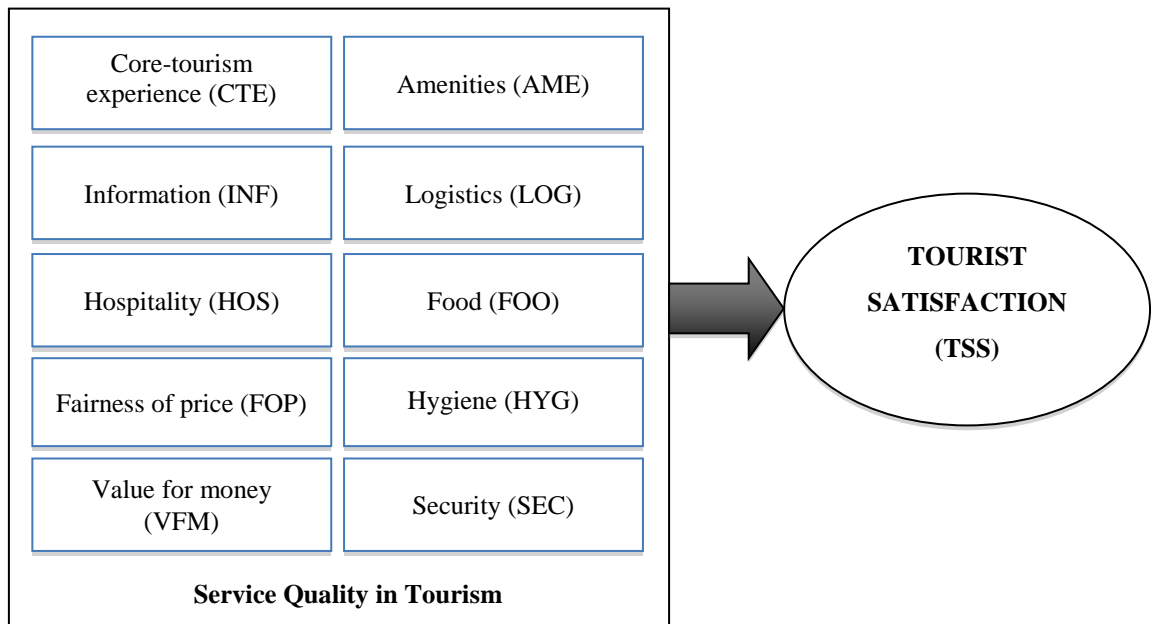
In Vietnam there are many studies on tourists satisfaction with service quality in tourism. Dang Thi Minh Anh (2012) has studied the satisfaction of tourists when traveling in Nha Trang city, which showed five factors that affect the level of visitor satisfaction: *attractive destinations, perceived value, infrastructure, subjective risks and objective risks*. Le Thi Tuyet (2014) introduced the factors affecting the satisfaction of domestic tourists with the quality of tourism services in Duong Lam ancient village including: *facilities, cultural, service capabilities, response, reliability, prices of goods and services*. Vo Thi Cam Nga (2014) studied the international tourist satisfaction in Hoi An. The results of the study show that there are seven factors that affect visitor satisfaction in Hoi An: *environment; natural resources and material conditions; material heritage; intangible cultural heritage; lodging, entertainment, shopping service; Money transfer service*. 2.4. Analytical Framework

Base on models in 10 years recently such as SERVQUAL, SERVPERF, ACSI, ECSI, UNWTO and the result of Bindu Narayan et. al.'s study, this study will assess service quality in tourism through 10 dimensions:

- Core-tourism experience
- Information
- Hospitality
- Fairness of price
- Value for money
- Amenities
- Logistics
- Food
- Hygiene
- Security

Besides, this study also examines the relationship between service quality in tourism and tourist satisfaction.

The analytical framework is as following:



Hypotheses:

- Hypothesis 1: Core-tourism experience has a positive
- Hypothesis 2: Information
- Hypothesis 3: Hospitality
- Hypothesis 4: Fairness of price
- Hypothesis 5: Value for money
- Hypothesis 6: Amenities
- Hypothesis 7: Logistics
- Hypothesis 8: Food
- Hypothesis 9: Hygiene
- Hypothesis 10: Security

3. Data collection and Measurement test

3.1. Data collection

Based on reviewing literature to model the analytical framework, a questionnaire was built and divided into 3 sections:

- The first section was designed to measure the overall service quality in tourism from tourist’s perspective. This part comprises of 37 statements in total measuring 10 dimensions of service quality in tourism, which included: Core-tourism experience (5 items), Information (5 items), Hospitality (2 items), Fairness of price (3 items), Value for money (5 items), Amenities (3 items), Logistics (3 items), Food (3 items), Hygiene (5 items), Security (3 items).
- The second section aims to assess the satisfaction of customers including 3 items.
- The last section consists of questions relating to demographic information about respondents such as age, gender, and income.

The first two sections are measured using a 5 point Likert rating scale which corresponding to 1 = strongly disagree, 2 = somewhat disagree, 3 = neither agree nor disagree, 4 = somewhat agree, 5 = strongly agree.

This questionnaire was in Vietnamese, used to survey international and domestic tourists had visited Hanoi Old Quarters so that they could give more meaningful responses. Among various tourist destinations in Hanoi, Old Quarters is chosen in this study for following reasons. Old Quarters are located in one of the most well-known and important districts in Hanoi – Ba Dinh District and considered as a cultural heritage, representative of Hanoi with thousand years of civilization. This destination therefore becomes the most frequently visited destination in Hanoi and a potential place to develop destination tourism. In addition, while French Quarters are suitable for young people, Van Phuc silk village are interesting for adventurous people, Old Quarters is attractive for visitors of all ages and from different countries. Thus, the survey results will give a comprehensive view of Hanoi’s visitors satisfaction. 250 potential tourists were approached and 200 feedbacks were obtained indicating a response rate as 80%. Respondents ranged in age from 18 to 30, with 56% percent female. Monthly personal income of the respondents was mostly less than 5 million (18.5%) and from 5 to 10 million (58%). The purpose of the respondents was mostly to visit and travel (61.5%).

3.2. Measurement test

Data collected are firstly tested to ensure the reliability through Cronbach’s alpha value with the purpose to check the internal consistency. Internal consistency describes the extent to which all the items in a test measure the same concept or construct and hence it is connected to the inner-relatedness of the items within the test. In general, alpha coefficient ranges in value from 0 to 1, and the increase of this value means that the correlations between the items increase. In this study, scales which have Cronbach’s alpha coefficient greater than or equal to 0.6 will be accepted. Besides, variables which have greater than 0.3 item-total correlations will be accepted; the others which have smaller than 0.3 item-total correlations will be eliminated from analysis data.

The result of this study indicated that all Cronbach’s alpha values of 10 dimensions ranged from 0.618-0.722, showing high reliability level of the database. However, some variables in the scale which have smaller than 0.3 item-total correlations had been eliminated. These variables are INF2 (*Information*), VFM4 (*Value for money*), AME3 (*Amenities*), FOO2 (*Food*), HYG5 (*Hygiene*).

Then, validity test is conducted to measure whether the item or scale truly measures what it is supposed to measure or nothing else. In this study, within scale factor analysis is conducted for 10 service quality in tourism scales, which named *Core-tourism experience, Information, Hospitality, Fairness of price, Value for money, Amenities, Logistics, Food, Hygiene, Security* and for *Tourist Satisfaction* scale.

The results reveal that the questionnaire is a valid measure of service quality in tourism, and tourist satisfaction in Hanoi Old Quarters because the items which are arranged within a scale in the questionnaire are proven under the same factors. The factor analysis results for all investigated components are presented in the following table.

Table 1: Contents of questionnaire survey

Dimension	Items	Coding
Core-tourism experience	1. Exciting, vibrant atmosphere	CTE1
	2. Traditional beauty	CTE2
	3. Variety of historical relics, richness of cultural heritage	CTE3
	4. Good climate	CTE4
	5. Cultural exchange with local people	CTE5
Information	6. Availability of tourist information center at tourist place	INF1
	7. Personal guidance in the tourist spots	INF2
	8. Easy of communicating with people in a language that both you and the local people are comfortable with (English)	INF3
	9. The maps in tourist destination are available	INF4
	10. The maps in tourist destination provide full information about the place	INF5
Hospitality	11. Local people are polite, courteous	HOS1
	12. Attitude of local people towards tourists was good	HOS2
Fairness of price	13. Fairness of cost at stores (i.e. same price for domestic and foreign tourists)	FOP1
	14. Fairness of cost when buying from street vendors and temporary market (i.e. same price for domestic and foreign tourists)	FOP2
	15. Fairness of transportation fee (i.e. same price for domestic and foreign tourists)	FOP3
Value for money	16. Price worthiness of ticket price at historical sites, cultural heritage in Hanoi Old Quarters	VFM1
	17. Price worthiness of service/goods	VFM2
	18. Price worthiness of local conveyance (like buses, taxis,..)	VFM3
	19. Price worthiness in parking lots	VFM4
	20. Price worthiness of local food/drink	VFM5
Amenities	21. Internet strong connected at places of visit	AME1
	22. Access to medical help in case of emergencies was easy	AME2
	23. Resting places are reasonably arranged at places of visit	AME3
Logistics	24. Many convenient, spacious parking lots at places of visit	LOG1
	25. The routes in the tourist area meet the travel capacity of the tourist delegation	LOG2
	26. Possible disturbance by traffic congestion	LOG3
Food	27. Hanoi specialties is available and easy to find	FOO1
	28. The restaurant is ready to serve the needs of guests	FOO2
	29. Availability of street food/street vendor food (that you would prefer to eat) at your	FOO3

	place of stay	
Hygiene	30. Cleanliness and hygiene at tourist spots/places of visit	HYG1
	31. Easy to find a bin in tourist destination	HYG2
	32. Hygiene level of food at tourist spots/places of visit	HYG3
	33. There is enough toilets in the whole area	HYG4
	34. Cleanliness of toilets if used	HYG5
Security	35. Security at the tourist spots/places of visit	SEC1
	36. You have difficulty moving around in the tourist area because of the traffic	SEC2
	37. Possible disturbance by street seller	SEC3

Table 2: Reliability and validity tests

Constructs	No. of Items	Cronbach's Alpha	Number of Factors	% of Variance
1. Core-tourism experience	5	0.664	1	31.653
2. Information	5	0.656	1	62.331
3. Hospitality	2	0.722	1	43.492
4. Fairness of price	3	0.618	1	48.467
5. Value for money	5	0.764	1	66.197
6. Amenities	3	0.627	1	46.384
7. Logistics	3	0.669	1	48.559
8. Food	3	0.716	1	43.670
9. Hygiene	5	0.711	1	46.438
10. Security	3	0.638	1	44.942

4. Data Analysis

Regression analysis is conducted to test the relationship between service quality in tourism and tourist satisfaction in Hanoi Old Quarters. Firstly, mean scores of both dependent variable (tourist satisfaction) and independent variables (*Core-tourism experience, Information, Hospitality, Fairness of price, Value for money, Amenities, Logistics, Food, Hygiene and Security*) for 200 respondents are calculated. Then, mean scores of service quality in tourism are multiplied by weight score measuring the important level of each component which are assessed by respondents. In investigating the impact of service quality in tourism to customer satisfaction in Hanoi Old Quarters, R square value indicates that 35.1% of variance in tourist satisfaction can be explained by 10 service quality in tourism variables. Moreover, significant value of 0.000 confirms that group of six service quality components have a statistically significant relationship with customer loyalty variable at the 5% significant level.

Table 3: Regression analysis result

R square		0.351			
Adjusted R square		0.333			
Sig.		0.000			
	Unstandardized Coefficients		Standardized Coefficients		VIF
	B	Std. Error	Beta	Sig.	
(Constant)	1.134	0.235		.000	
Core-tourism experience	0.401	0.055	0.017	0.732	1.300
Information	0.180	0.051	0.020	0.028	1.840
Hospitality	0.305	0.061	0.015	0.805	2.119
Fairness of price	0.046	0.053	0.022	0.699	1.793
Value for money	0.290	0.046	0.101	0.050	1.482
Amenities	0.189	0.044	0.104	0.053	1.599
Logistics	0.282	0.049	0.035	0.516	1.575

Food	0.463	0.041	0.001	0.981	1.436
Hygiene	0.034	0.056	0.003	0.041	1.722
Security	0.198	0.058	0.362	0.000	1.899

Apart from *Core-tourism experience*, *Hospitality*, *Value for money*, *Amenities* and *Food*, others remaining service quality in tourism components express significantly positive influence on Tourist Satisfaction at the 5% significant level. *Food* component shows the strongest impact on tourist satisfaction with the highest coefficient value of 0.463., followed by diverse, flavorful, balanced cuisine and specialties were available and easy to find. Then, *Hospitality* component which refers to the friendliness and courtesy of local people shows the coefficient value of 0.305., followed by attitude of local people towards tourists was good. Last but not least, *Value for money* component which based on price worthiness in all service activities shows the coefficient value of 0.290.

5. Findings and discussions

Core-tourism experience, *Hospitality*, *Value for money*, *Amenities* and *Food* are tourism service quality factors have a significant impact on tourist satisfaction. *Core-tourism experience* is related to natural beauty, climate, rich cultural heritage, cultural exchange with local people, privacy and space for a relaxed time. With the rich of traditional and historical, this tourist area should continue to maintain and promote this strength by preserving, embellishing the ancient architecture and promoting the value of material value, traditional festivals, cultural and folk art and contemporary activities. Regulators should pay attention to the diversification of tourism types and products, such as spiritual travel - visit temples, ancient pagodas; travel to admire the special art forms such as ca tru, chau van, cheo,...; festival travel - visit the Old Quarters on the special festivals such as Mid-Autumn Festival, Lunar New Year... to attract more tourist. Factor *Hospitality* concerns to the friendliness and courtesy of tour guide, hotel staff and local people, which was appreciated by tourists. Most of the visitors will receive enthusiastic advice from local people when they encounter any problems such as helps in directions, helps with the map or helps in crossing the street... The relative price of tourists paying for travel with the value and quality of travel packages, accommodation, food and transportation services at the destination is *Value for money* factor. *Amenities* involves services such as the internet, telecommunication services, currency exchange facilities at tourist area, emergency medical assistance. In addition, nightlife is also an important aspect for many tourists, the availability of pubs and the opening hours of those are also crucial to some tourists. In Hanoi Old Quarters, *Food* is one of the top attractions for tourists to explore and experience the ancient town. Enjoying traditional dishes such as Pho, Spring rolls, La Vong fish rolls, Thanh Tri rolls, etc..., the tourists also feel the delicate essence of culture and local people.

The component of *Information* which does not show reliable statistically relationship with customer satisfaction is discarded. *Information* component in this study refers to the available of information in the airport, travel guides or other explanatory services and the ease of communication in a common language. In fact, the available of information may not have much impact on tourists when they choose to visit Hanoi Old Quarters. *Fairness of price* relates to the differences in prices at tourist sites, in local shops and travel services. Although this component it does not represent the positive relationship with tourist satisfaction in the study, but it can be seen as a must-be service quality in tourism component. It means that tourists are dissatisfied when *Fairness of price* component does not perform well, but when it performs well the result is not increased tourist satisfaction. Similarly to *Fairness of price* component, *Logistics* is also seen as a must-be service quality in tourism component. This component refers to transportation and logistics of the destination, access to tourist sites, infrastructure conditions at tourist sites. For the *Hygiene* component that relates to cleanliness in airports, accommodation, restaurants and food at the destination and *Security* component, which refers to the safety of tourists at tourist destinations and at the hotels where they stay, these components also do not show the relationship with tourist satisfaction in this study.

These findings of this study provide some practical recommendations for developing destination tourism in Old Quarters and improving tourist satisfaction. New potential tourism product should also be developed, such as spiritual travel, festival travel... Legislative and institutional framework should be strictly enforced. Coordinated action of relevant authorities is needed to address issues such as food hygiene and safety, security... In addition, staffs who regularly contact with tourists, including tour guide, staff working in hotels, restaurants..., should be qualified. Training programs is necessary to provide extensive knowledge of history of Old Quarters, culture and people in Hanoi. Staffs with good language skills will contribute to make a more comfortable and convenient place for foreign visitors. Moreover, an effective education program should be established to awareness about hygiene in order to improve environmental sanitation, and to develop good manners when dealing with foreign tourists.

6. Conclusion

The results of this study indicated that among 10 components of service quality in tourism including Core-tourism experience, Information, Hospitality, Fairness of price, Value for money, Amenities, Logistics, Food, Hygiene, Security, five factors as *Core-tourism experience, Hospitality, Value for money, Amenities* and *Food* have a significant impact on tourist satisfaction. In addition, the findings also helps to find some solutions to improve service quality towards the satisfaction of tourists in Hanoi Old Quarters.

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Factors Affecting the Satisfaction Levels of Visitors with Tourism Service Quality in Phu Quoc Island

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ABSTRACT

The objective of this study is to propose some solutions to improve visitors' satisfaction to Phu Quoc Island. The data of the study were collected from domestic and foreign tourists to the island. In the research, descriptive statistical methods, Cronbach Alpha reliability coefficient, factor analysis and regression analysis are used. The results show the positive points to be promoted and the negative points to be overcome then the researchers propose solutions to improve the satisfaction levels of visitors when experiencing tourist services in Phu Quoc in the future.

Keywords: Satisfaction level; visitor; tourist services.

1. Rationale

In the development of Vietnam tourism, it is impossible not to mention the highlight of "Phu Quoc Beach Tourism". The island is considered to be the most beautiful and largest in Vietnam today with the area of 589.23 square kilometers and a population of 103,000. In addition, Phu Quoc is gifted with naturally wild but charming beauty with the long romantic coast, the coconut trees reflecting themselves on the shore of the white sand as to invite visitors to the island. According to Rough Guides magazine, Phu Quoc owns two of Vietnam's 20 most beautiful beaches - Bai Dai and Bai Sao. This is considered a valuable record as it is the basis for promoting the image of Phu Quoc tourism to domestic and foreign tourists. At present, domestic and foreign investors have put their money in the construction of many tourism businesses on the island, contributing to the economic development of the island. In 2015 the number of visitors to Phu Quoc was about 850,000 (including approximately 35% international visitors) with the total turnover of 1.9 trillion and the growth rate of over 30%. Although there are many favorable factors for the development of marine tourism, in recent years the tourism industry of Phu Quoc has not been able to fully exploit its potentials. The quality of the tourism service is not good enough to best satisfy tourists, which limits the development of Phu Quoc tourism.

2. Data and research methods

2.1. Research data

Primary data were collected by interviewing directly visitors through the structure questionnaire. The research uses the convenient sampling technique to conduct data collection when investigators are more likely to meet visitors. In this study, the sample was divided into two groups: domestic and foreign tourists. The survey rate was selected based on data of visitor arrivals to Phu Quoc in 2016 and 2017. Sample size was determined using the EFA, where the sample size was usually by the minimum size and the number of measurement

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variables included in the analysis. Currently, according to many researchers, the size of the sample is as large as possible (Nguyen Dinh Tho, 2011). Hair et al (2006) suggested that when using EFA, the number of measurement variables should be at least 50 and better be 100 and observations-items ratio is 5:1 meaning that a measurement variable needs at least 5 observations. Specifically, in the research model proposed, 30 variables of observations can be used in the EFA. Therefore, the minimum sample size of the study is 150 (30 x 5). To ensure the accuracy and resolution of the analytical model, the sample size of this study was 205 observations, which is consistent with the model for the quality of tourism services.

2.2. Analytical methods

This research uses descriptive statistical method to analyze the current status of Phu Quoc's tourism industry and describe the perception of visitors using its tourism services. It also uses indicators such as relative numbers, absolute numbers, mean, frequency, percentage, standard deviation. In addition, factor analysis, Cronbach Alpha reliability and Binary Logistic regression analysis are used to find out the main factors of level of satisfaction of travelers using the service in Phu Quoc. From the research and analysis results, the study proposes some solutions to improve the level of satisfaction of visitors in Phu Quoc.

2.3 Research model

There are now many different models for measuring and evaluating satisfaction based on measurement and evaluation of service quality by Parasuraman et al (1985), Expectation - Disconfirmation model, the Performance Only model (Erevelles and Leavitt, 1992), along with several analytical methods: EFA factor analysis, multivariate linear regression analysis, etc.

Based on an overview of a number of related theories as well as theoretical and empirical studies related to visitor satisfaction, the proposed model for research consists of five factors affecting visitors' satisfaction: *Photos destinational*; *Entertainmental activities*; *Accessibility*; *Convenience*; *Tourism facilities*.

Photos destinational describe desirable features that attract tourists to specific destinations.

Entertainmental activities are various types of leisure and entertainment activities available as leisure activities on the beach, nightlife and more.

Accessibility is easy access to destinations, including issues as feeling safe when traveling, friendly locals, etc.

Tourism facilities is the style and standard of accommodation facilities available at the destination such as meal quality, room quality, hotel staff attitudes, etc.

Convenience is common facilities that guests require such as banks, ATMs, telephone services, shopping, Internet, etc.

Demographic includes age, sex, education, monthly income, etc. of the respondents.

The model determining the factors of visitors' satisfaction is as follows:

$$Y = f(\text{HAEM, SGT, STC, STN, CSVCDL})$$

In which:

Dependent variable Y is the measure of the satisfaction of tourists. Y receives two values: 1 - Satisfied with the quality of tourism services in Phu Quoc, 2 - Not satisfied with the quality of tourism services in Phu Quoc.

Photos destinational; *Entertainmental activities*; *Accessibility*; *Convenience*; *Tourism facilities* are independent variables.

3. Research results

3.1 Factors affecting the level of tourist satisfaction with the quality in Phu Quoc

3.1.1 Assess the reliability of the scales

In this paper, the author examines the reliability scale of the five factors: *Photos destinational*, *Entertainmental activities*, *Accessibility*, *Convenience* and *Tourism facilities*.

The scale is tested for reliability using the Cronbach's Alpha coefficient. The Cronbach's Alpha coefficient has to be 0.6 or higher and the correlation coefficient of variable - total of 0.3 or more will be included in the model (Nunnally, 1978; Peterson, 1994; Slater, 1995). In testing this model, the author will categorize each factor for analysis, then eliminate variables that do not meet the requirements.

Table 1: Evaluation of reliability of the scale

	Observation	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted
X2	Beautiful beaches	0,462	0,891
X3	Historic sites	0,396	0,892
X4	Visiting other islets	0,560	0,889
X5	Visiting fish sauce barrels	0,340	0,893
X6	Street vendors	0,408	0,892
X8	Enthusiastic hotel staff	0,539	0,889
X9	Hotel staff's foreign language and communicative skills	0,513	0,890
X10	Abundant pleasure activities on the beaches	0,434	0,891
X11	Phu Quoc Vinpearl Land	0,440	0,891
X12	Fishing from tourist boats	0,397	0,892
X14	Nightlife	0,416	0,892
X15	Safety and security	0,425	0,892
X16	Friendly locals	0,489	0,890
X17	Buying boat and airline tickets (in high seasons)	0,306	0,895
X18	Information about Phu Quoc tourism at airports and harbors	0,471	0,891
X19	Restaurants Menus	0,553	0,889
X20	Reasonable priced meals	0,466	0,891
X21	Well-equipped guest rooms	0,568	0,889
X23	Car and motorbike rental	0,438	0,891
X24	Shopping at Dinh Cau night market	0,557	0,889
X25	Local tourist information system	0,525	0,889
X26	Luggage handle at harbor and airport	0,521	0,890
X27	Shopping at local markets	0,482	0,890
X28	Availability of public toilets	0,492	0,890
X29	ATMs	0,587	0,888
X30	Security guards at beaches	0,465	0,891

Source: Survey, 2017

After eliminating X22, X1, X13, X7, the remaining 26 variables have a total correlation coefficient of greater than 0.3. Cronbach's Alpha coefficient analysis has yielded to be 0.895, which is satisfactory and can be used.

3.1.2 Exploratory Factor Analysis (EFA)

In the exploratory factor analysis, accepted variables with loading factor of 0.5 or higher (Hair et al, 1998) must also satisfy condition of $0.5 < KMO < 1$ then the analysis is appropriate. Bartlett test assumes the hypothesis H_0 : the correlation of observed variables is zero in the whole. If this test is statistically significant (Sig. < 0.05), the observed variables are correlated in overall (Hoang Trong & Chu Nguyen Mong Ngoc, 2005) and the cumulative variance test must be greater than 50% (Hair et al, 1998).

After 4 rounds of the EFA analysis with guaranteed reliability of testing (loading Factor > 0.5), from the first 26 observed variables, three variables are eliminated (factoring factor < 0.5) according to the principle of eliminating: one variable with the minimum loading factor will be eliminated first including V10, V5, V14.

Analysis results in KMO coefficient = $0.858 > 0.5$ so the research analyzes factors relevant to the research data. Bartlett's test results for the correlation of observed variables with mean Sig. = $0.000 < 0, 05$ so reject hypothesis H_0 : observed variables are not correlated in the whole). Thus, the hypothesis of the factor model is unsuitable and will be rejected, which proves that the data used for factor analysis is perfectly appropriate. Cumulative variance testing = $53.743\% > 50\%$ is satisfactory.

Table 2: Results of the exploratory factor analysis

Observed variables	Factor			
	1	2	3	4
X20	0,728			
X21	0,710			
X26	0,693			
X19	0,631			
X25	0,585			
X9	0,580			
X6	0,504			
X24		0,734		
X23		0,689		
X15		0,650		
X8		0,574		
X27		0,560		
X16		0,558		
X28			0,818	
X29			0,780	
X30			0,755	
X18			0,746	
X17			0,582	
X3				0,744
X12				0,678
X2				0,631
X4				0,619
X11				0,573
KMO = 0,858 ; Sig. = 0,000 < 0,05				
Total variance explained = 53,743%				

Source: Survey, 2017

Thus, in the factor analysis, there are four columns representing four groups of factors with 23 observed variables. All variables satisfy the criterion of the factorial analysis method and on this basis we also know each factor of observation variables, as follows:

Group F1 (Tourism Facilities) includes 7 observed variables: X20 (Reasonable priced meals), X21 (Well-equipped guest rooms), X26 (Luggage handle at harbor and airport), X19 (Restaurants Menus), X25 (Local tourist information system), X9 (Hotel staff's foreign language and communicative skills), X6 (street vendors). The variables have loading factor from 0.504 to 0.728.

Group F2 (Accessibility) includes 6 observed variables: X24 (Easy Shopping at Dinh Cau night market), X23 (Car and motorbike rental), X15 (Safety and security), X8 (Enthusiastic hotel staff), X27 (shopping at the local markets), X16 (friendly locals people). The variables have loading factor from 0.558 to 0.734.

Group F3 (Convenience) focuses on 5 observed variables: X28 (public toilets), X29 (ATMs), X30 (Security guards at beaches), X18 (Information about Phu Quoc tourism at airports and harbors), X17 (Buying boat and airline tickets in high seasons). The variables have loading factor from 0.582 to 0.818.

Group F4 (Photos Destinalional) consists of four observed variables: X3 (historical sites), X12 (Fishing from tourist boats), X2 (beautiful beaches), X4 (Visiting other islets), X11 (Phu Quoc Vinpearl Land). The variables have loading factor from 0.573 to 0.744.

3.1.3 Factors affecting visitors' satisfaction with the quality of Phu Quoc tourism services

In this analysis, the author analyzes the regression model of the logistic model - the model of the satisfaction of the visitors with the quality of Phu Quoc tourism services with the Y-value (Satisfaction level) to be a dependent variable, F1, F2, F3, F4 are independent variables with 22 observed variables and these variables are calculated by the average of the observed variables of that factor and multiplied by the factor of demographic (F5: Sex, F6: Age, F7: Education, F8: Occupation, F9: Income).

Table 3: Results of Binary Logistic regression analysis

Nhân tố	Hệ số B	Exp(B)	P> z
Constant	0,932	-	0,179
F1*: Tourism facilities	0,270	1,309	0,028
F2*: Accessibility	0,566	1,761	0,000
F3*: Convenience	0,266	1,305	0,031
F4*: Photos destinational	0,566	1,761	0,000
F5 ^{ns} : Sex	-0,074	0,928	0,645
F6*: Age	0,388	1,474	0,016
F7 ^{ns} : Education	0,174	1,190	0,211
F8 ^{ns} : Job	0,448	1,565	0,201
F9*: Income	-0,294	0,745	0,014
Observations (N) = 205 LR chi ² (9) = 62,74 Pseudo R ² = 0,1093 Prob > chi2 = 0,000 Log Likelihood = -255,547			

Source: Survey, 2017

Note: * Significance level of 5%, ns: this variable is not statistically meaningful

The analysis shows that 9 groups of variables are included in the model. There are 4 groups of variables (sig <5%): group 1 (tourism facilities), group 2 (accessibility), group 3 (convenience) and group 4 (Photos destinational). As the result of the model, positive coefficients show that these factors increase the probability of visitors' satisfaction. Age, Income of the respondents are statistically significant (sig <5%). The remaining 3 variables (Sex, Education, Occupation) are not statistically significant (sig > 5%). From the above results, we have regression equation estimating the factors that affect the satisfaction of tourists with the quality of Phu Quoc tourism services as follows:

$$\text{Loge} \left(\frac{P(Y=1)}{P(Y=0)} \right) = 0,932 + 0,270F1^* + 0,566F2^* + 0,266F3^* + 0,566F4^* + (-0,074)F5^{ns} + 0,388F6^* + 0,174F7^{ns} + 0,448F8^{ns} + (-0,294)F9^*$$

Where:

Y is visitor satisfaction; F1*: Tourist facilities; F2*: Accessibility; F3*: Convenience; F4*: Photos destinational; F5ns: Gender; F6*: Age; F7ns: Education; F8ns: Occupation; F9*: Income.

In general, all groups of variables are significant; the two groups F2 (Accessibility) and F4 (Photos Destinational) have the most positive correlation effects on visitors' satisfaction with Phu Quoc tourism service quality with the same coefficient of Beta of 0.566. Next is the F1 (Tourism Facilities) of 0.270 and finally the F3 (Convenience) with the smallest Beta of 0.266. Specifically, these groups affect the satisfaction of tourists with the quality of Phu Quoc tourism services as follows:

From the regression equation, when the satisfaction of visitors with the quality of Phu Quoc tourism services increases by one unit, the group F1 will increase by 0.566 units. This result shows that it is necessary to constantly improve the image quality of tourism, not only taking advantage of the natural beauty of Phu Quoc but also continuing to promote and enhance that attractive advantage by making a difference in the provision of attached services to make it easier for customers to access and experience some of the ways mentioned in the F1 model as easy to visit the relics, historical sites and to attract tourists from attractive entertainments not only from fishing.

Having the positive correlation effects of 0.566, the group F2 will also increase by 0.566 if the satisfaction of quality of Phu Quoc tourism services increases by one unit. The accessibility factor consists of seven major variables, which ensure convenience for visitors such as providing services such as car rental, shopping at local markets, etc. At the same time, the emotional experience for visitors should be taken into consideration such as ensuring safety and the style of service staff.

One of the next important factors to ensure visitors' satisfaction with tourism service quality is the group F1 (Tourism Facility) with the positive correlation coefficient of 0.270. The reason why visitors value this criterion is that at present, the criteria such as price of hotel rooms, food, etc. in not only Phu Quoc but all other places are also questionable, especially to foreign tourists. In addition, the level of foreign language or communication

skills of the tourism employees should be improved to meet the requirements. For both domestic and foreign visitors, the interaction with the staff is also important to their satisfaction. If the service attitude of the staff is not enthusiastic, visitors are not satisfied. Therefore, the human factor should be at the forefront in satisfying customer needs.

It is not just about the facilities of tourism. At industrialization and modernization time, the demand of visitors is increasing, so group F3 should be continually developed to satisfy visitors. According to the results, the F3 factor group will increase by 0.266 when the satisfaction with the quality of Phu Quoc tourism service increases by one unit. For this factor, the satisfaction of the travelers is often public toilets, ATMs, rescue workers.

Although the two factors - F6 (Age) and F9 (Income) - are the two demographic variables, these are also subjective factors of visitors' satisfaction. It means that visitors of different ages will feel differently about satisfaction. People at higher ages (especially middle-aged and older) are more likely to be satisfied than younger people. In addition to age, satisfaction depends on the individual's personality or characteristics. In contrast, the level of income is considered to be inversely correlated with the satisfaction (Beta = - 0.294). This is when the level of income increases by one million VND, the satisfaction decreases by 0.294. For high income people, the demand for quality of service is also higher, so it is necessary to constantly improve the quality of tourism services to meet the requirements of high-income groups.

3.2. Solutions to improve the level of satisfaction of tourists

First, improve the quality of tourism human resources

Offer more advanced language courses for staff, attendants in hotels, restaurants and tourist areas. Invite expert and well-known speakers with extensive experience in customer care skills to train working skills for employees in tourist resorts, restaurants and hotels. More rescue workers with trained basic first aid, swimming skills, etc. are needed at the tourist beaches to handle emergency situations.

Improve the service attitudes of the staff. Service staff at the tourist attractions must have enthusiasm, hospitality. This is very important because it will contribute to keeping visitors to Phu Quoc. In addition, local people should show friendliness when interacting with tourists. This not only makes visitors feel sympathetic to Phu Quoc but also can bring them income from tourism activities in the future.

Second, develop more services

Additional services such as medical services and banking services should be added to facilitate the development of tourism services, especially the construction of ATMs in tourist and entertainment areas to stimulate consumption from visitors. Build more entertainment areas such as bars, karaoke, casinos, gymnasiums, parks, football fields, tennis courts, swimming pools, especially nightlife activities. Invest in building more sports facilities on the beaches, such as volleyball and football, water sports such as boating, surfing, etc. to attract more tourists to Phu Quoc.

Third, upgrade the transport system and means of transport

It is necessary to concentrate on building and upgrading the transportation system synchronously, especially in rural areas so that there can easily and quickly connection with the urban areas. Install traffic lights, lights and road signs on the island, pave routes to tourist attractions.

Open more domestic and international and cheap flights to attract more visitors. Add bus routes from An Thoi to Duong Dong. Phu Quoc currently has no bus. Soon put the international port in An Thoi into operation in order not to waste budget, thereby shorten the travel time of visitors.

It is necessary to repair and upgrade the high speed boats to shorten the travel time between Rach Gia and Phu Quoc and vice versa. There should be additional snacks on board (cakes, fruit). There should be more staff on board to handle luggage. The cruise ships should be equipped with life-saving tools such as life jackets, rescue boats, seasick medicine to ensure safety when fishing. Add more equipment such as fishing rods, fishing nets so that visitors can easily catch fish because now the boats only provide each guest a very simple fishing rods. In addition, the boats should be equipped with specialized diving glasses for visitors when diving to see the coral.

Fourth, ensure security and safety at tourist resorts

Stop "overpricing" at tourist sites so that tourists feel more comfortable when traveling in Phu Quoc. There should be strict punishment measures when disturbing tourists. Tourism facilities, equipment and accommodation should also be cared to ensure food safety and hygiene. At the same time, tourist sites should not let drinking local people in to bother tourists.

Fifth, ensure environmental sanitation at tourist attractions

Set up cleaning teams at many tourist destinations such as Bai Sao, Bai Khem, Suoi Tranh. More garbage bins are needed on the roads. There must be a system to collect and treat waste. Build more modern waste

treatment plants to better handle waste. At the same time, mobilize people and visitors to raise awareness of environmental protection and hygiene in public places.

4. Conclusion

This study examines factors of tourism services quality in Phu Quoc Island as a basis for assessing the quality of tourism services and proposing solutions to improve tourism service quality on Phu Quoc Island. The results of the measurement model show that, after addition and adjustment of the scale, the reliability and validity of the scale are reached. The results show that there are four factors with 23 observed variables affecting the quality of tourism services in Phu Quoc. Specifically, these factors are Tourism Facilities, Accessibility, Convenience and Photos Destinalional. In addition, two demographic variables - age and income - also have an impact on the quality of tourism services of which age has a positive correlation and income has a negative correlation with tourism service quality. After analysis, most tourists are satisfied with the quality of their travel services. However, to develop Phu Quoc tourism comprehensively, it is necessary to promote all existing strengths, overcome limitations and regularly assess the level of satisfaction of visitors then find the appropriate solutions in time, contributing to the satisfaction of tourists then contributing to building the image of the "Pearl Island" in the heart of tourists and contributing to the development of Phu Quoc tourism to be more and more modern.

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Place Brand Positioning Based on Provincial Competitiveness Index: Implications for Danang City

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ABSTRACT

Danang has been leading the Provincial Competitiveness Index (PCI) since 2013. The index provides independent, unbiased information about the business environment in each locality of Vietnam. Based on provincial competitiveness index, many researchers and practitioners can understand how entrepreneurs perceive about every province or city. In addition, the cross-province differences in firm performance and the connection to provincial governance reforms also are considered. However, in order to attract investors who are the essential stakeholders of every place, the localities should not only rely on the scores of component indexes but also need to know their competitiveness. In reality, toward a province or a city, attaining high scores on PCI do not mean having competitiveness on the component indexes. This study uses multidimensional scale (MDS) and ALSCAL tool based on provincial competitiveness index to explore the differences among Vietnam localities. Then a perceptual map is formed to recognize the current locations of each province or city in investors' mind. The findings show that two indices groups building differentiation of Danang include: 1st factor – entry cost and proactivity, 2nd factor – land access and time costs. Some implications are given for Danang in positioning the city brand image based on differentiation.

Keywords: Place branding; place brand positioning; provincial competitiveness index; multidimensional scaling; Danang

1. Introduction

Building and developing place brand toward stakeholders such as residents, visitors, investors is one of the important issues of every locality. Places can differentiate their images in comparison with the other destinations. In the process of competition, each country, each province/town needs to have different ways of building the image based on their advantages. In reality, every locality, more or less, already owns a strength. A location need to position the difference as compared to the others.

Differentiation and positioning in operational management quality as a basis for communication, investors attraction is one of the steps in the process of developing branding strategies in general and place branding in particular. With the multidimensional scaling (MDS) approach based on data from 2011-2017 of the ten indices (provincial competitiveness index - PCI) conducted in Vietnam, the study forms a perceptual map in brand positioning to help build local branding strategies for the cities in the central critical economic region

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Additionally, the study of Tran, Grafton, and Kompas (2009) about institutional reforms in Vietnam also applies PCI and indicates that the development obstacles come from governance. Some issues in reforms implementation are related to providing information, property rights (land, contract enforcement and dispute resolution, administrative procedures and official arbitrariness). Among cities in Vietnam, Danang took the lead on the Public Administration Reform (PAR) Index from 2012 to 2015, followed by Hai Phong, Dong Nai, Dien Bien. This index reflects the annual performance and public administration reform of people's committees of provinces/cities under the central government management (danang.gov.vn). Beside the PAR index, the reform issues mentioned earlier have a relationship with the component indices of PCI. PCI is the more suitable index in Vietnam economic context. Not only in Vietnam, but PCI is also popular to evaluate provincial competitiveness such as the study of Wang and Wang (2014). As can be seen, in cases of making decisions involving multiple criteria, PCI is the proper one to consider.

According to Danang Investment Promotion center, last year Danang had 380 foreign direct investment (FDI) projects with the registered capital of 3.9 billion USD. In particular, 89 projects are inside the industrial zones, accounting for 28.01%. Japan is the dominant country where investors come. However, which attributes considered as attractions of Danang city toward investors are still limited.

In this study, city positioning which belongs to place branding is also a decision based on multiple criteria. That is why the study adapts PCI as a different way to the previous authors. By using mean values of 10 indexes since 2011, the perceptual map is formed to help the policymakers in knowing which attributes are appropriate for Danang in investors attraction.

2. Literature review

2.1 Provincial competitive index

Vietnam has achieved great success in attracting investment and enterprise development. The business investment environment has made remarkable progress and at the same time, has become an attractive business location for both international investors and domestic investors. To achieve these important achievements, not only reform efforts have been made by the central government and ministries, but also increasingly by major provinces and cities. The breakthrough in establishment and operation of the government over the past year is the decentralization of authority in licensing and management of investment activities for localities. Hence, provinces and cities have the favorable conditions, and the spirit of creativity, emulation, and competition to each other are encouraged. Additionally, the quality of economic governance, the administrative procedures for reformation can be improved. As a result, a more friendly and attractive image of business investment environment is created as well (Vu Tien Loc, 2007).

In Vietnam, provincial competitiveness can be seen most obviously through provincial competitiveness index (PCI). It is the result of the collaboration between the Vietnam Chamber of Commerce and Industry (VCCI) and the U.S. Agency for International Development (USAID). Due to some changes related to the merger of some provinces/cities and research environment, some criteria are no longer appropriate. Starting from 2013, the 10 measures used for the study include (1) Entry costs, (2) Land access, (3) Transparency, (4) Time costs, (5) Informal charges, (6) Bias, (7) Proactivity, (8) Business Support Services, (9) Labor training and (10) Law & order to gather the "voice" of private enterprises in 63 provinces and cities (Malesky, 2006). The index provides information related to provincial/city leaders on the impact of their policies on private sector operations. Indicators offer useful information for local leaders, helping them identify areas and ways to implement economic governance reforms most effectively. Some localities have similar natural conditions, but the different modes of management and local economic management lead to varying results in the perception of economic sectors. Thus, provincial competitiveness index again confirms that the economic governance plays a vital role in local development and prosperity.

2.2 Place brand positioning and development

Brand positioning is the creation of a brand's unique position in a competitive environment to ensure that each consumer in the target market can distinguish the brand from the other competing brands (DeSarbo and Rao, 1986). Brand positioning is important because it is directly related to the customer's thinking and perception. The model of Urde (1999) integrates core value positioning that relies on attributes to create awareness, belief, loyalty to the brand as well as the difference between the brand itself with the competitors. Therefore, marketers need to recognize the different "attributes" (indices) of each locality based on the cognitive

mapping that builds the image of the brand. In order to be able to position the brand successfully, it is necessary to carefully examine the current location and establish the perceptual map to accurately locate the brand as compared to its competitors.

According to Quang (2008), there is a positive correlation between the PCI and the place brand image index. In addition to the exceptions in establishing, developing place brand based on "preferential nature," such as produce, resources (natural scenery, underground resources, etc.), almost superior products or competitive advantages are human-made. Definitely, the future development of localities does not depend on geographical location, climate, natural resources. It depends on the expertise, skills, human qualities and local organization (Philip Kotler, 2002). Thus, the local planners need to consider developing a local brand through the creation of a good image, an attractive, impressive image towards the target market of the locality. In other words, building "unique arguments" to attract target customers is an issue need to be mentioned.

3. Methodology

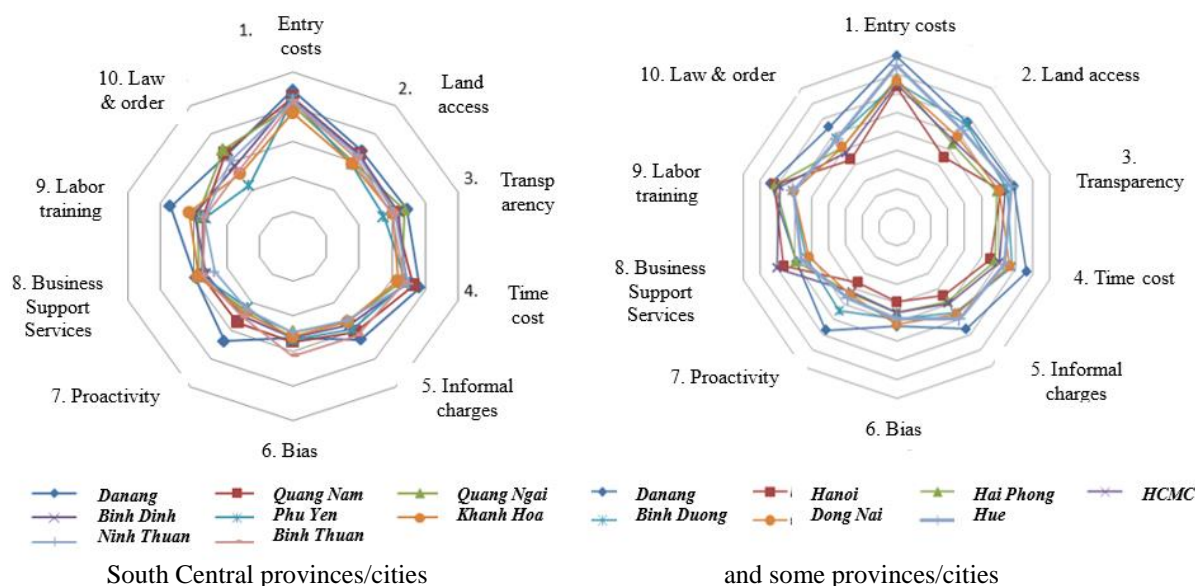
Locate identification and brand positioning are often based on perceptual maps through a multidimensional scale (MDS). The basis for establishing an MDS positioning method includes: (1) the ranking of critical attributes that the customer is interested in by each brand, and (2) the ranking of the differences between each of the characteristics mentioned earlier among brands in the same category (Gioi and Huy, 2006). The purpose of this task is to compare the advantages of this brand to other brands on the basis of the attributes perception and distinction between the actors involved. From this, reactions of competitors can be estimated, and brand positioning can be conducted more appropriately.

Within the scope of this study, the author used ten indices of the PCI index. The ten component indexes are: (1) Entry costs, (2) Land access, (3) Transparency, (4) Time costs, (5) Informal charges, (6) Bias, (7) Proactivity, (8) Business Support Services, (9) Labor training and (10) Law & order. It should be noted that the higher the component indices will be, the higher the PCI provincial competitiveness index. According to Quang (2008), there are many correlations between the PCI component score and position as well as the image of local (provinces and cities) brands. Although provincial competitiveness and place brand are not the same but localities can use the system of these positioning attributes (PCI indices) to communicate and develop the image of themselves.

The study considers the stability of the attributes in the perceptions of the interviewees (private sector) in assessing reform efforts and economic governance at the central and local levels aiming to change new economic management mechanism, improving competitiveness and creating the more favorable business environment for Vietnamese enterprises. The authors use the mean data of the period from 2013 to 2016 of the indicators in positioning analysis through a perceptual map. Multidimensional Scaling (MDS) with ALSCAL technique based on PCI indicators allow forming the cognitive map to be generated using SPSS 23 software. Regarding data, due to certain differences in natural condition, climate, culture between the North and South Central Vietnam, the study only focus on the comparison between provinces/cities in South Central Vietnam including Da Nang, Quang Nam, Quang Ngai, Binh Dinh, Phu Yen, Khanh Hoa. In addition, the comparison with some provinces/cities with potential and practical investment attraction such as Hanoi, Ho Chi Minh City, Hai Phong, Binh Duong, Dong Nai is also conducted.

4. Data analysis

As mentioned above in the methodology, for the construction of a positioning map, the study uses the mean of the PCI component scores based on the results of the PCI study for the years 2013-2016. The mean values of the component indices are shown in Figures 1 and 2.



Referring to Figures 1 and 2, we find that Da Nang is a city with high indexes as compared to the South Central provinces. Da Nang has many advantages concerning indicators (1) entry costs, (2) labor training, (3) proactivity, the pioneering leadership of city authorities. At the same time, compared with other provinces/cities such as Ho Chi Minh City, Hanoi, Hai Phong, Hue, Da Nang has more obvious advantages in terms of (1) entry costs, (2) proactivity, (3) informal charges and (4) time costs.

In order to facilitate local communication and marketing, awareness and differentiation in place attributes are one of the most critical factors. These unique traits should be used in the development of communication strategies, local brand development. In particular, it is easy to see the disparities of provinces/cities through the proactivity of local leaders, private sector development policies, and labor training. Typically, the local planners and the media look at the results of the provincial competitiveness index on the final index basis and the ranking of the provinces/cities yearly. However, it is imperative that planners need to take into account the composite indicators to see which strengths need to be worked out and where the shortcomings need to be addressed.

To understand the perception and assessment of stakeholders in the Provincial Competitiveness Index, here is the private sector assessment, the cognitive mapping on the basis of MDS method (with the ALSCAL tool) allows defining the specific positions of each province/city corresponding to the component indices. Based on the MDS (ALSCAL) analysis, the number of critical factors selected was 2. The correlation coefficients between the provincial competitiveness position of the South Central provinces/cities with the major components are shown in Table 1.

Table 1: Correlation coefficients of provincial competitiveness index (PCI) for key factors

No.	Provinces/Cities	Key factor	
		1	2
1	Danang	2.69	1.18
2	Quang Nam	1.44	0.01
3	Quang Ngai	0.36	-0.79
4	Binh Dinh	0.61	0.13
5	Phu Yen	-0.08	1.37
6	Khanh Hoa	-0.45	0.17
7	Ninh Thuan	0.91	-0.56
8	Binh Thuan	0.87	-0.94
9	Hanoi	-2.54	-0.2
10	Hai Phong	-1.35	-0.31
11	Ho Chi Minh	-1.59	0.45
12	Binh Duong	0.53	0.39
13	Dong Nai	-0.19	0.55
14	Hue	2.69	1.18

It can be seen from Table 2 that the indicators (1) entry costs, (7) proactivity of local leaders are closely related to the primary factor 1 because of their high coefficients. The elements which are (4) time costs spent to implement state regulations, (2) land access and stability in land use, (10) law & order have a strong relationship with the second major factor.

Table 2: Correlation coefficients between attributes (component indexes) with key factors

No	Attributes (component indexes)	Key factor	
		1	2
1	Entry cost	3.03	0.95
2	Land access	0.95	0.67
3	Transparency	0.40	-0.34

4	Time costs	0.98	0.89
5	Informal charges	-0.62	0.33
6	Bias	-1.38	0.32
7	Proactivity	1.34	1.02
8	Business Support Services	-0.38	-1.09
9	Labor training	-1.14	0.14
10	Law and order	-0.67	0.61

5. Discussion and implication

5.1 Perceptual map

The location of the provinces/cities on the cognitive map:

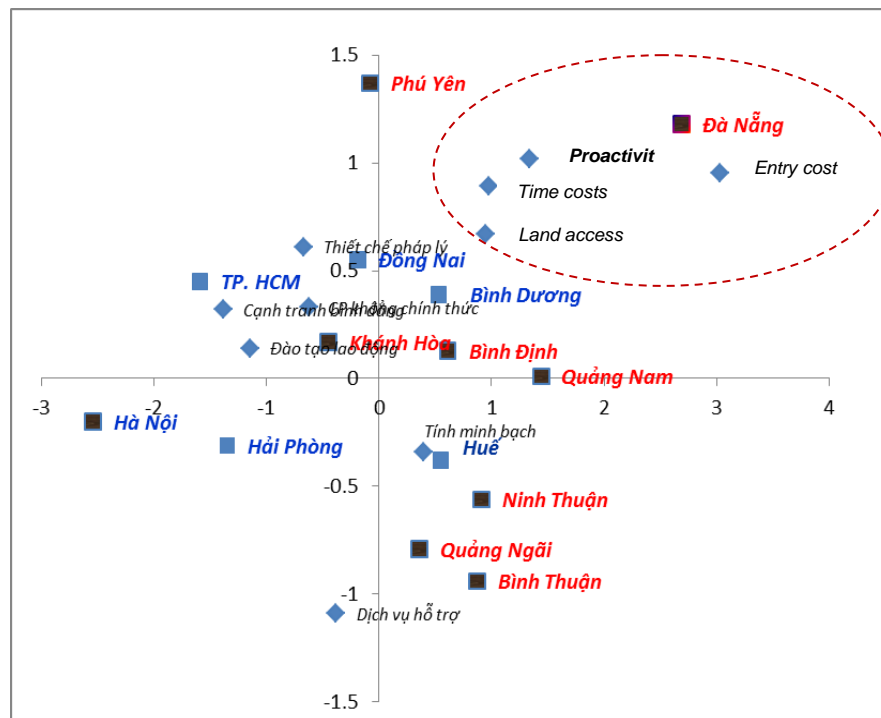


Fig. 3. Perceptual map of attributes (component indexes) and brand provinces/cities by key factors

In spite of leading many component indices of PCI, Danang cannot solely be based on these indexes to promote the advantages. High scores do not mean high competitive advantages. The more important thing is city image makers need to know which attributes are different to the other provinces/cities.

Figure 3 shows the brand awareness map of the trader in general or the private sector of the place brands with the ten sub-indices of provincial competitiveness. Through this, provinces/cities will easily recognize the brand position of their localities in the perception of entrepreneurs. The more closely to an attribute (component index) a place brand is, the more likely the brand will be identified by the investors through that attribute. In other words, a place can distinguish itself from the others based on the superiority related to the attributes closer to them. In this case, the algebraic length is used to consider the distance of each place brand to the center of the factor group (ideal point).

As can be seen on the perceptual map, Danang has a dominant position as compared to the other localities in the central critical economic region and some other provinces/cities, especially for attribute (1) entry cost, (7) proactivity, (4) time costs, and (2) land access. This dominance is also reflected in the fact that in recent years, when city government has been trying to implement the one-stop policy, ensuring the provision of public services in the shortest possible time. The city departments also survey customers' evaluation of public services

to understand their requirements and satisfy them. Besides, Danang advantages come from the city government and departments coordination effectively in their essential tasks. Danang administrative procedures continue to be implemented well with one-stop policy, one-door mechanism: 100% specialized agencies, districts, wards and communes synchronize the one-stop mechanism, contributing to eliminating unnecessary procedures, saving time and costs for citizens and organizations. Hence, the time of enterprises establishment is shortened, procedures for tax declaration and payment are completed. As a result, the percentage of enterprises making online tax payment declaration is increased, the electronic tax payment is encouraged. Many other procedures are simplified and the processing time is reduced. Some procedures can be listed such as an application for construction permit, certificate issuance of land usage right, environment appraisal report, design and approval of fire protection.

Da Nang City has also promulgated and implemented many programs, schemes, mechanisms, and policies to support and encourage enterprises to overcome difficulties for stable development. Since 2014, the implementation of the Business Year Program has had a positive impact on the business community, which is highly appreciated by business associations, enterprises, and entrepreneurs. These efforts are the antecedent to boost the implementation of the Enterprise Development Scheme until 2020 of Danang. City leaders always look for and develop more channels of contact, dialogue, discussion, determination to accompany business. The process of solving problems and obstacles for enterprise also is flexible and creative.

5.2 Differentiation based on component indices

In reality, the higher scores of component indexes, the more efforts of local government have already been conducted in providing better services to investors. However, to create the differentiation, it is necessary for localities to create an absolute difference in scores compared to the rest provinces/cities. It should be noted that brand competition (especially place brand) is not a face-to-face confrontation but a "parallel race." In some other competitions, a developed business can "suppress" competitors, but in place marketing, this is almost impossible to accomplish. The winner in the competition is the override, not the preventer. Thus, the classical competition methods such as face-to-face attack, flank attack, guerrilla attack in the principles of Philip Kotler are no longer appropriate. In the outdated thinking of "competition by destroying the enemy," the localities put together solutions such as price reduction or dumping to attract customers (here are the investors) (Quang, 2008). This fact leads to severe consequences, damaging the value of a country as a whole. Hence, in order to be able to develop, provinces/cities need to improve their indicators and, at the same time, need to select one or more indexes for their localities to differentiate themselves as the basis for place brand positioning.

As compared to the results from Huy (2013), the index 'proactivity' of the local leaders is still the dominant characteristic toward investors in Danang. In the period 2009-2011, beside 'proactivity,' two indices 'land access' and 'time costs' are advantages of Danang in positioning. In spite of high score in entry cost, this index is not the basis for Danang to differentiate itself. However, nowadays the perceptual map shows the role of entry cost in city branding. Additionally, the two remaining indexes (land access, time costs) from the previous results also appear in this study. In general, to aim to investors, entrepreneurs as the crucial stakeholders, Danang should brand itself involving to proactivity, entry cost, land access, time costs. Danang should build a consistent, brief, clear communication message to attract these audiences.

Beside choosing proper communication channels, it is necessary to have sync in coordination among governors. Small and Medium Enterprises Association, Young Entrepreneurs Association should be considered as communicators of the real value of Danang business environment. These associations already show their roles in creating the dynamic entrepreneurial background for Danang. However, Danang government needs to have the policy to take advantages of their supports in promoting city brand. Additionally, the other stakeholders such as citizens, overseas Vietnamese, international students, tourists can become the effective communication channels. If they are satisfied with Danang regarding leadership proactivity, the investors will have the positive perceptions on city image. The attributes like entry cost, land access, time costs will be the consequences based on this proactivity.

More specifically, the proactivity of city leaders has already been famous for a long time. This indicator has been reflecting the image of Danang leaders with policies related to planning, compensation, "five no, three yes" program, enterprise supports. In spite of this, Danang needs to have an annual message that is consistent with the long-term message aims to citizens and businesses. Since organizational marketing can be adapted to city marketing, Danang can consider this as a public relation strategy toward its community. The legal frameworks, flexibility, clarity need to be awarded in addressing obstacles to the private enterprises. In reality, Danang leaders had many specific, pioneer policies that even are preceded as compared to the central state policies.

These actions are perceived positively in views of citizens and visitors. Notably, the official web portal of Danang (www.danangcity.gov.vn) is helpful in spreading the efforts of city governors in conducting one-stop shop policy, improving public services.

Regarding to entry cost and time costs, the state departments need to clarify the procedures for setting up a business. Besides this, the instructions in details for business registration, supplementary registration, kinds of necessary documents/certificates/permits also need to be informed. Danang can promote the improvements in these issues, especially the role of the documentation consultants at the receiving agencies. Publicity campaign can be considered to conduct in Danang also. As compared to other cities, Danang has advantages from 'land access' attribute which is the issue that any investor ponders in location decision for the business. Danang publishes the procedures related to Land Hand-over/ Land Lease, issuance of Construction License, Land Use Right Certificate, Transfer of Land Use Right Certificate for investment projects.

Notwithstanding, the official web portal of Danang does not mention the differentiation of the city. The reasons why investors should choose Danang are a strategic location, plentiful and educated human resources, developed physical infrastructure and investment support services, dynamically growing economy, expanded physical infrastructure and investment support services. No words related to proactivity of the city leaders, land accessibility, ideal costs (entry cost or time costs) for starting a business are mentioned. Hence, Danang needs to position itself based on these attributes instead of general statements as shown in the web portal. Also, the unique design of Danang administration center should be promoted as not only a symbolic office of the modern city but also a convergence of all administrative departments, a proof of efforts in cost reduction and proactivity of Danang.

6. Conclusion

The study has attained the purposes involving to understanding the attributes (component indices) of Danang city brand. Based on these indexes that exceed from PCI, Danang can know its location on positioning as well as in the perception of investors. As stressed above, place branding must first be part of the plan and be the responsibility of local leaders in the strategy for economic development. Additionally, there must be a combination of residents and businesses in each sector. In place marketing, the human factor plays an important role, especially for investors. Therefore, a proper brand positioning strategy that is consistent with the development goal must be built on the basis of the local image in the investor mind. Only when the "homeowners" feel and realize the values and branding goals that their local communities are aiming for, the provinces/cities have the right to hope for a broader promotion toward foreign investors.

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Urban Heritage Image Based on Destination Brand Personality: The Case of Danang City, Vietnam

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ABSTRACT

Danang had entered the new stage of tourism development since 2017, and the city's action planning is currently consistent with national strategy and the promulgation of tourism law. It has also been ten years since Danang became the city under the central administration. Aiming to a fantastic destination, the image of Danang is promoted through urban tourism with many advantages taken from strong urbanization. This study applies the text-mining methodology, aims to explore how urban image formed with which destination brand personalities. Based on online reviews retrieved from TripAdvisor, 12 traits related to four dimensions of Danang brand personalities is explored. These dimensions are sincerity, excitement, competence, and sophistication. The results show that excitement and competence are dominant personalities of Danang urban heritage image with the coverages are 6.31% and 2.86%, respectively. Some implications for city image promotion and further research also are suggested.

Keywords: Urban brand image; destination brand personality; urban heritage tourism; museum; Danang

1. Introduction

Danang city – one of the major urban centers of Vietnam – has been pursuing the goals fast and sustainable economic development, be a socio-economic center of Central Vietnam. Danang has entered the accelerated urbanization to become an industrial tourism city before 2020. The urban economic structure is increasingly diversified in the direction of increasing the density of the service sector, reducing to a certain extent the proportion of the industrial and agricultural sectors. GRDP structure of Danang in 2016 focused mainly on construction industry (30%) and service (57%) (*Danang Statistical yearbook 2016, 2017*). Among service industries, tourism is one of the most notable ones, contributes not only to the socio-economic development of the city but also changes the urban appearance.

Along with the internationalization, Danang brands herself as a fantastic, memorable destination with many attractions. Being a significant point linked to UNESCO heritage sites which are Hue citadel, Hoi An ancient town, My Son sanctuary, Danang has an action planning based on regional tourism advantage. The rapid of urbanization also boosts the development of Danang urban tourism. Receiving advantages from urban, almost cultural destinations are urban destinations (Kavaratzis, 2005). Additionally, urban heritage tourism – the salient form of urban cultural tourism is the most basic manifestation of urban image. Despite the important role of

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urban heritage tourism towards Danang image, there is a lack of researches consider perceived image about Danang through this kind of tourism. Hence, this study tries to explore Danang urban image and which dimensions form the overall image. Text-mining method and content analysis are applied to analyze online reviews of Danang museums visitors. The findings give some managerial implications toward Danang city image makers and academic implications for further studies.

2. Research context

2.1 Urbanization

According to (Thong, Tue, & Phu, 2009), the urban population has multiplied over the last 50 years. In 1950 there were about 706.4 million people (29.2%), this figure was 2.6 billion (44%) in 1998, and in 2002 increased to 2.9 billion people (47.7% of the total population). Among these, about 2 billion people live in developing countries, and nearly 1 billion people live in developed countries. The United Nations estimated that there would be 5.1 billion people living in urban areas by 2025, of which the number of people living in developing countries is about 4 billion. In Vietnam, urban areas are formed and developed together with the socio-economic development. The pace of urban development in Vietnam is glacial compared to other countries in the region and the world. However, within the territory, Da Nang is considered as a city with much faster urbanization than other regions in the country. Within 15 years, Da Nang has launched many projects, many new urban areas. Since 2000, Da Nang has lost about 4,000 hectares of agricultural land and rural areas. It is not just the process of moving farmers to industrial, commercial labors and other services, urbanization in Vietnam, as well as Danang, also attaches importance to sustainability, developing urban clusters, urban routes, urban villages. Danang advocates expanding urban space to the west, northwest, southwest, south, and southeast of the city. Along with that policy, in these areas formed new urban areas, the “huge” urban series was born. Urbanization is widespread with many projects. It can be said that Danang is a city of urban projects. Some new urban areas can be listed such as Phu My An, Hoa Xuan ecological urban area, Daewon City. In which Phu My An urban area has been built for nearly ten years with the scale of 643.423m², located near the center, near the crowded residential area

Coastal routes such as Nguyen Tat Thanh, Hoang Sa, Truong Sa are considered as three of the most beautiful coastal roads in Vietnam today. In the early 2000s, Danang has just over 360 named roads, up to now more than 1,260 named roads. Hundreds of urban areas, thousands of new residential areas have appeared. The appearance of the city changed, people's lives improved significantly after the 1997 centralized city to the present. Regarding urban size, the urban area, from 5,000 hectares in the early 2000s, has increased more than three times by 2015. The implementation of a series of projects to renovate, embellish and build new urban areas marked by projects such as Thac Gian - Vinh Trung, Bach Dang Dong, Lien Chieu - Thuan Phuoc, Khue Trung - Hoa Cuong, Danang University Village, roads such as Nguyen Tat Thanh, coastal road Son Tra - Dien Ngoc... Danang urban space is no longer limited in some wards of Hai Chau and Thanh Khe as before. So far, Danang has been expanded to 6 urban districts with large-scale, infrastructure is commensurate with type I urban. The city directly extends industrial, manufacturing zones, factories, tourism services, restaurants, hotels everywhere, especially Hoa Khanh - Lien Chieu, An Don, Son Tra export processing zones, Ngu Hanh Son, Son Tra - Dien Ngoc, Cam Le - Hoa Vang urban area. Besides the expansion of industrial zones, Danang also focuses on building commercial and service urban centers, administrative center, sports entertainment areas, museums and especially expanding the street system, building bridges over the Han River (Manh, 2016).

Danang's transportation infrastructure has been modernized in the last two decades. External transportation has contributed to consolidating Danang as a center for economic development in the central key economic region. Hai Van tunnel was put into operation in 2005 to help vehicles avoid the Hai Van Pass in the trade on Highway 1A (trans-Asia road AH1). The avoiding route Hai Van tunnel runs through Hiep Hoa Bac, Hoa Lien, Hoa Son, Hoa Nhon and Hoa Tho Tay communes, thus facilitating the attraction of west and northwest industrial zones then go to the old Highway 1A. Route AH17 (starting from Tien Sa port on Son Tra peninsula, running along the Han east riverside, passing Tien Son bridge (inaugurated in 2004), intersecting with NH1A, Thanh My (Quang Nam) and linked to Ho Chi Minh.

Furthermore, Danang is the most important rail transport hub in the Central. Danang station is a type 1 station, located in Tam Thuan ward, Thanh Khe district. As planned, this station will be relocated to a new location in Hoa Minh ward (Lien Chieu district). Da Nang also has a large cargo terminal is Kim Lien station (Lien Chieu district). In addition, Danang International Airport (in Hai Chau district) is the third largest airport in Vietnam. Currently, there are nine domestic routes, 39 international routes to and from Da Nang. The new airport is just invested with the domestic terminal (T1), the international terminal (T2), the VIP terminal and

cargo terminal.

Regarding sea freight, Da Nang seaport is a national port, a regional focal point (type I). In the transportation planning of Vietnam to 2020, orientation to 2030 (*Project on revising and adjusting the planning on development of Vietnam's shipping by 2020 with orientation to 2030: Final report, December 2013.*, 2013), this is the international gateway in the central region. Tien Sa wharf is a deep-water port receiving 30,000-50,000 DWT vessels, 4,000 TEU container ships and tourist ships. Son Tra wharf area is a new wharf currently used for Tien Sa and Son Tra ports. Lien Chieu wharf is a specialized port used for bulk cargo and liquid cargo for industrial and service establishments. This terminal has advantages to develop into a main wharf area, which can be a deep-water harbor in the future, replacing the function of Tien Sa wharf in receiving goods (*Statistical yearbook Database*). The area of Han River wharf is gradually being relocated, changing its functions. Tho Quang wharf is a specialized wharf for local needs.

The Central Business District (CBD) of the city has been forming clearly at the roads axis area linked between Han River bridge and Dragon bridge. In Hai Chau district, the west is Chi Lang Stadium, which is expected to have high-rise commercial-service complex. The north of Hai Chau is Le Duan street; the southern is Nguyen Van Linh street. In the area of Son Tra district, the north is Pham Van Dong street, and the south is Vo Van Kiet street. The north of the CBD is the administrative center district of the city in which there is Ly Tu Trong street. Le Loi, Le Duan, Bach Dang streets are located at the west, the south, and the east of the CBD respectively. The centers of culture, education, medical services, sports are aggregated at the north of the city, mainly at Hai Chau district, Thanh Khe district, and the North Hoa Khanh ward, the South Hoa Khanh ward of Lien Chieu district. As planned, these centers will be relocated at the south of Danang, especially in Ngu Hanh Son and Cam Le districts (see more in Figure 1).

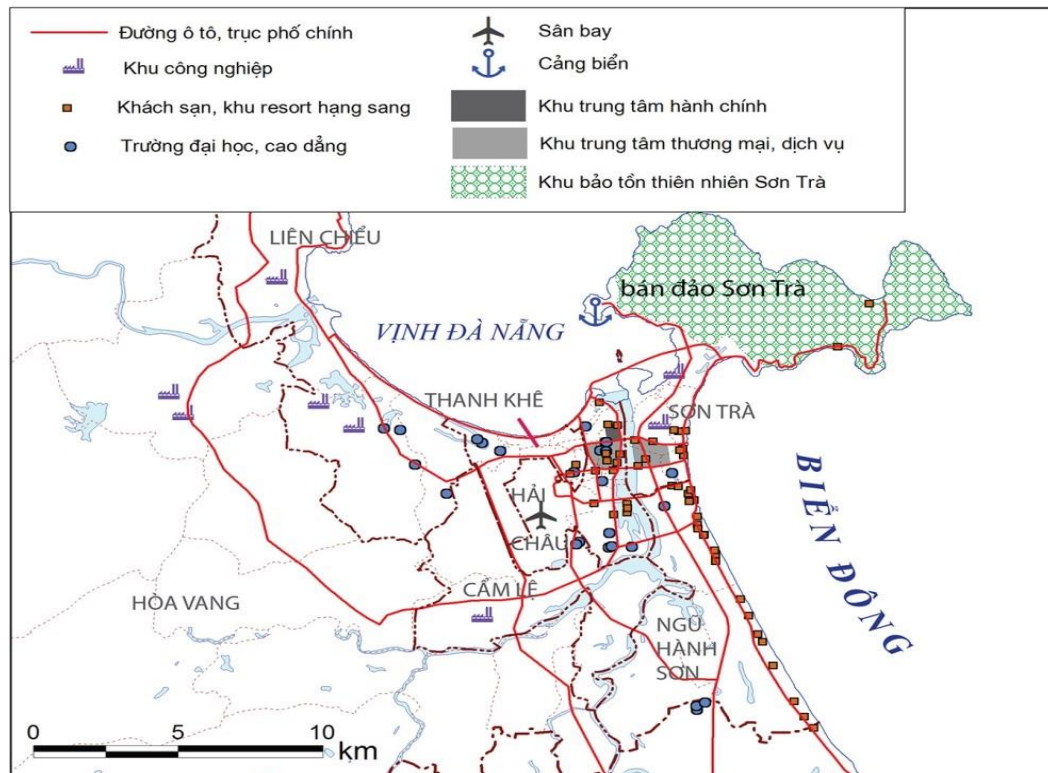


Fig. 1. Danang urban spaces (Nguyen & Thinh, 2018)

2.2 Tourism development in Danang

Danang tourism is closely linked with the neighborhood Hue and Quang Nam, creating the axis of Hue - Da Nang - Quang Nam. The tourism development of Danang is not only through the exploitation of tourism resources in the city, but also by the regional and inter-regional linkages. Hence, the three provinces have same orientations: heritages, sea resorts, eco-tourism, and community tourism. Four world cultural heritages in these three provinces are Hue ancient capital, Nha Nhạc royal court in Hue, Hoi An ancient town, My Son sanctuary.

This tourism axis is also famous with many beautiful beaches, ecotourism sites such as Bach Ma National Park, Son Tra Nature Reserve, Ba Na Hill, Cu Lao Cham - Hoi An Biosphere Reserve, traditional villages. Particularly in Danang, there are attractions such as Hai Van pass, Son Tra peninsula, Ba Na mountain, Ngu Hanh Son, My Khe beaches, Non Nuoc and cultural resources such as Cham sculpture museum, Dien Hai citadel, Non Nuoc fine art village. Also, there are some ancient architectural legends (communal houses) and French architectural heritage. Typical tourism products include sea-island tourism, cultural tourism, heritage tourism, MICE tourism (meetings, incentives, conferences, exhibitions) (*Comprehensive Planning in Vietnam tourism development to 2020, the vision to 2030*, 2013). In addition, Danang has international tourist resources by air through Danang International Airport, by sea via Tien Sa port and by road (from Thailand, Laos) through the port of entry. Danang has become a successful MICE tourism center of Vietnam. Some festivals and events can be listed as the international sailing Clipper Race, International Tourism Fair Danang, Asian Beach Games - ABG5, International Conference on Tourism and Sports (2016); the Asian Golf Tournament, the Danang tourism investment summit, the 20th Vietnam Film Festival, and APEC (2017). Many events have become annual events such as Danang Fireworks Festival, Opening the sea tourism season program, Danang summer vacation.

According to Report of Danang Department of Tourism (*Tourism activities Report 2016, direction and tasks 2017; Tourism activities Report 2017, direction and tasks 2018*), in 2016, the total number of visitors to Danang was 5.51 million. By 2017, the total number of tourists was estimated at 6.6 million, of which 2.3 million international visitors and 4.3 million domestic visitors. Total tourism revenue was estimated at 16 trillion VND (2016) and 19.4 trillion VND (2017). As shown in Danang Statistical yearbook (*Danang Statistical yearbook 2016, 2017*), **Error! Reference source not found.** tourism revenue of accommodation establishments in 2016 was VND 4.6 trillion, of which private establishments accounted for 62.1 %, foreign-invested establishments accounted for 33.7%. Turnover of tour operators was 1.47 trillion VND, of which private establishments accounted for 58.7%, and foreign-invested establishments accounted for 40.2%. State-owned enterprises make up only 1-2% of the revenue structure of tourism. In 2016, service sectors valued at 39.8 trillion VND, accounting for 57% in Danang GRDP structure (*Danang Statistical yearbook 2016, 2017*), of which tourism contributes a great deal of. The development of tourism also created the highlight in the appearance of Danang urban, in accordance with urban planning.

Furthermore, in accordance with the validity of *Resolution No. 08-NQ/TW dated 16/01/2017 in developing tourism as a key economic sector 2017*, the Vietnam Tourism Law was promulgated on 19th June 2017. The attention of Danang for tourism is also marked by Danang tourism investment seminar on 14th October 2017 which aims to international tourists' need. At the end of the year 2017, Danang people's committee promulgated Action planning No. 10652/KH-UBND dated 30/12/2017 for Danang tourism development. In the planning of Danang city, (*Decision No. 2357/QĐ-TTg dated 4/12/2013 in approving Danang city planning adjustment to 2030 and the vision to 2050.*, 2013) **Error! Reference source not found.**, the tourist space is arranged as follows: Beach tourism along the Danang bay, from Xuan Thieu to Nam O - Truong Dinh - Hai Van; in the east from Son Tra Peninsula to Quang Nam. Ecotourism of rivers and lakes is located along Han River - Vinh Dien - Cam Le, Co Co, Cu De, Dong Nghe lake. Other ecotourism is positioned in a mountain resort in Ba Na, Suoi Mo tourist area. In addition, there are some historical sites such as Cham museum, Dien Hai citadel, Ngu Hanh Son historical park, K20 relic, Nghia Trung - Khe Trung historical site.

As can be seen in Figure 2, there is a similarity between tourist attractions and urban spaces of Danang which are shown in Figure 1. Almost museums are located in Thanh Khe and Hai Chau districts. Urban transportation has become an inevitable element of Danang tourism development.

In Danang seaside, there are new, beautiful and modern tourist routes such as Nguyen Tat Thanh street running along Danang bay, connecting with Thuan Phuoc bridge, Le Duc Tho street (Son Tra peninsula) and crossing Hoang Sa road, connecting the second coastal route. The second one starts at Hoang Sa Street, which runs through the Son Tra nature reserve, winds along the southern peninsula, then joins Vo Nguyen Giap Boulevard, Truong Sa road, and along this coastal road to Hoi An ancient town. These tourism routes contribute significantly to the development of coastal resorts and resorts in Danang.

Before 1975, there was only a road bridge (now Nguyen Van Troi Bridge) and a railway bridge (the old Tran Thi Ly bridge, which was demolished) across Han River in Danang. Since 2000, there have been five modern road bridges built and put into operation: Han River bridge (2000), Tien Son bridge (2004), Thuan Phuoc bridge (2009), Dragon bridge (2013), Tran Thi Ly bridge (2013). Among these, Tien Son bridge plays an important role in transporting goods to Tien Sa port on trans-Asia road AH17, while four other bridges are popular with tourists, which are the symbol of Danang city. They also contribute to attracting residents and service activities to the east bank of Han river.



Fig. 2. Danang tourist map

(Source: dichungtaxi.com, modified from tourism.danang.gov.vn/ban-do-du-lich)

With the characteristics of a resort tourism center, Danang has a dense density of accommodation. According to Danang Statistical Yearbook (*Danang Statistical yearbook 2016, 2017*), in 2015, the city has 781 accommodation establishments, with 18,672 rooms and 28,023 beds. Five-star hotels and resorts such as Vinpearl, Furama, Pullman, Hyatt are concentrated mainly on the east coast, mainly from My Khe beach to Quang Nam province. In addition, the Intercontinental Danang Sun Peninsula Resort and Son Tra Spa & Resort located at unique positions in Son Tra peninsula.

Son Tra Nature Reserve in which forest ecosystems on land and grass, coral on the island included is a treasure trove of the city. The reserve is famous for its biodiversity, including 22 endangered species such as wildcat, pygathrix (red-shanked douc). Tourism planning on the Son Tra Peninsula has been reviewed and adjusted to keep a balance between economic benefits and reservation. Despite this, the most favorable locations for the construction of tourism services have become private assets that bring inconvenience to local people because of having no access to the beach, most notably in the area of Khue My (Ngu Hanh Son district). Solving conflicts of resources usage is a key part of sustainable development.

3. Literature review

3.1 Urban brand image as a tourist destination

Urban branding can be understood as city branding based on culture and entertainment. Urban branding is a place-making form to attract different stakeholders positively, especially creative class people (Jensen & Richardson, 2005; Kavaratzis, 2005). According to Kavaratzis (2005), almost cultural destinations are urban destinations since strong advantages are aggregated in urban. On new residents attraction perspective, urban branding related to living moments of a city: production, text, and context (Gibson, 2005). In addition, cities can attract tourists and investors through images of urban vitality. If a city has an image problem, it will be an obstacle for new residence and investment. That is the reason why cultural symbolic is mentioned as a solution.

Hence, tourists and suburban shoppers, investors can be attracted (Kotler, Haider, & Rein, 1993). As the result of this, public school funding, retail, and housing development can come together, and all city residents will gain benefit. The symbolic and material resources struggle can be dealt with media studies (Gibson, 2005, p. 261). To get away from misconceptions in visitors' mind about urban life, city planners can promote the urban images through digital channels and offline channels.

Thorns and Palgrave (2006, pp. 141-143) mention the relationship between urban tourism and place-making that encourage visiting and returning to the central cities. Then, the inner-city population will be increased as a result. Urban tourism has been diversifying with old buildings/heritage preservation, new attractive construction, mega malls and culture-led marketing. In other words, urban tourism is the remaking of city spaces in consistence with tourism urbanization. Moreover, the urban tourists will have perceived images of cities through city image-makers' lens. Besides the purpose of investors and visitors attraction through the landscape, building and social practices, positive city image toward residents is a significant element for place promotion. The border between reality and illusion will be blurred through tangible (geography-space) and intangible things (historical story telling - time) (Massey, 1995; Thorns & Palgrave, 2006).

As stated by Kolb (2006, pp. 4-12), tourism development results from the transportation infrastructure development, disposable income increase, and communication technology improvement. This growth provides chances for any city to develop itself as a tourist destination. In addition, tourism growth can also change the city image more positively, attracts new residents and new entrepreneurs. When cities market themselves as tourist destinations, a physical city such as building, city's geographic setting, cultural facilities or religious buildings; tourist services such as accommodations, cuisine, festivals, events, arts, entertainment; the lifestyles and value of residents are included. Arising from these aspects, the image of a city can be exciting, historical, charming, friendly, beautiful, artistic, ethnic, spiritual, licentious, family fun. According to marketing perspective, city branding is one part of city promotion process that involves placing the city image in potential visitors' mind.

3.2 Urban heritage tourism

Heritage tourism is a production or reproduction of the previous culture, approached in the relationship between heritage and tourism as proposed by Nuryanti (1996). She analyzes the meaning of heritage in relevance with an inheritance that is transferred thing from previous generations. Hence, heritage belongs to a cultural tradition that is combined with the modern term *tourism* become heritage tourism. In other words, heritage tourism occurs within a society that traditional and modern culture are mixed. Heritage tourism or cultural heritage tourism is involved in national, regional, local cultures to attain international identity. The definition of virtual reality is mentioned in tourism context which ways to communicate with the past are found. Contemporary tourists can connect the past by using their imagination through self-discover journeys. Regarding the tangible aspect of culture, heritage is manifested as monuments, historical remnants, artifacts can be displayed in museums.

According to Chang, Milne, Fallon, and Pohlmann (1996), urban heritage tourism should be seen as a global-local nexus which is consistent with global economic trends. Waterfront zones reflect the convergence of global cultural trends through city authorities' line. Thus, urban planners often choose heritage tourism as a unique identity to differentiate their cities from the others. The authors mention the need of global-local harmonization which reduces the conflict among city stakeholders. Consequently, unique urban development is related to perceptions of visitors. Heritage expresses images of an urban culture that is helpful in creating a competitive profile.

3.3 Destination brand personality

Crompton (1979, p. 18) stated that image is the sum of beliefs, ideas, and impressions that a person has for a destination. According to Eliahu and Shaul (1993), the image is a product of information passing through a set of filters which can be the information source, cultural and physical factors. The urban image is formed from the available cognitive structure through selected perceptions. Two main dimensions of overall destination image are cognitive and affective evaluation (Baloglu & McCleary, 1999). Additionally, symbolic and emotional based benefits of viable city brand image creation can capture tourists' attention effectively (Usakli & Baloglu, 2011). So far Apostolopoulou and Papadimitriou (2015) consider destination personality in relation to the experience of consumer and how its role in forming destination image. The authors also develop a holistic expression of urban destination personality through the perception of different city stakeholders.

The terms brand image and brand personality have been used interchangeably in the literature ((Graeff, 1997; Smothers, 1993), cited from Hosany, Ekinci, and Uysal (2006)). Developed from previous studies of researchers

who use human personality as a basement for brand personality measurement, Aaker (1997) defines brand personality as ‘a set of human traits associated with the brand’ with five dimensions: sincerity, excitement, competence, sophistication, and ruggedness. These dimensions are adapted in research of Hosany et al. (2006) in which 27 traits among original 42 traits were retained. The authors also approve that Aaker’s brand personality scale is appropriate for places. In the tourism sector, Baloglu, Henthorne, and Sahin (2014) consider the overall destination image of Jamaica about cognitive and affective evaluation, equivalent to rational and emotional benefits (Hosany & Ekinici, 2003), and its brand personality. Similarly, Alejandro, Jesús, and Nieves (2016) suppose that branding cities as destinations can be attached to their personality management. Hence, city identification can be reinforced through understanding tourists’ perception. The results from these studies show that destination brand personality reflects five dimensions proposed by Aaker (1997).

4. Methodology

This study adapts Aaker’s brand personality scale with the explanation of five dimensions from Alejandro et al. (2016) in both terms of direct and indirect aspects. Since 2017 is the remarkable year with a national strategy in tourism, tourism law promulgation, and action planning for Danang tourism. The research scope is urban heritage tourism in Danang city of Vietnam from 2017 to now. The sample includes museums of Danang: Danang museum, Cham Sculpture museum, Danang fine arts museum, Ho Chi Minh museum – Region V military branch, Dong Dinh museum.

The online textual representation of Danang urban heritage tourism through 289 TripAdvisor reviewers was retrieved in June 2018. This is a leading source of user-generated data using English as the main language for reviewing, sharing travel experiences and perceptions. Its platform includes not only the opinions of visitors who already experienced the place, non-visitors who have intentions to travel but also from residents sometimes.

As noted by Echtner and Ritchie (1993), using unstructured methodology can form the more holistic picture of a destination image. According to Wong and Qi (2017), a non-iterative collection procedure makes the unstructured data like this more objectively. Text-mining techniques are adopted to analyze the thematic contents since 2017. The languages other than English are translated into English for analysis. The text-mining tool - Nvivo 12 Plus - is used for content analysis. The target content is Danang urban heritage tourism related to museums within the urban spaces of Danang since almost cultural destinations are an urban destination (Kavaratzis, 2005), and urban tourism includes old buildings/heritage preservation (Thorns & Palgrave, 2006). Based on frequencies of texts for Danang urban heritage image, the authors define which destination brand personality they belong to and categorize them into different themes.

5. Data analysis

5.1 Data description

Urban heritage tourism of Danang is manifested through museum tourism since almost museums are located at the heart of Danang. The number of online reviews for five museums is 289. Among them, Cham sculpture museum is dominant with 197 reviews (68%), followed by Danang museum (38 reviews), Ho Chi Minh and military zone V museum (33 reviews), Danang fine arts museum (20 reviews), and the least popular one – Dong Dinh museum (only 1 review).

Dong Dinh, the only private museum in Danang that is located at Son Tra peninsula, not too far from Thuan Phuoc – the longest suspension bridge in Vietnam. The interesting point is four remaining museums located near three famous bridges – iconic constructions of Danang. Ho Chi Minh and military zone V museum is straight to Tran Thi Ly bridge through two intersections. The newest techniques are applied in the bridge lighting with demanding structure. Danang fine arts museum is also near the third junction to Han river bridge which is the first one swings on its axis in Vietnam. Relocated on a perpendicular route near Administration building of the city since 2005, Danang museum is covered by Dien Hai Rampart, the national historical monument marking the first fighting of Da Nang soldiers and people against the French – Spanish Coalition Forces (1858-1860). The most special one is Cham sculpture museum that owns the most beautiful position – opposite to the tail end of Dragon bridge. This is the new cultural landmark of Danang which is official used in 2013. With dragon-shaped design and fire-water breathing, the bridge takes an important role as a traffic linkage between Danang international airport direct to the beaches and other main roads in Danang. This can be the reason for Cham museum fame among Danang urban heritage tourism.

Urban heritage image

The terms related to urban heritage tourism in Danang are explored. As can be seen in Table 1, the percentage numbers reflect the ratio of frequencies of a term as compared to all collected terms of the subject in each column.

Table 1. Categorized key items

	Dong Dinh museum	Danang fine arts museum	Ho Chi Minh and zone V museum	Danang museum	Cham museum	Dang urban heritage tourism
Art	0.64%	5.42%	0.37%		2.69%	29.36%
Sculpture	0.06%	0.60%	0.03%		1.80%	11.47%
Statue	0.09%				0.28%	3.67%
Artifact	0.29%		0.20%		0.36%	0.46%
Photography			0.06%		0.13%	4.28%
History and culture	1.33%	0.43%	0.92%	0.77%	1.42%	20.03%
History	0.89%	0.09%	0.88%	0.77%	0.58%	13.76%
Culture	0.43%	0.34%	0.05%		0.84%	8.72%
Cham	0.12%				0.87%	12.53%
My Son	0.06%	0.07%			0.18%	4.74%
Hindu					0.12%	3.06%
Hybrid					0.02%	5.35%
Vietnam	0.68%	0.44%	1.01%		0.42%	8.26%
War	1.56%	0.15%	2.62%	1.9%	0.05%	12.08%

As stated by Wong and Qi (2017), a term should be eliminated if its percentage is below 0.4%. Hence, all the terms in the first column can be a manifestation of Danang urban heritage image because their percentages are high enough. Based on this criterion, the authors filter words with proper coverage. The quantity of remaining words is 32 with the most frequencies. The image of Danang urban heritage tourism is visualized in Figure 3.



Fig. 3. Danang urban heritage tourism image

The size of the words shown in Figure 3 reflects the significance of the memorable image in tourists' eyes. As can be seen, urban heritage tourism of Danang is expressed as a worthy, beautiful place to visit with many different great collections that well exhibited. The cognitive images such as Cham, history, culture, sculpture, Vietnam people, war, art are salient things that cultural visitors can memorize.

5.2 Destination brand personality

Similarly, 51 words related to destination brand personality are explored and shown in Figure 4.



Fig. 4. Destination brand personalities that form urban heritage tourism image

Through these words, the personalities of Danang as a destination are sincerity (nice, friendly), excitement (interesting, enjoyed, amazing, great, impressive), competence (well, good, excellent), sophistication (beautiful, fascinating). These personalities also reflect the affective image of Danang. Let see the coverage of these personalities in Table 2.

Table 2. Destination brand personality of Danang manifested through urban heritage tourism

	Sincerity	Excitement	Competence	Sophistication
Nice	0.74%			
Friendly	0.47%			
Interesting		2.90%		
Enjoyed		1.00%		
Amazing		1.00%		
Great		0.94%		
Impressive		0.47%		
Well			1.73%	
Good			0.72%	
Excellent			0.41%	
Beautiful				1.03%
Fascinating				0.55%
Total	1.21%	6.31%	2.86%	1.58%

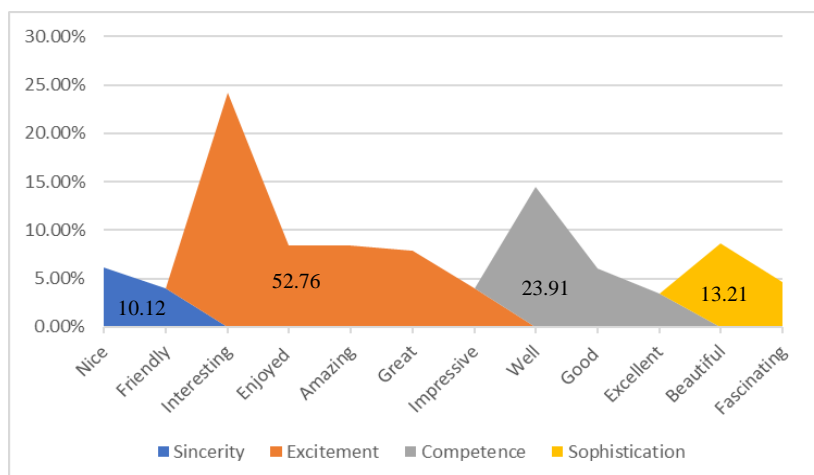


Fig. 5. Dimensions and traits of Danang destination brand personality in urban heritage tourism

The tourist-generated content analysis shows that excitement and competence are dominant personalities of Danang urban heritage image with the coverages are 6.31% and 2.86% respectively. The followings are sophistication (1.58%) and sincerity (1.21%). Only one review mentions Cham sculpture museum as a handsome gentleman who belongs to the ruggedness of Aaker's scale. Hence, excitement is the salient personality attached to museums in Danang. This one reflects emotions of heritage tourists and their new experiences that are different from the places where they come from (Alejandro et al., 2016). Four dimensions of destination brand personality are shown in Figure 5.

6. Conclusions

Online urban heritage tourism image of Danang is formed by cognitive image and affective image. According to Baloglu and McCleary (1999), cognitive evaluation is defined by knowledge and beliefs toward a destination. The affective image is related to feelings about the place, here is reflected through destination brand personality. Cognitive image of Danang museums in tourists' mind is information about Vietnam people, history, culture, art, sculpture, artifact, statue, Champa, hybridization, Hindu, war. These diverse collections are well exhibited and worth for visiting. The supplementary of Danang museums image is an emotional evaluation of cultural tourists. The affective image is formed by four dimensions which are sincerity, excitement, competence, sophistication. Among 12 traits, the traits like interesting, enjoyed, amazing, great, well, beautiful are the dominant ones.

7. Implications and further research

The study suggests some implications for Danang museums management, especially for urban image makers of government since almost museums in Danang are state-owned or belong to the military. Despite many improvements in artefact preservation and museum management, there is a lack of promotion about this kind of urban heritage tourism. The city planners can brand Danang museums as interesting, amazing, beautiful places with many different collections about Vietnam people, history, culture, and art. More especially, Cham sculpture museum which is located near Dragon bridge – the landmark of ancient and modern culture – worth to visit. Additionally, the operators should pay attention to create a pleasant atmosphere not only inside but also outside of museums. The outside green spaces such as trees in front of Cham museum, the perennial bonsai are perceived as a bonus in tourists' mind. Interestingly, many reviewers want to make good usage of their short, spare time or consider museums as ideal rain shelters. This motivation can be used as an idea for promotion. However, because of the hot weather in summer, Danang museums should be well-equipped to enhance the friendly environment for heritage tourists. The light in Ho Chi Minh and military zone V also need to be improved.

Regarding the academy, similar studies apply text-mining method, and content analysis can be developed. The other sources of data that can be retrieved are Facebook, Twitter, travel forum. Beside urban heritage tourism, further studies can consider the other urban landmarks and intangible cultural manifestation such as bridges, religion buildings, cuisine, festivals and events, leisure. They also contribute to forming an urban brand image. The relationships between cognitive image, destination brand personality and overall urban image can be explored in the future.

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Will I Stay or Will I Go? An Empirical Study of Students' Intention to Persist

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ABSTRACT

Higher education always draws mounting concerns from students, who seek for reliable institutions for further study after high school. The number of universities nationally has recently expanded exponentially, providing students with numerous choices for consideration. Noticeably, the number of universities using foreign curriculum is on a progressively rise, creating an upward trend for students, who desire to study in an international environment within Vietnamese territory. More money saving than studying abroad and living near family are of common triggers attributed for the strong appeal of this trend. Nonetheless, regardless of its advantages, the challenges in terms of language, culture, or curriculum when studying in those universities are posing an inquiry about the rate of student retention.

Student intention has been a focal topic of research in higher education research the last few decades (Braxton, 2000). Interestingly, this issue yet receives little attention in Vietnam's higher education. This paper attempts to fill in this gap, by examining factors affecting student' intention to persist at foreign-affiliated universities in Vietnam.

In particular, this paper examines the intention-to-persist implication of five major factors namely Academic integration, Social integration, Goal and Institutional commitment, Career outcome expectation, and Social and cultural capital. The paper went through two main stages; the preliminary study and the main study. The preliminary study employs qualitative method to adjust and supplement the adapted the existing measurement scales. The main study conducts a quantitative survey with 350 questionnaires distributed to students of five universities.

The empirical findings support the proposed hypotheses (revised after EFA), showing that five causal relationships do exist. What is more, Career outcome expectation has strongest effect on students' intention to persist ($\beta=0.331$), followed Goal and Institutional commitment on Intention to persist ($\beta=0.327$), Social and Cultural capital ($\beta=0.200$). In addition, Academic integration ($\beta=0.246$) and Peer interaction ($\beta=0.237$) have positive effects on Goal and Institutional commitment.

In short, the results demonstrate the appropriateness of initially proposed model and hypotheses, the model is fit with the quantitative data. Overall, Academic integration and Social integration (including Peer interactions and faculty concern for students and teaching) positively affect Goal and Institutional commitment. Besides, Career outcome expectation, Goal and Institutional, and Social and Cultural capital directly influence students' Intention to persist. May this paper be a source of reference for those interested.

Keywords: Intention to persist, Affiliated University, Structural Equation Modeling

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1. Introduction

Recently, the percentage of high school students seeking for higher educational level continues to increase dramatically. Indeed, reports show that there were more than 1.8 million applications to register for the college and university entrance examination (Vietnamese Ministry of Education and Training, 2012). The number of students studying colleges increased by 71% rising from more than 400 million to more than 700 million students, and that of universities increased by 23% from 2007 to 2013 (Vietnamese Ministry of Education and Training, 2013). Besides, the number of higher education institutions also readily increased to meet the demand of students, by 29.3% during the period from 2007 to 2013.

These figures demonstrate a positive signal to the development of the country since human capital approach to higher education ties a nation economic prosperity to an educated labor force (Yorke & Longden, 2004). Nevertheless, the fact is that not every student could successfully accomplish their degree in college. Instead, many just drop out of school in the middle of journey owing to various intentions. For instance, the proportion of UK students failing to complete their degree increased from 13% (1982 - 1983) to 22% in 2007 (BBC News, 2008). The Australian student failure rate at university stands at about 11%, in which the percentage of students dropping out of school during their first year made up nearly 20% (Herald, 2009). In 2010, two-thirds of American students terminated their college after the first year (ACT, 2011). One out of every two of the 18.3 million students enrolled in American colleges and universities in fall 2010 will not graduate (Yale, 2010). Chronicle Almanac (2011) reveals that nearly 20% of undergraduates do not graduate within six years. The situation of students leaving school prematurely has become popular in many institutions worldwide.

In Vietnam, the increase of recently established higher education institutions is deemed to bring more chances for those who failed to join in their desirable university, but still could become a student in other universities or colleges. This unintentionally promotes many students to join in an institution that is not fit to them, leading to a great growing number of students after a certain period of time experiencing their studies have a tendency to leave the school. For example, at Ton Duc Thang University, the percentage of students, who quit learning halfway account for 25% in comparison with 75% of students keep studying until get graduated (Thanh, 2010). Moreover, the rationale for the increase in dropout rate is extended to various reasons. According to Mr. Nguyen Duy Anh, Department Head of Student Affairs, Ministry of Education and Training, there were 1,163 students dropping out of college before graduation because of money insufficiency during the academic year from 2011 to 2012. A majority of students from other provinces and remote areas come to big cities for further study. Many of them cannot continue their studies due to the lack of ability to finance tuition fee and the basic demands of life when studying far away from home. In addition, many students state that they fail to pursue their academic commitment since they feel unconnected with major, school curriculum or environment, dropping out of college is the best way to save time for other choices. Other common reasons are attributed to their boredom of learning or hopelessness of future career if they keep spending time on classes (Hau, 2013).

Noticeably, in the process of international integration, the increasingly growth of Vietnamese higher educational institutions, which include foreign element in their educational curriculum is drawing a lot of attentions from Vietnamese students, who have desire to study in an international environment in Vietnam. According to the Vietnamese Ministry of Education and Training, there are nearly 80 Vietnamese higher educational institutions, which are linked with foreign partners to operate international curriculums. However, many people still afraid of the quality of such curriculums. It is undeniable that students who studying in such environment have to deal with a lot of challenges associated with high level of language requirements, cultural adaptation, pressures from foreign curriculum. Furthermore, in the situation that the higher education student attrition rates are perceived still high among universities in Vietnam, posing a question how these educational institutions could increase the retention rate of students.

Student retention is a widely-discussed topic, yet limited research examines factors influencing student retention among universities in Vietnam which is crucial to improve the education system. In addition, the consequences of low student retention rate are not negligible. From institution perspective, the loss of students departing from school at early stage might result in greatly financial loss and lower graduation rate for the institution since administrators have to spend a huge expenditure for recruitment process. It might also destructively affect the way that investors, parents, and students view the institution as well as reduce the degree of college reliability. Low retention rates not only affect institutions that must bear a burden of economic problems, but also reduce the ability of a country to compete in a global economy (Friedman, 2005; Seidman, 2005a).

From student perspective, the incompleteness of higher education also leave behind a variety of serious consequences associated with it. A study indicates that jobs requiring a bachelor's degree will grow by 25% (Alliance for Excellent Education, 2003e). According to article in "The Wall Street Journal" (2012) cited by

Kokemuller (2015) college dropouts encounter more limited career opportunities than graduated counterparts. Students who hold a bachelor's degree are more opened to the door to enter in higher positions in numerous fields. As a premature departure, it is difficult to win the job when many people who hold degrees applying for the same position, even in the job when a degree is not a compulsory. Additionally, it also leads to other consequences, for instance, a study by Council on Contemporary Families (2012) revealed that divorce rates were higher for those without college degrees than college graduates. The upshots resulting from dropping out of colleges are mostly negative, bearing onerous burdens on those involved.

Therefore, now more than ever, higher education administrators of higher education institutions must be aware of the reasons why students depart from school prematurely and figure out the solutions so as to help students overcome barriers to achieve their academic goals. Understanding the factors influencing student retention would be an aid in increasing this rate, benefiting to students, institutions, and the whole society. Hence, additional research is required to determine strategies to address this issue.

The purpose of the current study is to identify factors affecting student retention at a number of Vietnamese foreign – affiliated universities in Ho Chi Minh City. Since higher retention rates of students during their college life are directly linked with their overall satisfaction with the school they are studying (Hanover research, 2010), an understanding of determinants might be the useful directions of increasing student retention at institutions. Thus, the main objectives of the current study are as follows: (1) To identify the factors influencing student intention of retaining at Foreign - affiliated universities in Ho Chi Minh City. (2) To determine the effect of degree of each factor towards student Intention to persist at Foreign - affiliated universities in Ho Chi Minh City. (3) To figure out recommendations to increase student retention rate for Foreign – affiliated universities in Ho Chi Minh City.

2. Related Theories

2.1. Student retention and Intention to persist

Student retention has received an increasing attention from many scholars, especially for those who indeed concern about higher education. Because higher education is deemed to provide students with benefits and advantages by learning outcomes and offered knowledge, it should be seriously considered about the increase in the number of students who do not retain at school. As cited by Strauss (2001), Bowen said the basic educational task of colleges and universities is to help students achieve cognitive learning, emotional and moral development, and practical competence. Moreover, the benefits of higher education are definitely extended to the whole society as a growing number of students are well – educated, resulting in the increase in employment rate, the decrease in poverty, crimes and environment – related issues.

Student retention is defined as normal progression, standing for a stayer or retained student, referring to those who fully participate in each academic semester until degree completion. A dropout, or leaver, is a student, who leaves college before graduating and never enters to other college or return to the old college. Another type is called transfers, indicating the students who start studying at one institution and then transfer to another after a period of time. The definition of retention also can be defined in another perspective as efforts and strategies to anticipate and identify student needs prior to high school enrollment (Fowler & Luna, 2009). Tilghman (2012) defined adult student retention as participation in any credit-bearing activity over the course of a year, indicating the rate at which students fulfill individual courses. Additionally, adult student retention is also defined as the persistence of a cohort of in-coming students by academic term through graduation.

Tino (1975) classified two definitions of dropout. The first one is dropout refers to those persons, who leave the college at which they are registered. In other words, it means that they fail to accomplish the program at their university of enrollment. Those who drop out hurt the institutions in various aspects, such as vacancy of classes, economic or academic investment of school on them. The second definition of dropout refers to only to those persons who never received a degree from any institution of higher education.

Bean (1980) defined student attrition is similar to turnover in working institution and place an emphasis on the significance of behavioral intentions (stay or leave) cited by Cabrela et al. (1993). Behavioral intentions are captured by a process whereby beliefs shape attitudes, and attitudes, in turn, influence behavioral intentions. When studying in a college environment, beliefs are supposed to be influenced by the student's exposures to the various elements of an institution such as institutional superiority, curriculum, and classmates. Negative beliefs result in behavioral intent of dropping out, meanwhile those who have positive beliefs tend to persist. Before the decision is made, behavioral intention was formed by university experiences. In other words, behavioral intent of persisting or dropping leads to the decision of retaining or leaving.

It is noticeable to differentiate two terms, retention and persistence since many misunderstandings has made on them, as Reason (2009) pointed out that researchers use these two terms interchangeably. As his view,

retention is used when institutional needs presented, and persistence when regard to student needs and behaviors. The term departure is used to describe the contrary meaning of retention, and student attrition is defined as the termination of individual student involvement in a particular higher education institution (Bean, 1980, p. 157).

2.2. Academic integration

Academic integration is a concept that has repeated a lot of times when its role on students who enter in academic environment was recognized. Liegler (1997) defined Academic integration as a way to evaluate the level of student satisfaction, participation, and success in learning. Similarly, Kuh et al. (1994) considered Academic integration as a reflection of student level of satisfaction towards their curriculum at college. Academic integration is shaped when a student intellectual competence corresponds with the academic climate or requirements at the universities or colleges. It also can be perceived as student awareness of their intellectual growth or attainment when experiencing academic works given by institutions (Tinto, 1975). Lovitts (1996) compared Academic integration as a key for students to assess their purpose of learning. According to Kuh & Love (2000), students with high level of Academic integration indicates that their academic performances in classes are personally satisfied, gain the practical values from their classes, and feel pleased with their coursework. Students become keenly involved in academic activities when their performances are affirmed and those activities are useful and interesting to their life (Hardre & Reeve, 2003). Academic integration consists of several determinants that affect the ability of students in order to assimilate with the academic university climate. Some factors which can be named are grade point average (GPA), personal interactions with faculty, participating in study groups, and the superiority of academic advising (Arnold, 1999) as cited by Libby, A. K. (2006).

2.3. Social integration

As Tinto (1993) defined, Social integration refers to formal and informal social interactions that students experience at university, which can be seen through student contacts and relations to his or her peers, being achieved when the connection of students and institution exists. According to ACT (2004), Social integration is determined by the extent to which an individual feel linked to the college climate, peers, faculty, and engaged in college activities. Garder (2008) stated that socialization is the process that students observe social behaviors and learn how to be socialized. Similar to Academic integration, Social integration denotes the correspondence between an individual with a set of characteristics and other persons of various personalities in social climate of institution. According to Pascarella & Terenzini (2005), Social integration refers to the extent to which the individual shares the normative attitudes and values of peers and faculty in the institution and abides by the formal and informal structural requirements for membership in that community or in the subgroups of it. Kuh & Love (2000) considered Social integration as the student degree of social and psychological contentment with their school environment, when students feel assimilated to a group of other students and do not need to be anxious about being isolated from college community. As students are exposed to a variety of formal and informal interactions of student within a university, their interactions will enhance the degree of coziness or their match with the institution (Jones, 2011). Carol (2007) shared different view towards Social integration, he defined Social integration refers to integration of students who possess similarities in their interests, rather than the general notion that individuals are assimilated into the dominant group.

2.4. Goal commitment and Institutional commitment

In general, commitment can be defined as the attachment that defines the relationship between a subject (an individual, group or organization) and its objective (the target of commitment) (Forji, 2007). Commitment is clearly identified when an individual accepts to deal with obstacles with an aim of continuing with the subject until the ultimate goal is reached (Tinto, 1987).

According to Locke (1968), goal commitment is defined as the individual consistence of pursuing goal overtime, meaning that one would not change his or her direction from the beginning until the goal is achieved. He also indicated that goal commitment facilitates the distance between goal troubles and achievement, which can be detected when subjects are committed to the goal. Over the years, this term has been explained in various ways and become more general. Hollenbeck, Williams, & Klein (1989) defined goal commitment as an individual's determination to make effort for a goal and his or her insistence in engaging in actions to accomplish the ultimate goal. Similarly, Campion and Lord (1982) cited by Donovan and Radosevich (1998) defined goal commitment as the expansion of attempt throughout the process of goal attainment, highlighting that the individual embrace a resistance to change his or her goal. When it comes to higher education, Tinto (1993)

defined goal commitment as the extent to which the student is devoted or encouraged to acquire college degree in general. Goal commitment refers to students promise to the educational objectives, for instance, get graduated or student desire to achieve bachelor degree. It can be realized that students who are greatly commit their goal to accomplishment, will tend to remain at school to achieve the goal, vice averse, for those who have less goal commitment, will tend to leave the college before graduation. Tinto (1975) also supposed that goal commitment is an essential element in predicting student dropout behavior since it clarifies the psychological alignments or directions which students already set for themselves prior to joining in the university environment, those prearranged alignments or orientations will direct them and decide their manner they approach and relate to the college setting.

Organization commitment is relevant to institutional commitment as Bean (1980) who constructed his theory model based on the similarities between employee retention and student retention. In regard to organizational behavior, commitment is debatably among of most vital element implicated in employee support for change creativities (Conner, 1992). Organizational commitment can be understood as employee alignment to an organization mission and vision. Mowday, Steers & Porter (1979) defined organization commitment is as novel state of mind which helps employees to identify themselves with their organizations goals and wishes to maintain membership of their organization. Organizational commitment is a firm belief which can lead employees towards unconditional acceptance of organizational norm, culture, rules and regulation; it is employee willingness to exert significant efforts on the behalf of organization organizational commitment is helpful to inculcate an intense desire in employee to maintain employment in the organizationl. When it comes to institutional commitment in college setting, Tinto (1975) defined that it is the relation between an individual commitment of university completion and his commitment to this institution, which can determine whether or not students opt to leave or remain at institution. Nora and Cabrera (1993) cited by Strauss (2001) defined institutional commitment as the combination of the certainty of institutional choice by a student already enrolled at the institution, institutional quality/prestige, a student sense of belonging to the institution, a student perception of the practical value of their education, the student loyalty to the institution and the student's affinity of values with those of the institution

2.5. Social and Cultural capital

The concept of Social and Cultural capital was initially developed by Pierre Bourdieu to explain the social inequalities, it does not refer to individual social positions in terms of financial asset, rather refers to individual cultural resources (Longden, 2004). Firstly, according to Bourdieu (1986) social capital is the interpersonal relationship that students are often acquired in connecting with their friends rather than at home. Annette (2007) defined social capital as the social linkages and associations that reinforce individual educational accomplishment and completion. It is developed by joining into major social networks in school settings. Secondly, Cultural capital (Bourdieu, 1986; Bourdieu & Passeron, 1977) includes culture-based factors and indicators of symbolic wealth that help define a person class. Cultural capital of individual is often formed based on their family, their parental education, parental involvement in children learning. Brucker (2004) cited by Annette (2007) indicated that cultural capital includes valued academic and mainstream cultural knowledge and, just as importantly, the cultural dispositions that are most conducive for success in various school settingsl. It can be developed through individual exposure to educational resources such as books, computer, libraries. According to Jantrasakul (2010), cultural capital is the accumulation of knowledge and experience that one can learn or be affected from the surroundings during their living. Bourdieu and Passeron (1977) cited by Wells (2008) stated that cultural capital could transfer from one to another, forming the basic of reproduction, especially related to educationl. Referred to Bourdieu's view, students who are exposed to upper classes are easily adapt to the environment of higher educational institutions which usually offer high cultural practices. The triggers are attributed to their various chances to approach high cultural context regarding the facets of the dominant culture such as visiting to museums, reading good books, and attending concerts as they were born in family on high status or income. And those of lower classes are hardly to accommodate themselves to the high cultural climate of the college setting since may there a disparity between their prior accumulated cultural capital and the culture in institutions. It may create a barrier for them to adapt the college climate, leading to withdrawal behaviors. For instance, the disparity between the culture of the home environment and the culture of the university makes it more difficult for students from poor areas to fit in and stay in higher education system as everything seems to be novel to their cultural capital.

2.6. Career outcome expectation

Career self-efficacy was developed based on the theory of self-efficacy expectations as a result of behavioral change. Self-efficacy refers to the beliefs in competencies with respect to the behaviors necessary in particular career relevant domain. Outcome expectations refer to confidence in the outcome of carrying out given behaviors (Betz & Vuyten, 1997). Noticeably, efficacy and outcome expectations are distinct each other since not every action reach the goal as expected.

Career outcome expectation is defined as desired results of future occupation which draw from the behaviors or actions of an individual (Lent et al., 1994). To be more specific, outcome expectation is ultimately predicted upshot of carrying out a specific action. Outcome expectations are also considered an indicator or foundation for an individual to decide whether he or she should do or do not to reach the perceived expectations of what that behavior will produce. According to Bialosky et al. (2010) who clarified expectation into four categories: Predicted expectation which refers to what the individual believes the action will generate; Ideal expectations which refers to what the individual desires to occur; Normative expectations which refers to what the individual deems that should occur; and Unformed expectation which refers to the lack of a preconceived notion regarding a situation or intervention. Additionally, there are other theories mentioning about the outcome expectation with similar view. Expectation theories explain the individual motivation to involve in a specific action grounded by the expected result (Atkinson, 1977). Meanwhile, Social Cognitive Career Theory (SCCT) concerns about how the individual judges the behaviors based on the expectation of the consequence (Lent et al., 1994). A concern or preference for a specific job was formed by considering about possible outcomes regarding income, satisfaction, social status, responsibilities, etc. When ones determine their job preference, they would likely accomplish the goal of education (Feldt & Woelfel, 2009).

3. Hypotheses and Research model

Academic integration and Social integration on Goal commitment and Institutional commitment Tinto (1975, 1993) suggested that the level of student Academic integration and Social integration in institutions affects their commitment to the college, which in turn impacts the possibility of student to continue or leave out of school. During a few weeks after entering the college, the experiences of academic and social activities will affect student integration into the institutions (Beil, 1999). The study of Pascarella and Terenzini (1983) found that Academic integration of an individual is correlated to commitment of whether students remain or drop out of the current institution (Beil, 1999). Also, in the longitudinal study of Beil, the result showed that Academic and Social integration do not have direct effects on student retention, rather Academic and Social integration influence the level of commitment to the institution. The greater academic and social students integrated to their college, the higher value of commitment is. Another study by Jones (2010) focused on the impact of Social integration on Goal and Institutional commitment on gender, he found that this correlation does exist both on male and female, but stronger than on female, which indicates that men and women are distinct in approach to Social integration. Furthermore, in the recent research, Yong (2013) suggested that the future scholars should explore the factors affecting student retention, in which two constructs Academic and Social integration were recommended. Besides, Robinson (1969) cited by Dobbins et al. (2000) found that students who leave school usually do not feel the match between their satisfaction and offered curriculum which is referred as a notion of Academic integration. In college environment of diverse cultures and races, Chang (1999) also found that multicultural interactions in school boosted up student persistence, institutional satisfaction, and intellectual range and social self-concept. Students who have negative interactions and experiences tend to become disillusioned with college, withdraw from their peers and faculty members, and ultimately, the institution. Numerous comprehensive studies have concluded that institutional factors, such as faculty – student relationships and innovative teaching methods can significantly motivate and challenge students to learn and stay in school (Lau, 2013).

Therefore, there are two hypotheses proposed regarding Academic integration, Social integration and commitment.

H1: Academic integration has significant effect on Goal commitment and Institutional commitment

H2: Social integration has significant effect on Goal commitment and Institutional commitment

Goal commitment and Institutional commitment on Intention to persist

Goal commitment is considered a factor which is —argued to be central to an individual's decision to drop out of higher education (Tinto, 1975). Given levels of institutional commitment, the lower the individual commitment to the goal of college completion the more likely is he to drop out. According to Tinto (1993), commitment acts a mediator between integration and retention. The studies by Zea et al. (1997) and Beil (1999)

all support for the meditational role of the model proposed by Tinto (1975,1993), which indicates that Academic integration and Social integration do not directly influence on retention, rather affect the extent to which students commit to institutions, then ultimately leading to student decision of whether stay or drop out. In other research, Naskrent & Siebelt (2011) also concluded that commitment plays a central factor of donor retention as it creates a foundation for an individual to sacrifice and continue attaching to the object. Sandler (2000) studied about the retention among non - traditional aged students at a private urban research university. His result showed that institutional commitment had the greatest direct impact on the intent to persist. Mbura (2011) stated in his paper, goal commitment is the second determinant determining African American student decision of drop out or stay at college. Nora, et al. (1997) cited by Strauss (2001) studied on retention of Hispanic students, his findings supported the direct impact of institutional commitment on student retention. The study by Cabrera et al. (1993) also supported the correlation between Goal commitment and Institutional commitment on Intention to persist.

Hence, the hypothesis is proposing as below:

H3: Goal commitment and Institutional commitment has significant effect on Intention to persist

Social and Cultural capital on Intention to persist

Social and Cultural capital developed from family and surroundings probably imposes an impact on college student intention. Students with high level of traditional Social and Cultural capital are more likely to feel —an entitlement to postsecondary educationl (McDonough, 1997) and may not only see —college attendance as an entitlement but may display persistence as well (Berger, 2000). Although some aspects of cultural capital have been determined for its impacts on retention, a comprehensive quantitative analysis has not been carried out (Wells, 2009). There are some studies regarding the effect of cultural capital on student retention. Berger (2000) stated that students who process higher level of cultural capital tend to stay at colleges compared to those with lower procession of Social and Cultural capital will possibly drop out. In other words, students with higher levels of organizational cultural capital will be more strongly positively associated with persistence at institutions. Moreover, the study of Wells (2009) results in the positive correlation between Social and Cultural capital possession and the likelihood of student persistence. Access to various forms of capital is also associated with gender and ethnicity, which must be taken into consideration (Longden, 2004); however, in this study, the research only focuses on the impact of cultural capital on student retention because ethnicity and gender factors in Vietnamese international universities are not exceptionally outstanding.

According to the discussion above, there is a hypothesis proposed:

H4: Social and Cultural capital has significant effect on Intention to persist

Career outcome expectation on Intention to persist

The concept of Career outcome expectations has received relatively little empirical attention (Fouad & Guillen, 2006). As SCCT stated, Career outcome expectation is an indicator to encourage student incentive to involve in their college works. If an individual optimistically expects about their future career, it turns out a strong stimulation for students to study harder, vice averse, those who negatively think of the career outcome will tend to avoid engaging in school works, which leading to drop out. Study by Betz & Voyten (1997) indicated that outcome expectations are effective predictor of student career indecision and college retention. An empirical research by Concannon & Barrow (2010) insisted the correlation between students Intention to persist and Career outcome expectation of both men and women majoring in engineering. The results show that an engineering student who supposes the outcome of college completion cannot attain for a desirable future career, he or she will tend to discontinue with the program. Additionally, the result also shows that COE place greater importance on women than men. Another research result indicated that outcome expectations resulted from the perceived effectiveness of a higher education associated with the goal of accomplishing a degree have reliable foundation for forecasting the Intention to persist of the students beyond freshman (Kahn, Nauta, Gailbreath, 2002) as cited by Feldt (2009). Supporting this correlation, Hoyt (1998) indicated that student declaration of a university major or occupation has an effect on their persistence. If student expectations are satisfied, it leads to the higher possibility of intent to persist. Additionally, Peterson (1993) cited by Hoyt (1998) found that self-efficacy of student career is correlated to Academic integration and Social integration.

According to above discussion, a hypothesis can be formed as below:

H5: Career outcome expectation has significant effect on Intention to persist

4. Sampling and data collection

Normally, with a small sample size, it will be equivalent with the less accuracy of data. On the other hand, the bigger the sample size is the more accurate the data will be, but it is quite time-consuming and costly to collect a large amount of data. In fact, the appropriate sample size can depend on the analysis method and the number of items in questionnaire. If SEM is employed to analyse data, Hair & et.al. (1998) suggested the number of questionnaire needed is at least from 100 – 150. Hatcher (1994) supposed that the number of questionnaire should be more than 5 times the number of observed variables. Tabachnick and Fidell (2003) suggested that the minimum sample size is 300. After considering about time, financial ability and the number of items, the researcher aims to collect 350 questionnaires. This study employed convenience sampling method. Questionnaires were delivered to students studying in foreign – affiliated universities via 2 main channels: online and offline. With online channel, the researcher created an Internet survey in terms of Google docs form, then sent the link to respondents. This method is perceived as time saving and convenient. With the offline channel, the researcher directly delivered paper-and-pencil questionnaires to students at foreign – affiliated universities in Ho Chi Minh City. This method is quite time, but the advantage is that the researcher could observe whether surveyed people answer seriously or not. Qualitative research data is collected by one-on-one discussion method with one staff and six students separately. Quantitative data is collected via 2 channels. Via the online channel, the researcher took advantage of social network which links a large number of people together. Thanks to great supports from friends, the researcher found out a variety of student personal facebook address. Based on their personal information on their page, research could determine whether they are right targets or not. After finding the right targets who meet the requirements of the study, researcher asked for their willingness to complete the survey. Questionnaire link were sent to those who are serious with it. Via the offline channel, the researcher came to foreign – affiliated universities. The printed questionnaires with designed structure of 3 parts would be directly delivered to the respondents within the appropriate time when they are free from busy works. To easily access to the right target, researcher asked for the helps from some lecturers and friends to deliver questionnaire to students in their classes.

5. Data analysis and result

There were 350 questionnaires dispatched to respondents, in which 163 questionnaires were collected via online survey, and 177 questionnaires in terms hard copies were collected. After filtering and eliminating questionnaires, which violate the requirements as presented in methodology part, 307 questionnaires officially were used for data analysis. As can be seen, the appropriate response rate accounts for 87.7% which is considered relatively good.

The questionnaires were delivered to five universities in Ho Chi Minh City, which apply foreign curriculum in teaching, including International University (IU), RMIT, FPT, Hoa Sen, and Bach Khoa (UT) – ILLINOIS.

The allocation of observations shows disparity among universities, especially International University. Out of 307 valid surveyed questionnaires, there are 128 students who are studying in International University (IU), which occupy the largest proportion, 41.7 % of the total. This greatest rate can be explained that the researcher is also a student of this university, making it easier for researcher to approach and do survey on the students here compared to those of other universities. Besides, the percentages of others universities in this list are approximately the same, in which RMIT's students stand for 15%, followed by 14.7% of both FPT's students and Bach Khoa (UT) – ILLINOIS' students. The least one is Hoa Sen 's students with 14% in total.

Table 1 also shows the tuition fee of each university. It can be seen that RMIT and FPT universities are the most expensive ones, both of them require students to pay more than 60 million per year. IU, Hoa Sen and UT – ILLINOIS have similar yearly tuition fee ranging from 40 to 60 million. It is obvious that students seeking higher education in these foreign – affiliated universities have to pay a much larger amount of money compared to the other Vietnamese conventional universities.

Table 1: Description of respondent information

	Characteristic	Frequency	Percentage (%)
Gender	Male	140	45.6
	Female	167	54.4
	Total	307	100.0
Academic year	Freshman	107	34.9
	Sophomore	135	44.0
	Junior	65	21.2
	Total	307	100.0
Major	Business Administration	94	30.6
	Biotechnology	34	11.1
	Food Technology	20	6.5
	Electronic – Electrical Engineering	45	14.7
	Finance - Accounting	34	11.1
	IT	22	7.2
	Restaurant and Food Service Management	15	4.9
	Communications	33	10.7
	Others	10	3.3
	Total	307	100.0
Permanent Address	The South	1	0.3
	The Middle	22	7.5
	The West	36	11.7
	The Southeast	248	80.8
	Total	307	100.0
Monthly Family income	< VND 10 million	12	3.9
	VND 10 – 20 million	91	29.6
	VND 20 – 30 million	121	39.4
	> VND 30 million	83	27.0
	Total	307	100.0

Barlett’s test of Sphericity is significant < 0.05 (Sig. = 0.000), the value of KMO is 0.906 which is much higher than 0.5. Total variance explained is also satisfactory with 59.324% ($> 50\%$). All the factor loadings are greater than 0.5, ranging from 0.53 to 0.917, and there is no cross factor – loading. Therefore, this result meets all requirements for an acceptable factor analysis. The software of AMOS 20.0 was employed, demonstrating the results as following: The CFA results show that most of criteria are acceptable: CMIN /df = 1.783, TLI = 0.91, CFI = 0.919, AGFI = 0.807, and RMSEA = 0.51, except only GIF = 0.835 which is less than 0.9.

As can be seen that the reliabilities for all constructs are greater than 0.7, except Foreign Cultural Capital (0.68). This can be explained that this construct only contains only 2 items to measure and it is the result extracted from EFA test, so the reliability test for this one is not really powerful. Its AVE is above 0.5 (0.515), which is satisfy the convergent validity and discriminant validity. According to Hair (2010), reliability ranging from 0.6 to 0.7 is sometimes acceptable when other construct validities of model are good. Moreover, this content validity of these two scales is confirmed by qualitative results and its meaning is particular appropriate to the purpose of this study which aims to focus on students studying in foreign – affiliated universities. Therefore, this construct is in an attempt to retain for the further hypothesis test. On the other hand, all other constructs reach the standard of tests, reliability, convergent and discriminant tests are satisfactory:

Table 2: Construct validity

	CR	AVE	MSV	ASV
FI	0.819	0.533	0.508	0.202
COE	0.886	0.566	0.279	0.181
SCC	0.881	0.604	0.341	0.212
PI	0.832	0.504	0.263	0.200
GIC	0.784	0.550	0.341	0.181
AI	0.854	0.596	0.360	0.207
ITP	0.889	0.672	0.375	0.260
FCS	0.867	0.621	0.508	0.244
FCC	0.680	0.515	0.315	0.136

The SEM results show that most of criteria are acceptable: CMIN /df = 1.721, TLI = 0.942, CFI = 0.951, AGFI = 0.873, and RMSEA = 0.49, except only GIF = 0.835 which is less than 0.9. All of measures satisfy the standardized criteria for measurement model fit as can be seen from the SEM round 3's result summarized table. Therefore, the model fits with the data.

6. Findings

- Hypothesis 1: Academic integration has a significant effect on Goal and Institutional commitment.

The result of SEM shows that Academic integration has no effective on Goal and Institutional commitment is rejected (P – value < 0.05). This means that Academic integration has a positive impact on Goal and Institutional commitment at a degree of 0.246. Beil (1999) and Pascarella & Terenzini (1983) also support this relationship, which indicated that academic integration does not directly affect student retention, instead strongly impact student commitment.

- Hypothesis 2: Social interactions has a significant effect on Goal and Institutional commitment.

Hypothesis 2 proposes that Social interactions positively affects Goal and Institutional commitment. This hypothesis is supported as the result of SEM (P – value < 0.05) with the degree of 0.237, which is slightly less than that of Academic integration. This finding is in line with Jones's (2010) study that shows the impact of social integration on Goal and Institutional commitment, in which peer interactions are included in the social climate.

- Hypothesis 3: Goal and Institutional commitment has a significant effect on Intention to persist

The result of SEM shows the hypothesis that Goal and Institutional commitment has a significant effect on Intention to persist is supported (P – value < 0.05). This means that Goal and Institutional commitment has a positive impact on Intention to persist at a degree of 0.327. This result is similar to the results of studies by Weng (2010), Pascarella & Terenzini (1983), Cabrera et al. (1993), which indicated that Goal and Institutional commitment have greatest impact on students' intention to persist.

- Hypothesis 4: Cultural capital has a significant effect on Intention to persist

Hypothesis 6 proposes that Social and Cultural capital has a significant effect on Intention to persist. This hypothesis is supported with a statistical significance of P – value < 0.05. The result shows that Social and Cultural capital affects Intention to persist at a degree of 0.200. This result is consistent with the study of Wells (2009) which resulted in the positive relationship between Social and Cultural capital possession and the likelihood of student's persistence.

- Hypothesis 5: Career outcome expectation has a significant effect on Intention to persist.

The result of SEM confirms the right of causal correlation between Career outcome expectation and Intention to persist (P – value < 0.05). More specifically, Career outcome expectation has positive effect on Intention to persist at a biggest degree (0.331) compared to other factors. This result is consistent with the result of study by Concannon & Barrow (2010) which confirmed the positive correlation between Career outcome expectation and

engineer student intention to persist.

7. Conclusion

This study aims at exploring the factors influencing student's Intention to persist in foreign – affiliated universities in Ho Chi Minh City. Given this purpose, the study was conducted on students studying in five universities using foreign curriculum in teaching. Students who were surveyed are mostly freshmen, sophomores and juniors, while seniors are of rejection of target as they are nearly in the edge of graduation during the thesis time. Four independent factors and one dependent factor were initially proposed in the research model to have effects on students' Intention to persist. The study employed qualitative results of one-on-one discussion with six students of various universities in order to adjust measured scales adopted by various scholars researching on the same concern and concurrently supplement some more items to fully represent the factors.

In short, the results demonstrate the appropriateness of initially proposed model and hypotheses, the model is fit with the quantitative data. Overall, Academic integration and Social integration positively affect Goal and Institutional commitment. Besides, Career outcome expectation, Goal and Institutional, and Social and Cultural capital directly influence students' Intention to persist.

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The Factors Affecting the Brand Value of Private Universities in Ho Chi Minh City through Measurement of Students' Perceptions: The Study at Ho Chi Minh City University of Technology (HUTECH)

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ABSTRACT

The current state of Vietnamese higher education demonstrates the intense competition among universities. Therefore, the issue of enhancing the brand value to attract students is placed at the top to Vietnam universities. This paper uses mixed research methods (qualitative and quantitative research). Data were then analyzed by measuring Cronbach's Alpha coefficient for reliability, analyzing EFA, and using PATH model to test experiment on the research model affecting HUTECH's brand value. Additionally, this paper also proposes some implications for enhancing HUTECH's brand value in the current context of competition among private universities.

Keywords: higher education, students, geographical location, lecturers, staffs, satisfaction, confidence, brand value

1. Introduction

In recent years, the State has been not only focusing on the development and expansion of public and private schools, or training schools under internationally associated programs, etc, but also offering many opportunities for high school students to get their feet wet in the world of college life and academics. Regarding the private education system, the issue of competition is vital since the university's brand is the first chosen priority for students and their family. Therefore, the selected research topic "*The factors affecting the brand value of private universities at Ho Chi Minh city through measurement of students' perceptions: The study in Ho Chi Minh city university of Technology*" will contribute to explore the influence factors and suggest implications for enhancing the brand value as well as the competitiveness of private universities at Ho Chi Minh city in general and HUTECH in particular.

The objectives of this research are to determine the factors affecting the value of HUTECH brand through the measurement of students' perceptions and to develop research model having impacts on HUTECH brand value. In the model there are new features as follows:

- Adding Geographic location factor to enhance the brand value of private universities in general and HUTECH in particular.
- The more satisfied students are with college's services, the higher their trust in the college brand is.
- Using PATH model to test the experiment of model through the intermediate variable is Student Confidence.

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2. Theory elements and research methodology

2.1. Theory elements

2.1.1. Theory elements of students' satisfaction with universities

1. D. W. Chapman (1981) argued that university's fixed factors such as tuition, geographic location, expenses support policy or environment of dormitory alter students' college choice decisions.

2. Lutfi Atay and Hacı Mehmet Yildirim (2009), University of Canakkale Onsekiz Mart pointed out that among many factors affecting students' satisfaction, the most influential one is job opportunity after graduation.

3. Muhammed Ehsan Malik, Rizwan Qaiser Danish, Ali Usman from University of Punjab Pakistan (2010) showed that although students are satisfied with tangible means, level of engagement, confidence and empathy, other elements such as facilities, laboratory, computer room, school canteen are unable to fulfil students' expectations.

4. Tran Xuan Kien (2008), studied five factors (facilities, enthusiasm of staffs and lecturers, faculty team, ability of fulfilling commitments and student care) affected students' satisfaction in Thai Nguyen University. Results showed that these five factors affected students' satisfaction with 87.1% of the relevance between model and data. Differentiation of some hypotheses shows that the level of students' satisfaction is not altered by academic year, major and learning performance but varied by gender.

5. Duong Tan Tan (2010) researched the factors affecting students' satisfaction in University of Economics Da Nang such as classrooms, canteen, school website, learning conditions, Computer room, office of Training affairs and Student affairs. Research results show that 8 of 10 factors affect students' satisfaction including classroom, library, canteen, computer room, school website, learning conditions, faculty, office of academic affairs, and office of student affairs.

6. Le Quang Hung et al. (2014) synthesized groups of factors influencing students' college choice decisions, which were reviewed in the above topics. From that, a developed research model on additional aspiration choices of students from HUTECH Faculty of Business Administration includes the following factors: Benchmark, Prestige, Communication, Geographic Location, Facilities, Lecturers, Tuition and Assistance. The analysis found that Benchmark was not included in the officially theoretical research model. The reason is that there is no difference in the benchmarks of most private schools, so students are not interested in this factor. Research results show that Lecturers and Geographic location significantly affect college choice of students.

In summary, through domestic and foreign studies, students' satisfaction is commonly influenced by factors such as Facilities, Academic quality, Lecturers, Career opportunities after graduation, School services, etc. Most of the current researches in Vietnam have neither mentioned the students' satisfaction with the Geographic location of the university nor demonstrated that the more satisfied students are with college' services, the higher their trust in the college brand is.

2.1.2. Theoretical framework of brand

There are different views on brand. However, there are two main perspectives:

1. A brand is a name, symbol, sign, design or combination of these elements to identify a product or service of a manufacturer and distinguish it from other competitors' brands (Bennett, 1995; Nguyen Dinh Tho et al., 2011). In this view, the basic function of a brand is to distinguish the product from others.

2. The second view stated that the above viewpoint of brand could not explain the role of the brand in the context of increasingly integrated and intensely competitive world economy. Murphy (1987) generalized the composition of a brand included "... product, packaging, trademark, propaganda, advertising and the whole process of product displays," and concluded that brand is "the sum of all things in terms of tangible matters, aesthetics, senses and emotions." Kotler et al. (1999), brand is a set of attributes providing values target customers require. Davis (2002), brand is a "promise" of sellers to buyers about features and benefits of the product/service. Thus, the product is a part of the brand.

In this study, the authors advocated the second view. In business, brand is not only a product but also distinguishes it from other products and provides psychological needs to customers. Enterprises up to now view brand as the most valuable asset they hold.

2.1.3. Theoretical framework of college brand

In the context of higher education being more commercial, the concept of university brand has been more concerned. Universities in the world have been adopting more and more integrated marketing techniques to their brand communications.

1. Harvey (1996) stated that branding in higher education helps students and their parents identify specifically offered services they are fostered to use.

2. McNally et al. (2002) defined a university brand as the feeling or emotion of a student, describing experiences of purchasing products or services of an academic institution.

3. Bulotaite (2003), a university is a complex organization that brand able to simplify this complexity and enhance its attractiveness and loyalty toward it.

4. Schackner (2004), Point Park University in Pittsburgh announced a \$1 million branding campaign through billboards, newspaper ads, and other media.

5. Hacker (2005), University of Houston decided to launch a \$ 5 million campaign which has been implemented over five years to build image and proactive access.

6. Balmer et al. (2007) argued that the strategic importance of holding a strong brand in educational sector has been acknowledged by many university managers.

7. Hemsley-Brown et al. (2007) argued that there are few of experimental researchs on branding, identification and image in higher education sector.

8. Chapleo (2010), when mentioning the name of a university, it is obvious that “associations, emotions, images” of the school are immediately evoked. The mission of university branding is to build, manage and develop these impressions.

9. Chapleo (2011), up to now, branding in higher education sector has been a controversial concern with little researches and few attentions from professors, though there are some studies on marketing in higher education.

Geographic location of a university is not mentioned in ten studies above as a factor enhancing the brand value of the university.

2.1.4. Researches on university brand

1. Sultan et al. (2014) presented an integrated model demonstrating not only the factors influencing service quality of a university, but also the results of delivering the service quality. The result of this study shows that past experiences are preconditions for perceived service quality (academy, administration, facility). The result of perceived service quality is Students' satisfaction, Confidence, Brand efficiency, and Behavioral intention of students. This model explains how the service quality is formed, how perceived service quality affects college brand. It is essential for universities to consider this research model to gain sustainability in global competition, enhance brand efficiency as well as attract and retain students.

2. Nguyen Tran Sy, Nguyen Thi Mai (2014) showed a model of university branding concludes Advertising, Activities of admissions consultancy, Promotions during learning process and Word-of-mouth (WOM) activities. These four approaches will alter students' perceptions of the school's image and reputation. This leads to an impact on students' loyalty to the school. In this study, the authors presented basic theories of brand and branding in the business and education sector. From that point, the arguments and research model on branding for Vietnamese education are demonstrated based on students' perception. However, this study develops

research model but has not yet verified the model. Therefore, it is necessary for the following studies to have modeling test.

3. Nguyen Thanh Trung (2015) conducted a study on "Brand value of a university based on employees: Research in Vietnam". In this study, the author simultaneously took into account three groups of factor affecting brand value based on employees: (1) Marketing, (2) Human Resource Management and (3) Working Environment.

The research results show that there are 2 factors directly affecting the components of brand value based on employees: (1) Internal branding and (2) Organizational culture. In particular, Organizational culture is the most influential factor on brand value based on employees.

Most of researches on university brand name in Vietnam have not synthetically studied subjects directly building brand value of the university are Lecturers, Staffs and Students.

2.1.5. Research model and hypotheses

In published studies, there are general remarks about brand of university and university branding without detailing about what aspects of college brand. There are no studies currently evaluating university brand both internally and externally. Based on this fact, the authors conduct a research on HUTECH brand with two approaches: (1) From lecturers, staffs (internal model) and (2) From students (external model)

These two models are based on the principle research framework of Sultan et al. (2014) and two research models of HUTECH by Le Quang Hung et al in 2014 and 2015. In this study, the authors present a brand research model of HUTECH University with the approach from students.

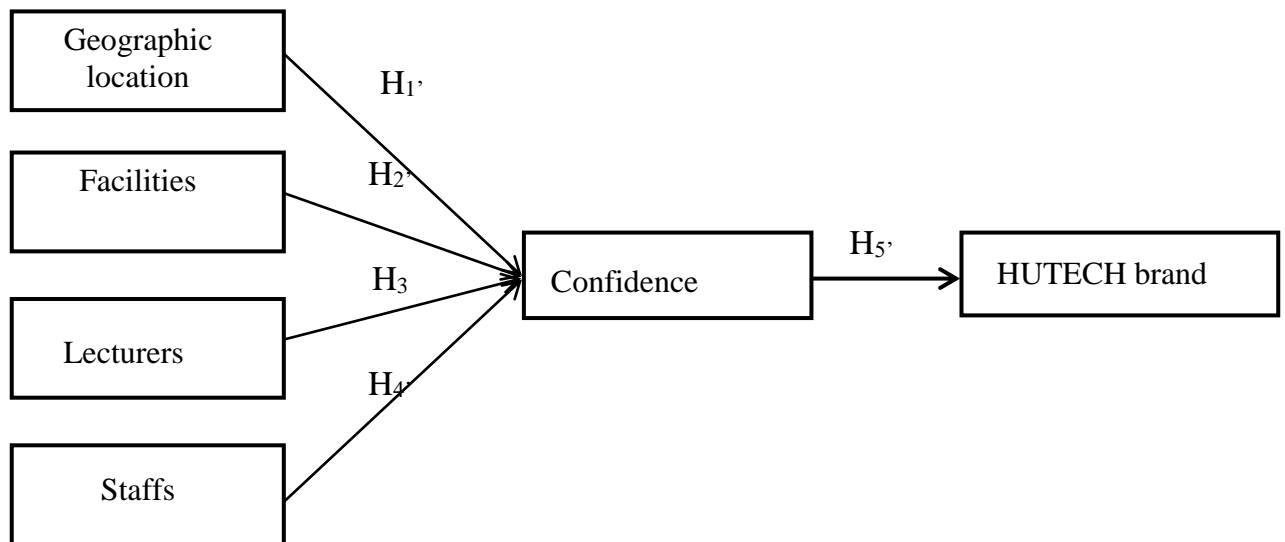


Fig. 2.1. Theoretical research model (External model)

The research model is based on the PATH model in which the more pleasure students are with factors serving learning activities as well as teaching, the more confident they are of their school. When students have confidence in the school, they will promote and introduce many good things about the school. From that brand value of the school will be enhanced.

2.2. Research methodology

In this study, the authors used mixed research methods (Qualitative Research and Quantitative Research).

2.2.1 Qualitative Research

Qualitative research is conducted through focus group discussion. Draft scales are used in the school discussion with 14 leaders, staffs and lecturers representing faculties, departments, institutes and 15 undergraduate students from Faculty of Tourism - Restaurant - Hotel Management, Accounting - Finance - Banking, Construction, Mechatronics - Electronics Engineering, Foreign Languages, and Biotechnology - Environment.

This study adjusts and adds observed variables used to measure concepts in the research model. Through the qualitative research, the scales have been calibrated accordingly and the official survey is used for quantitative research.

The scale is designed as follows:

The concept of Geographic location is denoted by DL and measured by the following 5 observed variables:

DL1	The teaching facilities located in Ward 25, Binh Thanh District are convenient for transportation and school shifts.
DL2	Bus station near the school campus is convenient for students to travel by public transports.
DL3	Near the East bus station, students can easily visit the family on weekends.
DL4	Hutech located in the inner-city is convenient for students to work overtime.
DL5	Hutech located in Binh Thanh District is convenient for students to rent accommodation at reasonable prices.

The concept of Facilities is denoted CS and measured by the following 6 observed variables:

CS1	The class has a reasonable number of students.
CS2	The classroom is fully equipped with teaching equipment.
CS3	The classroom facilities are working well.
CS4	Library has all necessary reference materials for students.
CS5	Library has enough space for students to study.
CS6	The location of the school is convenient for studying and living.

The concept of Lectures is denoted GVI and measured by the following 7 observable variables:

GVI1	Lecturers have extensive knowledge.
GVI2	Lecturers have easy-to-understand communication methods.
GVI3	Lecturer are friendly with students.
GVI4	Lecturers enthusiastically support students in learning issues.
GVI5	Lecturers teach according to the school materials.

GVI6	Lecturers evaluate academic achievement accurately.
GVI7	The results of the study are evaluated fairly by Lecturers.

The concept of Staffs is denoted NV and measured by the following 7 observable variables:

NV1	Staffs respect students.
NV2	Staffs solve students' requests quickly.
NV3	Staffs work with high precision.
NV4	Departments are open during business hours.
NV5	The school's carrer counseling activities meet the requirements of students.
NV6	I found that the school academic support acctivities are good.
NV7	I found that the student support activities for students in the School's extracurricular activities are good.

The concept of Cofidence is denoted NT and measured by the following 6 observable variables:

NT1	I feel the school has done the right commitments to the students.
NT2	Lecturers are talented and virtuous teachers.
NT3	The school services are trustworthy.
NT4	The Graduate Diploma increases my employability.
NT5	School offers useful knowledge for my career.
NT6	School supports me to improve the skills needed for my career.

The concept of HUTECH brand is denoted by TH and measured by the following 5 observed variables:

TH1	HUTECH has a good reputation.
TH2	HUTECH is a reliable private university.
TH3	I found that the work festival day of school attracts many prestigious businesses.
TH4	I knew that many businesses prefer to recruit graduates from HUTECH.
TH5	I am proud to be a HUTCH student.

2.2.2 Quantitative Research

2.2.2.1 Choosing sample method

Quantitative research is conducted through direct interview method. Sample size is 500. There are 461 valid

samples. The number of men is 287, accounting for 62%, while the number of women is 174, accounting for 38%. All selected students are 3rd and 4th year students and this sample accounted for 10% of population from the above seven faculties.

- Cluster sampling:
 - Rank 1: Faculty
 - Rank 2: Class
- Quota sampling by Sex
 - Male: 60%
 - Female: 40%
- Convenience sampling: 500 samples of 3rd and 4th year students

The samples of this research are junior and senior students (third- and fourth-year students). Thanks to roughly three-and-four-year experience at the university, the students have studied with numerous lecturers, participated in activities, had many opportunities to work with deans of the university, faculty, and departments... and staff and thus encountered working styles and the response and commitment of the university to students. For these reasons, the students can perceive accurately about the university and trust the place where they are studying. Once students trust the university, they will satisfy, introduce and promote good things about the university. As a result, the university's brand value will increase.

This study uses SPSS 20 software to test the scale and research model. Scales are tested by Cronbach's Alpha coefficient, Exploratory factor analysis (EFA). The research model is validated through PATH model.

2.2.2.2 Research process

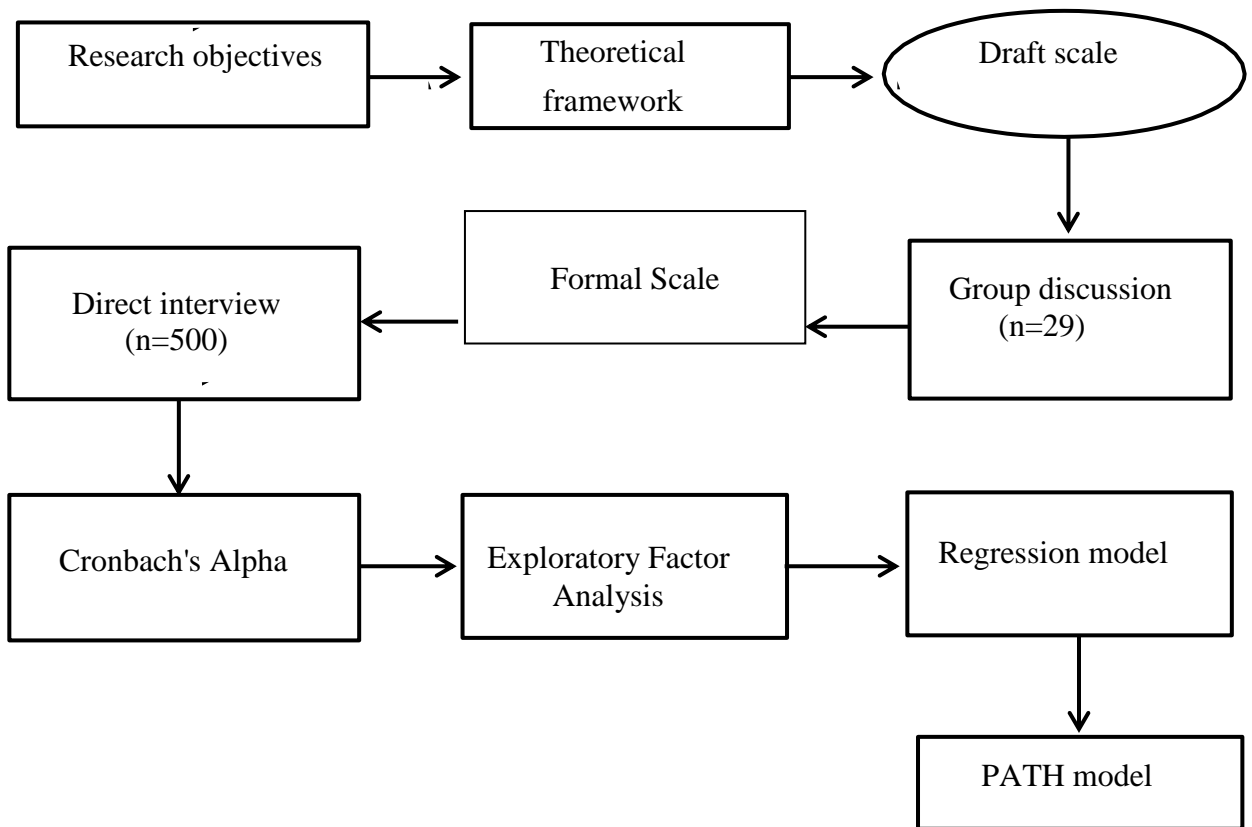


Fig. 2.2. Research procedure

2.3 Results and discussion

2.3.1 Research results

2.3.1.1 Evaluation of scale reliability

Table 2.1. Cronbach’s Alpha of Brand Factor Scale

Factor	Observed variables	Cronbach’s Alpha
Geographic location	DL1, DL2, DL3, DL4, DL5	0,779
Staffs	NV1, NV2, NV3, NV4, NV5, NV6	0,802
Facilities	CS1, CS2, CS3, CS4, CS5, CS6	0,804
Lecturers	GVI1, GVI2, GVI3, GVI4, GVI5	0,745
Confidence	NT1, NT2, NT3, NT4, NT5, NT6	0,793
Brand	TH1, TH2, TH3, TH4, TH5	0,795

Source: The author’s data analysis

2.3.1.2 Exploratory factor analysis (EFA)

Table 2.2. Result of last EFA factor analysis

Rotated Component Matrix				
	Components			
	1	2	3	4
CS5	0,787			
CS4	0,758			
CS3	0,709			
CS6	0,638			
CS2	0,627		0,307	
CS1	0,562		0,269	
DL2		0,717		
DL1		0,713		
DL3	0,228	0,686		
DL4		0,677	0,258	
DL5		0,658		
GVI3			0,751	
GVI2			0,732	
GVI4			0,640	0,243
GVI5			0,622	0,222
GVI1			0,540	
NV4				0,748
NV3	0,268			0,686
NV1		0,216	0,300	0,683
NV2		0,273		0,668
NV5				0,656

Source: The author’s data analysis

2.3.1.3. Conclusion of EFA measurement model

From the results of the analysis of EFA and Cronbach's Alpha as above, the adjusted formal theoretical research model includes four factors influencing students' confidence. Specifically, this model has five component variables, including four independent variables (Facilities, Geographic location, Lecturers and Staffs) and a dependent variable (Confidence).

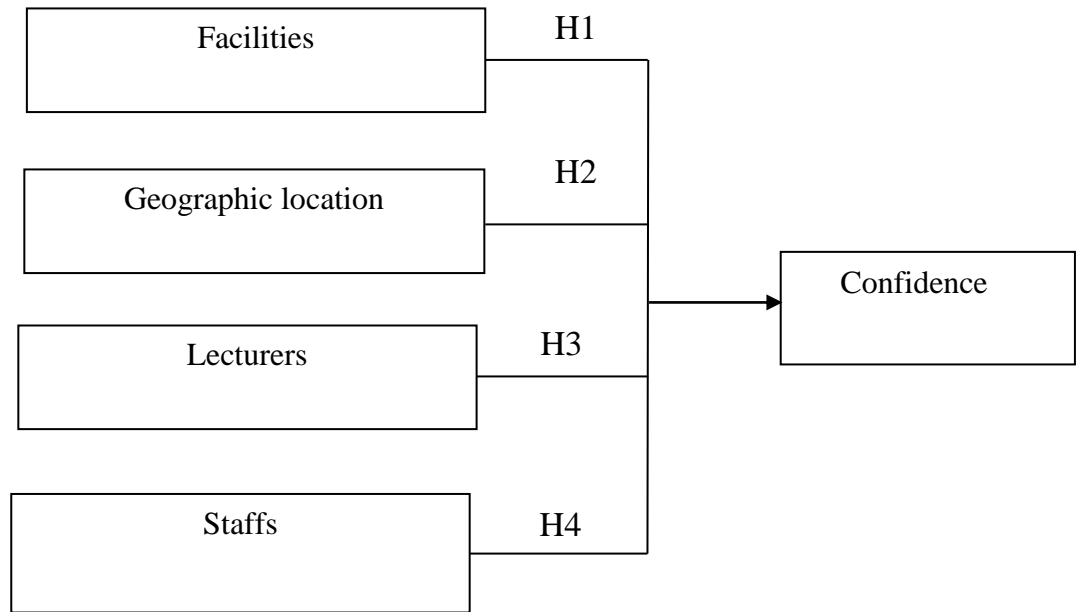


Fig. 2.3. Formal model of students' confidence

The hypotheses for the formal research model are as follows:

- H1: Facilities have the same effect direction on students' confidence.
- H2: School's geographic location has the same effect direction on students' confidence.
- H3: Lecturers have the same effect direction on students' confidence.
- H4: Staffs have the same effect direction on students' confidence.

2.3.1.4 Regression analysis

a. Multiple linear regression model

$$\text{Confidence} = a_0 + a_1 * \text{Facilities} + a_2 * \text{Geographic location} + a_3 * \text{Lecturers} + a_4 * \text{Staffs}$$

Table 2.3. Relevance of multiple linear regression model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change statistics					Durbin-Watson
					R Square change	F change	df1	df2	Sig. F change	
1	0,880^a	0,775	0,773	0,301	0,775	391,593	4	456	0,000	1,476
Independent variables: Facilities, Geographic location, Lecturers, Staffs										
Dependent variable: Confidence										

Source: The author's data analysis

Table 2.4. Statistical parameters of regression model with Enter method

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-0,320	0,100		-3,203	0,001		
Geographic location	0,310	0,022	0,366	14,018	0,000	0,726	1,376
Staffs	0,213	0,023	0,246	9,359	0,000	0,718	1,392
Facilities	0,282	0,027	0,257	10,431	0,000	0,814	1,229
Lecturers	0,307	0,026	0,321	11,880	0,000	0,678	1,476

Dependent variable: Confidence

Source: The author’s data analysis

b. Evaluation of the importance of factors influencing students’s confidence

Confidence = 0,366 * Geographic location + 0,246 * Staff + 0,257 * Facilities + 0,321 * Lecturer

Through the test results, the formal adjusted model is shown as follows:

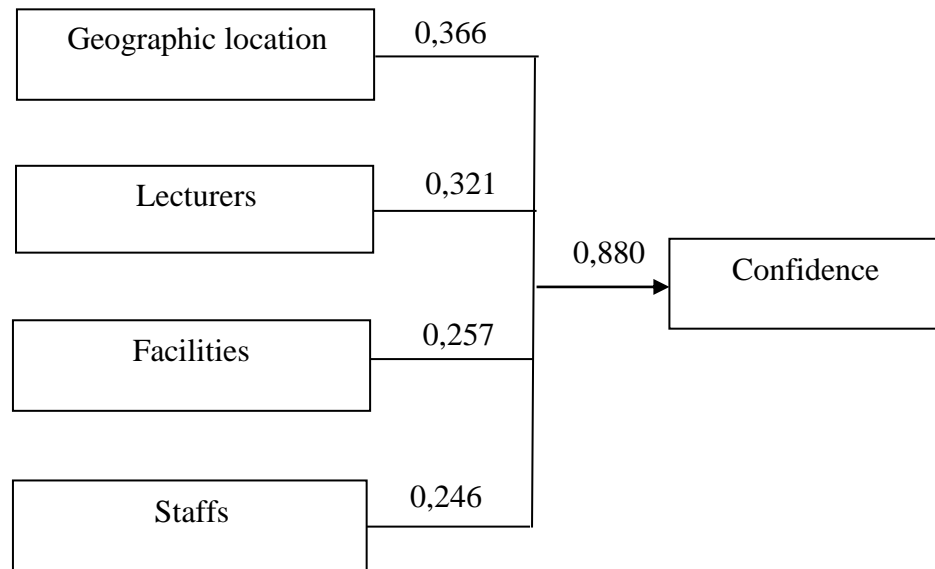


Fig 2.4. Formal adjusted model of students’ confidence

c. PATH Model

- Confidence: Independent variable
- Brand: Dependent variable

Table 2.5. Relevance of linear regression model (PATH)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change statistics				
					R Square change	F change	df1	df2	Sig. F change
1	0,891^a	0,794	0,794	0,41726	0,794	1773,117	1	459	0,000
Independent variable: Confidence									
Dependent variable: Brand									

Source: The author’s data analysis

Through results of PATH, the formal model adjusted as follows:

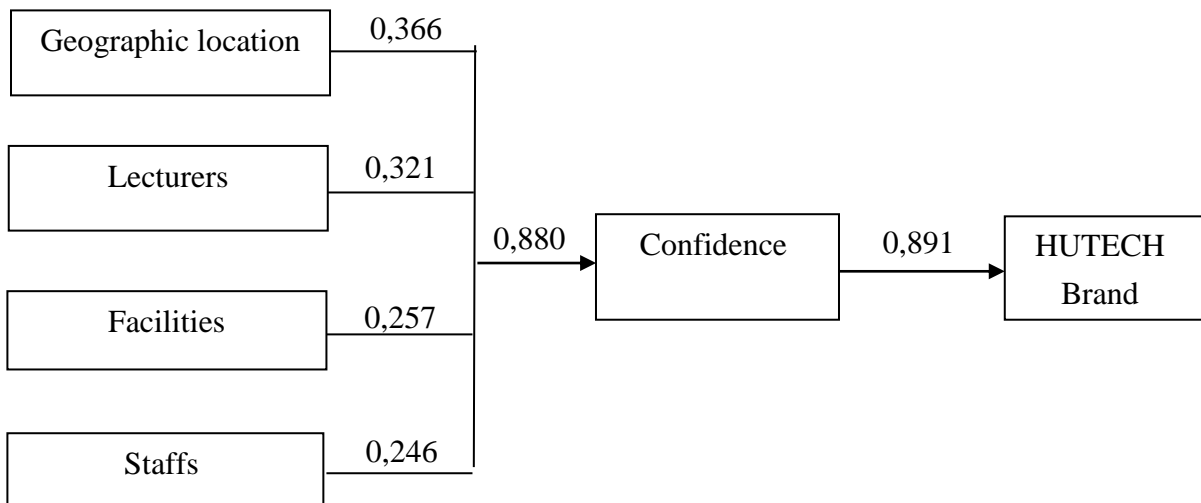


Fig. 2.5. PATH model of HUTECH brand

2.3.2. Discussion

1. In the model proposed by the research team, a new factor is Geographic location, which has not been mentioned in models that have studied the brand value of private universities. The test showed that the Geographic location Factor composed of 5 variables (DL1, DL2, DL3, DL4, DL5) and remained unchanged through Cronbach's Alpha and EFA analysis (Table 2.1, 2.2). The results show that the competitive advantages of HUTECH are: (1). Training centers are in the downtown of Ho Chi Minh city, close together. (2). The bus stop is in front of the school gate. (3). School campuses are near the provincial bus station so that it is easy for students lease a house, work overtime and visit family on weekends. This factor has the most powerful effect (standardized $\beta = 0.366$) to students’ belief. This proves to bring the new factor of Geographic location into enhancing HUTECH’s brand value is suitable.

2. The test showed that the Lecturer factor has 5 observation variables (GVI1, GVI2, GVI3, GVI4, GVI5) by Cronbach's Alpha and EFA analysis (Table 2.1, 2.2). Lecturer factor is repeated study however the results show that Lecturer is still the top concern of students when they choose to study in 4 years. Nowadays, education is a service, students desire to study with lecturers with extensive knowledge, easy-to-understand, friendly and enthusiastic teaching methods. This factor has the second strongest influence (standardized $\beta = 0.321$) to Student’s belief. This demonstrates that Lecturer is still the top concern of the university in enhancing the brand value to attract students.

3. Facilities and Staffs factors are repeat study, however the results show that this factor is less interested of students. Most private universities are now boldly investing in the construction of new facilities and modern educational devices as well as the selection and training of professional staff to withstand work pressure.

4. The Belief factor is a new point in the PATH model to study HUTECH’s brand value. The results showed that the Belief factor remained 6 observed variables (NT1, NT2, NT3, NT4, NT5, NT6) by Cronbach's Alpha

and EFA analysis (Table 2.1, 2.2). This show that students and their families still choose HUTECH because it has made the commitments: the teachers have good morale, the quality of the university's services are reliable, the university's diploma increases the ability to get jobs. ...

5. After analyzed by Cronbach's Alpha and EFA, the Brand factor retains five observed variables (TH1, TH2, TH3, TH4, TH5) (Table 2.1, 2.2), show that HUTECH is still the leading brand in private universities. A well-known university, many prestigious businesses like recruiting graduates, is a reliable place for students to study.

6. After Two-stage regression analysis:

Stage 1: Four factors DL, NV, CS, and GV (independent variables) have a proportional influence on the NTIN (dependent variable). The most influential factor is DL, followed by GV, CS and NV. With $R = 0.800$ and $R^2 = 0.775$, this is the appropriate model to use to evaluate the relationship between dependent and independent variables.

Stage 2: The Confidence variable (independent variable) had a strong influence on the brand variable (dependent variable) with $R = 0.891$ and $R^2 = 0.794$ (Table 2.3). The model explained 79.4% of the same effect direction on students' confidence with HUTECH brand. This is a very high figure show the interest of students and their families to HUTECH. These figures prove the university's worthy achievements over the past 20 years.

The results show that students, their families and society still have high trust in the HUTECH brand. This proves that using PATH to test the HUTECH's brand value enhancement model is appropriate. So as choosing a school for their children, HUTECH is still the parent's top choice. The more interested the society, the better the value of HUTECH brand.

3. Recommendations to private universities in Hochiminh city

3.1 Building campus and dormitory

Most of the student's life during school hours and extra work is tied to school and local residence. Besides, Geographic location is the most influential factor in students' beliefs. A university that meets not only elements of school facilities such as buildings, playgrounds, libraries, educational facilities, and natural surroundings around the school, but also dormitory for students near the school, is a very competitive element to attract large numbers of students.

Nowadays, Hochiminh City's real estate prices have risen everyday. The traffic jam in the inner-city has become worse. Therefore, suburban districts on the highway or metro are good places to build campus, domitory. If university does not have enough the financial resource to build school facilities in the inner-city near the main campus, it should build branches in the suburban districts such as Thu Duc, District 9, Binh Chanh, Binh Tan. Because these districts are invested by the city government to build Metro. The most advantageous is the school facilities constructed along the metro lane.

Main campus and operational center should be located integratedly at the same place to facilitate the management, teaching and learning. Last but not least, the universities should build dormitories and canteens to stabilize students' lives and mood for learning.

3.2 Attracting good lecturers

In order to recruit professional lecturers, good salary payment must be taken into consideration. In general, it is necessary for the universities to have strong financial resources to build the campus as well as to pay staffs and lecturers. Since all revenues of the universities depend on the number of students, the universities must gain prestige, build a strong brand identity to enhance their competitiveness and attractiveness of students.

Attract more young lectures graduated in developed countries. They are the innovative people, absorb the elite of the world to convey to the students.

To provide incentives so that the lectures feel assured of their works and devote their life to the long-term development of the university with wages, bonuses and benefits and, most importantly, the sale of preferred stock.

3.3 Enhancing the competing capability

In the future, the Ministry of Education and Training will drop a minimum grade for enrolling universities. Thus, the competition in new student enrollment among universities in general and private universities in particular will be more severe. Therefore, when it comes to student attraction, a university with a well-respected brand has an enormous advantage.

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Enhancing Efficiency High School Education by Investigation of the Relationship Between Construal-level of Learning and Alliance with Study Plan for High School Students

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ABSTRACT

In this article, using the Construal-level Theory (Trope et Liberman, 2010), we measured the construal level of high school students' learning; and validated the measurement scale of the alliance with the study plan of high school students in the Vietnam context including 3 dimensions: Attitude (3 items), Intention (3 items) and Behavior (5 items) following a quantitative survey of 304 students from 2 high schools in Danang, Vietnam. The result showed that the lower the construal level of high school students' learning (concrete construal level) is, the greater the alliance with the study plan is and vice versa. At a low psychological distance, students would be more allied with the study plan, so will achieve better exam results. Therefore, this gives us the idea of proposing new educational approaches to the educational programs, in order to lower the construal level of learning (by shortening psychological distances).

Keywords: construal level of learning; psychological distance; alliance in study plan; high school education

In the context of the development of international integration, the knowledge economy, the emergence of 4.0 Industry in our all aspects of the life, going to university appears to be the overriding wish of all Vietnamese high school students in our time. In Vietnam, according to statistics from the Ministry of Education and Training, more than 40% of high school students enter a university and there are 235 universities with 1,76 million students in Vietnam. Thus, developing a study plan and passing graduation examination and being eligible to attend a university remains a primary task for all Vietnamese students, from their earliest days in high school.

Having this concern of all Vietnamese society, we wish to propose new approaches to teaching in high schools to improve the students' study results. To do this, we will work on the alliance of a high school students' plan (attitude, intention and behaviors) by using the theory of construal levels (Trope and Liberman, 2010). Certainly, according to Berger et al. (2015) construal would promote behavioral change. An intervention on students' construal regarding their learning seems then to be a prerequisite (Moon, 1999). The Construal-level Theory (Trope and Liberman, 2010) should help us understand the impact of the construal level of learning on the alliance in the study plan.

As part of this paper, we will first present the conceptual framework, then the research methodology and the results of the qualitative survey and the quantitative survey concerning the construal level of high school students' learning and its links with the alliance to the students' study plan. We will finish our article by discussing the contribution, the limits and the ways of future research of our study.

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1. Theoretical framework

1.1. The Construal-Level Theory (Trope and Liberman, 2010)

Research in social psychology in general and consumer science in particular explicitly devoting to the Construal-Level Theory have been increasing constantly over the last twenty years (Fiedler, 2007). This theory has been a real success because of its rich implication and applications in social psychology (judgement, decision-making, etc.), consumer behavior (buying decisions, intention, brand representation, negotiation and impatience when consumer problems are taking place over time (Liberman, Sagristano and Trope, 2002; Trope and Liberman, 2000, 2003), in health (Henderson et al., 2011), and more recently in the field of education (Halamish and Nussinson, 2013, Ho et al., 2015).

1.1.1. Definition

The Construal-Level Theory explains “the way in which psychological distance impacts the thoughts and behavior of individuals” (Trope and Liberman, 2010, p.440) and postulates that “people mentally construct objects psychologically close in terms of low-level, detailed and contextualized characteristics, while at a distance, they construct the same objects or events in terms of high-level, abstract and stable characteristics” (Trope and Liberman, 2010, p.441).

Psychological distance (Fiedler, 2007) can be viewed as a continuum whose starting point would be the direct experience of reality. Beyond this point, individuals develop mental construal from their subjective perception of reality. There are two levels of construal:

- The low level characterizes contextualized mental construal, including the anecdotal details of events (concrete construal of reality).
- The high level refers to decontextualized construal, focusing on the essential information of the event (abstract construal of reality).

In the case of following a study plan for example, the low level of construal refers to “doing exercises, attending all classes, being on time, memorizing lessons,...” and level high construal refers to “surpassing all exams, having good learning outcomes, succeeding in life”.

Moreover, the different distances are cognitively related to each other, they influence in a similar way and are influenced by the level of mental construal, and they affect the prediction, the preference, and the action in the same way (Trope and Liberman, 2010).

1.1.2. The psychological distance

According to Trope and Liberman (2010), people live, in a direct way, only the present: here and now. Things (objects, events) that are not part of our direct experience of reality (everything that does not happen “here” and “now”) are psychologically distant (Liberman, Trope and Stephan, 2007). Psychological distance can be viewed as a continuum whose starting point would be the direct experience of reality. Beyond this point, individuals develop mental constructs from their subjective perception of reality. There are four forms of psychological distance (Trope and Liberman, 2010):

- *The spatial distance* (here / there) refers to objects that are physically distant: what is the distance between the target of the receiver and the situation observed in space (Fujita et al., 2006). Individuals tend to identify actions as objectives rather than as means in greater distance when these actions occur at a geographically distant location, as opposed to a nearby location. They use more abstract language to recall spatially distant events from spatially-related events. Thus, spatially distant events are associated with high-level construal and events spatially close to low-level construal.
- *The temporal distance* (near future / distant future) characterizes things that happened in the past or will occur in the future: how much time (past or future) separates the present time of the receiver and the target event. According to Liberman and Trope (1998), Liberman, Sagristano and Trope (2002), the more distant future is represented in a more schematic, abstract and coherent way (high-level construal).
- *The social distance* (oneself / others) is the distance that can be felt between two individuals belonging, for example, to different socioprofessional categories, oneself facing the others, friend to the foreigner. This distance is about how individuals advise others or decide for others. It examines the concept of “similarity”

between two individuals and the effects of power on the notion of distance (Galinsky, Gruenfeld and Magee, 2003).

- *The hypothetical distance* (probable / improbable) evokes an event whose realization is not certain. It corresponds to the probability that the target event will occur, or how close it is to reality, as interpreted by the receiver. According to Wakslak et al. (2006), an unlikely event will appear more distant.

1.1.3. Fields of application of the Construal-Level Theory

According to Liberman et al. (2002), Trope and Liberman (2003), questions about the psychological consequences of the time perspective can be found in many studies, namely:

- in the behavioral sciences: Loewenstein and Prelec (1992, 1993); Liberman and Trope (2003);
- in psychology: Ainslie (1975); Ainslie and Haslam (1992); Metcalfe and Mischel, (1999); Rachlin, Brown and Cross (2000);
- in behavioral economics: Loewenstein and Prelec (1992);
- in decision-making: Gilovich, Kerr and Medvec (1993); Nisan (1972).
- in the field of health: Reach (2000); Reach (2006); Henderson and al. (2011).

Particularly in psychology, the questions of the time perspective have played a central role. Individuals often contribute a higher value on a reward of the near future than on that of a distant future, even if the reward for the distant future is greater (Trope and Liberman, 2003).

The Construal-Level Theory developed in social psychology has quickly found application fields in management, and in particular in marketing (Audrezet et al., 2011). Trope, Liberman and Wakslak (2007) have shown that this theory is relevant to better understanding consumer psychology and in particular purchasing decision making processes. The issue of construal levels could be explanatory of changes in a consumer's attitude towards supply and then dissatisfaction and regret, which makes use of the initiatives of our research on the change of behavior of high school learners.

In particular, Moon (1999) manipulated the amplitude of spatial distance in the context of computer communication (CMC). He showed that participants were more persuaded to change their minds after receiving concrete and detailed messages from a spatially close rather than distant source. These results are in line with recent work of Construal-levels Theory in distancing and persuasion, which found that persuasion was highest when participants experienced a small distance (vs. big) and received convincing low-level, concrete messages (rather than high-level, abstract) (Fujita et al., 2008, Kim et al., 2009).

Currently, two important social domains where distance is of an increasing concern are education and health care (Henderson et al., 2011). There are increasing differences in distance between educators and students in the higher education system (Tallent-Runnels et al., 2006) and doctors and patients in the health system (DeVoe et al., 2007; Mohr et al., 2008). These fields of research remain open to all actors in these fields.

To our knowledge, there are still no studies working on the Construal-levels Theory in favor of a better involvement of learners in their studies. Based on the scope of the Construal-levels Theory, we hope to find the links between the construal levels of learning and the alliance with the students' plan study.

1.2 Alliance with study plan of secondary school students

Basing on the review of the alliance's definitions (Freud, 1912, 1913; Hougaard, 1994; Lamouroux, Magnan, Vervloet, 2005...), we have proposed a definition as follows: Alliance with the study plan of secondary school students is that students have to do exactly a study plan that is designed for them by themselves or by their parents or by their teachers or by schools... in order to bring them the desired results.

In this study, we will examine the alliance in the plan study of high school students, including students in the 10th, 11th, 12th grades, when they implement a specific learning plan designed to achieve the best results on the Graduation examination.

Since this is a relatively new study on the high school student learning alliance, we have developed a new scale based on Theory of Reasoned Action (Ajzen and Fishbein, 1980) and scales available on the alliance concerning our research. Based on the Theory of Reasoned Action (TRA), which was developed in 1967 and modified over time from the early 1970s by Ajzen and Fishbein (1980), the consumption trend is the best predictor of consumer behavior in respect to attitudes, behavioral tendencies (intention) and actual behaviors, we built the alliance measurement scale into high school students' study plan in three dimensions: alliance attitude, alliance intention, and alliance behavior of high school students. As part of our research, this is the alliance study plan to be successful in the Graduation examination of students' secondary education. The items on this scale

will be adapted to the Thompson et al. (2000), which are divided into 03 dimensions: alliance behavior in the study plan (06 items), alliance attitude in the study plan (03 items) and alliance intention in the study plan (03 items).

2. Research methodology

We will measure construal levels of learning and alliance in the learning plan of high school students, then investigate the relationship between the construal levels of learning and the alliance in the learning plan with the aim of proposing educational approaches within the secondary education program.

To measure the construal level of high school students' learning, based on the relevant literature review, we conducted a qualitative survey with hypothetical situations as a basis for developing the questionnaire for the subsequent quantitative study.

As for the alliance in the learning plan, we validated the scale of measurement and determined the degree of alliance in the students' study plan following this scale.

Finally, we conducted the ANOVA to give the comments and conclusion of our research.

2.1. Qualitative survey

We conducted semi-structured interviews with 52 high school students of Phan Chu Trinh high school and Le Quy Don high school for the gifted, in May 2018 in Danang, Vietnam. The duration of each interview is approximately 30 minutes.

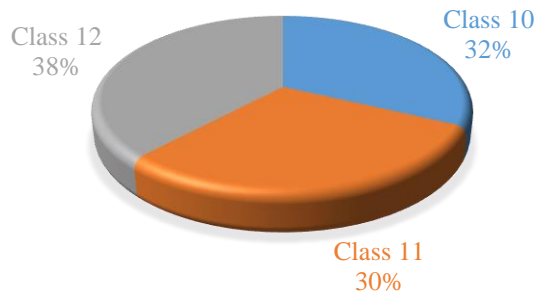


Fig. 1. Sample surveyed by class

In this survey, students were divided into 2 groups: the first group at the high level and the second group at the low construal level of learning. With 4 proposed scenarios (Appendix A), students responded as suggested to show their construal level of learning: ask questions “why” and give the reasons when they have to solve the problems (group 1); ask questions “how” and give the means when they have to solve problems (group 2).

The results of this first qualitative survey helped us to better understand the construal level of student learning and to build a scale of the construal level of learning with 3 questions “why” and an assertion regarding abstractness for each psychological distance from group 1 results; and 3 questions “how” and one assertion regarding the specificity for each psychological distance from the results of group 2 (Appendix B).

2.2. Quantitative survey

After developing the scale of the construal level of learning as a result of the qualitative survey, we conducted a quantitative study that included: personal information about high school students surveyed; a measurement scale of the construal level of high school students; a scale of attitude, behaviors and intention of alliance to the learning plan of high school students (preparation for an important examination).

The construal level was evaluated on a scale of 1 to 5 with 1: the lowest NR and 5: the highest NR in each concrete situation, namely:

- The one who has chosen 3 questions “Why” and the “abstract” assertion will have the construal level at level 5.
- The one who has chosen 3 questions “How” and the “concrete” assertion will have the construal level at level 1.
- The one who has chosen 2 questions “Why”, 1 question “How” and the assertion “abstract” will have construal level at level 4.

- The one who has chosen 1 “Why” question, 2 “How” questions and the “concrete” statement will have the construal level at level 2.
- For the other cases, the construal level was evaluated at level 3 (construal level not specified, neither weak nor high).

The scale of attitude, behaviors and intention of alliance in the learning plan of high school students is measured on a 7-point Likert scale, from 1: the most allied to 7: the least allied (Appendix C).

The survey was conducted in May 2018 in Da Nang, Vietnam, with a sample of 304 high school students (32% in 10th grade, 30% in 11th grade, 38% in 12th grade).

3. The results of the research

3.1. Validation of the alliance measurement scale of high school students’ study plan

Firstly, exploratory (ACP) and confirmatory (with 500 bootstraps) factorial analysis were performed to purify and validate the measurement scale of the alliance in the study plan. We have obtained a scale comprising three dimensions and 11 items: “ATT: Alliance Attitude in the study plan” (3 items), “INT: Intention to break or follow the study plan” (3 items) and “COM: Alliance behavior in the study plan” (5 items) presented in Table 1.

Table 1. The alliance measurement scale in the study plan

Dim	Items	Loading	Test t	Rho D.G.	Rho VC
COM	Sometimes I forget to respect my study plan for this Graduation examination.	0,773	13,971	0,925	0,711
	I sometimes neglect to respect my study plan for this important exam.	0,852	32,275		
	I have already stopped my study plan because I find my results worse.	0,787	15,744		
	I am constantly deviating from my study plan while preparing for this important exam.	0,891	32,460		
	I strictly follows my plan of study to prepare for this important exam*.	0,899	35,903		
Dim	Items	Loading	Test t	Rho D.G.	Rho VC
ATT	I respect my study plan only when I am forced to respect it.	0,795	15,096	0,878	0,705
	I feel nervous working to respect my study plan to prepare for this important exam.	0,875	21,123		
	Complying with this plan of study for this important exam hurts me.	0,840	20,094		
INT	I intend to respect my study plan even more seriously to prepare for this important exam*.	0,833	13,273	0,882	0,714
	I intend to stop this study plan for this important exam.	0,848	15,916		
	It is very likely that I will continue to respect my study plan for this important exam*.	0,832	14,688		

In a second step, analysis of variance were conducted between the construal level of students’ learning and their alliance with the study plan (whose standardized factor scores were saved from 0 to 100 after bootstrap).

3.2. Alliance with the study plan and construal levels of learning

The result (Table 2) showed that according to the construal level of students, their study plan’s alliance differs. This is valid regardless of the perceived psychological distance (temporal, social, spatial and hypothetical). In all cases, the degree of alliance and the construal level varies inversely: the stronger the alliance is, the lower the distance and the concrete construal level are. In other words, the more abstract the learning is for the students, the less respect students show to their study plan, the less favorable they are to the plan and the

more discrepancies students make.

Table 2. ANOVA Results – Construal Levels and Alliance with Study Plan

Levels	Temporal distance			Social distance			Spatial distance			Hypothetical distance		
	COM	ATT	INT	COM	ATT	INT	COM	ATT	INT	COM	ATT	INT
1 (Concrete)	59,105	69,986	51,717	76,043	70,580	53,213	72,375	70,009	50,591	85,162	78,592	55,399
2	64,470	63,838	40,055	57,860	61,448	46,087	57,632	48,873	45,891	55,206	54,828	39,325
3	40,283	45,599	30,749	51,523	49,220	35,088	53,000	49,288	36,674	51,889	39,491	41,347
4	51,712	46,626	32,395	41,311	35,928	23,188	50,957	49,223	30,355	44,931	41,005	23,050
5 (Abstract)	42,138	34,470	22,283	41,730	40,190	23,694	35,604	34,066	20,397	35,717	36,089	22,101
p value	0,0000	<,0001	<,0001	0,0000	<,0001	<,0001	<,0001	<,0001	<,0001	<,0001	<,0001	<,0001

3.3. Degree of study plan’s alliance and different classes

The results (Table 3) show a significant difference in the degree alliance of students' study plan in different classes. Students in the lower classes (10th grade) have a lower degree of alliance than students in the higher classes (11th grade and 12th grade) in terms of behaviors, attitude and intention. In addition, the degree of alliance regarding the intention of students in the 11th grade and the 12th grade is almost the same (Appendix D), which corresponds to the reality that most students started to take serious consideration of the final high school graduation examination from the 11th grade.

Table 3. ANOVA Results - Study plan’s alliance and classes

	COM	ATT	INT
10 th grade	64,189	59,421	49,307
11 th grade	42,898	45,914	19,929
12 th grade	35,926	30,975	21,242
p value	<0,0001	<0,0001	<0,0001

3.4. Construal-levels of learning and different classes

The analysis result on the variance of the construal level of the learning and of the different classes explain the same observation when we see a clear difference in the psychological distances felt (temporal, social, spatial, hypothetical). The higher the class is, the lower the level of construal is, in other words, the more the students have concrete construal and vice versa (Appendix E).

Table 4. ANOVA Results - Construal levels and different classes

Classe	Temporal distance	Social distance	Spatial distance	Hypothetical distance
10 th grade	3,172	3,192	3,172	3,566
11 th grade	2,144	2,367	1,989	1,833
12 th grade	1,365	1,452	1,322	1,183
p value	< 0,0001	< 0,0001	< 0,0001	< 0,0001

4. Discussion and conclusion

The Construal-Level Theory of Trope and Liberman (2010) integrated with psychological distance has opened up a new avenue of research for better understanding the factors that explain the difficulties of secondary school students in the alliance with the study plan in their preparation for one of the most important examination in their lives. Our work presents four contributions:

- *First*, we validated the measurement scale of the alliance with the study plan in high school students in the

Vietnam context. This scale includes 11 items distributed around 3 dimensions (Attitude, Intention and Behavior);

- *Secondly*, we constructed a scale of the construal level in the learning of secondary school students;
- *Thirdly*, we confirmed the links between the construal level of learning and the study plan's alliance: the lower the psychological distance is (level of concrete construal), the greater the alliance is and vice versa;
- *Fourth*, we confirmed the links between the construal level of learning and students at different grades: The higher the students are in a higher class, the lower the construal level of learning is (level of concrete construal).

This gives us the idea of proposing new educational approaches to the programs, for example extracurricular activities, project-based pedagogy, etc. in order to lower the construal level of student learning. To be more specific, at a low psychological distance, students would be more allied with the study plan, and they will have better exam results as a result.

- *Regarding temporal distance*: The higher construal level (abstract construal of learning) is, in other words, the greater the distance in time is, the less students tend to be allied with the study plan. This result corresponds to reality. Indeed, the students of the 10th grade are generally less allied than those of the 11th grade and the 12th grade because according to those of the 10th grade, there is still a lot of time before the Graduation examination. As a result, these students should be shown that the future is really important to them.
- *Regarding social distance*: For high school students, building friendship is really important and necessary. Yet helping them understand the specific goals for each period is the key to shorten this social distance. Being aware of the appropriate social distance raises a question for educators.
- *Regarding spatial distance*: family and school support also plays an important role in creating the most favorable conditions for student learning.
- *Regarding the hypothetical distance*: At this age (16 to 18 years), high school students continue to ask many questions "why", especially "Why learn?", "Why follow the study plan?". Education about the role of knowledge and vocational guidance will give them a clearer idea of why they should be studying and especially how to perform it better.

One limitation of our research is that we were only able to apply one single situation for each psychological distance, which is sometimes difficult for the respondents as they may not experience these situations before and not be able to imagine their position in those.

Finally, our work may open further research perspectives in the field of education: helping learners become more involved in their studies and improving their learning by changing their construal levels.

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Appendix A. Situations to measure construal levels of high school students' learning

In order to best prepare for the Graduation examination, you have set yourself a serious study plan.

- **Situation 1.** As the exam will take place in the distant future (in 3 years), at the beginning of the 10th grade, you have made some deviations from your study plan.
- **Situation 2.** A group of friends organizes an excursion, you are invited. Still, you have to give up some extra lessons to participate to it. You were not very comfortable but you still took part in the excursion because this group of friends is very famous at school.
- **Situation 3.** It's time to go to an important class. It's pouring rain, all means of transport are not able to pick you up. You can walk but the road is far enough.
- **Situation 4.** Despite some discrepancies from this study plan, your results are still good. You think that this study plan is no longer really necessary.

Appendix B. Measurement scale of construal levels of high school students' learning

- **Situation 1.**

Questions "Why"

Why should I always respect this study plan?	1WHY1
Why should I always hang on to my studies?	1WHY2
Why do I have good grades even if I have made discrepancies in my study plan?	1WHY3

Questions "How"

How can I best respect my study plan?	1HOW1
How to respect my study plan every day?	1HOW2
How can this plan of study not interfere with my daily life?	1HOW3

Assertions

I am always looking for reasons to convince me to respect my study plan whatever the Graduation examination takes place in 3 years.	1IDEN1
I am always looking for means to respect my study plan during these 3 years.	1IDEN2

- **Situation 2.**

Questions "Why"

Why should I make discrepancies in my study plan because of the invitation of this group of friends?	2WHY1
Why did this group of friends interrupt my study plan?	2WHY2
Why did not I refuse the invitation of this group of friends?	2WHY3

Questions "How"

How to refuse the invitation of this group of friends?	2HOW1
How can this group of friends know that I have important courses not to miss?	2HOW2
How to refuse the invitation without influencing our friendship?	2HOW3

Assertions

I weigh the pros and cons between going to classes and accepting the invitation to maintain good relations with this group of friends.	2IDEN1
I always look for means to respect my study plan when I'm invited, regardless of relationships with others.	2IDEN2

- **Situation 3.**

Questions "Why"

Why walk far to go to class in the rain?	3WHY1
Why not work at home, when I'm not able to go out?	3WHY2
Why not choose another course location near the house?	

Questions "How"

How to go to class in this context?	3HOW1
How not to go out while grasping the contents of this course?	3HOW2

How to have the contents of this course?	3HOW3
Assertions	
I have to convince myself to go out in order to maintain my study plan.	3IDEN1
I am looking for means to overcome this difficulty to be able to respect my study plan.	3IDEN2

• **Situation 4.**

Questions “Why”

Why respect my study plan while my study results remain very good?	4WHY1
Why do I still have good grades despite a gap in my study plan?	4WHY2
Why not try to break my study plan?	4WHY3

Questions “How”

How can I always remember my study plan while my study results are still very good?	4HOW1
How to always strictly follow my study plan?	4HOW2
How can I always remind myself that I am preparing for the exam when my study results remain very good?	4HOW3

Assertions

I always think about why I have to respect my study plan even though my study results are still very good.	4IDEN1
I am always looking for means to respect my study plan even though my study results are still very good because my goal is to be able to enter a university.	4IDEN2

Appendix C. Measurement scale of attitude, intention and behavior alliance with high school students' study plan (in preparation for Graduation examination)

• **Alliance behavior with the study plan**

Original scale	Scale retained in this search	Coding
Do you ever forget to take your medication? [Mars 1, Thompson et al., 2000]	Sometimes I forget to respect my study plan for this Graduation examination.	ALLI1
Are you careless at times about taking your medication? [Mars 2, Thompson et al., 2000]	I sometimes neglect to respect my study plan for this important exam.	ALLI2
When you feel better, do you sometimes stop taking your medication? [Mars 3, Thompson et al., 2000]	I have already stopped my study plan because I find my results better.	ALLI3
Sometimes if you feel worse when you take the medication, do you stop taking it? [Mars 4, Thompson et al., 2000]	I have already stopped my study plan because I find my results worse.	ALLI4
I always have gaps in my treatment.	I am constantly deviating from my study plan while preparing for this important exam.	ALLI5
I strictly follows my treatment*.	I strictly follows my plan of study to prepare for this important exam *.	ALLI6

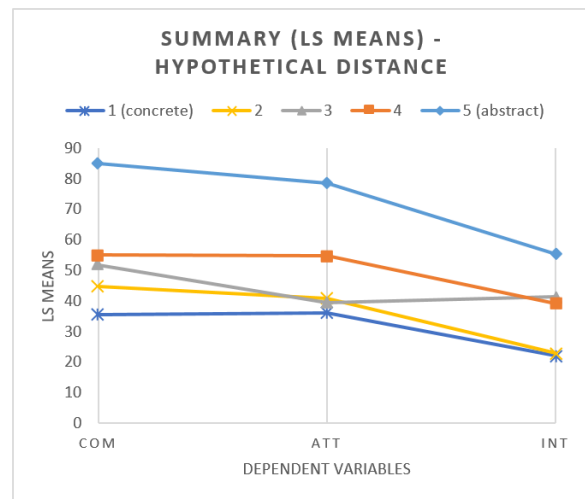
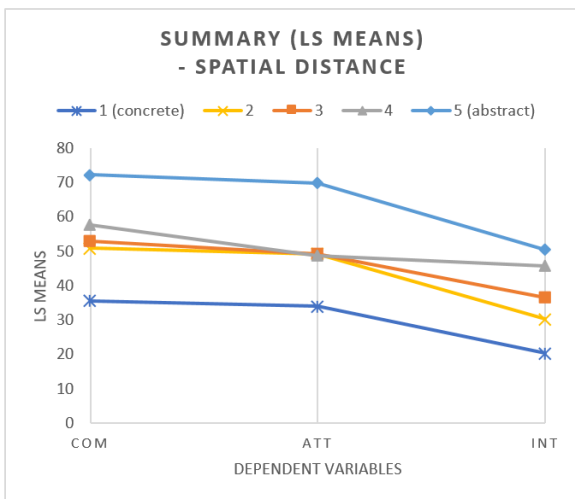
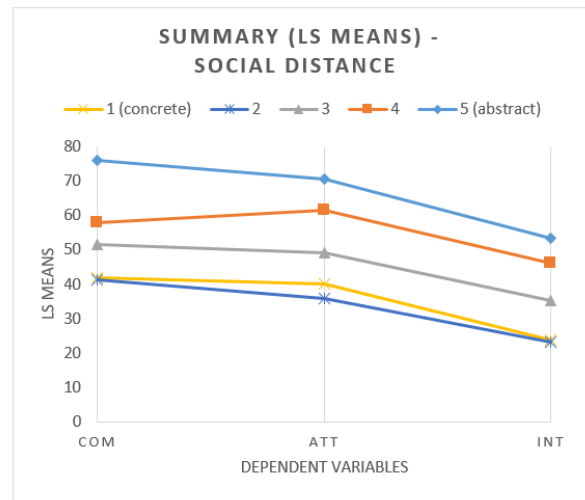
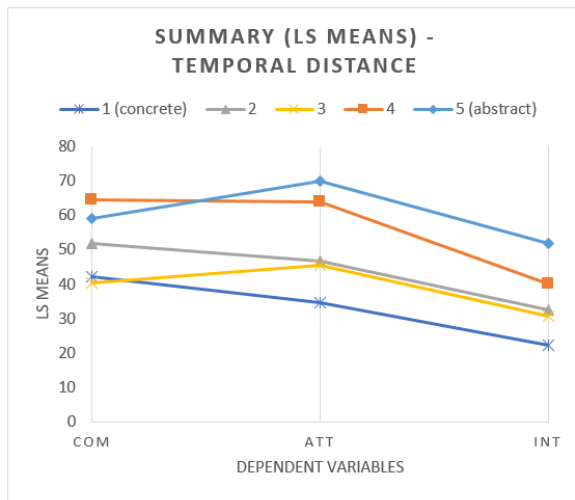
• **Alliance attitude with the study plan**

Original scale	Scale retained in this search	Coding
I take my medication only when I am sick. [Mars 5, Thompson et al., 2000]	I respect my study plan only when I am forced to respect it.	ALLI7
It is unnatural for my mind and body to be controlled by medication. [Mars 6, Thompson et al., 2000]	I feel nervous working to respect my study plan to prepare for this important exam.	ALLI8
Medication makes me feel tired and sluggish. [Mars 10, Thompson et al., 2000]	Complying with this plan of study for this important exam hurts me.	ALLI9

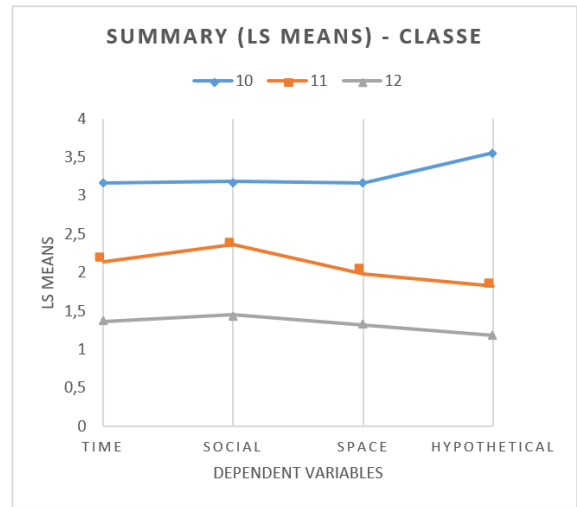
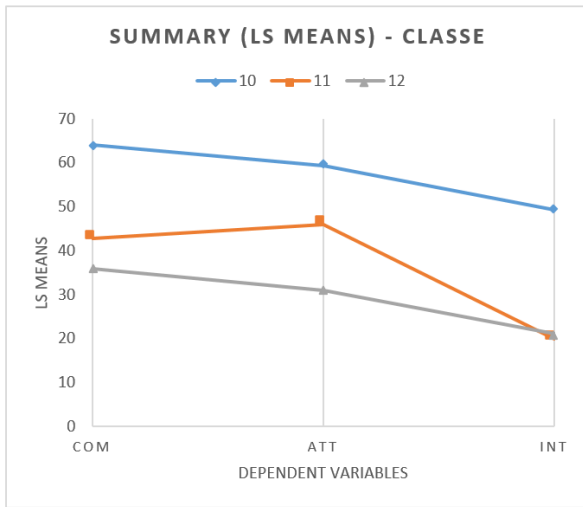
Alliance intention with the study plan

Original scale	Scale retained in this search	Coding
I intend to follow my diet even more seriously*.	I intend to respect my study plan even more seriously to prepare for this important exam*.	ALLI10
I intend to stop following my treatment.	I intend to stop this study plan for this important exam.	ALLI11
It is very likely that I will continue to follow my treatment*.	It is very likely that I will continue to respect my study plan for this important exam*.	ALLI12

Appendix D. Results of ANOVA – Construal levels of learning and Alliance with the study plan



Appendix E. ANOVA Results - Construal Levels of Learning and Classes





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Applying Balanced Scorecard (BSC) Model to Vietnamese Vocational Institutions in the Digital Age

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ABSTRACT

The vocational training and education (VTE) system in Vietnam has been experiencing various changes in terms of governmental administration (as it is presently under the governance of the Ministry of Labour, Invalid and Social Affairs instead of the Ministry of Education and Training) and orientations, which are to achieve autonomy and to be operated as social enterprises. This paper analyzes various perspectives in missions, visions and performance assessment criteria of Vietnamese VTE institutions and compares them with four perspectives of a performance management model using Balanced Scorecard (BSC). Using the data obtained from a survey on vocational institutions within a ministerial-level project conducted by the authors in 2017, the paper investigates the adoption level of this new management model and finds out that chief executive approval and information technology (IT) support are the most influential factors. Lastly, we propose various resolutions to maintain the balance among four perspectives of BSC (Financial, Customer, Internal Processes and Learning and Growth) and to align IT with BSC to create the IT-BSC model, with the aim of amplifying the strengths of BSC as well as advancement in IT in the field of objective management/administration in the Digital Age.

Keywords: BSC; IT; ERP; MBO; Vietnam; Vocational Institutions; management model; factors; training; education; performance management; strategy.

1. Introduction

In recent years, the vocational training education (VTE) system of Vietnam has broadened its educational scale, better met the learning demand of the residents and initially followed the trend of international integration. However, in the next period, the VTE system will be affected by a number of factors, requiring intensive and complete renovations. In this new context, the Government of Vietnam has introduced new orientations for renovating the educational system in general and VTE system in particular, including: Orientations on the role of the government from directly controlling to developing and supervising; enhancing the autonomy and accountability of VTE institutions, renovating VTE institutions' administration in pursuance of international integration. To implement the orientations for renovating the VTE system, the Ministry of Labour, Invalid and Social Affairs (MOLISA) with its functions and missions, on the one hand, improves the legal system through proposals to amend, develop and improve the current regulatory framework to create incentives for VTE institutions to promote their activeness, creativeness and to exploit their potentials for development. On the other hand, MOLISA also submits a proposal for approval of the Prime Minister on the strategies that assign vocational training as the basis for a reform and a long-term comprehensive and sustainable development. These strategies of developing VTE institutional system are being developed with a long-term view for the time period until 2030. Among these are some crucial strategic contents[†] directly related to educational quality, educational process and the autonomy of VTE institutions, as below.

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[†] Decision No. 630/QĐ-TTg dated May 29, 2012, Approving the Strategy to develop vocational training for the period of 2011-2020.

Firstly, VTE institutions need to provide vocational education according to the demand of the labour market. This requires VTE institutions to improve educational quality and broaden educational scale, to universalize vocation for laborers and to meet the labour demand of industries that use highly trained human resources as well as labour export. Another approach to this strategy implementation is that VTE institutions have to expand and improve international cooperation to develop vocational education, to focus on forming high quality VTE institutions, especially international standard institutions; national, regional and global key trades.

Secondly, VTE institutions have to satisfy the demand of the labour market in terms of quantity, quality, occupation composition and qualifications; to ensure that some occupations' quality meets the standards of ASEAN countries and around the world; to form a quality work force, contributing to the improvement of national competitiveness, labour composition, income enhancement, sustainable poverty alleviation and assurance of social security.

Thirdly, staffing, administrative, budget and possession autonomies are to be improved and strengthened substantially*.

Hence, with the approved strategy until 2020 and the industry's strategic project in the 2020-2030 period, both the government and the labour market have set challenges for VTE institutions to flexibly manage their system to achieve the objectives and missions as determined for each development stage in a very limited amount of time. Among these objectives and missions, the most important ones are to meet the demand for quality labour of the economy, comprehensively integrate with the regional and international VTE system, contributing to the improvement of national competitiveness and national prosperity.

The vision and mission determination of VTE institutions used to be limited and undervalued. Most vocational education schools and vocational training centers did only focus on regular daily administrative management and rely on financial aids and compensation from the national budget, or on small amounts of tuition fees from a modest number of learners to continue their operations. Nowadays, VTE institutions should stop working in an isolated and passive manner, as they are closely supervised by the government, by the society and by enterprises as direct users of the educational products. The society will evaluate VTE institutions on many aspects such as instructor quality, curriculum quality and quantity, research products, graduated students' quality. The criteria and standards for this evaluation have been generally built and applied in a larger scope both nationally and internationally, with eight criteria for VTE centers and nine criteria for vocational intermediate schools and colleges† including: Objective, mission, organization, administration; Training; Instructors, administrative officers, staff; Programs, courses; Facilities, educational equipment and library; Scientific researches, technology transfer and international cooperation; Financial management; Learner service; Supervision, quality assessment. We categorize these into five groups depicted in Figure 1.

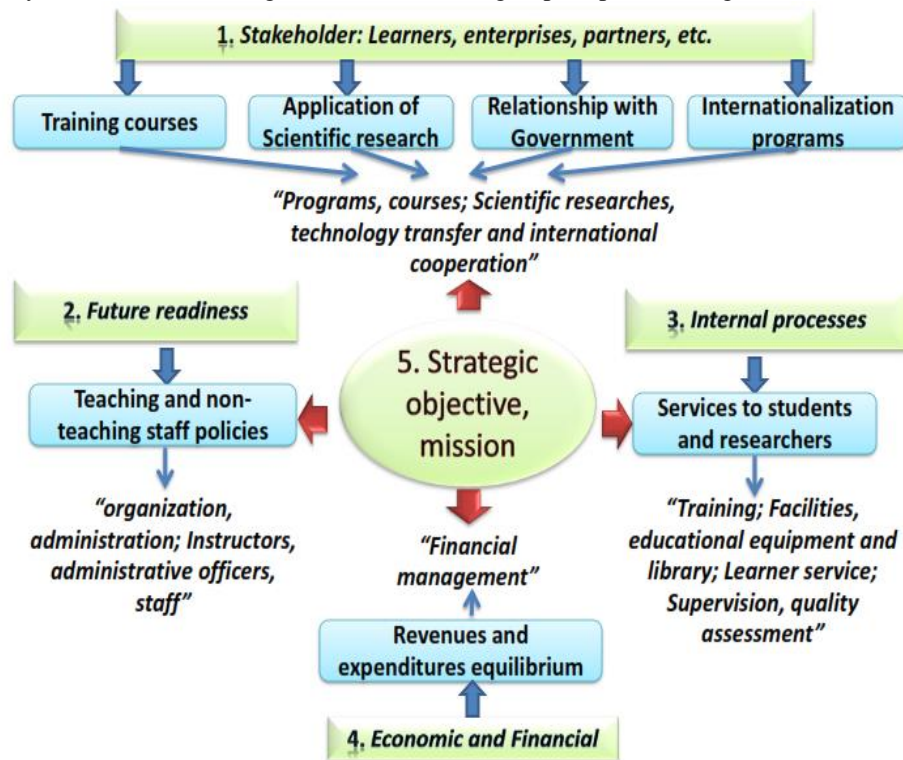


Fig. 1. Model of Balanced Scorecard application in education

* Article 24, Decree No. 16/2015/ND-CP dated February 14, 2015 of the Government, governs the autonomy of public divisions.

† Circular No. 15/2017/TT-BLDTBXH dated June 08, 2017 of MOLISA governs the criteria and standards to evaluate vocational education quality.

The standards in these criteria in Vietnam are being improved to suit the international standards because more and more foreign firms have been investing and operating in Vietnam. The educational quality and reputation of VTE institutions will grow if graduated students are appreciated and employed by foreign invested companies and multinational corporations. However, the criteria and standards do not directly lift up the VTE quality. VTE institutions are always well aware of their challenges: (i) quality enhancement; and (ii) limited resources strictly restricted by the legal framework. Thus, leaders, managers and instructors of VTE institutions should view their institutions as genuine enterprises that provide educational services, scientific researches for the society, hence need to plan their strategies precisely and regularly modify them to cope with today changeable competitive environment. It is an inevitable trend that vocational training centers and institutions should be managed and operated as independent organizations. To accomplish the objectives and missions, and to achieve success together with international recognition, VTE institutions need to operate under the model of social businesses. Given that, VTE institutions cannot simply announce the enrollment quota and wait for students to enroll, but need to actively search for purchase orders from enterprises and broadcast to potential learners. To do that, VTE centers and schools have to continuously raise their training quality, to improve internal governance mechanism, to apply technologies more efficiently, to ultimately maintain sustainable development and build up their reputation and competitiveness. For the above reasons and the categorized five-group criteria, we assume that effective VTE institutional administration needs research on the application of the well-known “Balanced Scorecard” (BSC) model by Kaplan and Norton (1992). Until now, it has been successfully applied by many organizations including VTE institutions and educational institutions in the Europe, the USA, Canada, the UK and Singapore. With that recognition, this research analyzes the key factors that influence the adoption level of BSC model in strategic administration in VTE institutions of Vietnam. To boost the application of this model to VTE institutions in a larger scope, this paper also provides some suggestions on the application and implementation of BSC model in adherence to the particular conditions and environment of VTE institutions in Vietnam in the context of the Fourth Industrial Revolution. The research aims at answering the following questions:

- i. *Is BSC model compatible with the VTE institutions?*
- ii. *Are VTE institutions ready to adopt BSC model?*
- iii. *To successfully apply BSC model to performance assessment in VTE institutions, what are the solutions to operate this model using the advancement of information technology (IT)?*

2. Literature review

The author of “The Practice of Management” (1954), Peter Ferdinand Drucker, is a management consultant and educator, whose a number of writings are particularly helpful to modern business management. Known as the “Father of Modern Management”, he proposed the idea of “Management by objectives - MBO” and regarded effective knowledge management as one of the greatest challenges in the 21st century. He believed in the importance of sharing the database of the organization’s performance to its members, creating opportunities for discussions on assumptions in strategies, self-reflection, exchange of knowledge and gaining experience from unexpected results, as well as proposal of new ideas to be shared, which contribute to the later improvement of different aspects in the organization. With the management by objectives model, all individuals in the organization are provided with information about its strategies, its position and their responsibility to its development. Shortcomings of the model proposed by Peter F. It was noted by Drucker that the practical implementation may involve some difficulties in maintaining the data exchange system. Besides, when being applied at organizational level, MBO should be guaranteed by the whole organization and be accompanied by a system of internal criteria for objective and productivity assessment. The manager needs to impart objectives to each level before an agreement can be reached. As a result of this process, other activities can be slowed down. In other words, the practice of MBO with all procedures may be time-consuming, especially when the objectives are not tracked continuously or the involvement of information technology is not sufficient. At least, MBO ensures that the organization will not be sidetracked in the process.

Master Nguyen Thi Kim Anh is the author of “*Application of BSC model to university administration*” (Proceedings of the Conference on Advances in University and College Management of Vietnam, 2010). She highlights the necessity and the high potential of BSC model application to university administration. Particular procedures to build the BSC model and implement it are also specified. This research does not mention what different features are between education and business, but it suggested new approach to manage education and training institution in Vietnam

Another research is Nguyen Huu Quy’s “*Application of the Balanced Scorecard to University Administration*”, Journal of Science and Technology, vol. 2(37), 2010. Danang University. This is one of the few research in Vietnam on the application of the BSC model to university administration. Based on the analysis of suitability in different aspects of the Balanced Scorecard: Student (Customer) perspective, Financial perspective, Internal Business Processes perspective and Learning and Growth perspective, he emphasizes the importance of

BSC application in education. Following the 4 basic perspectives of BSC is the explanation of its compatibility in education and the affirmation that despite being designed for usage in business, BSC is a useful model in effective university management in the era of globalization. As a limitation, this research has not proposed detailed solutions, steps and procedures for the School Board or Education Council to create KPIs for the application of BSC. However, the writer has developed a strong theoretical background for the potential of successful application of BSC in education.

Dang Thi Huong (2010) is the author of “*An application of balanced scorecard in Vietnamese service businesses*”, VNU Journal of Science, Economics and Business vol. 26 (2010), 94-104. In this research, balanced scorecard is introduced as a relatively new management tool to many developing countries, including Vietnam. In addition to basic theories about balanced scorecard, the main advantages and disadvantages provided by the paper are suggestions for Vietnamese service businesses to investigate, research, and implement balanced scorecard broadly.

Tran Quoc Viet (2012) in “*Factors influencing the adoption level of Balanced Scorecard in strategic management of enterprises in Vietnam*” has used qualitative research method through in-depth interview and quantitative method through a survey in 206 enterprises in Vietnam in terms of factors that influence the adoption level of BSC in strategic management. The author has discovered significant influence factors of “the adoption level of BSC in strategic management” corresponding to 3 levels of BSC application in enterprises: (1) *apply BSC idea*, (2) *widely apply all functions of BSC*, and (3) *apply information technology to improve effectiveness of BSC implementation*. This level measurement is very appropriate to the economic situation and condition of Vietnam. He also affirms the influence level of six factors affecting the adoption level of BSC in strategic management of the enterprises in the condition of economic transformation in Vietnam, including: (1) *Leader participation*, (2) *Centralization*, (3) *Power of financial department*, (4) *Standardization*, (5) *Internal communications* and (6) *Product market dynamics*.

Mai Xuan Thuy in “*Issues in the Balanced Scorecard Implementation: A Vietnamese Case Study*”, Journal of Economics and Development vol. 44, April 2012, English version focused on analyzing the implementation of BSC in a branch of an international accounting firm in Vietnam. In this research, Kasurinen’s model (model of barriers to change, 2002) and qualitative research method were used to analyze and identify the barriers in the process of BSC implementation.

In most of these research, the organizations that are studied and assessed are enterprises or universities. Research results have been mostly limited in terms of space and time, and few solutions for maintaining the model of objective management have been proposed. There have not been neither a research in VTE institutions nor theoretical framework in strategic management to assess the performance of this peculiar organization in a balanced way from four perspectives (viewpoints): Financial, Learner, Education processes, Innovation and Learning with the support of information technology. Thus, it is necessary to have a research that studies and selects an advanced, appropriate model and examines its compatibility to VTE institutions in the digital age. Notably, it should include detailed proposals of particular steps to create a strategic map, to manage objectives in a balanced way by using major indicators to assess performance, with the support of the information system in VTE institutions, aiming toward autonomy in these organizations.

3. Theoretical background and research model

3.1. Model introduction:

Balanced Scorecard contains four perspectives: Financial, Customer, Internal Processes, and Learning and Growth.

Customer perspective: The objectives of Customer perspective focus on the measurement of organizational performance in targeted market and measurement of values that organization provides customers and stakeholders (generally called as customers). It is also an important factor that contributes to the financial objectives. To measure organizational performance of this perspective, key objectives are usually customer satisfaction, customer maintaining capability, new customer attraction capability, customer data benefits, targeted customer group importance, etc. These objectives can be used for most organizational types, but they should be modified corresponding to the targeted customer groups of the organization.

Internal process perspective: This is a crucial perspective, including product, service quality and innovation of business and operative processes of the organization. The organization should determine key internal processes that need investment to compete effectively. Key internal processes will help the organization to provide customers with values, to satisfy customers’ expectation and to operate necessary activities to achieve financial objectives. Regarding the determination of the indicators that measure the capability to provide customers and stakeholders (such as administrative agencies, investors, partners) with values, indicators have to measure the quality, quantity and time needed to produce a product or supply a service. Besides, indicators of this perspective need to cover evaluation or recognition of complete new procedures’ development in the organization that is necessary to enhance the performance, new product development, new market development, new demand, reduction of unnecessary procedures in service supply process to meet the demand of current and future customers.

Innovation and Learning perspective: Learning perspective ensures long-term development of the organization. This perspective can be approached from three different angles of individuals in the organization, information systems and organizational processes. There is usually a gap between individuals' ability and financial objectives, customers and internal processes. Sometimes, individuals cannot reach the planned norms or do not have the courage to take the responsibilities of new positions in the organization, leading to organizational limit in performance breakthrough. To narrow this gap, the organization needs to invest more on labour, or train employees' skills; enhance the information technology system to provide employees with instructions and knowledge; or even reduce positions and titles to align processes and procedures in the organization. Measurement indicators of this perspective are combined from many factors, such as member satisfaction level, good employee attraction and maintaining, individuals' skill training. Information system indicators can be measured through availability and accuracy level of information of customers and internal processes accessed by individuals in the organization. Organizational administration indicators include the attachment level of individual to the organization, benefits provided by the organization for members in adherence to key factors that contribute to the success of the organization, measured by the level of improvement related to customers and internal processes.

Financial perspective: This is usually built to determine long-term objectives of an organization (mostly objectives of profits and expense reduction). Dependent on the developing period, financial indicators may concentrate on existence, fast growth, image, profit, etc. Financial norms are usually revenue, profit, business result and other administration and accountability indicators. This perspective often results from the operation of the other three perspectives, so it represents achievements of past activities of the organization.

In each period of organizational life cycle, an organization may focus on one or some of the indicator(s) according to the demand and developing objectives of the organization. To perform effectively, the organization should assess the performance of each mentioned perspective, and only provide values that meet particular demands. Hence, every value has to be measurable and quantifiable. Kaplan and Norton (1996) also propose measurement indicators. Depending on particular industry and field, value measurement indicators may include factors like expense, differences, new functions, leading, quality, product provision process, customer service, image recognition, etc.

Education	Business
<p>1. Student-learning-focused results Results should be based on a variety of assessment methods, should reflect the organization's overall mission and improvement objectives, and together should represent holistic appraisals of student learning.</p>	<p>1. Customer-focused results Customer satisfaction measurements about specific product and service features, delivery, relationships, and transactions that bear upon the customers' future actions. Customers are not only product users but also stakeholders such as partners, providers, administrative agencies.</p>
<p>2. Student-and-stakeholder-focused results Student and stakeholder satisfaction measurements about specific educational programs; assessment of educational appraisal criteria; students' attachment and stakeholders' cooperation.</p>	<p>2. Product and service results Key measures or indicators of product and service performance that is important to the customers.</p>
<p>3. Budgetary, financial, and market results Instructional and general administration expenditures per student, tuition and fee levels, cost per academic course, resources use, scholarship growth</p>	<p>3. Financial and market results Return on investment, asset use, profitability, liquidity, value added per employee or performance of business operations.</p>
<p>4. Faculty and staff results Innovation and suggestion rates; courses or educational programs completed; internal learning; on-the-job performance improvements; cross training rates; collaboration and teamwork; knowledge and skill-sharing across work functions, units, and locations; staff well-being, satisfaction, and dissatisfaction.</p>	<p>4. Human resource results Innovation and suggestion rates; courses completed; learning; on-the-job performance improvements; cross training rates; measures and indicators of work system performance and effectiveness; collaboration and teamwork; knowledge and skill-sharing across work functions, units, and locations; employee well-being, satisfaction, and dissatisfaction.</p>
<p>5. Organizational effectiveness results (including key internal operations performance measures) Capacity to improve student performance, student development, education environment, indicators of responsiveness to student or cooperation of stakeholders, suppliers, key measures or indicators of accomplishment of organizational strategy and action plans.</p>	<p>5. Organizational effectiveness results (including key internal operations performance measures) Productivity, cycle time; supplier relationship and partner cooperations; key measures or indicators of accomplishment of organizational strategy and action plans.</p>

<p>6. Governance and social responsibility results Fiscal accountability, both internal and external; measures or indicators of ethical behavior and of stakeholder trust in the governance of the organization; regulatory and legal compliance.</p>	<p>6. Governance and social responsibility results Fiscal accountability, both internal and external; measures or indicators of ethical behavior and of stakeholder trust in the governance of the organization; regulatory and legal compliance.</p>
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Fig. 2. Comparison of education and business

Source: Baldrige National Quality Program (2003), Category 7

Figure 2 shows the differences between standards of education and business. In education, Financial and market results tend to receive less or least concern, but in business, this is the key measure. Nevertheless, Student learning results is the key measure in education. Budgetary, financial, and market results in education also considerably differ from these in business. In education, measures concentrate on internal activities, which are less concerned in business. The remaining features of the two are broadly similar, though particular measures and criteria significantly differ.

From Customer perspective, education should bring excellent learning results and satisfaction of stakeholders (such as employers or governmental administrative agencies that set educational objective orientations), while in business, the key result is customers’ satisfaction with products, goods and services provided by the company. From Learning and Growth perspective, the results of development of human resources in business and staff in education are similar. From Internal Process perspective, organizational effectiveness results in business depend on internal performance, while in education, they rely on measures or indicators of knowledge obtained by learners. Other aspects of education and business performance assessments are based on similar measures.

This analysis reveals that all aspects of BSC can be found in education, though standards, criteria, and measures of performance assessments might be different. The application of BSC to VTE institutions requires careful research on the adoption level of this new administrative model.

Factors affecting the application of a new administrative model to an organization:

There are many factors that affect the application of a new administrative model to an organization. Researches have been done on the innovation and innovation adoption like the theory of “*Diffusion of Innovations*” (Rogers, 1995). According to this theory, innovation involves three groups of factors from the leaders, the organization and its exteriors. Another theory is proposed in the paper “*Leading change: Why transformation efforts fail*” (Kotter, 1995), which emphasizes on the two factors of leadership and internal communications in innovation adoption. Many researchers point out the necessity of appropriate modification when a new model is applied in different fields and industries (see Table 1). Though their researches approach the adoption level from different perspectives, the results all show certain similarities in the identification of factors affecting the adoption and the role of BSC model application as a performance administrative tool in accomplishment of organizations’ goals.

Table 1: Factors affecting the innovation adoption and BSC application adoption

Influence factors	Innovation adoption		BSC application adoption				
	Kotter (1995)	Rogers (1995)	Kenvin. H, et al. (2004)	Jake and John. K (2005)	Paul Niven (2006)	Oana. A (2007)	Braam and Nijssen (2008)
Leader participation	X	X		X	X	X	X
Centralization		X	X	X		X	X
Power of financial Dept.		X			X		X
Standardization		X		X	X	X	X
Internal communications	X	X		X		X	X
Product market dynamics		X	X				X

Source: Tran Quoc Viet (2012, 48)

In the study on factors influencing the adoption level of BSC in enterprises, after constructing and evaluating the hypotheses and assessing the reliability, Tran Quoc Viet (2012) identifies 6 factors that affect the adoption of BSC in strategic administration in Vietnam, including: (1) Leader participation, (2) Centralization, (3) Power of financial department, (4) Standardization, (5) Internal communications, (6) Product market dynamics.

3.2. Research model

Based on the theories proposed by Kotter (1995) and Rogers (1995), on the empirical model proposed in Tran Quoc Viet (2012) and the features of VTE institutions in Vietnam, this study concentrates on the factors that affect the application of performance assessment model to VTE institutions, which are: (1) Executive Approval

(EA), (2) Internal communication and information system (ICIS), (3) Financial assistance (FA), (4) Officer awareness (OA).

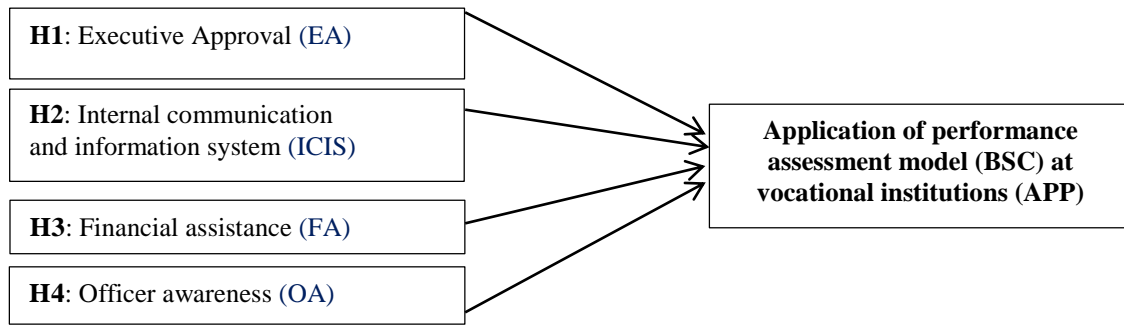


Fig. 3. Research model

H1: Using the scale in the research of Zaltman et al. (1973); Braam and Nijssen (2008). Executive is characterized by:

- High level of involvement in the introduction of a new performance assessment system in the company.
- Thorough understanding about the importance of using indicators and standards to assess main processes of the company to its success.
- Sufficient information provided and positive attitude towards efforts to upgrade the strategic management system of the company.

Executive Approval is regarded as the agreement and approval of Executive Board including School Board or Education Council of VTE institutions on the application of performance assessment model. The engagement and approval level of this group are assumed to be the first factor to affect the adoption of this model, especially in a VTE institution. As in any organization, the process of innovation and improvement should be initiated and led by leaders. In fact, the Principal of Institutions - the chief leader - is the one who create incentives and lead the innovation process to success. The administration in most VTE institutions is currently line-functional organizational structure, a highly centralized organizational structure. A lot of research on management and administration agree that a centralized organizational structure may prevent innovations due to its rigid and authoritarian principles. However, to a certain extent, with such structure, the approval of the Principal means that the application of a new administrative model will face few difficulties. This is significant in the case of a performance assessment model, as previous research find out that centralized administrative level has positive effects on the adoption of a model to assess performance at work. In other words, a meticulous performance assessment model shows great suitability to organizations whose administrative structure is centralized and systematic such as VTE institutions.

H2: Using the scale in the research of Jaworski and Kohli (1993); Braam and Nijssen (2008). Internal communications is characterized by:

- Limited access to important administrative and financial information
- Intensive internal communications between divisions of the company
- Positive effect of cross-divisional exchange of information, including important one.

The Internal communication and information system refers to the linkage and information exchange level between faculties, departments and offices in the VTE institution. Communication will boost the awareness of officers, and positively affect the adoption of performance assessment model in VTE institutions. Indeed, information linkage and explanation of administrative information will encourage staff to discuss and share information and new ideas or follow the recent activities of the institution better, which motivates the innovation and approval for administrative changes. In particular conditions of VTE institutions, communication may have new means such as social network, email or Local Area Network, which can promote the knowledge exchange and learning process.

H3: Using the scale in the research of Pfeffer (1981); Braam and Nijssen (2008). Financial factor is characterized by:

- Considerable power compared to other divisions such as marketing and production.
- Important, sometimes even prominent role of the administrative accountant.

Financial assistance has a vital influential role on the adoption of performance assessment model. Enough financial investment and efficient financial staff will have positive impact on the adoption of performance assessment model. The influential level of financial factor may be different in organizations that provide educational services, yet it should be stated that financial aspect is considerably influential in the adoption of a new administrative model in strategic governance of VTE institutions, especially when sizeable investments are required to change the awareness of the whole staff from leaders to officers and teachers.

H4: The authors expect that this factor will have influence on the adoption of BSC model in VTE institutions.

Officer Awareness is influential in an effective application of the performance assessment model to VTE institutions. It is necessary for officers to be aware of their position and responsibility in each division with its own function and objectives. Officers in VTE institutions all anticipate a precise, comprehensive performance assessment model, and BSC model not only meets that expectation but it also proves its effectiveness when being applied in reality.

4. Analysis and results

4.1. Survey introduction

The empirical analysis of this paper takes data from the survey designed in our Ministerial-level Project No. CB2018-06 led by Nguyen Duy Phuong under MOLISA. The project aims at the clarification of concepts related to performance assessment and proposals; research on application level of BSC model to vocational education institutions; the status of performance assessment in vocational education institutions in the digital age; proposals for procedures and resolutions to accomplish the BSC model application in vocational education institutions in the digital age. We receive feedback from 931 respondents in 331 institutions of the VTE system. After filtering the answers, we get 378 completed questionnaires from 147/331 institutions of the national VTE system. As the sample size should be at least 5 times the size of observed variables (Hair et al., 1998), or at least 4 or 5 times the quantity of observed variables (Hoang Trong & Chu Nguyen Mong Ngoc, 2005), we argue that this is an acceptable number of observations in our analysis. Sample statistics show that 98 institutions are State-owned institutions (66.7%) and 49 institutions are non State-owned institutions (33.3%). Among respondents, 108 individuals (29%) work in administrative departments, 261 individuals (69%) work in instructional departments, and 9 individuals (2%) are pluralists. Sample statistics on allowance show that 41 individuals (11%) receive allowance for leadership, and 337 individuals (89%) receive no allowance for leadership.

4.2. Reliability analysis and factor analysis results

Table 2 shows the results of reliability analysis and factor analysis of the independent variables. The acquired data satisfy the Kaiser criterion, which means the Eigenvalue is greater than or equal to 1, after a Varimax rotation. Meanwhile, the correlations of observed variables should be at least 0.5 to be considered acceptable. This number also serves as the requirement to suppress other questions when conducting factor analysis. The EFA of the independent variables results in 4 factors as predicted, with all high factor loadings in absolute value, each is only attached to one factor.

Table 2. The convergent validity and reliability of the scales

Component	Overview of initial observation	Cronbach'alpha	Corrected Item-Total Minimum Correlation	Overview of rest observation
Executive approval	3	0.897	0.788	9
Internal communication and information system	3	0.863	0.714	3
Financial assistance	2	0.741	0.589	2
Officer awareness	4	0.847	0.619	4

Source: Authors

The above table implies that the four factors whose names are: (1) executive approval; (2) internal communication and information system; (3) financial assistance; (4) officer awareness can explain 76.954% of

the variation of data. Similarly, exploratory factor analysis and reliability analysis produce an application scale with all 4 observed variables converging into one factor that satisfies both required convergent validity and reliability of the scales (Cronbach'alpha = 0.879).

4.3. Correlation analysis

Pearson correlation is one procedure of the research using SPSS in quantitative data analysis. The aim of running Pearson correlation test is to examine the strong linear correlation between the dependent variable (Application) with independent variables of Executive approval, Internal communication and information system, Financial assistance, and Officer awareness. Besides, the multicollinearity state of high intercorrelations between independent variables, if exists, should be recognized. Its sign is based on the statistics of sig, correlated between independent variables, less than 0.05 and Pearson's correlation coefficient less than 0.3.

In Table 3 of correlation analysis, the first value to be noted is Sig. Only when sig is less than 0.05 is correlation coefficient R statistically significant. If sig is greater than 0.05, the value of R no longer matters, as it does not have statistical significance, or in other words, there is no correlation between those two variables. On the basis of mentioned conditions and the table of correlation analysis, we notice the correlations (see Table 3) between dependent variable (Application) and independent variables. Executive approval, Internal communication and information system, Financial assistance, Officer awareness have all sig values less than 0.05. On the other hand, the sig between independent variables (Executive approval, Internal communication and information system, Financial assistance, Officer awareness) is high and higher than 0.05, which means the independent variables have no correlation and emphasizes the "Independence" nature between variables: Executive approval, Internal communication and information system, Financial assistance, Officer awareness.

Table 3. Pearson correlations between independent and dependent variables

	APP	EA	ICIS	FA	OA
Pearson Correlation	1	0.481**	0.627**	0.246**	0.427**
Sig. (2-tailed)		0.000	0.000	0.000	0.000
N	378	378	378	378	378

Source: Authors

Note: EA, ICIS, FA, and OA: Independent variables, namely Executive Approval, Internal communication and information system, Financial assistance, and Officer awareness, respectively.

4.4. Regression analysis

After analyzing with EFA to assess the convergent validity and discriminant validity of scales, we assess the hypotheses proposed in the research model by running multiple regressions. Multiple regression analysis requires attention on hypotheses that serve as premises for this method, including:

- Sum of residuals = 0 and residuals are normally distributed.
- Multicollinearity does not occur (Independent variables are not strongly correlated).
- Autocorrelation does not occur.
- Variance heterogeneity does not occur.

To determine the relationships and the direction of effects of group of components analyzed, which are Executive approval, Internal communication and information system, Financial assistance, Officer awareness, this research uses regression analysis method with the assistance of SPSS 22 software. The regression equation that needs solving here is a multiple regression equation, aiming to assess the importance of each component in evaluating the relationships between BSC model application and components of the above scale.

The regression equation that shows the relationships between BSC model application and components of the above scale:

$$APP = a_0 + a_1EA + a_2ICIS + a_3FA + a_4OA$$

Note:

APP: Dependent variable of Balanced Scorecard model application

a_1, a_2, a_3, a_4 : regression coefficients

EA, ICIS, FA, OA: Independent variables, namely Executive Approval, Internal communication and information system, Financial assistance, and Officer awareness respectively.

Table 4. Linear regression results

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.753 ^a	0.566	0.562	0.53959	1.792
a. Predictors: (Constant), OA, FA, EA, ICIS b. Dependent Variable: APP					

Source: Authors

It can be noticed that Adjusted R squared = 0.562 (> 0.5), which shows the effects of four components EA, ICIS, FA, and OA on Balanced Scorecard model application. Thus, the compatibility degree of this model is relatively high. Results of the regression analysis show that all premise hypotheses are satisfied and the results can be regarded as usable. However, this compatibility only applies to this sample data. To examine whether the model can be inferred for the true population or not, we evaluate the compatibility of the model:

Hypotheses:

H0: The factors EA, ICIS, FA, and OA do not have interrelationships.

H1: The factors EA, ICIS, FA, and OA have interrelationships.

Significance level = 0.05, corresponding confidence level 95%.

Table 5: ANOVA Test

ANOVA ^a						
Model	Sum of Squares	df	Mean Square	F	Sig.	
Regression	141.816	4	35.454	121.771	0.000 ^b	
Residual	108.600	373	0.291			
Total	250.416	377				
a. Dependent Variable: APP						
b. Predictors: (Constant), OA, FA, EA, ICIS						

Source: Authors

The results of ANOVA test show that F value = 121.771 when significance level sig = 0.000 < α = 0.1. Consequently, we can reject the null hypothesis H0, and accept hypothesis H1, which means all four independent variables EA, ICIS, FA, OA and the dependent variable APP have interrelationships. Hence, the model is compatible to the data and can be inferred in the case of the population.

Table 6: Multiple regression model results

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics		
	B	Std. Error	Beta			Tolerance	VIF	
1	-.513	.179		-2.865	.004			
	EA	.199	.030	.243	6.590	.000	.854	1.171
	ICIS	.395	.034	.438	11.698	.000	.828	1.208
	FA	.193	.033	.207	5.819	.000	.919	1,089
	OA	.247	.031	.290	7.853	.000	.853	1.172
a. Dependent variable: APP								

Source: Authors

Table 6 of regression analysis results shows that the regression coefficients of the factors EA, ICIS, FA, and OA are all positive and R = 0.753, which depicts proportional effects of these components on APP. Thus, the hypothesis in the research model is accepted, which means the components EA, ICIS, FA, and OA have correlated relationships with APP.

Durbin-Watson statistic = 1.792 (approximately equal to 2.0), showing that there is no autocorrelation. Lastly, the variance inflation factors VIFs in Table 5 are all less than 2.0, much less than the acceptable level of 8.0. So multicollinearity also does not occur. Then, all basic premises of a regression analysis are satisfied, and regression function is estimated to be compatible to the data.

Besides, the result table also allows us to evaluate regression coefficients of the model. Whichever components have a less-than-5% statistical significance will be kept, and whichever components have a greater-than-5% statistical significance will be removed. A higher Beta coefficient means greater importance, as they show the degree of effect of each component on the dependent variable. From the table of regression analysis results, we note that constants have neither statistical significance nor Beta coefficient. The remained four factors

EA, ICIS, FA, and OA are all compatible and they have correlated effects on APP. In details, firstly the Internal communication and information system component has the strongest effect with Beta coefficient of 0.438 ($t=11.698$ and $\text{Sig} < 0.05$), then the Officer awareness component with Beta coefficient of 0.290 ($t=7.853$ and $\text{Sig} < 0.05$) ranks as the second. The third one is the Executive Approval component with Beta coefficient of 0.243 ($t=6.590$ and $\text{Sig} < 0.05$). Lastly, the Financial assistance component with Beta coefficient of 0.207 ($t=5.819$ and $\text{Sig} < 0.05$) has the least effect on the application of Balanced Scorecard model in vocational education institutions. Hence, the regression equation with standardized Beta coefficients is:

$$APP = 0.243EA + 0.438ICIS + 0.207FA + 0.290OA$$

EA, ICIS, FA, and OA: Independent variables, namely Executive Approval, Internal communication and information system, Financial assistance, and Officer awareness, respectively. APP is the application of performance assessment model (BSC) at vocational institutions.

4.5. Discussions and conclusion

Following the visions, missions of VTE institutions oriented in documents of governmental administrative agencies, VTE institutions have to build up their own strategic objectives in adherence to these orientations and changes of the labour market. However, with the scarce and limited resource, practical implementation requires VTE institutions' balance between various development aspects. When investing too much on an aspect, the resource of any organization is easily depleted, hence determined objectives are hard to achieve. To solve this problem, VTE institutions need to assess the performance of each aspect to assure that the development is continuous in the right direction and orientation. The criteria and standards to assess a Vietnamese VTE institution nowadays can be divided into four categories: Learners, Internal processes, Learning - Growth and Financial. These four aspects are perfectly suitable with the Balanced Scorecard (BSC) model, a famous model to assess performance and support organizations to develop in the right planned direction and orientation. Besides, this model is also applied in many fields and industries, and proves its suitability with educational field if criteria and standards are converted to appropriate activities.

The next issue is to evaluate the adoption level at peculiar educational institutions like vocational educational institutions. The analyzed results in sessions 3.2 and 3.3 point out factors that have different relationships and influence on the adoption level of BSC model. In details, regression analysis also shows the special importance of the School Executive Board to the change of administrative model. The Board and especially the Principal, VTE institutions' leaders, should directly engage in the Performance assessment project with particular actions such as stating the role of determined objectives, introducing strengths of BSC model, supervising the officers' performance assessment process in departments and offices as stated in the vision and developing objectives. The best important factor, also agreed by many theories of change administration in organizations, is Internal communication with the support of information technology. Internal communication usually refers to the capability of accessing to financial status, practical status of an organization and the frequency of exchange between members and divisions in that organization. Only when the communication is effective will the process of translating from traditional administrative system to new strategic administrative system be successful. Both of these above factors need special consideration of executives and leaders in VTE institutions.

Lastly, internal processes need to be improved continuously to suit the status of resource and financial, then boost the innovation and adoption process of an administrative model like BSC. The regression model also shows correlated impacts of these factors on the adoption of BSC in strategic administration in VTE institutions. Internal processes in VTE institutions are often institutionalized through regulations, restrictions and rules. Sometimes, these processes are revealed through behaviors and methods by which relationships are accessed and handled in VTE institutions. Meanwhile, the influence level of financial factor on BSC model application is the lowest. Yet it should be treated with consideration, as the process from awareness to implement includes many procedures, some of which need professional consultants or funding for VTE institutions' staff training. Also, effective operation of BSC model requires modification of 4 aspects' performance, which means individuals' responsibility should be depicted using a precise and quantifiable method, being controlled by an information system. The standardization of responsibilities and functions of departments is an essential procedure to ensure that the administration using BSC model in VTE institutions is fluent and convenient.

5. Proposals to improve the application of the Balanced Scorecard model to VTE institutions

5.1. Balance of four aspects in the Balanced Scorecard model

In the implement process, VTE institutions should assure that performance assessment indicators show the cause-and-effect relationships between factors with all 4 aspects: Financial, Customer, Internal Processes and Learning and growth. The balance between objectives is the key factor in the success of Balanced Scorecard model application and in prevention of deviated development compared to the determined objectives because of

pursuing criteria of 1 or 2 particular aspects. Importantly, balance here does not mean numeral equality but equality in relationships and close correlations when assessing performance of VTE institutions in activities that contribute to the accomplishment of objectives, mission, and vision set by VTE institutions. These activities need continuously supervising, modifying and assessing, then every aspect of BSC can be improved so that it can keep up with changes in the internal and external environment of VTE institutions.

Firstly, VTE institutions should set strategic objectives, vision, mission and orientations at school, center, faculty, function office level. Strategic objectives should be depicted simply on a strategy map, on which each objective has cause-and-effect relationship(s) with one or many other objective(s). Next, VTE institutions will build and distribute the Balanced Scorecard model to faculties, offices, divisions in the institution and to each individual. Each Scorecard has Key Performance Indicators (KPIs) to accomplish strategic objectives that have been set earlier. During the implementation of BSC model application, it is essential:

- (1) to have various programs to promote and assess innovative ideas, internal innovation to successfully implement BSC and strategic objectives;
- (2) to use monthly, quarterly KPI results to assess the performance of individuals, divisions, etc., and use them as the basis for payment corresponding to key criteria of the performance assessment model;
- (3) to build a system of effective communication, internal learning management and knowledge exchange to apply the BSC successfully;
- (4) to form a strategic division to manage problems of building and implementing BSC. This responsibility is normally given to a particular division (Education Council, for example) to specialize the KPI and BSC training programs for key staff and propagandist group;
- (5) and to improve the informative and administrative system to supervise continuously and measure precisely, effectively the performance of each individual, divisions and the whole VTE institution. The informative and administrative system should be able to measure precisely all KPIs; to align planning procedure and budget to KPI frame;

These above resolutions will assist leaders of VTE institutions to set priority to programs, projects and actions that help rationalize strategies and visions of their institutions.

5.2. Proposal to apply IT aligning BSC

Currently, the 4.0th Industrial Revolution has transformed the information technology (IT) so it is no longer the environment for the factors of production to independently create value. IT serves as an input factor in creating value for organizations and enterprises. The economic value of IT can bring new values for aspects of BSC if it is implemented in VTE institutions in Vietnam. For example, with the help of IT, teachers may have extra time to fulfill their main responsibilities of instruction and scientific research. IT also brings an opportunity to apply Balanced Scorecard (BSC) model in effective performance assessment, which can be used straightaway in VTE institutions in Vietnam through an integrative model. Following is a new approach to IT-BSC in VTE institutions:

Learner perspective (as customer of VTE institutions):

Mission: Deliver value-adding educational programs and scientific researches of the VTE institution.

Objectives: Establish a good image of the institution in terms of reputation, management capability and educational quality; exploit IT opportunities to support controlling and delivering value-adding educational programs and scientific researches.

Internal process perspective (affecting programs, activities of VTE institutions)

Mission: Deliver educational services and science products in an efficient and responsible manner.

Objectives: Anticipate requests from learners, labour market and restraints from the government; be efficient in planning and developing training services and science products; be efficient in operating IT applications from acquiring to testing process to satisfy learners.

Innovation and learning perspective (in view of future readiness)

Mission: Continuously upgrade IT applications to satisfy future learners and prepare for resolution of future challenges.

Objectives: Improve training and researching skills of teachers through continuous training and development; establish and maintain a good image and reputation; ensure that training courses provide value added; regularly upgrade training process and IT applications for usage in school management.

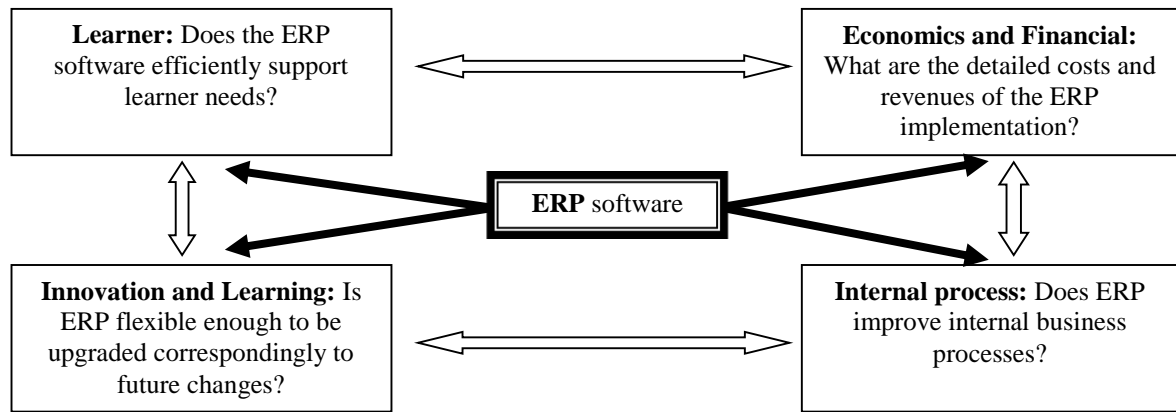
Economic and Financial (fiscal policy's view):

Mission: Fiscal accountability, both internal and external

Objectives: control costs and revenues by IT supported in supplying training services and science products
IT application can lead to improvement in performance by building a system of account management of teachers to ensure their effective communications with the learners. But in this case, the leaders of school are facing difficulties in transferring traditional centralized management into authorization. Meanwhile, VTE institutions have to invest on developing technology and profession as well as IT skills for their staff. Technology can now be regarded as the core of the development of VTE institutions, now when the school

managers need to focus on running the school as managing a business, they are suggested to use IT applications in support of providing sensible decisions in adherence to their mission, vision and strategy map.

Along with the four Balanced Scorecard perspectives of Learner, Internal processes, Innovation and Learning, Economic and Financial, to obtain added value from IT applications, the BSC model needs to have another component, a software responsible for planning resource. This is a software generally known as the ERP (enterprise resource plan), developed by famous corporations such as IBM, Microsoft, SAP, etc. ERP software will cover and link all four perspectives of BSC including critical objectives, strategy map, etc. and represents all objective, mission and vision of the VTE institution. A Model is proposed as followings:



Source: Authors

Fig. 4. ERP Balanced Scorecard integrative model

The above model represents an approach to IT through the enterprise resource plan software. This is software with both simple and complex designs with various different modules to link and totally control the resources of an organization, especially the Internal process and Financial aspects. However, using the ERP integrated with BSC in VTE institutions will enable them to also focus on Learner and Innovation and Learning perspectives. The two latter perspectives are particularly important given institutions' peculiarities, because they enable the development of added values and support a flexible system management. To answer the questions in the above Figure, the software should meet the requirements for each corresponding perspective, which are:

Learner perspective: Linkage of learners to institution Internal processes automated, appropriate resource allocation per learner.

Internal process perspective: Processing time of each procedure shortened to the maximum degree, coverage of individual resources after ERP software implementation.

Innovation and Learning perspective: Personal ideas, solutions, knowledge gathered to support the renovation of processes and system implementation of the VTE institution.

Economics and Financial perspective: Total cost control, which will enable identification of modules where over-customization takes place Hence, the ERP software has to process all procedures to optimize resources and calculate the time for current as well as future objectives to be accomplished.

As in all well-designed balanced scorecards, this one demonstrates a very high degree of linkage in terms of cause-and-effect relationships. For example, "learner satisfaction" within the Learner perspective might affect "total cost" in the Financial perspective; "optimized resources" in the ERP software perspective will fit with "ERP solution" in the Internal process perspective and "personal suggestions" in the Innovation and Learning perspective. Here, the ERP software follows a straightforward balanced scorecard approach, including:

Learner perspective: ERP software's coverage of training and science study processes: percent of completed training courses, percent of applied researches, percent of successful cooperation projects.

Internal process perspective: ERP's reduction of problems with learners and courses, problems with official reports required by the governmental administrative agencies; maximum downtime processing inevitable issues in VTE institutions.

Innovation and Learning perspective: ERP's enhancement of staff learning process, on the basis of sharing and promoting tacit knowledge (achieved through communication) and explicit knowledge (achieved through documents).

Economics and Financial perspective, ERP software's compliance with financial regulations and laws;

The application of IT through ERP-BSC model largely depends on the quality of ERP software and the educational capability of the software providing division. A similarly important aspect is the agreement and approval on Balanced Scorecard model application to VTE institutions of chief executives as well as executives in faculties, offices and each staff.

6. Conclusion

If it is implemented in Vietnam VTE institutions, BSC could represent for a standardized model and as a reporting tool of these institutions to governmental administrative agencies including the Ministry of Labour - Invalid and Social Affairs and the Directorate of Vocational Education and Training. It is due to BSC perspectives' coverage of strategy, mission and vision of VTE institutions, which have been converted to their internal regulations. Many of these are criteria to measure the performance of the VTE institutions in provision of skills and professional vocation knowledge, including aspects to maximize learners' and stakeholders' satisfaction.

The BSC is also a modern and integrated approach and is easily integrated with IT to enhance performance, particularly appreciated by the school and educational institution management. Sometimes, this model shows some limits as observed variables of graduated learners, complex concepts of Innovation and Learning perspectives internally in VTE institutions are hard to identify. However, if the optimized IT integrated by ERP can be applied in educational institutions, the BSC will utilize its strengths in sharing resources, data and information, minimizing the unnecessary issue of information overload remaining in some perspectives of BSC. This model also has some weaknesses such as the conceptualization of some criteria in an education environment is very hard. Yet BSC is still an excellent choice as the starting point of a highly systematic modeling in VTE institutions. Simply it shall help many VTE institutions' leaders set up a map of their internal processes, put it in a suitable position and modify it to match with their objective and strategy.

As the peculiarities of the majority of VTE institutions nowadays are heavy dependence on government budget and indirect customers who are employers, to minimize the weaknesses of BSC model and adapt it into educational environment, we need to identify stakeholders such as governmental administrative agencies, enterprises, parents, etc. These are indirect stakeholders yet so crucial that Learner perspective of educational BSC cannot resolve. Hence, the VTE institutions should modify the model into five perspectives (Neely et al., 2002), including *stakeholder satisfaction; stakeholder contribution; strategies; processes; and capabilities*. With this modification, VTE institutions should consider who their key stakeholders are and what they want. Once the VTE institution has addressed the needs and wants of the key stakeholders, then it turns to the strategy perspective about the goals and the roadmap to satisfy those needs and wants.

The application of BSC model to the whole VTE institutions in Vietnam in this period is viable. It can be a useful administrative management tool for the Ministry of Labour - Invalid and Social Affairs and Directorate of Vocational Education and Training. It is also a standardized instrument of benchmarking among current VTE institutions in Vietnam. After measuring and managing performances of VTE institutions, it returns as Governmental administrative agencies' instrument to evaluate if these institutions have met their mission, vision at institution level as well as at faculty, function office level.

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Factors Affecting the Intention to Choose University of High School Students in Vietnam

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ABSTRACT

The research applies rational behavior theory and adds factors which are relevant to the context of higher education in Vietnam to re-test the hypotheses and identify factor affecting the intention of choosing a university for high school students. The results show that four factors that influence most to the purpose of high school students' choice are in the order of (1) university reputation (2) perceptions of the program, (3) perceptions of costs, (4) subjective norm. Based on the results of the study, the author proposes some recommendations for policymakers and university managers in Vietnam to improve their competitiveness in enrollment as well as implement effective recruitment solutions to attract high school students.

Keywords: Intention; university decision; high school; student

1. Introduction

In the context of globalization and extensive international integration, education and training in general and Vietnam higher education, in particular, must be comprehensive. The most noticeable change is that higher education has shifted towards popularization, reducing the role of governments, and moving gradually toward autonomy. The universities have been given strong independence, in which the universities have been active and creative in selecting and attracting qualified candidates who have aspirations for study and research at university; at the same time, have implemented publicity and transparency of the conditions to ensure the quality of enrollment and have been accountable to the society (especially parents and students).

Actually, in recent years, the universities have faced a series of difficulties. Firstly, the change in the "enrollment market," when the supply side is the universities established massively, the demand side is high school students dropped because of many more attractive other choices such as studying abroad, having a job, apprenticeship... Thus, enrollment pressure may have shifted from candidate to university. Secondly, the universities want to attract high-school students who have capacity and love of the chosen field of study, while high school students choose the university according to their feelings, lack of understanding of selected professions leads to discouragement and waste during the training. Thirdly, although the universities have focused more resources on communication campaigns to provide potential students with the necessary information and improve their position in society. But not all efforts to spread the message to attract students of the universities have been deployed in the right direction and effectively.

To address these challenges, each university needs to define its role and mission and has solutions to improve its enrollment strategy. A university without students will hardly exist, attracting good students will be the foundation for long-term development. So, the critical issue must be to identify who your potential

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students are, what they want, what factors affect their decision to choose a university. Among the elements, which element plays an important role and which factor is less critical? How do those factors affect? Enrollment competition is the story of all universities, from prestigious universities to fledgling ones that are difficult to enroll. Exploring these issues will be the basis for universities to adjust and supplement the rational solutions, to focus resources on deploying recruitment solutions that have a direct, productive and positive impact on the main factors having a positive influence on the students' choice of university and attracting them to enroll in university. From this practice, the author recognizes the need for in-depth studies around the topic on the choice of universities of high school students in Vietnam.

In theory, according to the author's limited statistics, the decision to choose a university has been approached by foreign and domestic authors from different perspectives from marketing, socio-economic, economic and sociological perspectives. The view is quite rich and multi-dimensional from the objects such as high school students - potential students, students, parents to the university. Chapman (1981), Kotler & Fox (1995), Joseph and Joseph (1998, 2000), Karl Wagner and et al (2009), Joseph Kee Ming Sia (2013)... are authors presenting the approach from high school students. The research is more or less based on the theory of choice, the customers' behavior of choice. The results of this study have clarified the key factors influencing the choice of university, including the perception of costs, perception of the program, perceptions of facilities and resources, the reputation of the university, others' advice, information that students receive from the university. These studies are approached based on behavioral intention theory, from the perspective of "consumers" as high school students, but these empirical studies are mainly about applying theoretical models to the realities and verifying the results, without specific and scientific arguments of using and adapting the conceptual model of behavioral intention in the context of research.

In Vietnam, researches on the intention to choose a university are limited. Some studies by Tran Van Qui and Cao Hao Thi (2009), Nguyen Minh Ha and partner (2011), Mai Thi Ngoc Dao and Anthony Thorpe (2015), Do Thi Hong Lien and partner are just in the form of articles, scientific research papers, dissertations of bachelor and masters. Most research is directed at high school students in Viet Nam. Studies of behavioral intention and impact factors are topics of interest to many researchers in the field of economics. The reviews are conducted in a variety of areas with many different administrative implications. The results are diverse and highly dependent on the research context (field of study, research area ...). Agreeing with this point of view, the author concludes that the results of previous studies in Vietnam have more or less changed in the context of new enrollment policy. The decision of choosing a university for high school students is relatively new in the context of Vietnam.

Based on the above reasons, the author selects the topic of "Factors affecting the intention to choose university of high school students in Viet Nam".

2. Literature review

2.1. TRA Model

In this study, the author uses the definition of Fishbein and Ajzen in 1975, which defines that "The intention to choose is the plan or ability of the high school students to perform the selective behavior in the university in a certain context."

The **theory of reasoned action (TRA)** is one of the three classic models of persuasion. The method is also used in communication discourse as a theory of understanding. The method of reasoned action was developed by Martin Fishbein and Icek Ajzen in 1967 and was derived from previous research that began with the way of attitude. The approach aims to explain the relationship between attitudes and behaviors within human activity. TRA is used to predict how individuals will behave based on their pre-existing beliefs and behavioral intentions. The authors argue that behavioral plan is the driving force behind behaviors and intentions determined by individual attitudes toward behavior and the impact of subjective norms on the conduct of such actions. In it, the view is a positive or negative feeling of the individual about performing a specific behavior. The subjective norm is the perception of the person showing that leads to a particular action. The subjective standard is the human perception of how to behave by the requirements of the society. This is an individual's belief in how others will think about their actions. It represents an individual's self-awareness that those critical to their decision-making desire to perform or fail to achieve a particular behavior.

In the field of higher education, the application of the TRA models to research the intention to choose a university of potential students is insufficient, especially in the context of Vietnam. In this study, the author wishes to use the rational behavioral theory (TRA) as a theoretical basis and to test a part of the conceptual framework within the context of higher education in Vietnam.

2.2. Overview of research on intention to choose a university

Currently, research on student's behavioral plan to select a university, in general, is in different directions. But, the author summarizes the four main approaches, including a proposal from an economic point of view, a plan from a sociological perspective, an integrated approach, a marketing approach. With the marketing approach, the surveyed subjects are mainly 12 - grade students, high school students, and university students. It can be concluded as follows: *Firstly*, most studies use and apply *behavioral theory* (especially TRA model) many empirical studies have succeeded in separating and neglecting the mediating relationship of the root element of the rational behavioral model to the dimension factors (Chapman, 1981; Joshep and Joshep, 1998, 2000; Karl Wagner et al., 2009; Joshep Ming Sia, 2013). *Secondly*, the results of these studies show that considering the perspective of high school students, many factors affect their decision to choose a university. However, studies in Vietnam do not have systematic theoretical research, which refers to a clear conceptual framework and does not explicitly apply the behavioral theoretical model to the study of this problem. *Thirdly*, studies tend to use quantitative methods and consider this a superior manner, an excellent way to collect data. However, not much research in Vietnam can use quantitative methods, especially using the SEM model.

The TRA theory is widely used by researchers and in different contexts to predict customer behavior. The research findings are often specific to the context of the case study. The high school students' intention to choose a university is also a situation where it is possible to apply the TRA theory. These factors can be divided into two groups. First, Attitudes forward behavior will include Perceptions of costs, Perceptions of the program, Perceptions of facilities and resources, University Reputation, Information that students receive from the university. Secondly, Norms includes Subjective norms and Others' advice.

2.3. Factors affecting the intention to choose university

Perceptions of costs

Costs include various aspects related to expenses such as tuition, scholarships, grants, living expenses of students during the school year. Perceptions of the costs to the intention to choose the university are in favor of the direction. However, the degree of influence is not quite the same. Joshep and Joshep (1998, 2000) concluded that cost perception is the third influential factor in high school students' decision-making in New Zealand (1998) and Indonesia (2000). Karl Wagner (2009) and Joseph Sia Kee Ming (2011) conducted that the cost perception is the most active and most influential factor in the choice of university for Malaysian high school students. The study by Mai Thi Ngoc Dao and Anthony Thorpe (2015) also argues that cost perception is the third strongest factor influencing the choice of university for high school students in Vietnam. Thus, the perception of costs is an important variable influencing the choice of university for high school students. In the context of Vietnam, the authors hypothesizes that:

H1: The higher perception of cost that students have to pay for a particular university, the more likely she/ he will choose that university

Perceptions of the program

The curriculum is a vital issue for the university, as well as high school students who are interested in choosing a college or university. Krampt and Heinlein (1981) suggested that high school students tend to compare different learning programs to the best study program. Joshep and Joshep (1998, 2000) concluded that with high school students, the feel of the curriculum is the second and fourth most important factor in their decision to choose a university in New Zealand and Indonesia. Karl Wagner et al. (2009) also agreed that the feel of the curriculum was an essential factor that ranked the third and had a positive impact on the choice of university for high school students in Malaysia. In 2011, Joseph Kee Ming Sia conducted a study in Malaysia and ranked Perceptions of the program as the most influential factor (Mean = 3.79) and positively influenced the high school students' intention to choose the university. Consistent with the views of the previous authors mentioned above, the author argues that high school students' perception of the curriculum is important and a positive impact on the student's choice of university. Thus, the authors hypothesizes that:

H2: The more positive the perception of the program of a high school student about a university, the higher his or her intention to choose this university and vice versa.

Perceptions of facilities and resources

Facilities and resources include all elements such as facilities, location, extracurricular activities, the environment, and lectures to support the operations. Joshep and Joshep (1998,2000) identified that the environmental and resource sensitivities are essential factors in secondary and tertiary determinants of university choice of high school students in Indonesia and New Zealand. Another study conducted in Malaysia by Karl Wagner et al. (2009) pointed out that there exists the positive relationship between perceptions of facilities and resources and the intention of selecting university of high school students. In 2012, Koe and Sarings concluded that the facilities perceptions was essential and influenced by the college's intention to choose university of high school students.

In Vietnam, Mai Thi Ngoc Dao and Anthony Thorpe (2015) found that perception of facilities and resources

was the most critical factor (Mean = 3,823) of high school students in selecting a university. Based on previous research findings, the author argued that in the current context of Vietnam. Thus, we assumed that

H3: Perceptions of facilities and resources has a positive influence on intention to choose a university of high school students and vice versa

University Reputation

When discussing the relationship between university reputation and the choice of university for high school students, some scholars argue that status is not essential (Foskett, 1999). However, most researchers believe that university fame plays an important role when they perceive and evaluate the reputation of the school while making decisions (Murphy, 1981). The study by Joseph and Joseph (1998, 2000) in New Zealand and Indonesia concludes that university reputation is a significant factor affecting the choice of university for high school students (ranking respectively first and second). Karl Wagner et al (2009) further concluded that for high school students in Malaysia, university reputation had a positive impact on the choice of university, meaning that students will prefer universities with an excellent reputation for studying. By agreeing with Joshep and Joshep (1998, 2000) and Karl Wagner et al (2009), the author argues that in Viet Nam, according to the annual record, high school students see the reputation of the university as a significant factor and them proud to be enrolled at a prestigious university. Universities have better reputation attract more students.

As discussed above, previous studies have shown conflicting results on the impact of university reputation on predicting university choice for high school students. Thus, the potential for regulatory modification has not been taken into account in previous studies. Observing the way universities are selected each year in Vietnam shows that students are more likely to choose universities with a clear academic record. High school students have good academic performance; high school entrance exam results are often intended to select prestigious universities. Therefore, the author hypothesized that academic record would be a modifying factor in the relationship between university reputation and the choice of high school students.

H4: University reputation has a positive influence on intention to choose a university of high school students

Information that students receive from the university

During the selection process, students often search and evaluate the data collected to minimize the risk of making a decision. Although there are many sources of information affecting students, information provided by universities is still more important (James et al., 1999), especially information on courses and information about career prospects (Soutar and Turner, 2002). In the study by Joshep and Joshep (2000), the information received from the university is the strongest determinants of the university choice for high school students in Indonesia. Karl Wagner et al. (2009) concurred that this factor positively influenced university decision-making of high school students in Malaysia, but this was the least important factor among the elements. In the context of the information explosion and the school's efforts to provide information on admissions to students, the author believes that the information the school offers to students has a substantial impact on the student's intentions of choosing their universities.

H5: Information that students receive from the university has a positive influence on intention to choose a university of high school student

Others' advice

In the study by Karl Wagner et al (2009) and Koe and Sarings (2012), it was concluded that influential individuals (parents, siblings, friends, etc.) did not have the positive impact on the university decision making of high school students. However, many researchers find that parents play an important role in determining the choice of a student's university. Manski & Wise (1983) argue that the choice of peers is strongly influenced. Joshep and Joshep (1998, 2000) both point that the advice of others (parents, friends, siblings) significantly influenced the high school students' intention to select a university. In Vietnam, the author also found the evidence from the researches of Tran Van Qui and Cao Hao Thi (2009), Nguyen Minh Ha et al (2011), and the study of Mai Thi Ngoc Dao and Anthony Thorpe (2015) which concluded that advice of others has positive impact on the choice of university for high school students. The authors argue that the decision to choose a university is essential for every student as well as for their family. Therefore, the advice of others will motivate students to select a particular university.

H6: Others' advice (parents, friends, classmates...) has a positive impact on intention to choose a university of high school students.

Subjective norms

The subjective norms have been shown to be the factor that affects the behavioral intentions of university selecting for high school students (Ajzen, 1991). Previous studies have concluded that there are conflicting results between subjective norms and intentions of university deciding because the research subjects are different, there are limitations on time and studied. In this study, the author argues that those around them influence the decision to choose a university, but the "penetration" of ideas/advice and the formation of their choice seemingly different. When high school students decide to choose a college, they will also be interested in how other people's feelings. In this study, the impact of subjective norms on the choice of high school students

should be assessed.

In summary, by domestic and international research review, based on rational behavior theory and an analysis of Joseph and Joseph (1998, 2000), Karl Wagner et al. 2009, Joseph Kee Ming Sia (2011), as well as from the context of higher education in Vietnam, which has many similarities with Indonesia and Malaysia, the authors inherit previous studies to propose a model of research with 7 independent variables such as perceptions of costs, perceptions of the program, perceptions of facilities and resources, university reputation, subjective norms, information received from the university, and others' advice.

H7: Subjective norm has a positive impact on intention to choose a university of high school students.

A proposed model and measurement scale

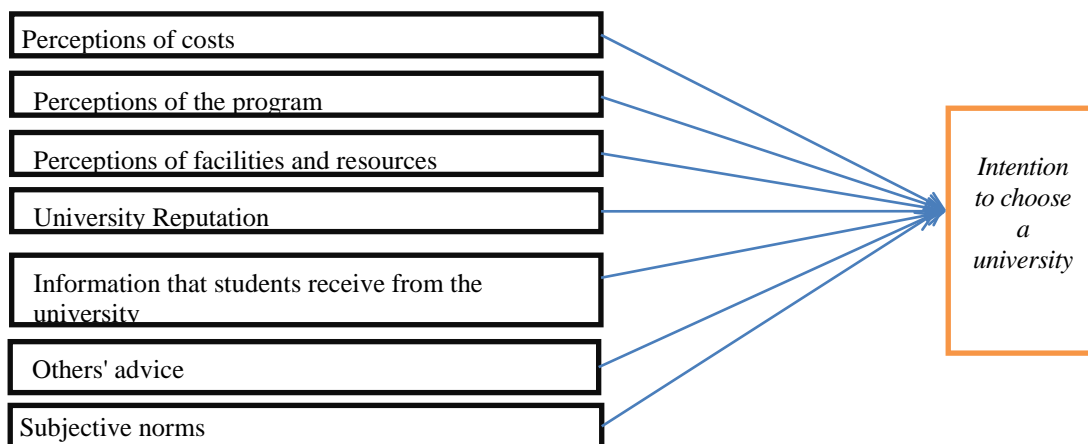


Fig. 1. Study model

Table 1: Measurement scale

<i>Items</i>	<i>Code</i>	
Reasonable tuition policy	CCHP1	Joshep Kee Ming Sia (2013)
Suitable cost of living	CCHP2	
Financial aid policies (scholarships, grants, concessional loans ...)	CCHP3	
Flexible tuition collection (tuition fees ...)	CCHP4	
Perceptions of costs		
Courses/subjects with diversity of contents and structure for students' choice	CCH1	Joshep Kee Ming Sia (2013)
Has flexible entry requirements	CCH2	
Has specialised programmes of study available	CCH3	
University has practical components in degree programme	CCH4	
Flexible conditions for registering a study program/subject	CCH5	
Has a range of degree	CCH6	
Has the availability programme of required degree	CCH7	
Perceptions of the program		
Ideal location	CSVC1	Joseph and Joseph (1998, 2000).
Environment conducive to learning for student	CSVC2	
Superb recreation and other facilities	CSVC3	
Good social life on campus	CSVC4	
Necessary resources available	CSVC5	
Clean and safe environment	CSVC6	
Good faculty	CSVC7	
Perceptions of facilities and resources		
Institutions with academic reputation	DT1	Joseph and Joseph (1998,2000)
Institutions with prestige training programs	DT2	
Institutions with accredited academic programs/ highly-valued academic merit	DT3	
University Reputation		
Institutions with information on career opportunities	TTT1	Karl Wagner et al (2009)
Institutions with information on the student's study/research field	TTT2	
Institutions with information on post graduate or higher education courses	TTT3	
Information that students receive from the university		
Advice from parents	CNAH1	Karld

Advice from peers	CNAH2	Wagner et al (2009) and Joseph Kee Ming Sia (2011)
Advice from classmate	CNAH3	
Advice from alumnis	CNAH4	
Advice from high school teachers	CNAH5	
Advice from admission counselor	CNAH6	
Advice from student who have been studying in university	CNAH7	
Advice's others		
Most people who are important to me think that it is a good university to choose	CCQ1	Pavlou and Fygenon (2006)
Most of people who I refer, support me to choose university X	CCQ2	
Subjective norm		
I plan to study in university X in near future	QD1	Ajzen (1975)
I intent to choose university X to study	QD2	
University X is my choice	QD3	
Intention to choose a university		

Source: Summarized by the author

3. Methodology

This research is carried out by a quantitative method, mainly with two steps: a preliminary qualitative study of 113 high school students and formal quantitative survey of 361 high school students in Hanoi. The questionnaire was completed with three main parts: introduction, statistical information section, and main content: including speeches designed according to the model and scales were studied. The scale used for measuring the observed variables in the model which is a 5-point Likert scale. For other classifiers such as sex, type of field, location ... are measured by nominal or hierarchical scales depending on the nature of the data that reflects them.

This study uses two main quantitative steps, including factor analysis and regression analysis. In this study, the authors selected 361 high school students (the good sample size is 300 according to Comrey & Lee, 1992). The author uses both an online form and a live ticket in the way of a snowball with 500 votes. As a result, 361 valid questionnaires were used for formal analysis. The sample description is as follows:

In term of sex: Among the 361 students surveyed, the proportion of males and females was quite balanced with 53% females (191 respondents) and 47% males (170 respondents).

In term of academic strength: The highest proportion of students with excellent academic qualifications is 58%, with 208 students, good students are followed, by 32% (114 students), average students are 9%, and weak students consist of 1 percent (Figure 4.4).

Classification of schools by region: Results show that 52% of attended students come from inner city schools (186 pupils) and 48% of pupils in suburban schools (175 pupils).

Classification according to the method of application: The enrollment rate for a university with entrance exams is 84 percent, five times higher than that of enrollment with academic records, only 16 percent.

Regarding the reason for choosing a college to study: The average score is 3.9, mainly because of the "hot" majors (4.51), the high possibility of applying for a job after graduation (4.34), high ability to pass (4.26), proud of living in that school (3.94), and the less important reason is the near distance from home (3.91).

4. Research results

4.1. Assess the reliability of the scales by the Cronbach's Alpha coefficient

The reliability of the preliminary quantitative study was evaluated by the Cronbach Alpha coefficients which are greater than 0.7 and the correlation coefficients which are greater than 0.3. The results of the observed variables are as follows:

Table 2: Summarizing the observation variables which was excluded from the preliminary quantitative study results

Variables	Number of observations	Observed variables discarded
Perceptions of costs	4	No
Perceptions of the program	7	CCH6, CCH7
Perceptions of facilities and resources	7	CSV3, CSV6
University Reputation	3	No
Information that students receive from the university	3	No
Others' advice	7	CNAH6 and CNAH7
Subjective norm	2	No
The decision to choose a university	3	No

Source: Summarized by the author

The results from the reliability tests of the scales have a variable correlation coefficient - the sum of observed variables with scales is relatively high, which is higher than 0.4. This shows that the observed variables correlate reasonably well with the overall scale. The Cronbach's alpha coefficients are over 0.7, so the official survey scale ensures the reliability. No observation variable is removed to increase the reliability of the scale. Therefore, all the scales are highly reliable, which satisfies the condition for further analyzes.

Table 3: Observation variables which were excluded from the testing results

Items	Code	Cronbach alpha
Perceptions of costs	CCHP1,CCHP2,CCHP3	0.859
Perceptions of the program	CCH1,CCH2,CCH3,CCH4,CCH5	0.797
Perceptions of facilities and resources	CSV1,CSV2,CSV4, CSV5, CSV7	0.708
University reputation	DT1,DT2,DT3	0.856
Information that students receive from the university	TT1,TT2,TT3	0.829
Others' advice	CNAH,CNAH2,CNAH3, CNAH4, CNAH5	0.873
Subjective norm	CCQ1,CCQ2	0.814
Intention to choose a university	QD1,QD2	0.873

Source: Summarized by the author

4.2. Analyzing the EFA

4.2.1. Analyzing the EFA independent variable

The results of analyzing factor discovery with independent variables in the model after the exclusion of the observation variables with small factor loadings showed that the results were quite good, analyzing factor discovery using with research data is appropriate. In which the KMO coefficient = 0.888, the Bartlett test is statistically significant at 5%, the total of explained variance is greater than 50% (67,380%), the coefficient of factor loading is greater than 0.5. Observational variables form the seven main factors as theoretical models.

4.2.2. Analyzing the EFA dependent variable

For dependent variables, the results of factor analysis with three observation variables were converged on one factor, with the test coefficient KMO = 0.742, Sig = 0.000, variance reaching 79,92%, this shows the convergence and good performances of the observation variables in the scale.

4.3. Confirmatory factor analysis (CFA)

From the results of the CFA analysis with the critical model, the author compiles the analysis coefficients in the table 3. After CFA analysis shows that the components of the scale have convergence values, discriminative

values and meets the requirements of value as well as reliability. Finally, 07 independent variables are perceptions of costs, perceptions of the program, perceptions of facilities and resources, information students receive from the university, university reputation, subjective norm, others' advice, and 01 dependent variables of intention to choose a university are accepted.

Table 4: Summary of CFA model coefficients of the scale Model of the decision of choosing a university

Variables	Synthetic reliability	Total of variance	Targets
Perceptions of costs	0.795	50%	Chi-square/df = 2.131 CFI = 0.929 TLI = 0.917 IFI = 0.930 RMSEA = 0.056
Perceptions of the program	0.863	56%	
Perceptions of facilities and resources	0.880	71%	
University Reputation	0.709	45%	
Others' advice	0.813	47%	
Information that students receive from the university	0.859	67%	
Subjective norm	0.838	72%	
The decision to choose a university	0.874	70%	

Source: Analysis results with the support of AMOS software

4.4. Analysis results by SEM and hypotheses testing

4.4.1. Testing TRA model

The results of the structural equation modeling analysis after adjusting some possible correlations between the observed variables show that the value of Chi-sq/df is 2,131, less than 3, CFI = 0.929, TLI = 0.917, IFI = 0.930 that are greater than 0.9, RMSEA = 0.056 that is less than 0.08 (Figure 3). Therefore, the model is compatible with the actual data.

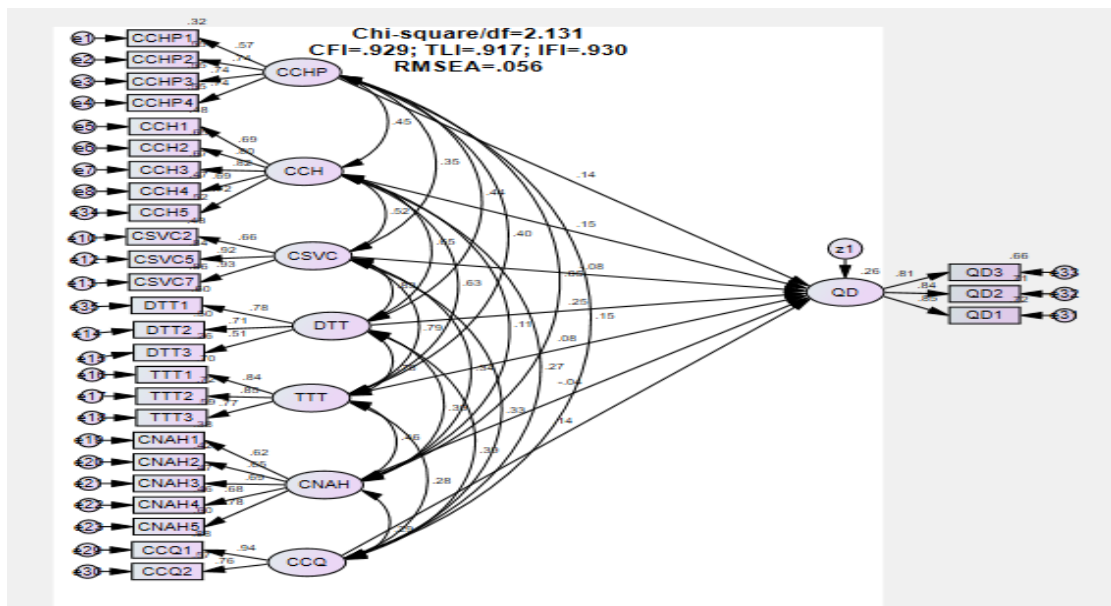


Fig. 3. SEM model analysis (standardized)

Source: Analysis results with the support of AMOS software

The impact level of the factors affecting student's choice is also different. The most influential factor is "university reputation" (standardized $\beta = 0.271$), followed by the "program perception" (standardized $\beta = 0.152$), then is the factor of " receive " (standardized $\beta = 0.138$) and finally is "Subjective norms" (Standardized $\beta = 0.128$).

4.4.2. Verify the reliability of the model with the Bootstrap method

To assess the robustness of the model, the author uses the bootstrap analysis with a sample size of 1000. The

results show that the estimated mean of the samples generated by the bootstrap is very small (Bias and SE - Bias), which shows that the results from the data are reliable and can be used to inference for the population.

4.4.3. Hypothesis testing results in a theoretical model

As the results of the theoretical and bootstrap model estimation in the structural equation modeling (SEM) presented above, the hypothesized relationships in P-value varied from 0.000 to 0.1 (or 90% level of confidence). The results show that the test of the factors affecting the high school students' decision to choose universities is highly reliable. This means that the hypotheses H1, H2, H4, H7 are accepted. The remaining hypotheses H3, H5, H6 are rejected.

4.4. Evaluation results were analyzed by a Structural equation modeling (SEM) and test research hypotheses

4.4.1. Theoretical model consolidation

The results analyzed by using the linear structure model after adjusting some possible correlations between the errors of the observation variables in the factors that show: Chi-square/df = 2.131 is smaller than 3, CFI = 0.929, TLI = 0.917, IFI = 0.930 is greater than 0.9, RMSEA = 0.056 is smaller than 0.08. This shows that the model is compatible with the actual data (market).

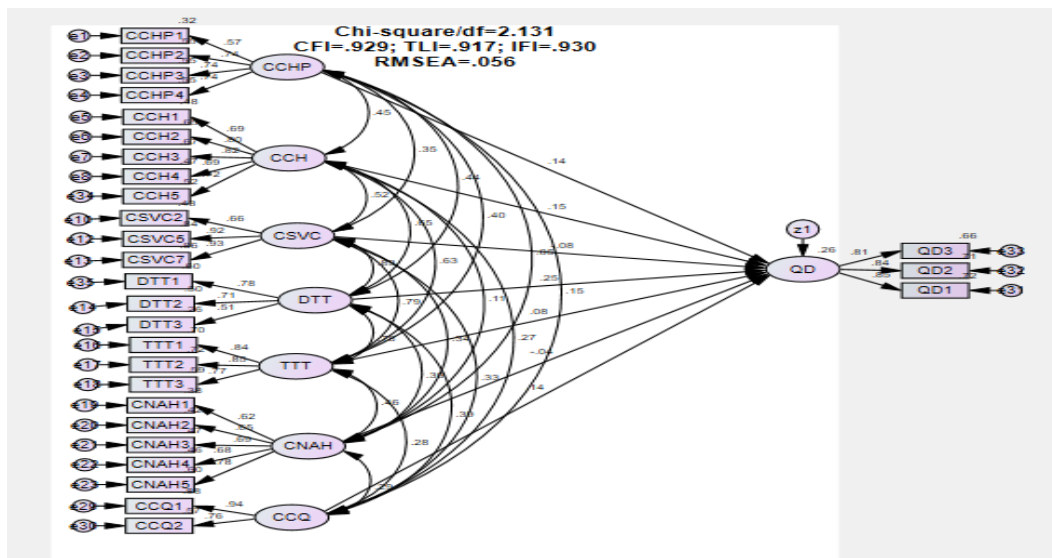


Fig. 4. SEM model analysis (standardized)

Source: Author's calculations with the help of AMOS software

The level of the factors' influence on the students' decision of choosing a university is also different. In which, the biggest influence belongs to the factor "reputation of the university" ($\beta=0.271$), next is the factor "perceptions of the program" ($\beta= 0.152$), "perceptions of costs" ($\beta= 0.138$) and the last is "subjective standards" ($\beta = 0.128$).

4.4.2. Verifying the reliability of the model with the Bootstrap method

To assess the robustness of this thesis model, the author uses bootstrap analysis with a refundable sample size of 1000. The results show that the estimated difference of the original sample with the estimated mean of the bootstrap models is small (Bias and SE - Bias are tiny), This shows that the results from data analysis are reliable and can be used to deduce the whole.

4.4.3. Hypothesis testing results in a theoretical model

As the results of the theoretical and bootstrap model estimation in the linear-structure model (SEM) presented above, the hypothesized relationships in the theoretical model with the mean of P-value varying from 0.000 to 0.1 achieves the required level (90% reliability). The results show that the test of the factors' influence on the decision of choosing a university for high-school students is highly reliable. This confirms the original hypotheses H1, H2, H4, H7 are accepted. The remaining hypotheses H3, H5, H6 are rejected.

5. Discussion and recommendations

In this study, the author concerns in seven factors affecting the intention to choose university of high school students in Ha Noi, such as perceptions of costs, perceptions of the program, perceptions of facilities and resources, university reputation, information that students receive from university, other people's advice, and subjective norms. The results show that four factors have a positive impact on the intention to choose university of high school students, including the university reputation, perceptions of the program, perceptions of cost, and subjective norms, respectively.

Firstly, university reputation has a positive influence on the choice of high school students, meaning that high school students feel that the better university's reputation, the more they decide to choose that university. The university reputation factor has a coefficient of standardized $\beta = 0.271$, the most substantial impact on the decision of selecting a university. In fact, most high school students tend to favor high-profile universities. Nowadays, the reputation of universities is very important, and students place this criterion as a top priority. Therefore, universities with a good reputation will attract more students and less subjected to difficult enrollment.

Secondly, perceptions of the program that are positively correlated with high school students' decision to choose a university, which means that the perceptions from the university are consistent with students' expectations of its training programs. In this study, the perception of the curriculums or training programs was the second factor (standardized $\beta = 0.152$) which impacts the choice of university for high school students.

Thirdly, cost perception has a positive influence on the decision to choose a university. This is a factor that is ranked in the third order of the effect degree with the value of standardized $\beta = 0.138$. This means that students feel that the higher the cost of from a university, the more likely they are to choose the university. In fact, given the relationship between the customer and the supply chain, high school students tend to prioritize universities where they perceive the costs are reasonable and appropriate for their budget.

Lastly, subjective norms have a positive impact on high school students' decision to choose a university. The explanation is as follows: Students in Vietnam are conscious and tend to act according to social norms, and people around them. Their relatives or essential people tend to encourage them a lot. High school students often make decision mainly depends on the encouragement and suggestions of people around. This decision is not only crucial for the students themselves but for the people around them such as grandparents, their parents, their siblings too.

The results of the study also deny the hypotheses concerning the positive relationship between independent variables such as the perceptions about the facilities and resources, the information that students receive from the university, and the other's advice and the intention to choose university of high school students. Based on the results, the author recommends some solutions to increase the intention in selecting a university of high school students, including improving the reputation of the university, the quality of training programs for different groups of students; choose appropriate pricing policies, and enhancing the strategies on group of relatives such as students' parents, friends that indirectly affects on the choice of high school students.

This research, however, there are some limitations which are following: Firstly, the study selected only Hanoi as the site of the survey, it will suggest more comprehensive results if the sample is widened in more other cities. Secondly, the study did not show the difference between the factors affecting the decision of the student before and after attending the school, the satisfaction of the student about his choice of school. This study requires a significant amount of sequence, time and data, therefore, if there is a chance, the author will conduct further research about this objective in the future. Thirdly, past studies have outlined some factors that influence the choice of a student. However, this study does not adequately explain the much factors that affect the outcome. The researcher's follow-up approach will overcome these limitations.

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Designing Coordinating Contracts for the Consignment Channel: Integrating Manufacturer-Greening and Retailer-Marketing Efforts

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ABSTRACT

In this paper, we study the sustainable coordination of a consignment channel that arises due to simultaneous consideration of Greening and Marketing initiatives undertaken by channel agents. We investigate a green channel where the manufacturer (M) is responsible for greening and the retailer (R) undertakes marketing efforts. Therefore, the market demand is affected by retail price, R's marketing and M's greening efforts. Using M-led Stackelberg game to model the decision-making of the two firms in the channel, we analyze the decentralized channel under our four proposed sharing contracts, namely *Revenue – Production cost sharing (RP)*, *Revenue – Production cost and Marketing cost sharing (RPM)*, *Revenue – Production cost and Greening cost sharing (RPG)*, and *Revenue – Production cost – Marketing cost and Greening cost sharing (RPMG)*. For each sharing contract, we first consider the scenario that the sharing fraction is determined by either R or M who dominates the green channel and then envisage the possibility of negotiation between R and M on the sharing fraction which forms the basis of division of costs and revenues. Our analytical results show that the cooperation between M and R via sharing contracts improves the greening level of the products and the overall profitability of channel. In addition, both M and R get higher profits in the coordination state. From managerial insights, our research could help channel managers to improve greening level as well as the overall performance of channel.

Keywords: marketing effort; consignment channel; green channel; coordinating contract

1. Introduction

The development of industrial technology and the focus of manufacturers on their growth and profit had adverse effects on the environment and society (Hsueh, 2015) and considering Greening within supply chain (channel) management has become an inevitable requirement for improving the competitiveness of manufacturers (Xiao and Yang, 2008). In recent times, green supply chain management is becoming increasingly attention among scholars and practitioners who are integrating environmentally sound choices into supply chain management research and practice (Yenipazarli, 2017; Babbar et al., 2017). From business practice, increasingly regulatory pressures and as well as rising public environmental protection awareness have forced the M giants to work with upstream and downstream companies to build green supply chains (Sancha et al., 2016). The manufacturers are asked to provide evidence of their operations meeting relevant environmental requirements and, in some cases evidence of ISO14001 certification (Swami et al., 2013). Therefore, M can invest funds for new product research and development (R&D) to develop green products (Song and Gao, 2018) that reduce environmental impact of production process and meet the increasing consumer demand for these products. As an

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example, Adidas, a leading M of athletic wear, uses Eco-Grip technology to reduce harmful substances from materials used in manufacturing to minimize the manufacturing impact on environment. Similarly, World's largest beverage company Coca-Cola has made significant efforts in measuring and reducing its carbon footprints. In another example, PepsiCo mandates her suppliers to implement green technology to reduce the carbon footprint in their businesses. An increase in greening performance may lead to greater market demand but requires higher greening investment cost (Raj et al., 2018). Therefore, firms are only willing to adopt green technology if they enhance their profitability (Yang et al., 2017). In addition to M's greening efforts, R who are more likely to face the public directly can exploit the sales channel to promote the market demand and boost sales (Wang and Hu, 2011). R's sales channel includes different types of "marketing efforts" such as local advertising, on-site shopping assistance, rebates and post-sales service. However, these activities may constitute a significant portion of firm's operating expenses (Xiao et al. 2005). As a result, if the M does not provide sufficient incentives, then R will have no motivation to enhance marketing effort level (Krishnan et al., 2004).

It is also well known that when the channel member's decisions on efforts are made separately and each party pays the associated costs of efforts to maximize their own profit, these strategies lead to a suboptimal level of efforts which may lower total profit of the whole channel. In the past decades, the issues of coordinating the green channel have received a great deal of research attention since it improves the profit both of the channel and of the individual channel member. Readers may refer to Raj et al. (2018) for a summary of the reviewed literature in the context of green supply chain (channel) management literature. Coordinating contracts provide incentives to induce channel members to behave in ways that are best for the whole channel while maximizing their own profit. This situation leads to a coordination of the channel. However, some coordinating contracts only reach the cooperation state (Pareto improvement) where the channel members are better off with the coordinating contract than any other different contracts (Chakraborty et al., 2015). In this paper, we propose an effective contract to coordinate the green channel through the combination of revenue-sharing and cost-sharing contracts and based on two common channel practices: consignment channel and Vendor Managed Inventory (VMI). Under the VMI system complemented by a consignment contract (VMI-CC), the vendor (i.e., M) manages the R's inventory levels and makes periodic replenishment decisions in terms of quantity and frequency (Wong et al, 2009) while retaining ownership of the inventory (Chen et al. 2010). VMI-CC has been adopted by many industries such as personal computer and automobile. Readers may refer to Chen et al. (2010) for more examples of the VMI-CC. The coordination of a green channel using a revenue - sharing contract has been widely studied in the literature. Qian and Guo (2014) developed a revenue-sharing bargaining model between an Energy Service Company (ESCO) and an Energy-Using Organization (EU). Their research show that the greater the probability of adverse circumstances is, the higher is the revenue share (of the EU) and the more disadvantageous is the ESCO's position in the game. Arani et al. (2016) proposed a mixed revenue-sharing option contract to coordinate the channel and modeled that using a game theoretic approach. Song and Gao (2018) established a green channel game model with two kinds of revenue-sharing contracts: the retailer-led- and the bargaining- revenue sharing contract. Their results proved that the revenue-sharing contracts can effectively improve the greening level of the products and the overall profitability of the channel. Besides, the cost-sharing contract has recently been used in coordinating a green channel (Ghosh and Shah., 2015; Arda., 2017; Raj et al., 2018). However, no study has addressed the coordination issues in a consignment channel with the presence of both M's greening and R's marketing efforts. Therefore, in this paper, we examine the problem of designing coordinating contract for a green consignment channel, focusing on how to share the channel's revenue and costs between the channel members to achieve the best performance for such a channel. For doing this, we propose four kinds of sharing contracts namely RP, RPM, RPG, RPMG which are based on the combination of revenue-sharing and cost-sharing contract in VMI-CC. We study the efficiency of each sharing contract in a two-echelon channel where the market demand is affected by retail price, R's marketing and M's greening effort. In this context, we model the decision-making of the two firms in the decentralized channel as the M-Stackelberg game and carry out equilibrium analysis with consideration of wholesale price contract (WP) and four kinds of sharing contracts. We use the results of decentralized channel under WP as a benchmark for the evaluation of channel cooperation with the sharing contracts. We also develop a corresponding model for centralized channel and use the optimal results to investigate channel coordination.

Our work contributes to the extant literature in two folds. First, we develop an analytical model dealing with channel coordination issues for the different decisions impacting on the channel performance including not only the operational choices (quantity, price) and marketing decisions of the firms but also the green channel management. Therefore, our study address a business practices which so far has not been studied. Secondly, we propose the coordination schemes for the green consignment channel through the combination of revenue-sharing and cost-sharing contracts under VMI system.

This paper is organized as follows: after this introductory section, we describe the problem setting with notations and assumptions in Section 2. Section 3 focuses on analyzing a centralized model and a decentralized model. In Section 4, we analyze the impact of bargaining power on the implementation of sharing contract and the channel performance. We next conduct numerical studies to validate the proposed models in Section 5. A

summary of the findings, the managerial insights, and suggested directions for future research are described in the last section. To save place, all of proof, some tables and analyses are put in the Appendix and available upon request from the authors

2. Model formulation

We consider a two-echelon distribution channel consisting of a M (he) and a R (she), in which M produces the green product and sells it through R who then sells the products to the final consumers. We assume that the consumers are sensitive towards environment friendly characteristic of a product as well as marketing efforts undertaken by R. We consider a deterministic linear demand function faced by a R in the market as follows: $D = a - bp + \gamma e + \lambda \theta$, $a > 0, b > 0, \gamma > 0, \lambda > 0$ and $a - bc > 0$ are assumed for the demand function, where, a is overall market potential, b is price sensitivity, p is retail price, θ is greening level of product, e is marketing effort level, λ and γ are consumer sensitivity to greening and marketing effort levels respectively. (In Table 1, we present all relevant notations used in this paper). This type of demand function form has been widely used to incorporate the price, marketing and green effort impacting on the demand (Ma et al, 2013; Ghosh and Shah, 2015; Arda, 2017; Raj et al., 2018). Here, the demand is decreasing in the retail price, increasing in both the R's Marketing effort and product's greening level. We further assume a quadratic functions to formulate R's marketing and M's green product R&D costs. The cost of green product R&D is entirely borne by M and is represented by $\kappa \theta^2 / 2$ where $\kappa > 0$ is the green investment parameter (Banker et al., 1998; Song and Gao, 2018). Similarly, the cost of the marketing efforts at level e is $\eta e^2 / 2$ where $\eta > 0$. This type of marketing cost function has been widely used in the literature (Krishnan et al., 2004; Ma et al, 2013). Assumption of cost nonlinearity represents the diminishing rate of returns for greening and marketing related activities. We also assume that both M and R possess full and symmetric information regarding costs and demand.

The trade between M and R can be either a WP or a sharing contract. We define a sharing contract as being the combination of the revenue-sharing and cost-sharing between M and R embedded in the VMI-CC. Under such a contract, M retains the ownership of the consignment stock, decides on the retail price and manages the inventory at R (i.e., decides on stocking quantity). The sharing contract also specifies the sharing parameters to allocate the channel's costs and revenue. For simplicity, we assume in our original model that the same sharing terms for revenue are used to share the costs. Therefore, in our proposed sharing contracts, if one kind of cost is shared, the fraction of cost sharing is equal to that of revenue sharing and we call it the sharing fraction for short. Further, we will extend our model using different sharing parameters for efforts costs. Under a sharing contract, the decision on the level of sharing fraction has to be made before deciding on the level of efforts meaning that M and R are engaged in a long-term commitment to share their costs and revenues. By contrast, the sharing fraction would have no impact on M's greening and R' marketing efforts. Therefore, when firms determine the level of their efforts, they know the share of investment cost on efforts will be undertaken by the other firm and their decision on the effort level would accommodate this sharing fraction. Once the investment in effort has been made, the upfront cost is divided between M and R according to this sharing fraction. As a consequence, R is free to determine the marketing effort level and M is free to determine the product's greening level to maximize their own profit under the sharing contract. In particular, we propose the following four kinds of sharing contract to coordinate a green channel:

Contract RP: The revenue and Production cost sharing contract

Contract RPM: The revenue - Production cost and Marketing cost sharing contract

Contract RPG: The revenue - Production cost and Greening cost sharing contract

Contract RPMG: The revenue - Production cost - Marketing cost and Greening cost sharing contract

In the RP contract, the inventory at R is owned by M, R does not pay M upon receipt of the stocks (i.e., green products) but shares the sales revenue on units sold. For each unit of any sold stock, R keeps a fraction $\alpha \in (0, 1)$ of the revenue for herself and shares a fraction $1 - \alpha$ of her revenue with M, and R incurs a fraction α of production cost for each unit of stock.

In the RPM contract, R keeps a fraction $\alpha \in (0, 1)$ of her revenue, incurs a fraction α of production cost for each unit of stock and M is willing to bear a fraction $1 - \alpha$ of R's marketing cost.

In the RPG contract, R keeps a fraction $\alpha \in (0, 1)$ of her revenue, incurs a fraction α of production cost for each unit of stock and R is willing to share a fraction α of the M's upfront cost of greening investment.

In the RPMG contract, R keeps a fraction $\alpha \in (0, 1)$ of her revenue, incurs a fraction α of production cost for each unit of stock and R and M share their costs of marketing and greening with each other according to a fraction α , i.e., R absorbs a fraction α of the M's greening cost while M absorbs a fraction $1 - \alpha$ of R's marketing cost.

Table 1. Notations used.

Notations	Explanation	Notations	Explanation
p	Unit retail price	κ	Coefficient of greening effort cost
w	M's wholesale price	i	Indicator of firm, $i=m$ (M), r (R)
θ	Product's greening level	j	Indicator of the sharing contract, $j=RP, RPM, RPG, RPMG$
e	R's marketing effort level	$(p_c^*, e_c^*, \theta_c^*)$	The optimal decisions for centralized channel
c	Unit production cost for M	$(p_{WP}^*, e_{WP}^*, \theta_{WP}^*)$	The optimal decisions for decentralized channel under WP
a	Market scale parameter	$(p_j^*, e_j^*, \theta_j^*)$:	The optimal decisions for decentralized channel under sharing contract
b	Price elasticity of the demand	$\Pi_m^{WP}, \Pi_r^{WP}, \Pi_c^{WP}$	M's, R's and channel's profit under WP
γ	Consumer sensitivity to marketing effort	$\Pi_m^j, \Pi_r^j, \Pi_c^j$	M's, R's and channel's profit under sharing contract j
λ	Consumer sensitivity to green improvements	Π_c	Centralized channel's profit
η	Coefficient of marketing effort cost	α	Sharing fraction

3. Modeling centralized and decentralized channels

3.1. The centralized channel model

We first investigate the integrated channel which is considered as a single system operating under a global optimization strategy. In this setup, all relevant decisions are taken by a central planner who possesses all the relevant information. The central planner decides the optimal retail price, production quantity, greening level, and marketing effort level for the entire channel. Therefore, the optimization problem of the central planner is given by

$$\max_{p, e, \theta} \Pi_c(\cdot) = (p - c)D - \eta e^2/2 - \kappa \theta^2/2 \tag{1}$$

From the problem of (1), we impose a restriction of $b > \gamma^2/2\eta$ and $\kappa > \underline{\kappa}$ where $\underline{\kappa} = \eta\lambda^2/(2b\eta - \gamma^2)$ to ensure the Hessian matrix of Π_c is a negative definite. The same expression of this condition is presented by $0 < \gamma^2/\eta + \lambda^2/\kappa < 2b$. Under this restriction, the profit of the centralized channel is jointly concave in p , e , and θ , therefore, the optimal decisions of retail price p_c^* , marketing effort level e_c^* , and product greening level θ_c^* can be obtained through the first order optimality conditions. The results of optimal decisions are listed in Table 2 (in the following section). Substituting $(p_c^*, e_c^*, \theta_c^*)$ into Eq. (1), we obtain the optimal profit of the centralized channel and present it in Table 3. From the optimal results: If market demand is not influenced by marketing efforts, then $\lambda = 0$ and $\gamma \neq 0$, the channel turns into a greening only channel. Under such a scenario, we can calculate the optimal values for a green channel using the limit $\lambda \rightarrow 0$. Similarly, if market demand is not influenced by greening efforts, then $\lambda \neq 0$ and $\gamma = 0$, the channel turns into a marketing only channel. In this case, we can determine the optimal values for a marketing channel using the limit $\gamma \rightarrow 0$. If market demand is neither greening nor marketing, then $\lambda = 0$ and $\gamma = 0$, we can obtain the optimal values for a channel without efforts using the limit $\gamma \rightarrow 0$ and $\lambda \rightarrow 0$. We can also observe from the generalized results that the centralized channel orders more, earns more profit, makes higher greening level and marketing level with a higher consumer sensitivity to marketing and greening efforts. We further find that $\Pi_c > \lim_{\gamma \rightarrow 0, \lambda \rightarrow 0} \Pi_c = (a - bc)^2/4b$ under the concavity condition of profit function. From this expression, the profit of a green centralized channel is higher than that of its profit only counterpart. This finding indicates that if the consumers are willing to pay higher for green products and marketing effort, the firms will have motivations to invest more in green products and marketing efforts.

3.2. Decentralized channel under WP

In a decentralized channel, the channel members make their own decisions based on their own costs to maximize their own profits, but the decision making results are mutually influential. In a decentralized channel under WP contract, we model the decision-making problems of the two channel members as a M-led Stackelberg game (MS) in which the M takes the initiative and R as the follower¹. The dynamic game order is as follows: firstly M determines the greening level of products θ and the wholesale price w . Subsequently, R determines the marketing effort level e , the retail price p and uses an order quantity equal to demand D to maximize her profit. To obtain the optimal decisions and firm-level profits in equilibrium, we use backward induction method to solve

this sequential move game. We begin by characterizing the R’s best-response function. For a given $\{w, \theta\}$, R’s problem is $\max_{p} \Pi_r^{WP} = (p - w)D - \eta e^2 / 2$. Based on the R’s best response, M’s problem can be stated as follows: $\max_{p, \theta} \Pi_m^{WP} = (w - c)D - \kappa \theta^2 / 2$. The equilibrium results for WP contract are presented in Tables 2 and 3. Some algebraic calculations verify that: $\theta_c^* / \theta_{WP}^* > 2$ and $e_c^* / e_{WP}^* > 2$. These results indicate that in a WP contract, optimal greening and marketing effort levels are less than half of the corresponding values for a centralized channel. This finding suggests that the channel agents need to put higher efforts in greening and marketing effort in a decentralized channel to get more profit. We further observe that $\Pi_c^{WP} / \Pi_c < 3/4$. This observation implies that the double marginalization problem and suboptimal level of efforts of WP contract generate a profit loss of channel that higher than 25%. Therefore, in the following subsections, we analyze four sharing contracts to investigate the optimal performance of a decentralized channel and compare them with the WP contract.

Remark : ¹The interaction between M and R in a decentralized channel under WP contract is often characterized by the power of decision making of the partners involved (Chakraborty et al., 2018). Three channel structures including: (i) M-led Stackelberg (MS), (ii) R-led Stackelberg (RS) and (iii) vertical Nash (VN) have been discussed in the literature (Ma et al., 2013). In the RS model, R is the Stackelberg leader, who anticipates M’s reaction on wholesale price and green effort, and then decides on its retail price and marketing effort level. In the VN model, M’s decisions and R’s decisions are made independently. In our study, we address a channel where M is a Stackelberg leader (MS model).

3.3. Decentralized channel under sharing contracts

As the description of the sharing contracts in Section 2, the sequence of events under the sharing contracts is as follows: In the first step, both firms negotiate a sharing fraction α . Then, in the second step, M decides the retail price, the product’s greening level and chooses a stocking quantity equal to demand to maximize his own profit. In the third step, R decides only on the marketing effort level to obtain her own profit maximization.² Therefore, after the sharing fraction was chosen, the behavior of M and R under the sharing contracts can be described by using M-led Stackelberg game setting where M as the leader and R as follower. Then, the Stackelberg game corresponding to each sharing contract can be expressed as follows:

Contract	Stage 1	Stage 2
RP	$\max_{p, \theta} \Pi_m^{RP} = (p - c)(1 - \alpha)D - \kappa \theta^2 / 2$	$\max_e \Pi_r^{RP} = (p - c)\alpha D - \eta e^2 / 2$
RPM	$\max_{p, \theta} \Pi_m^{RPM} = (p - c)(1 - \alpha)D - (1 - \alpha)\eta e^2 / 2 - \kappa \theta^2 / 2$	$\max_e \Pi_r^{RPM} = (p - c)\alpha D - \alpha \eta e^2 / 2$
RPG	$\max_{p, \theta} \Pi_m^{RPG} = (p - c)(1 - \alpha)D - (1 - \alpha)\kappa \theta^2 / 2$	$\max_e \Pi_r^{RPG} = (p - c)\alpha D - \eta e^2 / 2 - \alpha \kappa \theta^2 / 2$
RPMG	$\max_{p, \theta} \Pi_m^{RPMG} = (p - c)(1 - \alpha)D - \frac{(1 - \alpha)}{2} \eta e^2 - \frac{(1 - \alpha)}{2} \kappa \theta^2$	$\max_e \Pi_r^{RPMG} = (p - c)\alpha D - \alpha \eta e^2 / 2 - \alpha \kappa \theta^2 / 2$

We solve the games by backward induction. The equilibrium results are listed in Tables 2 and 3.

Table 2. The optimal decisions for centralized and decentralized channel

Models/Contract	Retail price	Marketing effort level (e)	greening level (θ)	
Centralized	$c + \frac{(a - bc)\eta\kappa}{-\gamma^2\kappa + 2b\eta\kappa - \eta\lambda^2}$	$\frac{(a - bc)\gamma\kappa}{-\gamma^2\kappa + 2b\eta\kappa - \eta\lambda^2}$	$\frac{(a - bc)\eta\lambda}{-\gamma^2\kappa + 2b\eta\kappa - \eta\lambda^2}$	
Decentralized channel	WP	$c + \frac{(a - bc)(3b\eta - \gamma^2)\kappa}{b(4b\eta\kappa - 2\gamma^2\kappa - \eta\lambda^2)}$	$\frac{(a - bc)\gamma\kappa}{4b\eta\kappa - 2\gamma^2\kappa - \eta\lambda^2}$	$\frac{(a - bc)\eta\lambda}{4b\eta\kappa - 2\gamma^2\kappa - \eta\lambda^2}$
	RP	$c + \frac{(a - bc)\eta\kappa}{-2\alpha\gamma^2\kappa + 2b\eta\kappa - \eta\lambda^2 + \alpha\eta\lambda^2}$	$\frac{(a - bc)\alpha\gamma\kappa}{-2\alpha\gamma^2\kappa + 2b\eta\kappa - \eta\lambda^2 + \alpha\eta\lambda^2}$	$\frac{(a - bc)(1 - \alpha)\eta\lambda}{-2\alpha\gamma^2\kappa + 2b\eta\kappa - \eta\lambda^2 + \alpha\eta\lambda^2}$
	RPM	$c + \frac{(a - bc)\eta\kappa}{-\gamma^2\kappa + 2b\eta\kappa - \eta\lambda^2 + \alpha\eta\lambda^2}$	$\frac{(a - bc)\gamma\kappa}{-\gamma^2\kappa + 2b\eta\kappa - \eta\lambda^2 + \alpha\eta\lambda^2}$	$\frac{(a - bc)(1 - \alpha)\eta\lambda}{-\gamma^2\kappa + 2b\eta\kappa - \eta\lambda^2 + \alpha\eta\lambda^2}$
	RPG	$c + \frac{(a - bc)\eta\kappa}{-2\alpha\gamma^2\kappa + 2b\eta\kappa - \eta\lambda^2}$	$\frac{(a - bc)\alpha\gamma\kappa}{-2\alpha\gamma^2\kappa + 2b\eta\kappa - \eta\lambda^2}$	$\frac{(a - bc)\lambda\eta}{-2\alpha\gamma^2\kappa + 2b\eta\kappa - \eta\lambda^2}$
	RPMG	$c + \frac{(a - bc)\eta\kappa}{-\gamma^2\kappa + 2b\eta\kappa - \eta\lambda^2}$	$\frac{(a - bc)\gamma\kappa}{-\gamma^2\kappa + 2b\eta\kappa - \eta\lambda^2}$	$\frac{(a - bc)\eta\lambda}{-\gamma^2\kappa + 2b\eta\kappa - \eta\lambda^2}$

Table 3: M's, R's and channel's profit under sharing contracts and WP

Models/ Contract	R's profit	M's profit	Total profit	
Centralized	Omitted	Omitted	$\frac{(a-bc)^2\eta\kappa}{2(-\gamma^2\kappa+2b\eta\kappa-\eta\lambda^2)}$	
Decentralized channel	WP	$\frac{(a-bc)^2\eta\kappa}{2(4b\eta\kappa-2\gamma^2\kappa-\eta\lambda^2)}$	$\frac{(a-bc)^2\eta\kappa(6b\eta\kappa-3\gamma^2\kappa-\eta\lambda^2)}{2(4b\eta\kappa-2\gamma^2\kappa-\eta\lambda^2)^2}$	
	RP	$\frac{(a-bc)^2\alpha\eta(2b\eta-3\alpha\gamma^2)\kappa^2}{2(2\alpha\gamma^2\kappa-2b\eta\kappa+\eta\lambda^2-\alpha\eta\lambda^2)^2}$	$\frac{(a-bc)^2(1-\alpha)\eta\kappa}{-4\alpha\gamma^2\kappa+4b\eta\kappa-2\eta\lambda^2+2\alpha\eta\lambda^2}$	$\frac{(a-bc)^2\eta\kappa((2b\eta\kappa-\eta\lambda^2)-2\alpha(\gamma^2\kappa-\eta\lambda^2)-\alpha^2(\gamma^2\kappa+\eta\lambda^2))}{2(2\alpha\gamma^2\kappa-2b\eta\kappa+\eta\lambda^2-\alpha\eta\lambda^2)^2}$
	RPM	$\frac{(a-bc)^2\alpha\eta(2b\eta-\gamma^2)\kappa^2}{2(\gamma^2\kappa-2b\eta\kappa+\eta\lambda^2-\alpha\eta\lambda^2)^2}$	$\frac{(a-bc)^2(1-\alpha)\eta\kappa}{-2\gamma^2\kappa+4b\eta\kappa-2\eta\lambda^2+2\alpha\eta\lambda^2}$	$\frac{(a-bc)^2\eta\kappa(\gamma^2\kappa+\eta(-2b\kappa+(\alpha-1)^2\lambda^2))}{-2(\gamma^2\kappa-2b\eta\kappa+\eta\lambda^2-\alpha\eta\lambda^2)^2}$
	RPG	$\frac{(a-bc)^2\alpha\eta\kappa(2b\eta\kappa-3\alpha\gamma^2\kappa-\eta\lambda^2)}{2(2\alpha\gamma^2\kappa-2b\eta\kappa+\eta\lambda^2)^2}$	$\frac{(a-bc)^2(1-\alpha)\eta\kappa}{-4\alpha\gamma^2\kappa+4\eta b\kappa-2\eta\lambda^2}$	$\frac{(a-bc)^2\eta\kappa(-2\alpha\gamma^2\kappa-\alpha^2\gamma^2\kappa+2b\eta\kappa-\eta\lambda^2)}{2(2\alpha\gamma^2\kappa-2b\eta\kappa+\eta\lambda^2)^2}$
	RPMG	$\frac{\alpha(a-bc)^2\eta\kappa}{2(-\gamma^2\kappa+2b\eta\kappa-\eta\lambda^2)}$	$\frac{(1-\alpha)(a-bc)^2\eta\kappa}{2(-\gamma^2\kappa+2b\eta\kappa-\eta\lambda^2)}$	$\frac{(a-bc)^2\eta\kappa}{2(-\gamma^2\kappa+2b\eta\kappa-\eta\lambda^2)}$

4. Analytical results for channel performance

4.1. Bargaining power and cooperation

The channel contract terms can be decided overwhelmingly by one of the parties (R or M) depending on their bargaining power. Therefore, in this section, we first investigate the case that the sharing fraction α in each sharing contract is determined by R. In this case, R is the dominant player and offers a take-it-or-leave-it sharing contract to M. Conversely, when M has more bargaining power than that of R, he embodies the channel power and offers a take-it-or-leave-it sharing contract to R and stipulates a sharing fraction which maximizes his profit. In some cases, the negotiation between R and M could be made to allocate the cost of efforts and/or revenues between these two parties (Arda, 2017). Therefore, we also investigate the cases where the sharing fraction is determined through the negotiation between R and M. In particular, we use the bargaining structure proposed by Nash to determine the optimal sharing fraction in this scenario. In a Nash bargaining game, two players have equal power and cooperatively decide on how the surplus generated by their interaction should be divided between them. In the next subsection, we analyze the impact of bargaining power on channel member's profit.

4.2. The impact of bargaining power on the channel member's profit

From the results in the Table 3, Π_i^j is a function of sharing fraction (α). By examining the sign of the functions $\partial\Pi_i^j/\partial\alpha$ with the condition of $\Pi_i^j > 0$ that assure positive profits for each partner in the channel, we drive the impact of bargaining power on the profit of M and R though the selection of α in each sharing contract. We summarize with the following proposition.

Proposition 1. When M is the dominant player and embodies the channel power, the equilibrium level of sharing fraction α^{j*} which maximizes M's profit in the sharing contract j are as follow: (1) In the RP contract: as $b > \gamma^2/\eta$, $\alpha^{RP*} = 0$, otherwise, $\alpha^{RP*} = 2b\eta/3\gamma^2$. (2) In the RPM contract: $\alpha^{RPM*} = 0$. (3) In the RPG contract: as $\eta > 2\gamma^2\kappa/(2b\kappa - \lambda^2)$, $\alpha^{RPG*} = 0$, otherwise, $\alpha^{RPG*} = (2b\eta\kappa - \eta\lambda^2)/3\gamma^2\kappa$. (4) In the RPMG contract; $\alpha^{RPMG*} = 0$.

From Proposition 1, we makes the following observations: In the RP contract, as $b > \gamma^2/\eta$ and M has more contractual power than R, he will choose a value of α approaching zero to attain the highest profit. Conversely, when $b < \gamma^2/\eta$, M's profit increases with α for any α in the range of $(0, 2b\eta/3\gamma^2)$. Thus, M chooses a value of α approaching $2b\eta/3\gamma^2$ to attain the highest profit. (2) In the RPM contract: M's profit always decreases in α . Therefore, M achieves the highest profit if α approaches zero. (3) In the RPG contract: as η is higher than a threshold level, i.e., $\eta = 2\gamma^2\kappa/(2b\kappa - \lambda^2)$, the smaller the selection of α , the more profits M gets. This implies that M obtains the highest profit if the value of α approaches zero. Otherwise, M should raise the value of α approach $(2b\eta\kappa - \eta\lambda^2)/3\gamma^2\kappa$ to attract the highest profit. (4) In the RPMG contract: M's profit always decreases with α . Therefore, M attains the highest profit if α approaches zero.

Proposition 2. When R is the dominant player and embodies the channel power, the equilibrium level of sharing fraction α^{j*} which maximizes R's profit in the sharing contract j are as follow: (1) In the RP contract: as $\kappa > (3\gamma^2\lambda^2 - 2b\eta\lambda^2)/(4b\gamma^2 - 2b^2\eta)$, $\alpha^{RP*} = 1$, otherwise, $\alpha^{RP*} = (2b^2\eta\kappa - b\eta\lambda^2)/(4b\gamma^2\kappa - 3\gamma^2\lambda^2 + b\eta\lambda^2)$. (2) In the RPM contract: as $\kappa < 2\kappa$, $\alpha^{RPM*} = (-\gamma^2\kappa + 2b\eta\kappa - \eta\lambda^2)/\eta\lambda^2$, otherwise, $\alpha^{RPM*} = 1$. (3) In the RPG contract: as $\eta = 4\gamma^2\kappa/(2b\kappa - \lambda^2)$ then $\alpha^{RPG*} = 1$, otherwise, $\alpha^{RPG*} = (2b\eta\kappa - \eta\lambda^2)/4\gamma^2\kappa$. (4) In the RPMG contract: $\alpha^{RPMG*} = 1$.

By Proposition 2, we show the impact of bargaining power on R's profit with the following observations: (1) In the RP contract: as κ is higher than a threshold level, ie, $\kappa > (3\gamma^2\lambda^2 - 2b\eta\lambda^2)/(4b\gamma^2 - 2b^2\eta)$, R's profit increases with $\alpha \in (0,1)$. This suggests that if R has more contractual power than M, she increases the value of α

approaching one to attract the highest profit. This also means that R should incur most of the production costs and extract most of the channel sales to maximize her profit. By contrast, R attains the highest profit if α approaches $(2b^2\eta\kappa - b\eta\lambda^2)/(4b\gamma^2\kappa - 3\gamma^2\lambda^2 + b\eta\lambda^2)$. (2) In the RPM contract: as κ is higher than a threshold level, i.e., $\kappa = 2\underline{\kappa}$, R's profit increases with $\alpha \in (0,1)$, therefore, R increases the value of α to approach one to attract the highest profit. Conversely, R raises α to approach $(-\gamma^2\kappa + 2b\eta\kappa - \eta\lambda^2)/\eta\lambda^2$ to maximize her profit. (3) In the RPG contract: As η is higher than a threshold level, i.e., $\eta = 4\gamma^2\kappa/(2b\kappa - \lambda^2)$, R increases the value of α to approach one to attract more profit. On the contrary, R raises α to approach $(2b\eta\kappa - \eta\lambda^2)/4\gamma^2\kappa$ to attain the highest profit. (4) In the RPMG contract: R's profit always increases with the value of α . Therefore, R attains the highest profit if α approaches one.

We next examine the case when the sharing fraction is endogenously determined by both R and M. By using the Nash bargaining structure in which M has the same bargaining power to that of R, we identify the optimal profit allocation schemes for the problem of $\max_{\alpha} \Pi_m^j * \Pi_r^j$. We summarize the equilibrium level of sharing fraction in the following proposition.

Proposition 3. The equilibrium solution of sharing fraction α^{j*} to the Nash bargaining problem under the sharing contract are as follow: (1) In the RP contract: $\alpha^{RP*} = A - \frac{1}{2}B$ so that $\alpha^{RP*} \in (0, \frac{2}{3})$ where $A = \frac{2b\gamma^2\eta\kappa + 4b^2\eta^2\kappa - 3\gamma^2\eta\lambda^2}{2(-3\gamma^4\kappa + 7b\gamma^2\eta\kappa - 3\gamma^2\eta\lambda^2 + b\eta^2\lambda^2)}$ and $B = \sqrt{\frac{28b^2\gamma^4\eta^2\kappa^2 - 40b^3\gamma^2\eta^3\kappa^2 + 16b^4\eta^4\kappa^2 - 24b\gamma^4\eta^2\kappa\lambda^2 + 28b^2\gamma^2\eta^3\kappa\lambda^2 - 8b^3\eta^4\kappa\lambda^2 + 9\gamma^4\eta^2\lambda^4 - 12b\gamma^2\eta^3\lambda^4 + 4b^2\eta^4\lambda^4}{(3\gamma^4\kappa - 7b\gamma^2\eta\kappa + 3\gamma^2\eta\lambda^2 - b\eta^2\lambda^2)^2}}$. (2) In the RPM contract: $\alpha^{RPM*} = \frac{-\gamma^2\kappa + 2b\eta\kappa}{\eta\lambda^2} - \sqrt{\frac{\gamma^4\kappa^2 - 4b\gamma^2\eta\kappa^2 + 4b^2\eta^2\kappa^2 + \gamma^2\eta\kappa\lambda^2 - 2b\eta^2\kappa\lambda^2 + \eta^2\lambda^4}{\eta^2\lambda^4}}$ so that $\alpha^{RPM*} \in (0, \frac{1}{2})$. (3) In the RPG contract: $\alpha^{RPG*} = \frac{-2b\gamma^2\eta\kappa^2 - 4b^2\eta^2\kappa^2 + \gamma^2\eta\kappa\lambda^2 + 4b\eta^2\kappa\lambda^2 - \eta^2\lambda^4}{\gamma^2\kappa(6\gamma^2\kappa - 14b\eta\kappa + 7\eta\lambda^2)} - \sqrt{\frac{\eta^2(-2b\kappa + \lambda^2)^2(7\gamma^4\kappa^2 + 5\gamma^2\eta\kappa(-2b\kappa + \lambda^2) + \eta^2(-2b\kappa + \lambda^2)^2)}{\gamma^4\kappa^2(6\gamma^2\kappa + 7\eta(-2b\kappa + \lambda^2))^2}}$ so that $\alpha^{RPG*} \in (\frac{1}{4}, \frac{2}{3})$. (4) In the RPMG contract: $\alpha^{RPMG*} = \frac{1}{2}$.

Proposition 3 shows that when the level of sharing fraction is determined through bargaining, the R obtains at most 75 percent of channel's gross profit if she undertakes all of her marketing cost and does not bear M's upfront cost of greening investment. In the case that R shares the gross profit margin of channel and cost of marketing efforts with M, R undertake at most 50 percent of her marketing costs. By contrast, when R decides to bear a proportion of M's upfront greening cost, she absorbs at least 25 percent and at most 67 percent of that. In the case that R and M share all of the marketing, greening investment and production costs, firms agree on that the channel profit is split equally.

4.3. The impact of α on the channel's profit

We further investigate the impact of negotiation between the R and M on the total profit of the channel. With this aim, similar to Cachon (2003), we define the efficiency of the decentralized channel with respect to the centralized channel, as the ratio of the channel's profit in the decentralized channel to that in the centralized channel, i.e., $E^j = \Pi_c^j / \Pi_c$. By examining the sign of the functions $\phi_c^j = \partial E^j(\alpha) / \partial \alpha$ with the conditions of $\Pi_c^j > 0$, we summarize the impact of α on the profit of the channel in the decentralized system through the following results: (1) The decentralized channel with the RP contract generates the highest profit when α is chosen at $\alpha_c^{RP} = \frac{2b\gamma^2\eta\kappa - \gamma^2\eta\lambda^2}{2\gamma^4\kappa + 2b\gamma^2\eta\kappa - 4\gamma^2\eta\lambda^2 + 2b\eta^2\lambda^2}$. Furthermore, the profit of the decentralized channel in the RP contract is always less than that of the centralized channel. (2) The channel efficiency of the RPM contract always decreases in α , approaches one as α approaches zero and approaches $\frac{\gamma^2\kappa - 2b\eta\kappa + \eta\lambda^2}{\gamma^2\kappa - 2b\eta\kappa}$ as α approaches one. (3) The decentralized channel with the RPG contract generates the highest profit when α is chosen at $\alpha_c^{RPG} = \frac{2b\eta\kappa - \eta\lambda^2}{2\gamma^2\kappa + 2b\eta\kappa - \eta\lambda^2}$. However, the profit of the decentralized channel under the RPG contract is always less than that of the centralized channel. (4) The decentralized channel with the RPMG contract generates the same profit as that of the centralized channel and the channel efficiency of the RPMG contract does not depend on the selection of α .

From the above analysis, we observe that the channel efficiency is highest in the RPMG contract and the RPMG contract perfectly coordinates the channel while the RP, RPM and RPG contracts do not coordinate the channel. Note that when $\alpha = 0$ in the RPM contract, the channel efficiency is equal to one, thus RPM can lead a perfectly coordinated channel. However, M captures all the channel profits while R obtains zero profit in this situation. Therefore, R has no incentive to accept an RPM contract with the sharing fraction equal to zero.

4.4. Channel cooperation and greening-performance

The aim of the channel cooperation is to determine a channel profit allocation scheme among its members. However, both R and M are willing to accept the optimal profit allocation schemes only if it can generate more profits than those derived in a non-collaborative channel (i.e., in the WP contract). Let $\alpha^j \in (\underline{\alpha}^j, \bar{\alpha}^j)$ represent a Pareto-improving region where both members of channel earn higher profit in the sharing contract compared to

WP contract, i.e., $\Pi_R^* > \Pi_{WP}^*$ and $\Pi_M^* > \Pi_{WP}^*$. Thus, both the R and M will be motivated to adopt the sharing contract when the sharing fraction was chosen within these values. In the propositions 4-7, we identify the upper ($\bar{\alpha}^j$) and lower bounds ($\underline{\alpha}^j$) of the Pareto-improving region and investigate the greening performance level of channel in this region corresponding to each sharing contract.

Proposition 4: In the RP contract:

(1) When $b > \gamma^2/\eta$ and $\kappa > \underline{\kappa}$ then $\underline{\alpha}^{RP} = 0.5u_1 - \sqrt{v_1}$; $\bar{\alpha}^{RP} = 0.5$,

where $u_1 = \frac{\eta(16b^3\eta^2\kappa^2 + 2\gamma^4\kappa\lambda^2 - \gamma^2\eta\lambda^4 + (b\eta\lambda^2 - 4b^2\eta\kappa)(2\gamma^2\kappa + 3\eta\lambda^2))}{4\gamma^6\kappa^2 + b\eta^3\lambda^4 + 4\gamma^4\eta\kappa(2\lambda^2 - 5b\kappa) + \gamma^2\eta^2(24b^2\kappa^2 - 16b\kappa\lambda^2 + \lambda^4)}$,

and $v_1 = \frac{\eta^2(\gamma^2 - b\eta)(2\gamma^2\kappa - 4b\eta\kappa + \eta\lambda^2)^2(3\gamma^2\lambda^4 - 16b^3\eta\kappa^2 + 8b^2\kappa(\gamma^2\kappa + 2\eta\lambda^2) - b(8\gamma^2\kappa\lambda^2 + 5\eta\lambda^4))}{(4\gamma^6\kappa^2 + b\eta^3\lambda^4 + 4\gamma^4\eta\kappa(2\lambda^2 - 5b\kappa) + \gamma^2\eta^2(24b^2\kappa^2 - 16b\kappa\lambda^2 + \lambda^4))^2}$.

(2) $\theta_{RP}^* > \theta_{WP}^*$ when $\underline{\alpha}^{RP} < \alpha < \bar{\alpha}^{RP}$ and the conditions of part (1) are satisfied.

Proposition 5: In the RPM contract:

(1) When $b > \gamma^2/2\eta$ and $\kappa > \underline{\kappa}$ then $\underline{\alpha}^{RPM} = u_2 + \sqrt{v_2}$; $\bar{\alpha}^{RPM} = 0.5$, where $u_2 = (4\gamma^4\kappa^2 + 2\gamma^2\eta\kappa(3\lambda^2 - 8b\kappa) + \eta^2(16b^2\kappa^2 - 12b\kappa\lambda^2 + 3\lambda^4))/2\eta^2\lambda^4$ and $v_2 = ((2\gamma^2\kappa - 4b\eta\kappa + \eta\lambda^2)^2(4\gamma^4\kappa^2 + 8\gamma^2\eta\kappa(\lambda^2 - 2b\kappa) + \eta^2(16b^2\kappa^2 - 16b\kappa\lambda^2 + 5\lambda^4)))/\eta^4\lambda^8$.

(2) $\theta_{RPM}^* > \theta_{WP}^*$ when $\underline{\alpha}^{RPM} < \alpha < \bar{\alpha}^{RPM}$ and the conditions of part (1) are satisfied.

Proposition 6: In the RPG contract, let $u_3 = \frac{\eta^2(2b\kappa - \lambda^2)(16b^2\eta\kappa^2 + 4\gamma^2\kappa\lambda^2 + \eta\lambda^4 - 8b\kappa(\gamma^2\kappa + \eta\lambda^2))}{\gamma^2\kappa(8\gamma^4\kappa^2 + 3\eta^2(\lambda^2 - 4b\kappa)^2 + 4\gamma^2\eta\kappa(3\lambda^2 - 10b\kappa))}$,

$v_3 = \frac{\eta^2(\lambda^2 - 2b\kappa)^2(2\gamma^2\kappa - 4b\eta\kappa + \eta\lambda^2)^2(8\gamma^4\kappa^2 + 4\gamma^2\eta\kappa(\lambda^2 - 6b\kappa) + \eta^2(\lambda^2 - 4b\kappa)^2)}{\gamma^4\kappa^2(8\gamma^4\kappa^2 + 3\eta^2(\lambda^2 - 4b\kappa)^2 + 4\gamma^2\eta\kappa(3\lambda^2 - 10b\kappa))^2}$, $\kappa_1 = \frac{1}{4}\sqrt{\frac{\gamma^2\eta^2\lambda^4}{(2b\eta - \gamma^2)(\gamma^2 - b\eta)^2} - \frac{\eta\lambda^2}{4(\gamma^2 - b\eta)}}$; and

$\kappa_2 = \frac{1}{4}\sqrt{\frac{-\gamma^2\eta^2\lambda^4 - b\eta^3\lambda^4}{(\gamma^2 - b\eta)^3} - \frac{\eta\lambda^2}{4(\gamma^2 - b\eta)}}$, we have :

(1) When $\gamma^2/\eta < b \leq 5\gamma^2/2\eta$, $\kappa_1 < \kappa \leq \kappa_2$ or when $b > 5\gamma^2/2\eta$, $\underline{\kappa} < \kappa < \kappa_2$ then $\underline{\alpha}^{RPG} = 0.5(u_3 - \sqrt{v_3})$; $\bar{\alpha}^{RPG} = 0.5(u_3 + \sqrt{v_3})$. Otherwise, when $b > \gamma^2/\eta$, $\kappa > \kappa_2$ then $\underline{\alpha}^{RPG} = 0.5(u_3 - \sqrt{v_3})$; $\bar{\alpha}^{RPG} = (2\gamma^2\kappa - 2b\eta\kappa)/(4\gamma^2\kappa - 4b\eta\kappa + \eta\lambda^2)$.

(2) $\theta_{RPG}^* > \theta_{WP}^*$ when $\underline{\alpha}^{RPG} < \alpha < \bar{\alpha}^{RPG}$ and the conditions of part (1) are satisfied.

Proposition 7: In the RPMG contract:

(1) When $b > \gamma^2/2\eta$ and $\kappa > \underline{\kappa}$ then $\underline{\alpha}^{RPMG} = \frac{(\gamma^2 - 2b\eta)\kappa(\gamma^2\kappa - 2b\eta\kappa + \eta\lambda^2)}{(2\gamma^2\kappa - 4b\eta\kappa + \eta\lambda^2)^2}$; $\bar{\alpha}^{RPMG} = \frac{(\gamma^2 - 2b\eta)\kappa}{2\gamma^2\kappa - 4b\eta\kappa + \eta\lambda^2}$.

(2) $\theta_{RPMG}^* > \theta_{WP}^*$ when $\underline{\alpha}^{RPMG} < \alpha < \bar{\alpha}^{RPMG}$ and the conditions of part (1) are satisfied.

(3) $\theta_{RPMG}^* = \theta_c^*$, $e_{RPMG}^* = e_c^*$, $p_{RPMG}^* = p_c^*$, $\Pi_m^{RPMG} = (1 - \alpha)\Pi_c$ and $\Pi_r^{RPMG} = \alpha\Pi_c$ for any $0 < \alpha < 1$.

Part 1 of Proposition 4-7 indicates that there exists a Pareto optimal solution under each sharing contract through which channel members can maximize their profits. We also observe from Part 1 of Proposition 4 and 6 that in RP and RPG, a win-win scenario for both channel members can be reached only when the effect of price on the market demand is relatively high i.e., $b > \gamma^2/\eta$. By contrast, from Part 1 of Proposition 5 and 7, RPM and RPMG always bring the channel to such a scenario regardless of the impact of price on market demand. We can further observe from Part 1 of Propositions 4 and 5 that RP and RPM only reach the cooperation state if R shares less than 50% of the production cost with M. From Part 2 of Proposition 4-7, the collaboration through bargaining between R and M under sharing contracts achieves the win-win-win situation, namely, R and M earn more profit; the environment is less affected by the M's production process. Moreover, part 3 of Proposition 7 shows that the profit of channel in the RPMG can be maximized and that of M and R will be arbitrarily allocated based on each player's bargaining power.

5. Numerical analysis

In this Section, we numerically illustrate our results and gain further insights. We fix the parameter values as follows: $a=101$, $b=3$, $c=10$, $\gamma = 0.9$, $\lambda=1$, $\eta=0.8$ and $\kappa=1.6$. These parameter values have been chosen for two reasons. First, these values guarantee that the profit of the centralized channel is jointly concave in p , e , and θ , hence, the optimal decision of retail price p_c^* , marketing effort level e_c^* , and product greening level θ_c^* exists and is unique. Second, the parameters of a , b , c satisfy that the market demand is positive when the retail price is equal to the production cost, i.e., $p=c$.

5.1. The sharing contracts use the same sharing rule (original model)

Table 4 gives the numerical example results for the optimal decisions and the profit of the centralized channel and the decentralized channel under WP. The results of two models serve as benchmarks for the evaluation of the performance of sharing contracts.

Table 4. The optimal decisions under centralized channel and WP

Model	w	θ	p	q	e	Π_m	Π_r	Π_c	E
Centralized channel	-	10.17 2	26.27 5	48.82 5	18.30 9	-	-	577.765	1
WP	22.62 4	4.746	30.21 8	22.78 1	8.543	269.572	143.796	413.368	0.71 5

From Tables 4, the production quantity, the marketing effort and the greening effort level of the decentralized channel under WP are lower than those of the centralized channel. These results lead to a lower profit for whole channel under WP. We next compute M's and R's optimal decisions and profit in the decentralized channel under sharing contracts corresponding to the values of α in the range of [0.01, 0.99]. We present the results of Π_m^j , Π_r^j and E^j in Table 5. Furthermore, we also present the optimal decision of M on product's greening level in this table to verify whether the greening level of channel is improved in the cooperation state.

Table 5. Computational results of original model

α	RP				RPM				RPG				RPMG			
	Π_m	Π_r	E	θ	Π_m	Π_r	E	θ	Π_m	Π_r	E	θ	Π_m	Π_r	E	θ
0.01	465.5	5.2	0.81	8.19	571.2	6.6	1.00	10.06	466.0	4.7	0.81	8.29	572.0	5.8	1.00	10.17
0.1	433.3	52.4	0.84	7.63	512.6	64.2	1.00	9.03	438.6	47.8	0.84	8.58	520.0	57.8	1.00	10.17
0.2	395.8	104.7	0.87	6.97	449.3	124.9	0.99	7.91	405.7	97.3	0.87	8.93	462.2	115.6	1.00	10.17
0.3	356.1	156.7	0.89	6.27	387.8	182.2	0.99	6.83	370.1	148.5	0.90	9.31	404.4	173.3	1.00	10.17
0.4	314.1	208.1	0.90	5.53	327.9	236.4	0.98	5.77	331.3	201.3	0.92	9.72	346.7	231.1	1.00	10.17
0.5	269.6	258.4	0.91	4.75	269.6	287.6	0.96	4.75	288.9	255.4	0.94	10.17	288.9	288.9	1.00	10.17
0.6	222.3	307.2	0.92	3.91	212.8	336.1	0.95	3.75	242.4	310.4	0.96	10.67	231.1	346.7	1.00	10.17
0.7	172.0	353.8	0.91	3.03	157.5	381.9	0.93	2.77	191.1	366.0	0.96	11.21	173.3	404.4	1.00	10.17
0.8	118.5	397.6	0.89	2.09	103.7	425.3	0.92	1.83	134.2	421.2	0.96	11.82	115.6	462.2	1.00	10.17
0.9	61.3	437.6	0.86	1.08	51.2	466.4	0.90	0.90	71.0	474.8	0.94	12.49	57.8	520.0	1.00	10.17
0.99	6.3	469.3	0.82	0.11	5.1	501.6	0.88	0.09	7.5	520.2	0.91	13.17	5.8	572.0	1.00	10.17

We display the results of Π_m^j and Π_r^j in Table 5 through Figure 1 to demonstrate that R's profit increases and M's profit decreases with sharing fraction in all the sharing contracts.

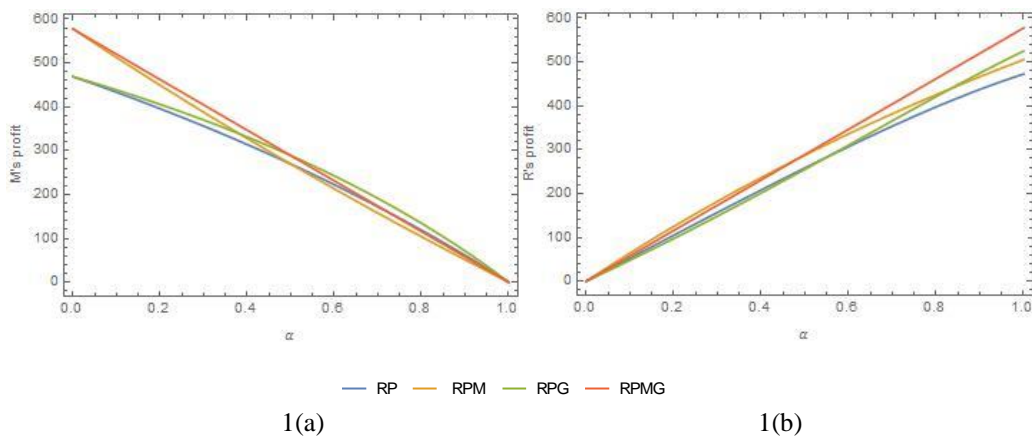


Fig. 1. (a) M's profit, (b) R's profit changes with sharing fraction

We next display the value of E^j in Table 5 through Figure 2 to evidence that the channel efficiency is concave in sharing fraction (α) under RP and RPM contracts whereas it decreases in α under RPM contract and remains stable at one under RPMG contract. We can also determine the value of α that maximizes the channel efficiency under each sharing contract. Namely, $E_{Max}^{RP} = 0.916$ at $\alpha=0.582$, $E_{Max}^{RPG} = 0.964$ at $\alpha=0.726$ and E_{Max}^{RPM} approach one when α approaches to zero. These numerical results demonstrate that the RP, RPM and RPG contracts cannot coordinate the channel while the RPMG contract perfectly coordinates the channel.

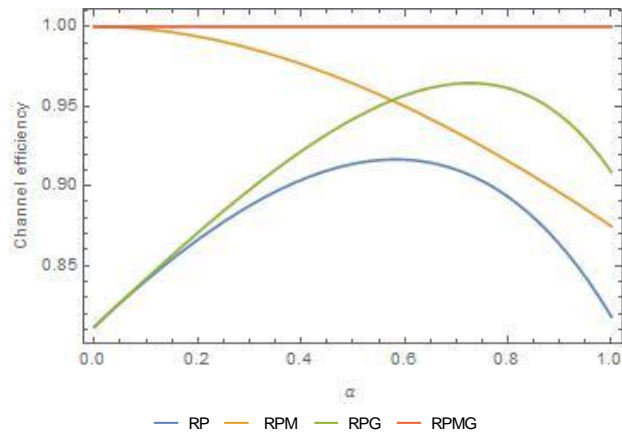


Fig. 2. E^j changes with sharing fraction

We further observe from Table 5 that if the beforehand negotiated α is at 0.3, 0.4 and 0.5 respectively, $\Pi_m^j > \Pi_m^{WP}$ and $\Pi_r^j > \Pi_r^{WP}$. This means that both R and M earn greater profits under the sharing contracts than under WP if the sharing fraction was chosen at 0.3, 0.4 and 0.5 respectively. Thus, the Pareto improvements can be achieved if the sharing fraction was chosen at these values. From Proposition 1-4, we can determine the exact value of α in the Pareto-improving region which leads to a win-win outcome, namely, $\alpha^{RP} \in (0.275, 0.5)$, $\alpha^{RPM} \in (0.232, 0.5)$, $\alpha^{RPG} \in (0.291, 0.543)$ and $\alpha^{RPMG} \in (0.249, 0.533)$. Moreover, from observing the value of column θ , we find that the greening performance of the channel under each sharing contract is higher than those in WP for all α values within the Pareto-improving region. (For example, when $\alpha=0.3$, the greening level of product under RP, RPM, RPG and RPMG are 6.27, 6.83, 9.31 and 10.17 respectively. These levels of greening are higher than that under WP (i.e., 4.746).

5.2. The sharing contracts with different sharing parameters for effort costs

So far, our analysis results in original model depending heavily on the assumption that the firms use the same sharing rule for all costs. We now extend our analysis using different the sharing parameters for costs. We denote such a contract as (α, φ, β) where $\alpha \in [0, 1]$ is the fraction of the gross profit (i.e., the total revenue minus the production cost of sold stocks) that R receives, $\varphi \in [0, 1]$ is the fraction of R’s marketing cost that R undertakes; and $\beta \in [0, 1]$ is the fraction of M’s greening effort costs which R agrees to share with M. Under this setting, the equilibrium results can be derived by following backward induction. However, we obtained complex results that is difficult to analytically following the same procedure used in Section 4. Thus, we use numerical methods to illustrate the Pareto-improving region for this case.

The Pareto-improving region is plotted in Figure 3 (a) with respect to α and φ for the RPM contract with differentiating between the sharing rule for gross profit share, α , and the sharing rule for the Marketing cost, φ (i.e., the sharing contract as $(\alpha, \varphi, 0)$). Every pair (α, φ) in this region presents a feasible solution to the bargaining problem that leads to higher profits of both channel members. Similarly, Figure 3 (b) illustrates the Pareto-improving region with respect to α and β for the RPG contract with differentiating between the sharing rule for gross profit, α , and the sharing rule for the greening effort cost, β (i.e., the sharing contract as $(\alpha, 1, \beta)$). Compared to the results of original model, we find that the use of different sharing coefficients will expand more the feasible region. However, the negotiable range values for gross profit sharing do not change significantly compared to the original model. This result implies that regardless of efforts cost sharing, the adoption of a cooperative program on efforts is never feasible when most of the gross profits go to either M or R. Further, M is willing to implement a cooperative program on marketing efforts only when R bears marketing cost higher than a threshold (i.e., 13,6%). Whereas, R is willing to implement a cooperative program on greening efforts only when R incurs greening investment cost lower than a threshold, about 80%. This result is quite intuitive; the increase in cost share borne by the partner leads a decrease in benefits for the party who handles the activities and makes the implementation of a cooperative program on efforts difficult to be feasible.

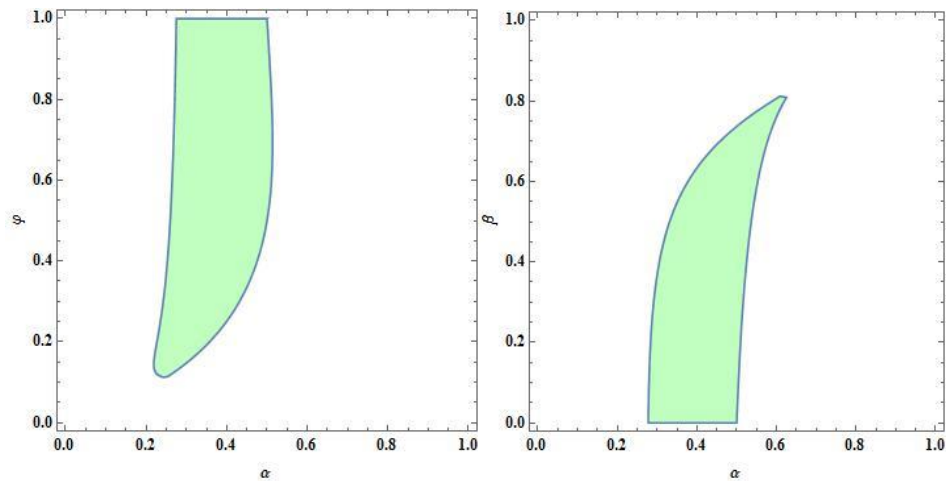


Fig. 3. The Pareto-improving region in the RPM (a), RPG (b) contract with different sharing parameters for effort costs

6. Conclusions, limitations and Future Research

6.1. Conclusion

In this paper, we studied the channel collaboration issues through coordinating contracts on efforts invested in order to promote the market demand and reduce the negative environmental impact of the channel. We study a two-echelon channel wherein the upstream manufacturer is responsible for product greening, a downstream retailer undertakes marketing activities and the market demand is affected by retail price, R's marketing and M's greening effort. These complex settings represent a realistic business practices for firms dealing with channel collaboration issues for the different decisions impacting on the channel performance including not only the operational choices (quantity, price) and marketing decisions of the firms but also the sustainable channel management. Therefore, we integrate M's greening and R's marketing efforts into the sustainable coordination of channel and propose the coordination schemes for the channel through the combination of revenue-sharing and cost-sharing contracts under a VMI-CC system. Through analytical model, we first analyze the impact of power structure on the implementation of sharing contracts, as well as the economic and environmental aspects in the channel. We then prove that the cooperation between M and R in a VMI-CC via sharing contracts is beneficial to channel agents, leads to higher profitability and results in higher levels of the environmental performance. From managerial insights, the channel managers can increase the greening level of product to meet the expectations of consumers while optimizing their economic performances by adopting sharing contracts.

6.2. Limitations and Future Research

Although the proposed model provides some ideas about how a green channel can be managed in the sense of profit maximization, there exist still some limitations that can be tackled in future research. First, for simplicity of analysis the demand is assumed as deterministic linear in price. Future research may be developed by considering the case of stochastic demand. Second, we don't take the joint impact of marketing and greening effort on the consumers' behavior into consideration. In contrast, prior researchers show that potential types of customer benefits resulting from environmentally friendly consumption (i.e., Self-benefit value and societal benefit value) that depends not only on the green investment cost but also the interactions between firms and customers through marketing strategy (i.e., advertising appeals for the product, Green and Pelozo, 2014). Therefore, future research can examine the case that the elasticity of greening investment on the customers' preference depends on the marketing strategy (i.e., advertising level and advertising appeals). Third, our study considers a channel in which both M and R have sufficient budget to make any decisions, however, in the real world, the capital constraints are a great challenge for many firms. Therefore, it might be interesting to examine our sharing contracts in a green channel where the capital constraints exist. Finally, as another opportunity for future investigation, researchers can explore the cases of asymmetric information. For example, the cost of green product R&D is the private information of M whereas R can be more knowledgeable about the cost of exerting marketing effort and the demand.

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A Comparison of Effects of Consumer Perception of CSR Activities and Technology Acceptance on Intention to Adopt Mobile Banking: Evidence in Vietnam and South Korea

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ABSTRACT

The purpose of this paper is to propose and examine a conceptual model that best explains the key factors influencing customers' intention to adopt mobile banking (m-banking). Furthermore, this research also focus on comparison the differences between Viet Nam and South Korea regarding to the effects of consumer perception of CSR activities and technology acceptance on intention to adopt mobile banking. The proposed conceptual model was based on the Technology Acceptance Model (TAM). This was extended by adding perceived risk, perceived cost and trust as external factors. In addition, the conceptual model was extended by adding three dimensions of CSR including Economic responsibility, Environmental responsibility and Social responsibility as the antecedents of trust. Structural Equation Modelling (SEM) was conducted to analyze the data collected from the field survey questionnaires administered to a convenience sample of Vietnamese and Korean banking customers. The results showed that there is a difference between the South Korea and Viet Nam in regard to intention to use mobile banking services. While the effects of social responsibility an environmental responsibility on trust, trust on perceived usefulness, perceived risk on intention to use, perceived usefulness on intention to use were significant for the Viet Nam context, those effects were not significant in the South Korea one. Therefore, this study has attempted to fill this gap by empirically examining some of the important factors influencing the adoption of m-banking from the Vietnamese and Korean customers' perspective. Finally, practical and theoretical implications for both banks and researchers in the m- banking context are also discussed in the concluding section.

Keywords: Vietnam; Korea; Bank; TAM; CSR; Behavioral intention; Mobile banking

1. Introduction

Mobile financial services provide convenience and promptness to customers along with cost savings, banks are interested in expanding their market through mobile services. In the last several years, retail banks in Viet Nam have introduced and diffused mobile banking systems throughout their operations to improve people's quality of life and to bring efficiency to banks. In fact, according to Zhou (2012a) mobile banking (m-banking) allows people to perform bank transactions anytime and anywhere. With m-banking, users are able to access account balances, pay bills, and transfer funds through mobile devices, instead of visiting banks or using internet banking based on computer (Gu et al., 2009). Mobile banking also benefits banks by promoting better efficiency and improved service quality. Data from 2015 shows that smart phone rate penetration in Viet Nam was 30% whereas m- banking transaction consisted of about 10% of total bank transactions in 2015 so these numbers are relatively modest compared with many countries and it has not achieved its full potential. In other words, despite the fact that m-banking beneficial to the customers, the adoption rate of m-banking in Vietnam is quite low and m-banking adoption is still in the early stage in comparison to other service provided by banks. Against this backdrop understanding the consumer intention toward m-banking will be very crucial for the marketing strategy of banking institutions.

Furthermore, despite its rapid growth and its good economic performance, nowadays the Vietnamese business community has been facing important issues for its sustainable development, especially societal and

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environmental ones. Recent scandals of Vedan company committed to serious pollution in Thi Vai River, Vietnamese customers has boycott Vedan's product. In the same case, Coca-Cola Vietnam was stayed away by consumers due to transferring price incidentally during a decade to avoid paying governmental tax. In other words, Vietnamese customers are willing to boycott any corporations if they violating Corporate Social Responsibilities. In the same vein, after Formosa- Taiwan steel factory leaks toxic waste into the sea that caused massive fish deaths along a 200-km (124-mile) stretch of coastline in April 2016 and numerous cases of health safety problems especially toxic ingredients found out in consumer goods have been raising a greater concern on corporate social responsibility (CSR) in Vietnam.

In addition, a report by Nielsen revealed that an astounding 73 percent of Vietnamese online consumers were willing to pay more for products and services provided by companies committed to positive social and environmental impact. That figure beat Europe's 40 percent, Latin America's 63, North America's 42, and even topped ASEAN's sustainable champion Singapore, which came in at 48 percent. Therefore, this research aims to investigate whether CSR initiatives (Economic, Social, environment dimensions) effect on behavioral intention to use m-banking through customer trust.

Research in mobile commerce has shown that trust is crucial for any business relationship (Palvia, 2009; Wang et al., 2015), especially in m-commerce, because it reduces uncertainty (Gu et al., 2009). In the same way, building users' initial trust is essential for mobile banking service providers (Zhou, 2012a).

Moreover, there are growing concerns about risk in online banking services across the world. During the last few years, internet-based attacks have increased tremendously and also highlighted the multiple cases of the theft or fraud, breaches of personal privacy and attacks by hackers (So and Sculli, 2002; Littler and Melanthiou, 2006).

Besides, there may be situations in which an individual want to use m-banking but is prevented by lack of money and since the recent researches have revealed that perceived cost was found to be affect consumer acceptance of M-banking in Australia, Iran and Taiwan (Wessels & Drennan, 2010; Hanafizadeh et al., 2014; Yu, 2012). Moreover, the Vietnamese customers seem to be sensitive to the price and price plays a vital role in buying decision making process. Hence, in this study the author adopt the TAM as the base model and adjust the model to reflect the characteristics of mobile banking in Vietnam context by adding trust, three dimension of CSR (Economic responsibility, social responsibility, environmental responsibility), perceived risk and perceived cost factors to enhance understanding of m-banking adoption intention of Vietnamese customers.

This study differs from some past studies as follows. First, as Shaikh & Karjaluo, (2015) note, past studies have limited and mainly focused on SMS banking in developing countries and virtually no studies have addressed the use of m-banking applications via smart phones or tablets which is addressed in this study. Second, most of the past studies have studied the relationship of trust and intention to use m-banking but this study is one of the first study investigate the relationship of the CSR with m-banking intention adoption through trust. Third, many studies proved CSR has a vital role in creating customer trust in Hospitality or Food industry and this study examine the role of CSR in banking industry, particularly in m-banking, which has not yet researched before. This study may find out valuable applications for bank managers to support their planning strategies and marketing campaigns that help banks develop sustainably.

The outstanding growth of mobile sector worldwide has created a unique opportunity to provide social and financial services over the mobile network. With over four billion mobile phone subscriptions worldwide, mobile network has the ability to immediately offer m-banking to 61% of the world population (Kshetri & Acharya, 2012). According to the Vietnam mobile market report, there is significant growth in the use of mobile phones, with over 90% of the population in Vietnam using them. However, with all the benefits of m-banking, the usage and adoption of m-banking is still low among banks customers in Vietnam. Though many of such people argue that internet and other technology based transaction is not safe, not practical and would lead to fraud, a lot of people think it safer, flexible in time and can be done anywhere and anytime (Chowdhury & Ahmad, 2011). Hence, it is necessary to investigate the factors that lead customers to adopting or rejecting m-banking services. Although prior studies on m-banking adoption have provided background information on the adoption behavior with regard to m-banking, studies that focus on the risk perception and trust factors that influence consumers to adopt m-banking services are limited. Thus, understanding such factors will play a critical role in reducing the challenges associated with the use of m-banking. For example, risk and privacy issues have been identified as major contributing factors for the slow uptake of m-banking (Dupas et al., 2013). However, previous study revealed that consumers do not consider m-banking to be prone to risk (Rammile & Nel, 2012). Risk and privacy are related to trust in the banking industry – which is especially important when banks are trying to increase their customer base and improve their services by introducing technological innovations (Dupas et al., 2013). However, previous studies still have many limitations and have recommended further research in this field.

This study will help researchers, developers, and managers to understand the major determinants of customer acceptance of m-banking that can help banks to improve the rate of m-banking adoption in developing country context. Moreover, researcher argues that the results also have a "practical value" particularly for Vietnamese banks. A large number of customers using m-banking could justify the investments that banks have made in this

technology, thus increasing the rates of return (Lee & Chung, 2009). The understanding of the factors that affect intention to use mobile banking services enables banks to target bottlenecks of this adoption and improve their services (Zhou et al., 2010).

2. Literature review and theoretical background

2.1. Mobile banking

M-banking has received a considerable attention in academic research and thus several conceptualizations of m-banking currently exists. M-banking (m-banking) is defined as an application of m-commerce (Kim et al., 2009), an innovative method for accessing banking services (Xin Luo et al., 2010) that offers additional value for customers by providing “anytime, anywhere” access to banking service (Lee and Chung, 2009). Turban et al. (2006) conceptualized m-banking as any form of banking transaction that is carried out through a mobile device, such as a mobile phone or a personal digital assistant.

There was a multitude of theoretical foundations used in m-banking adoption empirical studies, such as TRA, UTAT. However TAM theory is the most popular. The TAM derived from the Fishbein and Ajzen (1975) TRA, which is a more generalized theory (Lindsay et al., 2011). Adapted from the theory of reasoned action, TAM is a theoretical model used to explain users’ acceptance of a new information technology (Gu et al., 2009). First introduced in 1986 by Davis (1986), TAM has been proven to be a useful valid theoretical framework to predict users’ behavior toward a new technology (Liu et al., 2009; Qi et al., 2009; Cheng et al., 2010). Davis (1989) used prior researches from various disciplines to hypothesize that, perceived usefulness and perceived ease of use constructs were fundamental in people’s decisions to adopt information technology. After conducting a lab study involving 40 participants and two graphics systems, Davis concluded that both perceived usefulness and ease of use influenced the attitude of the user towards the new information technology (Davis, 1989).

However, usefulness was found significantly more strongly linked to usage than was ease of use. Davis (1989) concluded that perceived usefulness and ease of use were the predictors for technology adoption. Over the years, TAM has proven to be a powerful, valid, and parsimonious model for predicting user acceptance (Venkatesh & Davis, 2000). Existing literature showed that TAM was the predominant model used in predicting and explaining the Information system adoption (Jaradat & Twaissi, 2010; Lindsay et al., 2011; Liu et al., 2009; Singh et al., 2010; Sripalawat et al., 2011; Tobbin, 2012; Yung-Cheng et al., 2010) such as m-banking adoption. For example, Amin et al. (2012) used TAM as the base theoretical foundation to conduct a study on m-banking adoption in Malaysia. They retrieved and analyzed data from banks customers in Kota Kinabalu. After data analysis, Amin et al. (2012) concluded that perceived credibility, enjoyment and self-efficacy were related to m-banking adoption in Malaysia.

Because of the U.S. Federal Reserve Board of Governors (2012) report, the conciseness and validity of TAM to predict and to explain the user acceptance of information technology (Lindsay et al., 2011), the TAM was selected as the core theoretical foundation of this study. It has proven to be a robust, powerful and well-established model for predicting user acceptance (Shen et al., 2010). Zhang et al. (2012) conducted a meta-analysis study of previous empirical researches on m-commerce adoption. According to Zhang et al. (2012) findings, the theory of reason action, TAM, and the innovation diffusion theory (IDT) were the most prominent theories used on technology adoption studies.

2.2 Corporate social responsibility (CSR)

CSR covers the economic, legal, ethical and discretionary expectations that society has of organizations at a given moment in time (Carroll, 1979). CSR is the commitment by a company to improve the welfare of its community by implementing certain discretionary practices and increasing the availability of its resources (Kotler & Lee, 2005).

Throughout the past several decades, numerous aspects of CSR have been the subject of investigation in academic and business literature. Although the nature and scope of the CSR remains uncertain, scholars have tried to summarize and categorize various CSR activities (Maignan & Ferrell, 2001; Smith, 2003). One thing they all agree is that the purpose of business is to generate profits for shareholders, which is economic responsibility. In addition, following laws and legislations and keeping their business ethics seem to be a must-responsibility that society and the public automatically expect from business. It is noted that Carroll’s (1998) four dimensions of CSR: economic, legal, ethical, and philanthropic responsibilities have been widely accepted among others and the four aspects of CSR are described in detail in the following part.

2.2.1 Economic Responsibility

Some scholars argue that companies do not need to promote socially responsible actions because their only responsibility is to be profitable for stockholders (Friedman, 1970), which is an economic dimension of CSR. Novak (1996) defines economic responsibility as to be profitable for principals by delivering a good quality product at a fair price to customers. Novak more fully describes seven economic responsibilities: “(1) satisfying customers with goods and services of real value; (2) earning a fair return on the funds entrusted to the corporation by its investors; (3) creating new wealth, which can accrue to non-profit institutions which own shares of publicly-held companies and help lift the poor out of poverty as their wages rise; (4) creating new jobs; (5) defeating envy though generating upward mobility and giving people the sense that their economic conditions can improve; (6) promoting innovation; and (7) diversifying the economic interests of citizens so as to prevent the tyranny of the majority” (also summarized by Lantos, 2001)

2.2.2 Legal and Ethical Responsibilities

Business ethics and legal responsibilities have been studied in management studies and these are considered as must-responsibility (Carroll, 2000; Spitzek, 2005). These responsibilities are expected to be implemented all of the time, and only when companies breach one of these responsibilities, it becomes an issue. The result is often negative publicity. Although many scholars categorize legal and ethical responsibilities together in their discussions of CSR, legal and ethical responsibilities can be completely different (Lantos, 2001).

Maignan & Ferrell (2001) summarize some of the legal responsibilities including: accurate reporting of business performance, ensuring that products meet all legal standards, avoiding discrimination in hiring and compensation, and meeting all environmental regulations. Legal duties involve obeying the law and playing by the rules.

However, laws and legislation have flaws to ensure responsible actions. They only provide a moral minimum for business conduct; they are reactive (telling what ought not to be done) rather than proactive, (telling what ought to be done); and they are often followed involuntarily (Carroll, 2000; Lantos, 2001).

On the other hand, ethical duties overcome the limitations of legal responsibilities. They involve being moral, doing what is just and fair; respecting peoples' rights; and avoiding and preventing damage caused by others (Smith & Quelch, 1993). Although ethical responsibilities are not necessarily codified into law, they include those policies, institutions, or practices that are either expected (positive duties) or prohibited (negative duties) by members of society (Carroll, 2000). They derive their source of authority from religious beliefs, moral traditions, and human rights commitments (Lantos, 2001; Novak, 1996). Some of the examples of ethical responsibilities by Maignan & Ferrell (2001) are: implementing a code of conduct, organizing ethics training programs, incorporating integrity in the performance evaluation of employees, and providing full product information to customers. Today, virtually all members of the business system agree, at least in theory, that corporations are expected to keep at least their promises on legal and ethical responsibilities.

2.2.3 Philanthropic Responsibility

Carroll's (1998) philanthropic responsibility, also known as discretionary responsibility, is the most controversial issue raised over the legitimacy of CSR.

Philanthropy means “giving back” time and money in the forms of voluntary service, voluntary association, and voluntary giving. This reflects society's wish to see businesses participate actively in improving society beyond the minimum standards set by the economic, legal, and ethical responsibilities (Maignan & Ferrell, 2001). Over the past half century, business has been judged not only by its economic and moral performances, but also by its social contributions (Carroll, 1998; Lantos, 2001; Maignan & Ferrell, 2001). Philanthropic responsibility includes activities, such as providing work-family programs, reaching out to communities, and giving donations to charitable organizations (Maignan & Ferrell, 2000).

In marketing, philanthropic efforts by companies have been shown through cause-related marketing (CRM). Whether it is to help children around the world, homeless people in the community, or providing shelters for animals, philanthropy has been implemented in many different ways. By doing this, companies hope to create a positive image of the company, which may lead a customer to purchase a product from the company (Cornwell & Coote, 2005; Nan & Heo, 2007; O’Cassand Lim, 2001).

2.2.4 Environmental responsibility

Separate from the philanthropic definition of CSR, environmental responsibility has gained remarkable attention from governments, organizations, and the general public in recent years. Laws and legislations have

been made and corporations have voluntarily participated in developing environmentally responsible ways to conduct their business.

Global warming and pollution have generated a great deal of public concern regarding the environment, which leads many to support environmental protections (Choi et al., 2009).

This environmental aspect of CSR has perhaps gained the most attention from marketing managers, and firms have put a tremendous amount of effort toward communicating with customers about their environmental efforts. Consumer behaviors on green purchasing and attitudes toward environmentally friendly products have been studied in many marketing studies (Chan, 2001; Choi et al., 2009; Manaktola & Jauhari, 2007; Tanner & Kast, 2003; Tsai & Tsai, 2008).

Although Carroll's (1998, 2000) four-dimension of CSR has been widely accepted by many scholars, existing marketing literature seems to generally agree on at least three dimensions of CSR: economic, philanthropic (also called social or discretionary), and environmental (Leigh & Murphy, 1988; Málovics et al., 2008)

2.3 Effects of CSR

2.3.1 Effects of CSR on customers' attitudes

Recent research suggests that socially responsible organizational behavior can positively affect consumers' attitudes toward the organization (Brown & Dacin, 1997; Martin & Ruiz, 2007; Perez, 2008; Sen & Bhattacharya, 2003, 2004). The findings indicate that consumers' awareness of a company's CSR practices have a positive influence on customers' attitudes toward the company, including an organization's image, reputation, and evaluation of product attributes (Martin & Ruiz, 2007; Perez, 2008). The effect occurs both directly and indirectly through customer-company identification (Lichtenstein et al., 2004). For example, if a consumer purchased products from a company that had recently teamed up with an environmental organization, would others conclude that he/she sincerely cared about the environment? This issue is important because many consumers are interested in reflecting their self-images by using or purchasing certain products and brands (Yoon et al., 2006).

Customers can be triggered by a company's CSR initiatives to develop a positive attitude toward the company. However, that is not always the case. Becker-Olsen et al., (2006) investigated the role of perceived fit (e.g., similarity between its mission and CSR initiatives) and timing of a CSR initiative (reactive vs. proactive) on consumers' responses to CSR initiatives. The results show that a low-fit between cause and the company's CSR action negatively affects consumer's belief, attitudes, and intentions and even with the high-fit initiatives if a firm was perceived reactive rather than proactive, its CSR initiatives have a negative impact on consumers. Thus, the companies should find an appropriate CSR action that can be perceived by customers as a right fit between CSR and the company.

2.3.2 Effects of CSR on customers' behaviors

Much research suggests that CSR increases customer-company identification (CCID), repeat purchase, customer loyalty and trust (McDonald & Rundle-Thiele, 2008); however, others confirm that it is unlikely that consumers will blindly accept these CSR programs as sincere actions. They may or may not reward the firm (Barone et al., 2000; Creyer & Ross, 1997; Ellen et al., 2000; Sen & Bhattacharya, 2001), and in fact, some research suggests that consumers will punish organizations that are perceived as insincere in their social involvement (Becker-Olsen et al., 2006; Sen & Bhattacharya, 2001; Simmons & Becker-Olsen, 2006). Thus, companies must carefully review their CSR practices and when and how to use them for marketing communication purposes.

Mohr and Webb's study (2005) performed an experiment to examine the influence of different prices and various CSR dimensions on consumers' response. They have manipulated two CSR domains (environment and philanthropy) and prices (higher and lower than average). The result found that both CSR domains have a positive impact on customers' purchase intention, and the environmental domain has a stronger impact on purchase intent than price does.

In summary, numerous studies have shown that CSR can have a positive impact on key stakeholder groups, such as employees, consumers, distributors, and stock holders (Sen & Bhattacharya, 2004; Sen et al., 2006). Academic research on consumer responses to companies' CSR actions reveals its company-favoring effects on cognitive and affective (e.g., beliefs, attitudes, identification as well as behavioral outcomes (e.g., patronage, loyalty) (Anisimova, 2007; Bhattacharya & Sen, 2003; Barone et al., 2000; Brown & Dacin, 1997; McDonald & Rundle-Thiele, 2008; Salmones et al., 2005) is still the most dominant criteria in consumers' purchasing decision (Boulstridge & Carrigan, 2000).

2.4 General background of mobile banking in Vietnam

Mobile banking came to Vietnamese market in 2010, 6 years after internet banking, and developed quickly. Currently, there are 32 banks in Vietnam offer mobile banking service for their customers. According to the statistical data of Smartlink card services joint stock Company, there are more than 3 million customers using mobile banking services. The number of transactions per month achieved approximately 14 to 15 million (Nguyen, 2014). With 22 percent of Vietnamese have bank accounts and more than 30 percent of Vietnamese owned at least one smartphone; the demand of mobile banking in Vietnam is high. The target of mobile banking is young customers whose age from 18 to 34 (Nguyen, 2014). This group is highly adaptive and easy to accept new technology. However, the current usage of mobile banking in Vietnam is below potential. According to a representative of Smartlink card services joint stock Company, the growth of mobile banking in Vietnam need more time to meet its demand because customers are still used to their familiar payment channels. The Vietnamese are unaware of modern payment services. The security dilemma also raises a difficulty for most banks when they started offering mobile banking services since bank's customers concerns about risk in online banking services because most of the internet services are operating in an open environment, their applications and outcomes are vulnerable to security and privacy threats such as phishing activities, malwares, spywares, spoofing, and password-sniffing. Vietnamese people also prefer a simple way to access their bank accounts via mobile device but also want it to be secured in case of lost or stolen device. Most of mobile banking services available in Vietnam now are either lack of convenience, simplicity or security, which hinder the potential of mobile banking.

2.5 Picture of CSR activities in Viet Nam

International economic integration occurred during the last decade has brought to Vietnamese businesses, especially the private sector that comprised mainly small and medium enterprises (SME), opportunities to expand their activities and to go global. Most importantly, it enables the private sector to grow and to contribute remarkably to the economic development of the country. While holding just 30% of total national assets, the Vietnamese private businesses contribute 40% to GDP, 30%-40% to export turnover and absorb 50% of the total workforce. Despite its rapid growth and its good economic performance, the Vietnamese business community has been facing nowadays important issues for its sustainable development, especially societal and environmental ones, including waste management, energy saving, systematic implementation of workplace safety standards, and taking care of the well-being of workers as well. Recent scandals of factories committed to serious pollution in Thi Vai River and numerous cases of health safety problems especially tainted milk distribution, toxic ingredients found out in consumer goods..., have been raising a greater concern on corporate social responsibility (CSR) in Vietnam. Along with these environmental and health issues, Vietnamese export-oriented companies have been also encountering problems of good citizenship when their foreign investors and buyers require them to take business practices based on respect for people, communities and the environment. For instance, the U.S.-Vietnam textiles agreement signed in May 2003 included an obligation for the Vietnamese authorities to encourage exporting companies to implement CSR codes in return for access to the U.S. market. Moreover, different from other countries, Vietnam's environment has been ravaged by a history of wars, aggressive industrial development and poor environmental regulation. Every year, 220,000 tons of industrial waste is dumped into the Mekong River, where fishermen reel in their living next to the beer and cement factories that are putting cancer rates through the roof.

Poor mining practices and other industrial activity have polluted so much of the country's soil and water that access to safe drinking water is becoming a real problem. Ecologies sprayed with Agent Orange during the Vietnam War are still recovering, climate change has created typhoons devastating coastal communities, and floods are destroying countless farms along the Mekong River Delta.

Vietnam's factories have promoted CSR in more ways than demonstrating what happens if you don't respect it. Thanks to historically cheap labor and low standards for labor rights, Vietnam has long been attractive to Western countries looking for a place to outsource manufacturing operations. Many Vietnamese manufacturers produce goods for Western corporations. This means they are subject to the high CSR standards of fully developed economies overseas and in Europe.

This influence has bled into most of Vietnam's big businesses – and because Western buyers support the Vietnamese economy (and vice versa), outside funding is being provided to enhance the topic of CSR at the political level.

In 2004 Vietnam Government adopted the Strategic Orientation for Sustainable Development, which identifies 19 prioritized areas under the three pillars (economic, social and environmental) of corporate social responsibility. This better defined the government's responsibilities when it comes to CSR, and led to the development of Vietnam's "Green Growth" strategies for 2011 to 2020.

In recent decades, Vietnam has experienced changing in customer's behavior; "green consumption" is the primary trend of consumption around the world. Not only do consumers desire using high quality products but also they crave for safe and friendly products which are produced by a highly reputable and responsible company. Environmental problems become social problems (Fierman, 1991). 1990s was called as "Earth decade" (Daniel & Rylander, 1993) or "Environmental decade" (McDougall, 1993). Several studies also indicated the concerning to individual environment (Chan, 1996; Donaton & Fitzgerald, 1992; Kerr, 1990; Ottman, 1993; Schlossberg, 1992; Wall, 1995) and awareness towards consumer environment (Ellen, Wiener & Cobb-Walgren, 1991; Kim and Choi, 2005; Verhoef, 2005) affecting positively to purchasing intention of consumers.

Though some companies still employ unfair labor standards, and many factories still dump waste into the water and pump greenhouse gases into the hazy sky, Vietnam is a country bent on improving CSR. This was the same story as 10 years ago, but the difference is that now, things are actually happening. Vietnam is starting to make good on its promises to develop sustainably, and to create businesses that will facilitate that process and create a better life for its citizens.

Therefore, it can be concluded CSR is a relatively new matter in Vietnam. Nevertheless, recently, with the environmental disasters and the negative consequences on the society caused by enterprises, the social responsibility has become urgent. In Vietnam, the implementation of CSR is fully in conformity with targets of sustainable development strategy. In other words, Vietnam government, Vietnamese business owners and customers have been recognizing the importance of CSR now and activities of reactions of consumer in recent years have reflected that the term Corporate Social Responsibilities is an issue getting a lot of attention from communities. For example, the "The Corporate Social Responsibilities Award" is organized annually to appreciate corporations which perform well Corporate Social Responsibilities.

Besides, recently customers are willing to boycott corporations because of violating Corporate Social Responsibilities. For instance, Vedan's products and Coca-Cola Vietnam are stayed away by consumers due to polluting Thi Vai River and transferring price incidentally during a decade to avoid paying governmental tax, respectively. Hence, recently companies have realized the importance of CSR with a tool of marketing strategies to help companies build the image, trust and reputation to develop sustainably and gain advantages against the competitors. One of an example is Vietcombank (VCB), one of the biggest state-owned commercial bank in Vietnam. VCB is aware of corporate social responsibility so Vietcombank often pays attention to social welfare and charity activities that have large impact on the society such as "Nghia tinh Truong Son", "Noi vong tay lon", "Ngay vi nguoi nghe" ...; equipped ship CQ-01 for the Navy Forces, supported earthquake and tsunami victims in Japan. During the year, Vietcombank has spent over 100 billion VND for these social welfare programs especially in 2015 VCB spent more than 2566 billion to social welfare contribution, supporting community for the overall development of society. Hence, from 2012 to 2016 VCB was chosen the most favorable bank in Vietnam.

Also, since its operation in September 1996, VIB has constantly implemented different community-oriented activities (CSR) in many localities across the country, apart from banking operations. This is aimed to make contributions to people development and social life of the local people.

Over the past years, VIB has been actively involved in significant social programs, focusing on 3 areas: Education, Environment, and Enrichment. For instance, the bank has donated money to support victims of Can Tho Bridge collapse, construction of hospitals for poor people of Kien Giang province, the Operation Smile Fund, people in the flooded areas in central provinces and so on. Specially, VIB has sponsored the Academy of Banking's "Future Bankers" program and the program "Glorify Vietnam", and Vietnamese talents nurturing program for poor primary school students with high achievements across the country, etc... In 2013, VIB was honored with the "The Excellence of Corporate Social Responsibility" award granted by the Ministry of Planning and Investment and the Economics & Forecast magazine.

By all above picture of CSR in Vietnam, this study's purpose is investigating the relationship between CSR activities with three dimensions (Economic, social, environment) on consumer's intention to use m-banking.

3. Hypotheses development and Research model

3.1. Why there is an integration between TAM and CSR?

The literature showed that IT acceptance has been the subject of much research in the past two decades. Several theories have emerged that offer new insights into acceptance and use, at both the individual and organizational levels, including the theory of reasoned action (TRA) (Fishbein and Ajzen, 1975), the Technology Acceptance Model (TAM) by Davis (Davis, 1989), the extended technology of acceptance model (TAM2) (Venkatesh and Davis, 2000), the Theory of Planned Behavior (TPB) (Ajzen, 1991), the innovation diffusion theory (Rogers, 1995), and the Unified Technology Acceptance User Technology (UTAUT) by (Venkatesh, Morris, Davis, and Davis, 2003).

One of the most salient models is the Technology Acceptance Model (TAM), when it comes to investigating the factors that influence the adoption of information systems, which is proposed by Davis (Davis, 1989) and is mainly developed from Fishbein and Ajzen's existing Theory of Reasoned Action (TRA). In particular, previous literature indicated that TAM consistently accounts for 40% of variance in usage intention and behaviors (Venkatesh & Davis, 2000).

One advantage of TAM is that TAM has been widely examined and validated and is an extensively accepted model in different sorts of technologies related to user and organization acceptance and adoption such as the World Wide Web (Lederer et al., 2000; Van der Heijden & Verhagen, 2004) Intranet (Horton et al., 2001), E-commerce (Olson & Boyer, 2003; Pavlou, 2003) Internet Banking (Aldás-Manzano et al., 2009) that lead to their widespread acceptance.

Another advantage of TAM is that these models can easily be modified and/or extended by using other theories or constructs (Venkatesh & Davis, 2000). According to original TAM suggested by Davis (1989), two primary constructs were included namely, perceived usefulness and perceived ease of use.

Mathieson, (1991) argued that it is inappropriate to depend only on these two variables of PU and PEOU in examining individual's technology acceptance tendencies, even though TAM has been extensively validated.

Consistent with this view, TAM theory can be modified or extended using other theories or incorporating other constructs (Yen et al., 2010). Taking this point further, several previous studies suggested that there are other potential factors that might be incorporated within the TAM and which would influence users' adoption of m-banking such as perceived risk (Luo et al., 2010).

Chong et al., (2012) asserted that it is better to use TAM as a base model and extend by including additional constructs based on the research being conducted. For example, Koenig-Lewis et al., (2010) have extended the TAM by incorporating trust in order to investigate online banking adoption in Germany. Indeed, with the surge of e-commerce, more studies are being conducted on the conceptual structure and formation mechanisms of trust (Ba & Pavlou, 2002; Brown et al., 2004; Paul & McDaniel, 2004; Pavlou & Gefen, 2004). Activities in the network space are more anonymous and impersonal than those in the traditional off-line setting and therefore entail greater risk, uncertainty, and loss of control. Obviously, securing customer trust is critical for successful e-commerce (Lee & Turban, 2001).

Besides that, building customer trust, however, is a costly and time-consuming exercise because trust relationships are formed in the course of long-term interactions between implicated parties (McKnight et al., 1998). Trust of this type is based on prolonged and cumulative experience that gives clients a sense of familiarity, calculation and values (Coleman, 1990). Cumulative experience significantly influences the level of customer trust in a vendor's competence, predictability and goodwill (Siau & Shen, 2003). In addition, customer trust in a firm may affect his/her loyalty to its service and the choice of service continuation or repurchase (Jarvenpaa et al., 2000).

With the introduction of new innovative services, such as mobile banking, potential adopters have neither any prior experience to fall back on (Kim et al., 2008) nor any experience or knowledge-based trust. Therefore, a person's initial trust is expected to be based on certain perceptions and possibly irrational forces such as cognitive cues (Kim et al., 2008). Researchers (Luo et al., 2010; Kim et al., 2008) found that initial trust is significantly positively associated with mobile banking adoption intentions.

McKnight et al. (1998) insisted that initial trust is not based on prior experience or first-hand knowledge, it may be affected by firm characteristics as size, capability, integrity, role in the market-place, benevolence, reputation and brand that may affect a person's perception of a firm's services or products (McKnight et al., 2004). In addition, according to Lohse & Spiller (1998) a good reputation provides assurance of a firm's ability, integrity and goodwill, thus helping to increase trust even when consumers do not have first-hand knowledge of the service company. Similarly, Anderson & Weitz et al., (1989) show that a service provider's reputation critically affects people's confidence in the firm. Jarvenpaa & Tractinsky (1999) also indicated that the reputation of an internet shopping mall boosted consumers' confidence, which in turn positively influenced their attitude towards online service. In conclusion, people can shape their initial trust in mobile banking without registering for the service and using it for financial transactions. They may be more trusting initially if they see service banks as reputable enterprises because of their off-line roots.

Moreover, recent research suggests that socially responsible organizational behavior can positively affect consumers' attitudes toward the organization (Brown & Dacin, 1997; Martin & Ruiz, 2007; Perez, 2008; Sen & Bhattacharya, 2003, 2004). The findings indicate that consumers' awareness of a company's CSR practices have a positive influence on customers' attitudes toward the company, including an organization's image, reputation, and evaluation of product attributes (Martin & Ruiz, 2007; Perez, 2008).

Furthermore, recently Vietnamese are challenging with sustainable development, especially environmental issues such as waste management and energy saving. Along with these environmental problems, there are numerous cases of health safety issues especially tainted milk distribution; toxic ingredients found in consumer goods have been raising a greater concern on corporate social responsibility in Vietnam.

Therefore, it may be supposed not only TAM but also CSR can predict the behavioral intention to adopt m-banking in Vietnam so in this study TAM model and CSR initiatives are combined in research model. In addition, based on literature review, perceived risk and cost were also added.

Finally, a model indicating behavioral intention to use m-banking services was developed (Figure 1). The model consists of eight constructs that are posited to have an effect on behavioral intention to use m-banking services. These constructs include: economic responsibility, social responsibility, environmental responsibility, perceived cost, perceived ease of use and perceived risk as independent variables. Trust and perceived usefulness were used as intervening variables, and intention to use m-banking as the dependent variable. In this study, the strength of the hypothesized relationships embedded in the theoretical model and the robustness of the model in predicting customers' behavioral intention to use m-banking services in Vietnam will be tested. The conceptual model is graphically presented in Figure 1.

3.2 Hypotheses development

3.2.1 CSR initiatives

Previous studies have used the concept of CSR in marketing and consumer behavior literature, with several scholars examining the influence of CSR initiatives and consumer responses on financial performance (Sen & Bhattacharya, 2001; Brown & Dacin, 1997). Several studies have attempted to investigate the effects of CSR on factors such as customer loyalty, trust, word of mouth, intentions, attitudes, satisfaction, and brand identification (Luo & Bhattacharya, 2006; Handelman & Arnold, 1999; Sen & Bhattacharya, 2001). From an economic perspective, the fundamental motivation for CSR is to maximize firm profitability for shareholders (Zenisek, 1979). However, some scholars indicated that corporations bear a responsibility to contribute to the betterment of society as a whole (Brown & Dacin, 1997; K. Davis, 1975; Drumwright, 1996; Handelman & Arnold, 1999), as well as to integrate environmental concerns in business operations (Dahlsrud, 2008; Homburg et al., 2005).

A firm's CSR activities engender its image of honesty, integrity, credibility and high responsiveness towards customer concerns (Sirdeshmukh et al., 2002). Maignan & Ferrell, (2000) argue that a firm's CSR activities can be a good source of customer trust and reduction of skepticism. For example, Swaen & Chumpitaz (2008) study cosmetics and sportswear customers and report that CSR perceptions positively impact on customer trust. These scholars argue that CSR perceptions and trust are significant variables in the cultivation of long-term affiliations between customers and firms. Moreover, Salmones et al., (2009) identify a direct relationship between a firm's ethical responsibility and customer trust in retail service markets. Similarly, Choi & La, (2013) state that a firm's ethical-legal responsibility positively affects customer trust in service contexts.

In addition, in recent decades customers have experienced changing in customer's behavior; "green consumption" is the primary trend of consumption around the world. Not only do consumers desire using high quality products but also they crave for safe and friendly products which are produced by a highly reputable and responsible concerning to individual environment (Chan, 1996; Wall, 1995) and awareness towards consumer environment (Kim & Choi, 2005; Verhoef, 2005) affecting positively to purchasing intention of consumers. In addition, many scandals related on environmental issues such as Formosa, Vedan cause the boycott behavior of Vietnamese to those companies. Therefore, based on the theoretical and empirical arguments stated above, the following hypotheses are proposed:

- H1. Economic responsibility has a positive impact on trust
- H2. Social responsibility has a positive impact on trust
- H3. Environmental responsibility has a positive impact on trust

3.2.2 Trust

Mobile banking is an exchange situation without the physical presence of branch and personal interactions. Therefore, trust is a crucial element for decision making (Zhou, 2011; Grabner-Krauter & Kaluscha, 2003). While consumers initially trust their e-vendors and have an idea that adopting online service is beneficial to job performance or life style, they will eventually believe that on-line services are useful (Gefen et al. 2003). In particular, Gefen et al., (2003) investigated the role of trust in an on-line shopping setting explicitly indicated that trust is an antecedent of perceived usefulness. Trust also has a direct influence on a consumer's behavioral intention to use the service (Wu & Chen 2005). Trust is one of the determinants of perceived usefulness especially in an on-line environment (Vlachos et al., 2009). Pavlou, (2003) also found that trust has a positive effect on perceived usefulness in an e-commerce setting.

- H4: Trust has a positive impact on the perceived usefulness of m- banking services.
- H5: Trust has a positive impact on the behavioral intention to use m-banking services

3.2.3 Perceived risk

Due to the high degree of uncertainty and perceived risk in e-commerce operations, trust becomes an important factor for people to obtain confidence on an exchange partner. Customers need to trust in m-banking to use it. Viruses and Trojan horses may exist in mobile terminals too; so, these problems increase users' concern about payment security, and decrease their trust in m-banking, which, in turn, can affect their usage intention and behavior (Zhou, 2012a). In the relationship between customers and m-banking terminals, if trust is not present, there is no adoption and no use of this technology (Zhou, 2012b).

Indeed, risk perception is one of the main barriers to m-banking adoption in Brazil (Cruz et al., 2010), the most important in China (Laforet & Li, 2005; Faqih & Jaradat, 2015) and has a significant relationship with users' attitudes and intention to use m-banking in Iran (Mohammadi, 2015). This construct also has significant relationship with internet banking adoption (Yiu et al., 2007) and with customer's lack of interest in online commercial transactions (Liao et al., 2011). The perception of risk is a significant factor affecting trust (Al-Gahtani, 2011) and affecting mobile banking adoption (Al-Jabri & Sohail, 2012 and Ha, et al., 2012). As risk perception can generate a negative effect on trust, the researcher included this variable in the model.

A closer look at the relevant studies leads the author to observe that perceived risk is one of the most important obstacles hindering the customers' willingness to adopt m-banking (Akturan & Tezcan, 2012; Hanafizadeh et al., 2014). Accordingly, this study assumes the following hypothesis:

H6: Perceived risk has a negative impact on trust

H7: Perceived risk has a negative impact on behavioral intention to use of m-banking services

3.2.4 Perceived ease of use

Perceived ease of use is conceptualized as an individual's assessment of the mental effort involved in using the new technology (Davis, 1989). Various other studies (Davis, 1986, 1989) also pointed that perceived ease of use can influence perceived usefulness because other thing being equal the easier the technology is to use the more useful it can be. In the context of internet banking, research shows that perceived ease of use has a positive and significant effect on perceived usefulness (Wang et al., 2003). According to Akturan & Tezcan (2012); Wang et al., (2006) perceived ease of use has a positive relationship with intention to adopt m-banking. The researchers concluded that if customers perceive mobile banking to be easy to learn and use, adoption of the service follows. Thus, the following hypotheses are developed:

H8: Perceived ease of use has a positive impact on perceived usefulness to use m-banking services.

H9: Perceived ease of use has a positive impact on behavioral intention to use m-banking services.

3.2.5 Perceived usefulness

Davis (1989) defined perceived usefulness as the extent to which individuals believe that using the new technology will enhance their task performance. In the context of user acceptance of m-banking services, perceived usefulness could be because of transactions like online request for cheque/demand draft, sending monthly e-statements, online payments, etc. that improves performance, saves time and increase effectiveness of service or some or several add-on benefits such as bill payments, mobile recharge, etc. These benefits are also expected to be further enhancing over a period of time through technological advancement or breakthrough.

Extensive research provided ample evidence of the significant positive effect of perceived usefulness on the development of the initial willingness to use mobile banking (Aboelmaged & Gebba, 2013; Wang et al., 2006; Luarn & Lin, 2005). Luarn & Lin (2005) stated that the ultimate reason that people employ mobile service systems is that they find the systems useful for their banking transactions. Therefore, the following hypothesis is proposed:

H10: Perceived usefulness has a positive impact on individual behavioral intention to use m-banking services.

3.2.6 Perceived cost

Perceived financial cost is defined as the extent to which a person believes that he or she has the financial resources needed to use a system (Wang et al., 2006) because purchasing, using, and maintaining a system costs money. Perceived financial cost has been found to have a significant negative influence on the behavioral intention to use mobile banking (Wessels & Drennan, 2010; Wang et al., 2006; Luarn & Lin, 2005).

H11: Perceived cost has a negative impact on the behavioral intention to use m-banking services

Based on hypothesis development processing mentioned above, research model is illustrated as follows:

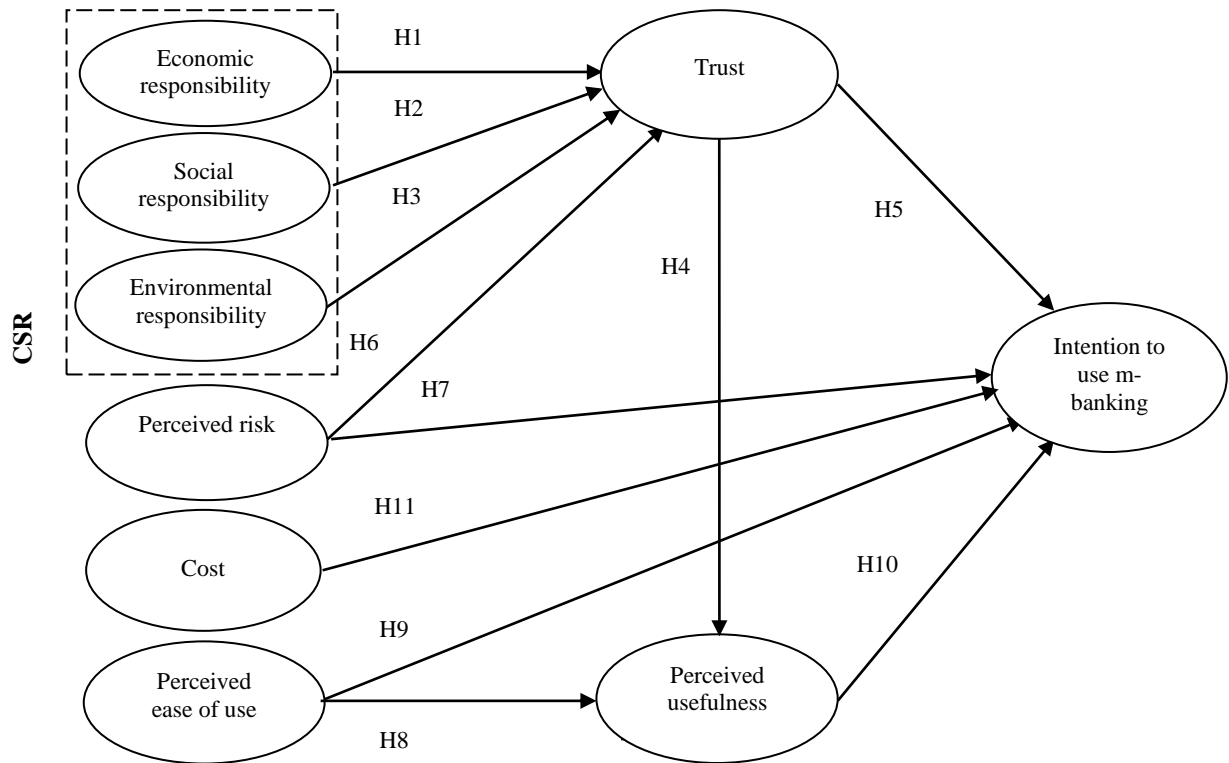


Figure 1: Conceptual model

4. Measurement and methodology

A typical seven-point Likert scale was used to measure the constructs presented in the proposed model (scores were ranged from 1= “strongly agree” to 7= “strongly disagree” with “neutral” score = 4). The conceptualization and development of the questionnaire was based on the existing literature, resulted in total of 31 items. All items are shown in Table 4. The questionnaire instrument was developed based on the constructs of economic responsibility, social responsibility, environmental responsibility, trust, perceived risk, perceived usefulness, perceived ease of use, perceived cost, and intention to use m-banking. Perceived risk was adapted from Featherman & Pavlou, 2003 and added one more item. Intention to use m-banking (three items) and perceived ease of use (three items) and perceived usefulness (four items) were adopted from Cheng et al., 2006; Nasri & Charfeddine, 2012. Three dimensions of CSR including 9 items were adapted from Zhu et al., 2013; Park & Lee, 2009 and were modified. Perceived cost including three items was adapted from Kim et al., 2007. In this study, the measures of trust including six items were based on studies in marketing area which examined the relationship between trust and various constructs and trust is the overall trust about the bank, so trust measurement was adapted from Wei et al., 2009 and Suh & Han, 2002 and then modified appropriately.

This study uses primary data collected from the questionnaire survey in selected provinces in southern of Vietnam to test the hypotheses. The questionnaire was survey by two ways paper based and online method. In total, 612 samples were gathered and eligible for data analysis (235 samples supported via the docs.google.com; 377 samples collected via paper-based method). In order to test the hypotheses, structural equation modelling (SEM) was employed using the computer software program AMOS with maximum likelihood (ML) method of estimation.

5. Results

5.1 Demographic results

The respondent demographics are summarized in table 2. Both in Vietnam and South Korea respondents are male which is slightly more than female. In South Korea almost 97% of respondent ages are from 20 to 30 years old whereas in Vietnam the respondent age is from 20-30 years old and 31-40 year olds account for 83%. The majority of respondent’s education level is Undergraduate in both samples. In addition, like Vietnam, the percentage of the sample who are living in big cities in South Korea is slightly higher than in small cities. Finally, most respondents have used m-banking for more than two years in both countries.

Table 2: Descriptive of respondent’s characteristic

Demographic profile		Viet Nam		South Korea	
		Respondents (N=612)	Percentage (%)	Respondents (N=267)	Percentage (%)
Gender	Male	363	59.3	160	59.9
	Female	249	40.7	107	40.1
Age	<20	57	9.3	8	3.0
	20-30	296	48.4	259	97.0
	31-40	212	34.6	-	-
	41 - 50	29	4.7	-	-
	> 50	18	2.9	-	-
Education	High school	15	2.5	-	-
	College	45	7.4	72	27.0
	Undergraduate	367	60.0	166	62.2
	Graduate	185	30.2	29	10.9
Living area	Big city	317	51.8	157	58.8
	Small city	295	48.2	110	41.2
Usage duration	<1 year	115	18.8	29	10.9
	1-2 years	160	26.1	51	19.1
	>2 years	337	55.1	187	70

As a whole, this sample consisted of generally young, well-educated consumers with a high level of income. These characteristics are representative of m-banking users with a young age as well as higher education and income levels compared to the general population.

5.2 Reliability validity analysis

Reliability was done to test the degree to which the set of latent construct indicators are consistent in their measurements. The reliability of the variables was assessed by the Cronbach’s Alpha and Item-total Correlation. The acceptable threshold for Cronbach’s Alpha is 0.70, while constructs which are highly inter-correlated indicate that they are all measuring the same latent constructs. The resulting alpha values range from 0.816 to 0.930 which above the acceptable threshold of 0.7. Also, the item-total correlation test results are satisfactory.

A confirmatory factor analysis was conducted to test the measurement model. This assesses what the construct or scale is, in fact, measuring. To construct validity, two checks have to be performed: the convergent validity and discriminant validity. All the model-fit indices exceeded their respective common acceptance levels suggested by previous research, thus demonstrating that the measurement model exhibited a good fit with the data collected in Viet Nam $\chi^2_{(612)} = 874.934$, CMIN /df= 2.566, p = .000; GFI = 0.911; TLI = 0.953; CFI = 0.960; RMSEA = 0.051.

Table 3: Composite reliability, AVE and correlation of constructs’ values

VIETNAM	CR	AVE	1	2	3	4	5	6	7	8	9
1.RISK	0.903	0.756	0.869								
2.TRUST	0.901	0.695	-0.802	0.834							
3.SOCIAL	0.838	0.635	-0.444	0.412	0.797						
4.ENVIRONMENT	0.900	0.751	-0.418	0.385	0.713	0.866					
5.USEFULNESS	0.915	0.729	-0.404	0.540	0.277	0.253	0.854				
6.COST	0.931	0.819	-0.387	0.502	0.356	0.287	0.524	0.905			
7.ECONOMIC	0.817	0.598	-0.410	0.487	0.658	0.474	0.490	0.439	0.773		
8.EASY OF USE	0.852	0.659	-0.492	0.641	0.211	0.236	0.701	0.493	0.387	0.812	
9.INTENTION	0.887	0.723	-0.668	0.741	0.368	0.374	0.647	0.452	0.538	0.677	0.850

Note: Diagonal elements are the square root of AVE. Off-diagonal elements are the correlations among constructs.

Values for composite reliability are recommended to exceed **0.70** (Chin, Marcolin, & Newsted, 2003) and AVE values should be greater than the generally-recognized cut-off value of **0.50** (Fornell & Larcker, 1981). Table 3 shows that all composite reliability and AVE values of Viet Nam meet the recommended threshold values. Therefore, it is an evidence for convergent validity. In addition, the square root of AVE for each construct is greater than the correlations between the constructs and all other constructs, indicating that these constructs have discriminant validity.

5.3 Structural results: Hypothesis testing

SEM was used to test the hypotheses in Viet Nam. The SEM results indicated that the model had an acceptable fit in Viet Nam. In particularly, the indices of model with data collected in Viet Nam are $\chi^2_{(612)} = 999.183$, CMIN /df = 2.855, p = .000; GFI = 0.898; TLI = 0.944; CFI = 0.952; RMSEA = 0.055.

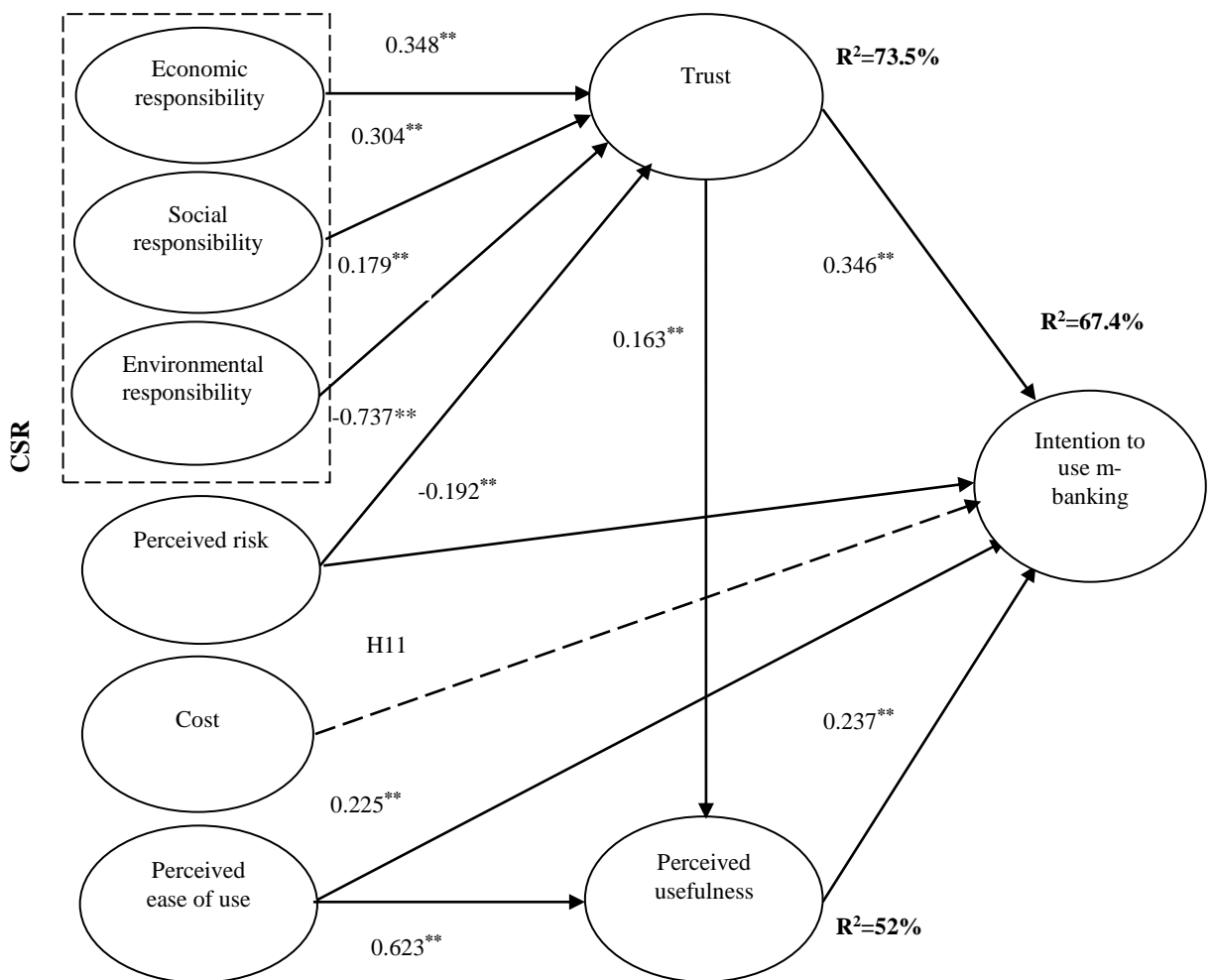
In Viet Nam, Table 4 presents the unstandardized structural paths; and Figure 2 presents the significant structural relationship among the research variables and the standardized path coefficients with their respective significance levels. Only 1 of 11 hypotheses proposed is found insignificant (H11). In addition, the figure 3

shows the model explained substantial variance in both perceived usefulness ($R^2=52\%$), Trust ($R^2=73.5\%$) and intention to use ($R^2=67.4\%$)

Table 4: Unstandardized structural paths

Hypothesis	Vietnam				
	R.E	S.E	t value	P	Result
H1: Economic responsibility → Trust	.371	.057	6.570	.000	S**
H2: Social responsibility → Trust	.321	.092	3.477	.000	S**
H3: Environmental responsibility → Trust	.164	.062	2.639	.008	S**
H4: Trust → Perceived Usefulness.	.135	.034	3.925	.000	S**
H5: Trust → Intention To Use	.339	.062	5.461	.000	S**
H6: Perceived risk → Trust	-.688	.039	-17.616	.000	S**
H7: Perceived risk → Intention To Use	-.176	.056	-3.126	.002	S**
H8: Perceived ease of use → Perceived usefulness	.585	.045	13.047	.000	S**
H9: Perceived ease of use → Intention To Use	.249	.059	4.238	.000	S**
H10: Perceived usefulness → Intention To Use	.280	.055	5.058	.000	S**
H11: Perceived cost → Intention To Use	-.019	.028	-.666	.505	NS

Note: **: significant at $P < 0.01$; S: Support; NS: Not support; P: P-value



$\chi^2_{(612)} = 999.183$, $CMIN/df = 2.855$, $p = .000$; $GFI = 0.898$; $TLI = 0.944$; $CFI = 0.952$; $RMSEA = 0.055$

Figure 2: Results of testing Hypotheses of Viet Nam

5.4 Mediation analysis

Investigating the mediating role of trust in the relationship between the bank's CSR activities and its intention to use m-banking is also one of the key objective for the study. In order to ascertain significant mediation effects, four conditions need to be met: (1) the three CSR initiatives should have a significant impact on trust; (2) the trust should significantly affect intention to use m-banking, (3) the predictor variables should significantly affect the dependent variable, and (4) the impact of the predictor variables on the dependent variable should not be statistically significant or be reduced after accounting for the effect of the mediator variable (trust) (Andrews, Netemeyer, Burton, Moberg, & Christiansen, 2004).

The first two conditions were tested by estimating Model 3 (the fully mediated model) in Table 6 which specifies that the two categories of CSR initiatives can influence intention to use m-banking indirectly through trust. Model 3 showed an acceptable fit ($\chi^2 = 310.59$, $df = 96$; CFI = 0.967; TLI = 0.958; GFI = 0.940, RMSEA = 0.060). Two (economic and environment responsibility) of the three predictor variables showed a significant impact on trust (except social responsibility), and trust had a significant effect on intention to use m-banking. Therefore, the first two conditions were met. The third condition was tested using Model 2 (the simple direct model). Since Model 2 is saturated, it showed a perfect fit to the data. The model estimation results in Table 18 show that all three categories of CSR initiatives had a significant effect on intention to use m-banking. Therefore, the third condition was satisfied. As shown in Table 6, the magnitudes of the predictor variables' path coefficients in Model 1 are smaller than those in Model 2 and all of the predictor variables in Model 2 were statistically significant.

Besides, in Model 1 all three predictor variables had a significant path coefficient but their path coefficients are smaller than those in model 2. These results satisfy the fourth condition. Hence, all four conditions were satisfied, and this ascertains the presence of significant mediating effects of trust.

A further point of interest was whether the mediation was of the “full” or “partial” kind. In order for full mediation to exist, two additional conditions had to be met: (1) the fit of Model 1 should not be better than that of Model 3, and (2) all the path coefficients of the predictor variables to the dependent variable should be statistically insignificant in Model 1 (Andrews et al., 2004). The estimated χ^2 statistics for Model 1 and Model 3 were 275.165 ($df = 93$) and 310.59 ($df = 96$), respectively. The χ^2 difference value of 35.425 for three degrees of freedom was significant ($p = 0.00$). This suggests that Model 1 fits the data significantly better than Model 3. In addition, all three path coefficients of the predictor variables in Model 1 were significant.

Therefore, the trust partially mediated the effects of the CSR activities on intention to use m-banking.

Table 5: Results of Model testing

Fit estimate	χ^2	df	χ^2 diff	CFI	GFI	TLI	RMSEA
Model 1	275.165	93		0.972	0.947	0.963	0.057
Model 2	saturated						
Model 3	310.59	96	35.425	0.967	0.940	0.958	0.060

	Model 1 proposed model	Model 2 simple direct model	Model 3 fully mediated model
Economic ---> intention	0.312***	0.561***	
Social --->intention	0.256***	0.271**	
environment --->intention	0.187**	0.330***	
Economic --->trust	0.394***		0.434***
Social --->trust	0.017		0.055
environment --->trust	0.222**		0.245***
trust --->intention	0.628***		0.758***

** p<0.05; *** p<0.01

5.5 Additional study in South Korea

SEM was used to test the hypotheses in South Korea and Viet Nam. The SEM results indicated that the model had an acceptable fit in Viet Nam better than in South Korea. In particularly, the indices of model with data collected in Viet Nam are $\chi^2_{(612)} = 999.183$, CMIN /df = 2.855, $p = .000$; GFI = 0.898; TLI = 0.944; CFI = 0.952; RMSEA = 0.055 while for South Korea are $\chi^2_{(267)} = 1055.350$, CMIN /df = 2.833, $p = .000$; GFI = 0.790; TLI = 0.831; CFI = 0.848; RMSEA = 0.084.

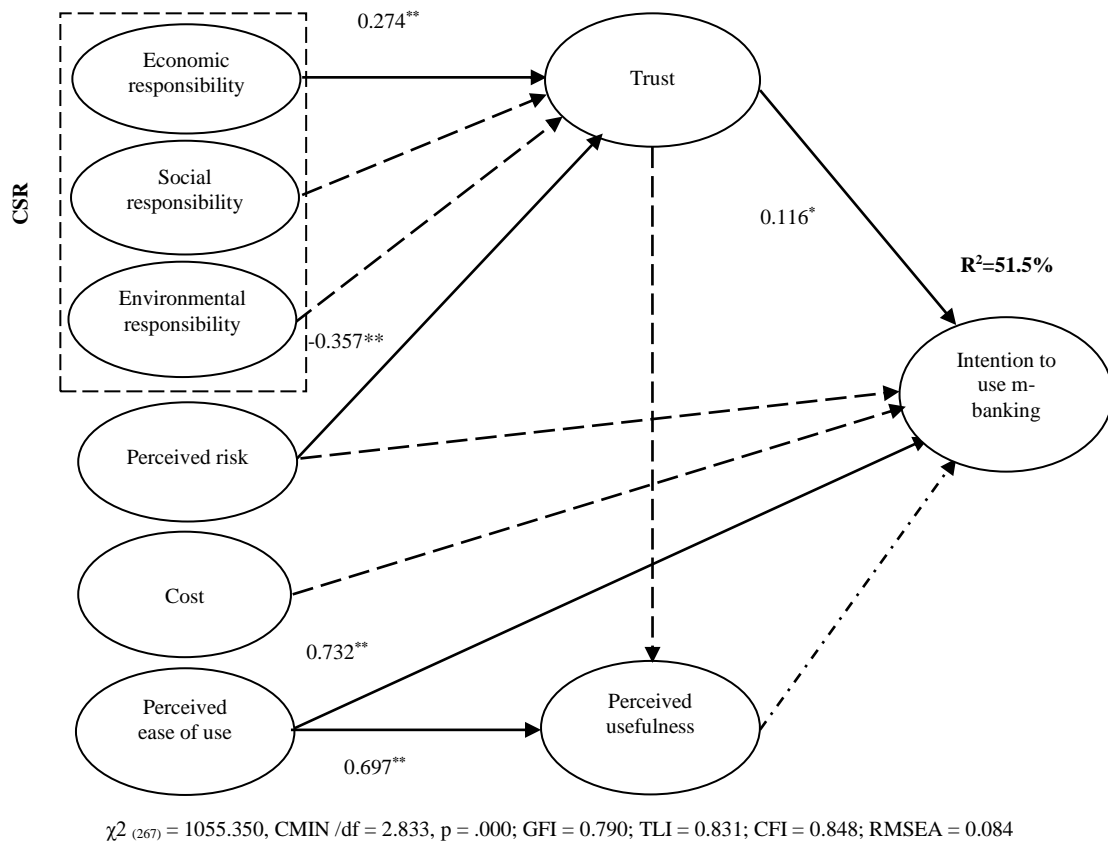


Figure 3. Results of testing Hypotheses of South Korea

The difference results between Vietnam and South Korea was shown in table 7

Table 7: Comparison results Vietnam versus South Korea

Hypotheses	Results	
	Viet Nam	South Korea
H1: Economic responsibility → Trust	Accept	Accept
H2: Social responsibility → Trust	Accept	Reject
H3: Environmental responsibility → Trust	Accept	Reject
H4: Trust → Perceived Usefulness.	Accept	Reject
H5: Trust → Intention To Use	Accept	Accept
H6: Perceived risk → Trust	Accept	Accept
H7: Perceived risk → Intention To Use	Accept	Reject
H8: Perceived ease of use → Perceived usefulness	Accept	Accept
H9: Perceived ease of use → Intention To Use	Accept	Accept
H10: Perceived usefulness → Intention To Use	Accept	Reject
H11: Perceived cost → Intention To Use	Reject	Reject

As expected, differences were observed between the South Korea and Vietnam in regard to intention to use m-banking services. As shown in table 7, five out of eleven links in the research model were different across the two cultures. While the effects of social responsibility and environmental responsibility on trust, trust on perceived usefulness, perceived risk on intention to use, perceived usefulness on intentions to use were significant for the Vietnam sample, those effects were not significant in the South Korea sample. These findings were attributed to information technological infrastructure, mobile commerce development, m-banking penetration level and environmental matter. Sims and Gegez (2004) found that the attitudes toward business ethics were different along some dimensions, also the difference in the impact of CSR to trust may be attributed to Vietnam regulation about the environment protection is not be considered carefully in developing national economy so Vietnam are facing a lot of environment crisis which is quite different from South Korea. They also recognized that technology infrastructure differences South Korea and Vietnam were the driving forces behind their disparate views. To further understand our findings, I subsequently examine the inconsistencies in light of information technological infrastructure, mobile commerce development, m-banking penetration level and

environmental protection regulation differences in the following sections. It is important to note that these factors are not directly measured in this study and I am simply providing the subsequent analyses as potential explanations to differences observed between the South Korea and Vietnam subjects.

In South Korea, perceived usefulness has no significant relationship with consumer intention to adopt m-banking. This variable is derived from the TAM model. As stated by Jeyaraj et al. (2006), this variable is a good predictor of IT usage in past studies. However, although m-banking is a relatively new technology, South Korean consumers are no strangers to mobile phones. Therefore, South Korean consumers have a good understanding of what m-commerce and m-banking can offer, and thus will not be attracted to use m-banking based on the perceived usefulness or being given free trials. This result contradicts with the findings from Koenig-Lewis et al., (2010) and (Hanafizadeh et al., 2014b) which call for m-banking providers to focus on promoting the advantages offered by m-banking.

A further difference between the two countries is the effect of environment responsibility on the customer's trust. The status and environment regulation and environment crisis in the two countries can be used to explain the notable differences. In Vietnam, there are many environmental problem due to the fast development objectives such as waste management, energy saving. Recent scandals of factories committed to serious pollution that polluted soil and water that cause bad impact on safe drinking water for Vietnamese. In addition, numerous cases of health safety problems especially tainted milk distribution; toxic ingredients found in consumer goods have been raising a greater concern on corporate social responsibility in Vietnam. That is why in this research, environmental responsibility is one the most important factor that affect to customer behavior through the trust in Vietnam sample but not in South Korean one.

In addition, with developed information and technology infrastructure as well as security mechanism and solution of South Korean bank, especially with the latest iris technology will be used by bank South Korean proves that security of bank is much more better than Vietnam bank so South Korean customers perceived less risk regard m-banking than Vietnamese customer. That's why perceived risk has no impact to intention to use in South Korean but it did in Vietnam.

Interestingly, this research found that trust and perceived ease of use play a significant role in m-banking adoption intention by both South Korean and Vietnamese consumers. The result shows both South Korean and Vietnamese users are generally need trust on the transactions that lack physical contact. In case of South Korean, this results is quite consistent with suggestions by Hofstede (1994) that South Korean consumers are less likely to take risks since according to Hofstede (1994) the uncertainty avoidance score is 85 in comparison with the uncertainty avoidance score of Vietnam is 30. In case of Vietnam, it is implied that even though Vietnamese likely to take risks more than South Korean but in Vietnam risks still exist a lot in m-banking system due to the security system of Vietnam bank that is quite opposite South Korean bank, besides banking related to money so customers are very sensitive to security, without trust anybody can not adopt m-banking services. That is why according to the theory of Hofstede, the uncertainty avoidance score of South Korean and Vietnam is quite different but the results showed that trust plays the vital role in m-banking intention to use not only in Vietnam but also in South Korea.

6. Conclusion

6.1 Vietnam context

This study was conducted with the intention of providing further understanding regarding the main factors that could shape the clients' intention to use of m-banking in Vietnam. Therefore, to achieve this aim, a model comprising factors taken from TAM along with perceived risk, perceived cost, trust and three dimensions of corporate social responsibility was proposed. The statistical results supported the predictive power of the conceptual model in explaining adequate variance in behavioral intention (BI). Specifically, all values of R^2 (BI (67.4 per cent), PU (52 per cent), Trust (73.5 per cent) were observed within an acceptable level of 30 per cent as suggested by Kline (2011). In addition, such values of R^2 in the current study are fairly close to those accounted for by other IS and m-banking studies that have been formulated using TAM (Akturan & Tezcan, 2012; Venkatesh & Davis, 2000). This, in turn, provided further evidence supporting the conceptual model proposed in the current study to explain the Vietnamese customers' intention to use m-banking services.

The structural results indicated that behavioral intention to use m-banking is significantly determined, supported and validated by the concepts of CSR through trust. Among the subjective factors of CSR, economic responsibility is found as a more significant determinant of customer trust than environmental and social responsibility. These findings could be explained by the nature of Bank service market. The bank industry is one of the most competitive and economic activities of banks including new job creation, value contributions and investments to the society are the main responsibility of Vietnam Banks. Besides, the results indicated that environmental responsibility affect to behavioral intention stronger than social responsibility. This can be attributed that during the past few years, Vietnamese consumers have been facing serious food safety, and health problems due to environment crisis. Therefore, banks should incorporate CSR initiatives in their integrated marketing communication strategy in particular branding strategy so as to attract more customers.

The statistical results highly proved Trust as a key factor predicting BI with a regression weight of 0.346. In other words, Vietnamese customers seem to be more motivated to adopt m-banking if they trust they trust banks. This could be attributed to in m-banking there are growing many concerns about risk in online banking services because it is operated in an open environment, their applications and outcomes are vulnerable to security and threats such as theft, fraud breaches of personal privacy and attacks by hackers. Theoretically, these results are parallel with prior studies of m-banking that have tested and approved trust as a crucial factor in determining the customers' intention. For example, Hanafizadeh et al., (2014a) conduct a study on m-banking adoption in Iran. Lee and Chung (2009) used the DeLone and McLean 2003 model in their investigation on m-banking adoption and indicated that trust, system quality and information quality were important factors to m-banking adoption in South Korea.

The empirical results have also showed that there is a relationship between perceived usefulness and adoption intention of m-banking with a regression weight of 0.237. Hence, it can be implied that Vietnamese customers will use m-banking if they perceive it as more effective, productive and a useful technology. This may be explained that m-banking is considered as a convenient way that helps customers access a wide range of high quality financial services anytime and anywhere. These findings consistent with previous study of m-banking that tested the relationship between perceived usefulness and customer's intention to use m-banking (Akturan & Tezcan, 2012; Hanafizadeh et al., 2014; Luarn & Lin, 2005).

In addition, the empirical results have also supported the significant relationship between perceived ease of use and behavioral intention with a weight of 0.225. This, in turn, means that respondents were more likely to have a higher intention to adopt m-banking if they perceived that the use of such technology was not difficult and required less effort. Given the particular nature of m-banking, a certain level of knowledge and skill is required to properly use such system. In fact, using m-banking requires customers to perform all tasks alone without any assistance from banking staff which, in turn, perceived ease of use could play a vital role in determining the customers' intention to use m-banking. Such results of perceived ease of use extracted in the current study are in line with existing literature in the IS area (Venkatesh et al., 2003) and in m-banking (Thakur & Ramesh , 2015; Gu et al., 2009; Hanafizadeh et al., 2014; Luarn & Lin, 2005). Perceived ease of use was also found to be a key predictor of perceived usefulness with a weight of 0.623. In other words, if the customers perceive that using m-banking needs less effort and is not difficult, they will perceive to use such a system more advantageously and be more useful in their daily life (Davis et al., 1989). By the same token, several studies in the area of m-banking have supported the instrumental influence of perceived ease of use as a contributing factor of behavioral intention via perceived usefulness (Gu et al., 2009; Luarn & Lin, 2005). Furthermore, perceived usefulness showed higher effect on intention to use m-banking in comparison with ease of use and this underlines seriousness of perceived usefulness in Vietnamese' m-banking usage. It sounds better to say that for the managers of the bank to improve users' attitudes, they need to pay more attention to improving system's usefulness while investing on its ease of use.

Surprisingly, this study discovered that perceived costs is not associated with the adoption level of mobile banking, whereas the findings of previous studies about m-banking adoption intention in Australia, Iran and Taiwan (Wessels & Drennan, 2010; Hanafizadeh et al., 2014; Luarn & Lin, 2005) have revealed that perceived cost was found to be affect consumer acceptance of m-banking. This contradiction could be explained by the fact that Vietnamese customers just have to pay 3.300 VND fee when they transfer money instead of 22.000 VND if they make that transaction at the bank.

Finally, this study empirically proved that perceived risk was a significant negative factor determining the behavioral intention to adopt m-banking with a regression weight of -0.192. Accordingly, it could be concluded that Vietnamese customers are less likely to be encouraged to adopt m-banking with a higher degree of expectation of suffering a loss as a result of using such a system. This relationship could return to the particular and sensitive nature of the banking industry in general as well as online banking technology which is universally characterized by a high uncertainty, intangibility, heterogeneity, and vagueness along with the absence of human interaction (Akturan & Tezcan, 2012). This could be attributed to the increase in the number of electronic financial crimes in Vietnam recently. The result is consistent with previous findings such as Koenig-Lewis et al., (2010) found that there is strong relationship between the perceived risk on the German customers' acceptance of m-banking. In addition, the results also confirm the findings of Hanafizadeh et al., (2014b) that perceived risk negatively affect mobile banking adopt in Iran.

6.2 South Korea context

In South Korea, the research model was able to explain 51.5% of the variance in behavioral intention to use m-banking services. The amount of variance explained in intention to use is comparable to prior findings (Venkatesh et al., 2003). Although technology acceptance model (TAM) was not found full significant supported, the effect perceived usefulness should not be overlooked in the adoption intention to use m-banking services. In addition, the relationship between perceived cost and intention to use m-banking was found insignificant, which is consistent with the finding in Vietnam. Additionally, this study established trust and perceived ease of use as two important antecedents of behavioral intention to use m-banking which were able to account for a substantial amount of variance (51.5%) in behavioral intention. Empirical results indicated that

perceived risk was not an antecedent of adoption intention of m-banking. Nevertheless, a relationship between perceived risk and trust was evidence in this study which showed a significant path through the model from perceived risk to behavioral intention to use with trust as the mediating variable. Hence, perceived of risk should be also important to the intention to use m-banking services in South Korea.

Furthermore, it is interesting that this study did not find social responsibility and environment responsibility directly influence trust but the significant relationship between economic responsibility and consumer trust were supported.

6.3 Theoretical contribution

The current study contributes to theory within the areas of m-banking and consumer adoption behavior. From a theoretical perspective, the results of the study provide new information related to consumer intention to adopt m-banking that has not been previously examined, to a large extent, in the existing related literature. Thus, the study adds to and expands our knowledge of the most important factors influencing consumer attitude and behavioral intention towards adopting m-banking services. In doing so, the current research has applied proven theory and constructs in traditional banking, online banking and m-banking research, and has extended and validated the theoretical relationships between the focal constructs in the research model. In addition, the study makes a strong contribution to the current m-banking literature by extending TAM to include perceived risk, perceived cost, trust and three dimensions CSR that previous TAM studies in the context of m-banking did not include; as a consequence, they may have omitted crucial factors that influence consumer adoption of m-banking service.

The results of the present study suggest that perceptions of CSR have a positive impact on customer trust in mobile banking service. Therefore, the findings of the present research are particularly noteworthy because this is the first research that proves the link between perceived CSR activities and customer trust in the context of mobile banking services.

6.4 Practical contribution

The value of research in the area of marketing lies in its ability to be applied in practice. In this sense, the value of this research is that it expands our understanding of m-banking by identifying and synthesizing the most important factors influencing customer adoption of m-banking services in Vietnam and South Korea. The practical implications of these findings are that adding to the understanding of m-banking from a consumer's behavior perspective and, therefore, act as a valuable base for banks.

Specifically, the findings highlight that particular factors (perceived ease of use, perceived usefulness, perceived risk, trust as well as CSR initiatives) will determine customer behavioral intention to adopt m-banking services.

6.5 Implications

The results give some important implication for developers, manager to formulating strategies. Firstly, in Vietnam setting, perceived ease of browsing, identifying information and performing transactions should facilitate favorable and persuasive informative about new products and must demonstrate usefulness for consumers. Also, banks should attempt to enhance consumers' perceptions of the beneficial features and nature of m-banking. Marketing activities should focus on the tangible and immediate benefits of using m-banking services including quicker financial transaction speed, broader varieties of financial services, and enhanced financial transparency. Besides, expanding the range of financial services provided by the m-banking and maintaining the permanency of their performance efficiently and effectively, 24/7 will support the role of perceived usefulness (Zhou et al., 2010).

Moreover, a simple and friendly design of m-banking services will not only enhance the perceived ease of use in using such a channel but also will contribute to the role of perceived usefulness (Jaruwachirathanakul & Fink, 2005). Further, an effective, personal, and practical training program that will educate customers on how they can efficiently use m-banking could be more helpful to override any complexity and confusion related to the use of this system. Such a program could also enhance the individuals' self efficacy which, in turn, contributes to their perception towards such systems as more useful and easier than less banking channels (Compeau & Higgins, 1995).

Concurrently, security risks related to the new innovation should be strongly minimized. Thus, banks should search for risk-reducing strategies that might contribute in arousing high confidence in prospecting customers. Taking this point further, it is suggested to focus on the prevention of intrusion, fraud and identity theft through the development of trust-building mechanisms to attract customers. Such mechanisms include designing a secure mechanism such as a system equipped with unique attributes and highly secure passwords, fingerprints, voice patterns and facial characteristics for users to enhance their confidence, instructing consumers about how safeguard their private information to prevent any misuse in virtual transactions. Other strategies that could be more useful in mitigating PR include a money-back guarantee policy in the case of mistakes and false

transactional data entry, providing them with circulatory passwords and ability to change passwords to enhance security in personal financial transactions and providing the system with tracing codes in consumers' transactions for them to be able to track problems if they occurred seem to help this perception.

Trust was also identified as a factor that positively affected intention to use m-banking. However, in mobile banking context, building customer trust is very challenging. So how can m-banking service provider gain customer trust? The current findings suggest that besides using mechanism including long term service, statement of guarantee for every transaction and digital receipts and enhancing security controls when designing and updating banking apps, CSR initiatives can help to build customer trust and the findings also suggest that customer trust serves as a mediator in the relationship between CSR and intention to use m-banking service. This partial mediation effect of customer trust indicates that consumers' positive perceptions of CSR lead to customer trust and that customer trust, in turn, influences intention to use m-banking. Hence, in order to gain customer trust, doing CSR activities is a critical intermediate step for any banks. Therefore, managers should recognize the influence of CSR on gaining trust of customer to make them adopt m-banking services. Specially in Vietnam, a country with many environment crises such as Formosa crisis and Thi Vai River crisis, any banks focus on environment matter and economic matter it would get a lot of attention of customer and they can build the reputation and image so that they can build the customer trust which in turn improve the percentage of people to use bank service such as m-banking which has many risks.

Secondly, in South Korea, bank managers may also need to be aware of importance of CSR not only as a key variable in building customer trust in mobile banking but also as a factor that leads to various outcomes, including enhanced cumulative satisfaction, loyalty, and positive word-of-mouth. Previous research reported that CSR influence consumer product responses (Brown & Dacin, 1997), customer-company identification (Sen & Bhattacharya, 2001), customers' product attitude and even a firm's market value (Luo & Bhattacharya, 2006). Specially, South Korean bank should focus on economic dimension by creating more wealth for society, increasing wage for employee, providing good product and good service at a reasonable price instead of paying attention to environmental or social issues. Besides, risk-reducing strategy also should not be overlooked since South Korean customers also not likely to adopt m-banking if they perceived risk which in turn decrease their trust to m-banking services.

In sum, bank managers often face tough choices in allocating company resources and in prioritizing strategic initiatives. This study's findings that CSR contributes to increase intention to use m-banking suggest that managers can obtain substantial benefits by integrating CSR initiatives with other strategies.

6.6 Limitation and future research

The current study is restricted by some limitations and can be reported as follow. First there are other factors that have been ignored and therefore should be measured by future researches such as self-efficacy, resistance change and technology readiness. Secondly, this study concentrated on the customers' intention adoption; yet, customer satisfaction, word-of-mouth, and customer loyalty as a consequence of using m-banking will be valuable directions to be examined in future researches. Thirdly, as the current research is applying the survey-based method, it could be argued that this method is prone to the inherent limitation of measurement errors. However, the measurement errors were reduced, as indicated by the study's good reliability and validity results. Finally, the current study used cross-sectional survey to examine customers' adoption of m-banking. Thus, future research is needed to replicate and validate the findings using a longitudinal research which would allow for further examination of m-banking adoption at multiple points of time.

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Ethical Consumption in Vietnam – Do Moral Philosophy, Values and Demographics Differences Matter? A Research Proposal

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ABSTRACT

Ethical consumption has become a big dimension to those carrying out study into ethical decision-making. Among various factors have been proposed as predictors of ethical behaviours in literature, this study expects to prove the influences of moral philosophy, values, and demographics differences on individual's ethical buying choices, as well as the extent to which these factors lead consumer's ethical choice different by empirical evidence from quantitative data. A literature review about ethical consumption and antecedent factors has been done, hypotheses are built, then a proposal for a quantitative research would be suggested to employ in Vietnam market. The present study would significantly contribute as a pioneering works to understand Vietnamese consumer's ethical choice in academic area with a strong evidence from an empirical statistic. In addition, the results of this study could be an important reference source to be pragmatically applied in marketing efforts to guide business toward a better position to generate new interest in their products with a deep understanding of customers in Vietnam, especially in the market of new era.

Keywords: Ethical consumption; Values; Moral philosophy; Demographics difference;

1. Introduction

In order to pursue the sustainable development strategy, more and more businesses recognize the importance of concerning environmental issues and social welfare in their decision-making process during the past decade (Chow & Chen, 2012; Sudbury-Riley & Kohlbacher, 2016). Along with businesses' concerns of the sustainable, on the consumer's perspective, it is worth to mention that the trend of "ethical consumption" with the customer's considerations on human welfare and natural environment has been increasing significantly among consumers around the world (Dubuisson-Quellier, 2016). Carrigan, M., Szmigin, I., & Wright, J. (2004) admitted that ethical marketing decisions becomes a core mission to every business to enhances the happiness of its target customers under the impact of ethical consumerism trend. This phenomenon has been noted and has received an increased attention in academic research by a lot of scientists for more than a decade (Carrington et al. 2010; Strong 1996). Although the number of researches into ethical consumption field has increased dramatically, 'relatively little attention has been given to how ethical considerations in consumption are thought about by consumers (Belk *et al.*, 2005). As more ethical choices enter consumer consciousness during his/her decision-making (Cherrier and Murray, 2002; Memery *et al.*, 2005), understanding why those choices are made has become an important area of

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consumer research. However, few studies have been done to define the influencing factors would impact on consumer's ethical buying behavior (Bray, J., Johns, N., & Kilburn, D., 2011). Furthermore, there is also a lack of research that empirically examines the extent to which factors influence buyer's actual ethical consumption (Andorfer and Liebe, 2012; Hamari, J., Sjöklint, M., & Ukkonen, A, 2016).

Hunt and Vitell (1993) had noticed that individual's personal characteristics are important factors which influence his/her perceived ethical situations and then impact on the whole ethical decision-making process which leads to the final ethical behavior. Craft (2013) in her review of empirical study on ethical decision-making has indicated that the increased numbers of research about individual factors in ethical decision-making process has remained consistent over three decades and is expected to continue. This trend is a strong evidence which emphasizes the significant role of personal factors in predicting customer's differences on ethical behaviors. Therefore, the aim of the present study is to define the personal factors would strongly influence on consumer's ethical purchase choices. In literature review, the arguments have been discussed to improve the impact of personal values, individual moral philosophy, and personal demographics differences on buyer's ethical consumption, then a framework is built with hypotheses about the relationship between variables, then data analysis process is expected to be done to empirically examine the extent to which these factors make the buyer's actual ethical consumption different.

Moreover, the study is conducted on the sample of Vietnam consumers where the concept of "ethical consumption" seems to be still a new dimension. There are some important reasons which motivate the research would be focus in Vietnam market. First, although ethical consumption is a significant academic concept which attract scientist's attention around the world, there is few studies on this field has been done in Vietnam, especially with some narrower concepts: "green consumption" and "green products", sustainable consumption (KN Nguyen, 2015; HTB Thoa, 2015; Lobo & Greenland, 2016). Second, the dramatic development in economics of emerging countries, such as Vietnam, would be a cause of increasing consumption which leads to terribly spread of solid waste production and air pollution during last decades. Chi, N. K., & Long, P. Q. (2011) asserted the effort of Vietnam government in 3R policy (Reduce, Reuse, Recycle) that was established to increase the quantity of national waste separation at source by implementing the National Strategy on Integrated Solid Waste Management until 2025. However, in spite of government's determination in 3R policy, a large proportion of Vietnamese consumers "*apparently suffer from a lack of knowledge and money to live sustainably*" (De Koning, Crul et al. 2015). The present study would be conducted with an expectation to contribute on the understanding of Vietnamese consumer's ethical behavior and its antecedents, such as personal factors, in academic area with a strong evidence from empirical statistic. In addition, the results of this study could be an important reference source to be pragmatically applied in marketing efforts to guide business toward a better position to generate new interest in their products with a deep understanding of customers in Vietnam.

2. Literature review

2.1. Ethical Consumption

The term "ethical consumption" has become a trendy phrase in the modern consumer academy, however it has not yet been clearly demonstrated in reality. Clavin and Lewis (2005) indicated that it is difficult to define "ethical consumption" exactly. Cooper-Martin and Holbrook (1993) had defined ethical consumption as a process of decision-making behavior, purchasing, consuming or other experiences which are made under the influence of ethical concerns, interestingly, the phrase "ethical concerns" seems to imply multiple layers of hidden meaning. According to Carrigan, M., Szmigin, I., & Wright, J. (2004), the concept of ethical consumption is boarder than "green consumption" which had been known before as representative for a consumer's environmentally positive choice, that means there are some other considerations also taken in customer's ethics perspective during their ethical purchasing behavior. In the same point of view, Cowe and Williams (2001) agreed that ethical consumers are often influenced by moral beliefs, and then the impact of their own concerns of ecological environment and "more" would predict what they decide to buy. Carrigan, M., Szmigin, I., & Wright, J. (2004) pointed out that, beside environmental caring, customers are also mindful of animal welfare, fair trade, as well as social well-being such as human right, labour standards, or even fair wages before purchasing. Moreover, Harrison, Newholm, & Shaw (2005) said that every moral purchaser has political, religious, otherworldly, environmental, social or different thought processes in picking one item over another choice, and along with it, customer also cares about the consequences of his/her buying decision. Importantly, ethical consumption additionally fills in as a medium for ethical/moral activity under the impact of moral subjective judgments which are related to a specific item/brand over the cycle of manufacturing process, customer's utilization and disposition (Brunk, 2010). Therefore, in conclusion, this study comes up with an agreement on the definition of ethical consumption, which denotes consumer's ethical buying choices with consideration of issues in both social and environmental aspects.

There have been a number of studies in ethical consumption field associated with environmentally friendly behaviors (Gilg, Barr, & Ford, 2005; Niva & Timonen, 2001; Abdul-Muhmin, 2007), and the number is still growing. Among them, most of the studies specifically address ethical consumers in buying and using the products that could be used as recycled ones before making a purchase decision (Autio, Heiskanen, & Heinonen, 2009; Laroche, M., Bergeron, J., & Barbaro-Forleo, G, 2001; Vicente & Reis, 2007; Nguyen & Lobo, 2017). This means that consumers are increasingly inclined to consider the environmental relevance of a particular product as they engage in procurement and consumption behavior with consideration of packaging materials, resources in production processes as well as everyday wastes discharged into the environment from factories during manufacturing. The fact that more researchers focus specifically on consumers' ethical consumer behavior with recycling products can be explained by household waste recycling is becoming a common daily behavior of many people under the control of recycling policies and campaigns in many countries around the world (Sudbury-Riley & Kohlbacher, 2016). In addition, the terms green products or organic products have become increasingly popular, which proves the evolution of consumer's environmentally friendly trends in using and buying products.

In the aspect of buyer's ethical decisions that made based on his/her attention on social justice and human rights issues, researchers often emphasizes the consumer concerns about labor exploitation in the manufacturing, working conditions, workers' wages and even human rights under the business's policies (Brenton & Ten Hacken, 2006; Eckhardt, Belk, & Devinney, 2010; Valor, C., & De La Cuesta, M., 2007). It is understood that consumers pay much attention to the social welfare issues of a business while forming a buying behavior. Product companies have a better reputation around the issues of working environment for employees, employee welfare, social equity or social welfare, while there is an opposite tendency for Businesses lack good performance and ethical behavior in these matters. In addition to the major research areas of social justice and human rights, broader ethical consumer research topics also focus on animal welfare (Megicks, Memery, & Williams, 2008).

In addition to these two main aspects of consumer concerns in making ethical purchase decisions, another issue that is also of interest to researchers is the behavior from refuse, intentionally refuse to buy the product, or boycott the product (Carrigan et al., 2004). According to Papaoikonomou, Valverde & Ryan (2012), boycotts are defined as anti-procurement behaviors targeted at specific products because they harm the environment.

2.2. Personal Factors as Influences on Ethical Consumption

One important issue must be expressed is that "What is ethical?" may be a question which receives different answers from each individual (Carrington, Neville, and Whitwell, 2014). In previous researches, many authors had argued about some different factors that have the influences on people's ethical decision-making process. Hunt and Vitell (1986) described the evidences of the cultural, industrial, organizational, and personal variables' influences ethical perception in the first place, before these factors effect on ethical judgments and ethical intentions, and finally behavior in process of making ethical decision. However, among multiple factors, Hunt and Vitell (1993) had noticed that individuals' personal characteristics are important components could strongly influence one's moral ethical situations, then leads to the dissimilarity in final behaviors. These factors interdependently and causally shape ethical or unethical evaluations (Ferrell & Gresham, 1985). The result is "the personal situational differences occurring among these factors may well conduce to variances in individuals' action toward various ethical situations" (Huang et al., 2006). Additionally, Craft (2013) in her review of empirical study on ethical decision-making has indicated that the trend of increased numbers on research about individual factors in ethical decision-making process and proved the importance of individual differences in the explanation of the dissimilarity in people's ethical behaviors. Some key personal elements was explored and examined in previous studies in the consideration of their impacts on individual's ethical decision-making process, such as age, gender, education, cultural background, religion, ethical philosophy, values, moral development, personality traits, life experiences (Craft, 2013).

Individual Moral Philosophy

Moral philosophy fundamentally implies to the general "guiding ideology" which people engage to evaluate a situation as "right or wrong" and it will affect their moral perception as well as moral behaviors (A. J. Dubinsky et al., 2004; Forsyth, 1980). Ferrell and Gresham (1985) also stated that individual moral standards primarily develop from a set of moral philosophies that judge what is ethically right or wrong. It means that moral philosophy would be considered as the primary guiding ideology that individuals apply before evaluating the rightness or wrongness of a situation. Similarly, according to the emphasis of normative approaches in the literature, it was proposed that that marketers might develop their guidelines and rules for ethical behavior based on moral philosophy (Ferrell & Gresham, 1985). Sharing the same opinion, Forsyth (1980)'s model showed that individual's moral philosophy effect his/her moral judgments and moral behaviors.

Additionally, Forsyth (1980) implied that, for ethical ideology, it could be described in two dimensions: relativism and idealism. The first, idealism implies the degree to which one believes that favorable outcomes will emanate from ethical actions (Davis, Andersen, & Curtis, 2001). That means, high idealist individuals have a tendency to be more noteworthy worry for the others' welfare, while one with low level one may be more cynical, who trusts that moral practices will bring about great favorable results for a few and negative outcomes for others (Barnett, Bass, & Brown, 1996). The second, relativism, measuring the extent to which person rejects (abjures) to apply universal codes of moral behaviors or conducts, universal moral norms, rules when making moral judgments (Davis et al., 2001; Forsyth, 1980, 1992). People who are in high level of relativistic in their ethical ideology tend to abjure rigid moral standards in deciding if a demonstrative is moral or deceptive; though people with a lower level of relativism accept emphatically in supreme standards while deciding if a demonstration is moral or not (Barnett et al., 1996).

Various studies were conducted to investigate the relationship between individual moral philosophy and ethical behavior. A. J. Dubinsky et al. (2004) examined the influence of relativism and idealism in the process of making moral judgments and ethical choices by comparing the individual perception toward questionable behaviors or situations based on their different degree of relativism and idealism. The researchers posited that people's moral philosophy influences on his/her moral judgment and the degree that people place high or low on relativism and idealism would likely influence the degree of that individual perceives a given behavior/situation as ethical or unethical. In other empirical researches on ethical decision-making, researches exposed fairly consistent findings that idealism is generally positively related to ethical decisions, while relativism is generally negatively related to ethical decisions (Sparks & Hunt, 1998; Yetmar & Eastman, 2000). Valentine and Bateman (2011) suggested that individuals in business tend to recognize moral issue in a sales context more when they use an idealistic ethical ideology. Furthermore, Marques and Azevedo-Pereira (2009) found out relativism had a stronger effect on ethical judgments than idealism, as well as ethical ideologies did not differ in terms of ethical judgments. Similarly, A. J. Dubinsky et al. (2004) also suggested that salespeople's moral philosophy is related with their perceptions of ethical issues; while relativism did not correlated to salespeople's ethical perceptions, salespeople with idealism belief is generally observed to be negatively related with the perception of potentially ethically questionable problems. Fernando and Chowdhury (2010) also affirmed a weak relationship between spiritual wellbeing and relativism, but a strong correlation between spiritual wellbeing and predictive of idealism. Recently, Ramasamy and Yeung (2013) showed the result that the relationship between individual's idealism and ethical judgments is more successfully proved than the linkage between relativism and ethical judgments, and higher on relativism moral philosophy would lead to higher variations in ethical judgments.

Particularly, in term of relativism moral philosophy, various arguments were made by previous scholars in the respect of its influence on the way people perceive questionable behaviors or situations. Robertson et al. (2012) posited that relativistic individuals reject the possibility of formulating and relying on moral principles when making moral judgments when nonrelativistic evaluators accept such principles. Reidenbach and Robin (1990) also argued that relativists uphold their decision about what is ethical is a function of a culture or individual, and therefore, "no universal rules exist that apply to everyone". Their assessment of a given behavior would be guided by their knowledge of the situation and the situation's context due to the fact that there is no overriding set of moral principles that can prescribe appropriate action in every situation. In relativists' point of view, all moral norms are depending either on who is presenting them or relative to a particular culture and that an act is right when it is approved by the social group to which one belongs (Kujala, 2001). Moreover, individual that believes on relativism would view ethical issues simply base on how that person feels or how a culture accommodates the desires of its peoples, however, not based on any deeper set of objectively justifiable beliefs (Beauchamp & Bowie, 1983). In addition, individuals who are high relativistic in their moral philosophy tend to abjure rigid moral standards in the determination as to whether an act is ethical or unethical; while individuals who are low in degree of relativism would strongly believe in the moral principles when they determine whether a behavior is ethical or unethical (Barnett et al., 1996; A. J. Dubinsky et al., 2004). Besides, according to Robertson and Fadil (1999), the importance is what considered as right or wrong is strictly a matter for individuals to determine based on the ethical principle, values they have chosen to adopt; then, they determine the ethicality of the actions/situations. Therefore, a high relativistic salesperson, who usually rejects the rigid moral standards to evaluate situations, may often follows the peer's opinions or listens to his/her own feeling about situation without relying on any deeper set of objectively justifiable beliefs, would possibly tend to see more favorable toward ethically questionable behaviors, due to they are unlikely to disagree with an ethically questionable situation without full understanding of it (Alan J Dubinsky, Natarajan, & Huang, 2005). Conversely, consumers who are low in relativism would hold universal moral laws as the guiding for judging any given action (A. J. Dubinsky et al., 2004). Accordingly, they might be stricter in their view toward a questionable situation with their own belief. In other empirical researches, the consistent results show that relativism is generally negatively related to ethical decision-making (Sparks & Hunt, 1998; Yetmar & Eastman, 2000). Callanan, Rotenberry, Perri, and Oehlers (2010) also found out that individuals with a greater relativistic orientation were more likely to make unethical choices than those individuals with a low degree of relativism

while Fernando and Chowdhury (2010) showed the result of the relationship between spiritual wellbeing and relativism was weak.

In term of idealism belief, on the other hand, various researchers have showed the positive impacts of idealism moral philosophy on the degree of strictness people view questionable behaviors or situations. According to A. J. Dubinsky et al. (2004), high idealistic persons always believe that the appropriate action would lead to desirable consequences with favorable impacts on others. With this belief, the consumer's behavior is guided by the outcome of the final behavior, therefore only action that gives favorable impacts on others would be taken. The important thing with this belief is that only ethically responsible action would lead to positive results (A. J. Dubinsky et al., 2004). For this reason, the high idealistic buyers seem to perceive some ethically questionable practices as unethical because it might cause some potential negative, harmful results to others. In contrast, consumers who are low in idealism believe that the ethical behaviors do not always lead to propitious consequences. In another word, they may perceive both favorable and unfavorable outcomes would be created by a certain action even when that action is ethical. In another study, the researcher also affirmed that high idealistic individuals apt to see questionable situations as unethical since it may cause potential unfavorable outcome to others (Alan J Dubinsky et al., 2005). In addition, Bass et al. (1998) argued that high idealistic individuals are likely to question more harshly than non-idealistic individuals because they believe that acting more morally can help avoiding harm to others. Callanan et al. (2010) also found that individuals with higher degree of idealism were more likely to choose more ethical options than those who displayed a lower degree of idealism. Furthermore, in a recent empirical study of Valentine and Bateman (2011), the results showed that individuals tended to identify a moral issue when they applied an idealistic ethical ideology.

Based on the discussion about the influence of moral philosophy on individual's ethical choice above, an application could be adapted in individual's ethical consumption area, following hypotheses are proposed:

H1: Consumer's idealism is positively correlated with the extent to which he/she behaves ethically in consumption practices

H2: Consumer's relativism is negatively correlated with the extent to which he/she behaves ethically in ethical consumption practices

Personal Values

Value is defined as "a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable, which influences the selection from available modes means, and ends of action" (Kluckhohn, 1954). Similarly, Williams, Davies, Jones, and Roberts (1968) stated that a person's values serve as "the criteria or standards of preference"; and "actual selections of behavior result from concrete motivations in specific situations, which are partly determined by prior beliefs and values of the actor". It means that values would be considered as the "criteria of preference", that guiding individual's evaluation, even behaviors. In addition, Singhapakdi and Vitell (1993) indicated that value is nature and enduring, so it might be stable to make possible continuity of human personality and society, but at the same time, also unstable to allow for individual and social change. To conclude on key features of values based on its common conceptions in literature, Schwartz and Bilsky (1987) presented that is values are the concepts/beliefs about suitable/desirable actions/behaviors. Values also go beyond the range of specific situations and drive selection or evaluation of behavior and events, and be ordered by the degree of relative importance (Hitlin & Piliavin, 2004). Moreover, scholars assumed that values are relatively stable across the lifetime after being formed during people's late adolescence stage (Hitlin & Piliavin, 2004)

Furthermore, numerous previous studies posited the important role of personal values in ethical decision making process and denoted the impact of values on personal ethical conducts. Personal values are highlighted as evaluative principles that established "affective and cognitive elements" to drive people to the world (Hitlin & Piliavin, 2004). From a moral perspective, Meglino and Ravlin (1998) proposed that values denote one's personal beliefs/principles on how he or she 'should' or 'ought' to behave" in his/her society. Similarly, values are acknowledged as the function of guiding standards for judging others' (and one's own) behaviors (Hitlin & Piliavin, 2004). Thus, in general one's behavior is a result of his/her values (Fritzsche & Oz, 2007). The links between personal values and ethical practices also were investigated across studies and posited that personal activated values guide the planning of action after being activated (Verplanken & Holland, 2002; Şener, A., & Hazer, O., 2008), motivating the priority of certain actions over others (Feather, 1992), and influencing attention, perception, and interpretation about situations (Hitlin & Piliavin, 2004).

One of the most popular models that provides a steady theoretical basis for measuring values is Schwartz model (Hitlin & Piliavin, 2004). Schwartz (1994) established a taxonomy of ten motivationally distinct types of

values, called achievement, benevolence, conformity, hedonism, power, security, self-direction, stimulation, tradition, universalism based on human general requirements that every individual must handle. The model viability is supported by plenty of evidences from samples across the nations and found to be appropriate for cross-cultural studies of differences in individual values (Schwartz, 1992, 1994). Incorporating values identified in a diversity of cultural settings, the construct validity and the measurement reliability of Schwartz models have been cross-culturally proved by samples in 44 countries, including both western and eastern countries (Schwartz, 1992, 1994; Schwartz & Ros, 1995). In more detailed, the researcher presented these types of values into four higher order value types of a circumplex. Among these four value types, scholars argued that the “openness to change” value is the representative of the importance that people place on independence in thinking, personal autonomy, self-direction, as well as the desire of gaining and facing to challenges, varieties, and excitements in life (Egri & Ralston, 2004; Schwartz, 1992). Conversely, on the opposite end of the continuum, the “conservative” values represent people’s self-control and with the placement the importance on safety, harmony, stability, security, and tradition values. Therefore “openness to change” and “conservative” values expose the degree to which individuals emphasize self-direction versus conformity in their decision-making (Schwartz, 1992; Schwartz & Bilsky, 1990). In the next value set, “self-enhancement” value implies to one’s achievements of personal success with the competence, fulfillment of social status and prestige, as well as gaining authority, power over people while “self-transcendence” values, in the opposed side, reflect individuals’ concern with protecting, enhancing the well-being of their friends and colleagues, as well as appreciation, tolerance, and protection of the happiness of all human and nature (Egri & Ralston, 2004). Thus, individuals who highlight values of self- enhancement tend to place importance on personal success, such as power, achievements, and hedonism while universalism and benevolence are more important to people that higher value self-transcendence (Schwartz, 1992). This circumplex model of values suggests that the values from contiguous sections are more similar than values from opposed sections.

Personal value is asserted as the guiding principles for individuals’ ethical decision-making, surely including ethical behavior (Ferrell & Gresham, 1985; Schwartz & Bilsky, 1987), and among the preceding studies’ results in finding the linkage, there are some specific types of personal values that were examined as being related with ethical decisions while some others did not show the relationship. In the effort to investigate the relationship between personal values and ethical judgment, Singhapakdi and Vitell (1993) showed the result that marketers’ ethical judgments are related to some values in personal values system, among them the value of “self-respect” and “being well respected” are examined as positively correlated to more moral practices, while the value of “accomplishment” just is the anathema toward sales behaviors not in marketing sector. In another study, Fritzsche and Oz (2007) provide the results of an important positive influence of altruistic values on ethical decision-making while self-enhancement values were suggested that are significantly negative impact individual’s ethical decision-making. Mencl and May (2009) showed that empathy slightly predicts moral intention; and when the cognitive empathy is high, the connection between consequences and principle-based evaluation is strong and positive. Watson, Berkley, and Papamarcos (2009) provided a significant correlation between the seeking for pleasure and unethical decisions, particularly in the ethical judgment category. Moreover, in this study, Watson et al. (2009) also found that the values of benevolence, universalism, hedonism, and power add significantly impact on moral reasoning, at a result these values simultaneously effect ethical decisions. O’Fallon and Butterfield (2011) also found a relationship between extraversion and ethical decision-making. Watson and Berkley (2009) showed significant effect the combination of the values of traditionalism, conformity, and stimulation on unethical decision-making. This finding was partly consistent with the previous study’s result of Singhapakdi and Vitell (1993) when these scholars found that some specific personal values, including security, self-fulfillment, and fun and enjoyment in life were not significantly impact on marketer’s ethical judgments. The preceding results gave a suggestion that different types of values would differently contribute to individual’s behaviors toward ethical matters.

On the perspective of ethical consumption, personal values also show some strong evidence of its impact on customer’s ethical buying decisions. Thøgersen, J., & Ölander, F. (2002) used to prove the influence of value on ethical behavior with the research data shown that people gave more importance to the benevolence and universalism value types would acted more for environmental protection. The sustainable consumption behaviors of Turkish women were examined as strongly influenced by their universalism and benevolence values (Şener, A., & Hazer, O., 2008). Similarly, a convincing relationship was found to explain the influences of universalism values and self-direction values on consumer’s fair trade purchase in US while conformity, values, security values and achievement values were found as significantly negatively related to fair trade purchase (Doran, C. J., 2009).

Based on the literature review, the hypotheses would be established:

H3: *Self-transcendence values have a positive influence on consumer’s ethical consumption choice*

H4: *Self-enhancement values have a negative influence on consumer’s ethical consumption choice*

H5: *Openness to change values have a negative influence on consumer's ethical consumption choice*

H6: *Conservation values have a positive influence on consumer's ethical consumption choice*

Demographic characteristics

Gender difference has been indicated as one of the most important factors which lead to the dissimilarity in individual's consumption behavior, but it also requires more attention from academic research (Bampton & Maclagan, 2009). Gender socialization theory (Gilligan 1982) could be a good explanation for the difference between males and females' ethical perception. The dissimilarity in socialization would make the way males and females realize and evaluate ethical issues differently. The reason for the inconsistency would come from the set of value, moral standards and moral reasoning which these two genders employ (O'Fallon & Butterfield, 2005). There is a number of researches has been done to prove the role of gender in one's process of making decision, however, the findings are not always consistent. While some researches agreed that males tend to behave less ethically than females, which means females have a more ethical orientation than do males do (Church et al., 2005; Singhapakdi, 2004; Oumlil and Balloun, 2009). Some other works also indicated that women concerns more for duty, obligation, and even more "care" in the process of decision-making than men do, the higher ethical sensitivities lead women perceive questionable consumer situations as more unethical in the comparison to men (Vermeir and Van Kenhove, 2008; Oumlil and Balloun, 2009). Atakan et al. (2008) also posited that it is more difficult for woman to conduct an unethical behavior than men. Based on the aforementioned common attributes of gender difference on ethical behavior, a similar result is expected to find in the comparison of ethical buying behavior between males and females, the hypothesis 7 is established:

H7: *Female consumers tend to behave more ethically in questionable consumption situations than males do.*

Beside the impact of gender on ethical behavior, age also has been posited as a determinant which makes individual's actions different. Moores & Chang (2006) suggested that when people fully understand their role in society, they become more likely to behave ethically toward situations due to the development of moral cognition. A direct relationship has been investigated between customer's age and personal ethics, which means older consumers tend to behave ethically than younger do (Muncy & Vitell, 1992). De Pelsmacker et al. (2005) shared the same idea when he found a strong evidence of a positive influence of age on consumer's ethical behaviors. Adapting the results from preceding studies, in this context, authors would expect that older consumers behave more ethically in questionable consumption situations, the hypothesis 8 is established:

H8: *Older consumers tend to behave more ethically in questionable consumption situations than younger ones do.*

Moreover, many evidences in previous studies show a strong idea that an individual with higher level of education would behave more ethically than the ones with lower educated (Carrigan and Attalla, 2001; Dickson and Littrell, 1997). Therefore, in ethical consumption context, a similar result is expected to be found.

H9: *Higher educated consumers tend to behave more ethically in questionable consumption situations than lower educated ones do.*

3. Research Design and Methodology

Firstly, in order to test hypotheses, the data collection is needed, then the survey would be used to get the data. The initial draft of questionnaire is built for the pretest. The pretest is to check whether the questionnaire is suitable for the respondents. After pretest is conducted, the final draft of questionnaire should be prepared. Then the next step is to administer the questionnaire to the respondents. After finish collecting data, the final step involves analyzing the data and discussion. A detailed discussion would be presented to explain the meaning of data and to compare with the results of previous studies in the past.

3.1. Construct Measurement

Moral philosophy measurement

To examine respondent's relativism and idealism, Forsyth (1980)'s Ethics Position Questionnaire (EPQ) was applied. In this measure, the EPQ includes ten items that measure relativism and ten items that measure idealism. The previous studies already showed the psychometric properties of the EPQ were adequate (Forsyth, 1980; Tansey et al., 1994). Moreover, this EPQ has been frequently used to measure relativism and idealism in ethics

studies in the marketing and selling arenas (Bass et al., 1998; Callanan et al., 2010; A. J. Dubinsky et al., 2004; Marques & Azevedo-Pereira, 2009; Singhapakdi, Rawwas, Marta, & Ismail Ahmed, 1999; Tansey et al., 1994).

The respondents were asked the question about the extent of their agreement level in 5-Likert scales with each item on 20 items from 1 is very disagree to 5 is very agree. The cores of relativism and idealism were then calculated for each scale by summing responses to both sets of ten items.

Value measurement

To examine value of consumers, the modified version of Schwartz's instrument (Schwartz, 1994) developed by Stern, Dietz et al. (1998) was used to collect data on values. There are some reasons for choosing this in investigating the results. Firstly, value measures defined as in Schwartz's model also have proved to be strong predictors of attitudes and behavior (Dietz, Frisch et al. 1995; Stern, Dietz et al. 1995; Karp, 1996) However, the scale of 56 items is much difficult to examine in empirical research. Fritzsche and Oz (2007) suggested that with the effort to shorten the scale, Stern, Dietz et al. (1998)'s model of values still maintaining adequate reliability and usefulness as predictors of relevant attitudes and behavior in their samples as the Schwartz (1994). This scale is shorter with reduced value structures might make respondents feel more free and easy to respond. In Stern's model, with the same meaning of the items, they renamed the self-transcendence structure as altruistic values.

In order to test respondents' personal values, respondents were asked to rate each value items on a five-point scale anchored with the bipolar adjectives not important and extremely important "as a guiding principle in my life". This was consistent with the Stern, Dietz et al. (1998) and Fritzsche and Oz (2007) approach, scored from 1 to 5 with not important represented by 1 and of extremely very importance scored as 5.

Ethical consumption measurement

Among theoretical studies of ethical consumption behavior scales, very few works that viewed ethical consumption in both consumer-driven dimensions, includes environmental and social issues (Sudbury-Riley, L., & Kohlbacher, F, 2016). Therefore, there is no measurement measuring the wide range of both the ethical aspects at the same time, except for the 26-item SRCB by Rorberts and his colleagues (Roberts, 1995). This scale asks respondents to recall and report their past and present behavior instead of asking about their attitudes or intentions in the future. By focusing on the study of past and present behavior, this scale outweighs the attitudes or intentions of anticipating future consumer behaviors, particularly is for ethical consumer behavior (Ajzen, 1991). The SRCB has been shown to be useful over time (Webb, Mohr, & Harris, 2008) and has been used by researchers in a number of studies in various countries. For this reason, the SRCB scale would be used to measure the ethical consumer behavior of respondents.

The SRCB core scale consists of 26 variables that measure ethical consumer behavior based on two aspects: Consumer ECCB and Consumer Social Responsibility (SCCB). The ECCB consists of 18 observational variables and the SCCB consists of 8 observable variables. However, after considering the actual context in Vietnam with a pretest of 30 respondents, the authors found that respondents did not understand some of the observable variables, includes labor working environment in South Africa, table grape, aerosol container and imported petrol issue in the SRCB scale. The authors argue that these are issues that are out of the knowlegde of the most respondents and are not consistent with actual consumption behavior in Vietnam. As a result, we decided to eliminate the four observable variables in the SRCB scale to facilitate the response and the accuracy of the survey results.

3.2. Samples

In order to pursue the purposes of study, selected respondents in this study are consumers who are conducting purchase activities for daily life in Vietnam. Convenience sampling method is used to select respondents. However, to ensure that the respondents have all the ability to control their behavior and responsible for his/her in daily life, the respondents for this study are chosen to be above eighteen years old. The respondents who involve in the research also need to have a good awareness on the purpose of the research, and should be told how and when they will receive feedback on the findings.

The data would be collected by self-administered questionnaire through the on-line questionnaire website. Moreover, according to this questionnaire concerning about the individual's ethics, and it may be regarded as the privacy by the respondents, they were guaranteed their anonymity. Before sending the online questionnaire link to respondents, researchers expect to explain clearly the purpose of the study.

The sample size is expected of at least 300 respondents. Hair and et al (2006) showed that the sample size of study must be at least five times of the number of observed variables. In this research, there are total 60 items of observed variables, therefore, 300 to 400 is expected as an reasonable sample size.

A preliminary version of the questionnaire would be designed for a pretest. A pre-test will be conducted to make sure all questions are concrete, clear, consistent, and do not cause any bias or misunderstood. The questionnaire was carefully translated in Vietnamese language so that respondents can understand and answer all the questions in survey in the most appropriate way and reduce the bias in analysis part which ensure the translation version could remain perfectly the meaning of original scales.

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Appendix A - Construct measurement

Table 1. Values measurement scale

Types of Value	Items
Self-transcendence (Altruistic)	A world at peace, free of war and conflict
	Social justice, correcting injustice, care for the weak
	Equality, equal opportunity for all
Conservation	Honoring parents and elders, showing respect
	Family security, safety for loved ones
	Self-discipline, self-restraint, resistance to temptation
Self-enhancement	Authority, the right to lead or command
	Influential, having an impact on people and events
	Wealth, material possessions, money
Openness to change	A varied life, filled with challenge, novelty, and change
	An exciting life, stimulating experiences
	Curious, interested in everything, exploring

Table 2. Moral philosophy measurement scale (Idealism and Relativism) – EPQ

Scale	No	Items
Idealism	1	A person should make certain that their actions never intentionally harm another even to a small degree.
	2	Risks to another should never be tolerated, irrespective of how small the risks might be.
	3	The existence of potential harm to others is always wrong, irrespective of the benefits to be gained.
	4	One should never psychologically or physically harm another person.
	5	One should not perform an action which might in any way threaten the dignity and welfare of another individual.
	6	If an action could harm an innocent other, then it should not be done.
	7	Deciding whether or not to perform an act by balancing the positive consequences of the act against the negative consequences of the act is immoral.
	8	The dignity and welfare of people should be the most important concern in any society.
	9	It is never necessary to sacrifice the welfare of others.
	10	Moral actions are those which closely match ideals of the most "perfect" action.
Relativism	1	There are no ethical principles that are so important that they should be a part of any code of ethics.
	2	What is ethical varies from one situation and society to another.
	3	Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person
	4	Different types of moralities cannot be compared as to "rightness."
	5	Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual.
	6	Moral standards are simple personal rules which indicate how a person should behave, and are not to be applied in making judgments of others.
	7	Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual codes.
	8	Rigidly codifying an ethical option that prevents certain types of actions could stand in the way of better human relations and adjustment.
	9	No rule concerning lying can be formulated; whether a lie is permissible or not permissible totally depends upon the situation.
	10	Whether a lie is judged to be moral or immoral depends upon the circumstances surround the action.

Table 3. Ethical consumption measurement scale

Ethical consumption	Items
Ecologically conscious consumer behavior (ECCB)	I have purchased products because they cause less pollution. ^{L} _{SEP}
	When I purchase products, I always make a conscious effort to buy those products that are low in pollutants. ^{L} _{SEP}
	I make every effort to buy paper products made from recycled paper. ^{L} _{SEP}
	When I have a choice between 2 equal products, I always purchase the one which is less harmful to the environment. ^{L} _{SEP}
	I try only to buy products that can be recycled. ^{L} _{SEP}
	I use a recycling centre or in some way recycle some of my household trash.
	When there is a choice, I always choose the product which contributes to the least amount of pollution.
	Whenever possible, I buy products packaged in reusable containers. ^{L} _{SEP}
	If I understand the potential damage to the environment that some products can cause, I do not purchase them. ^{L} _{SEP}
	I use a low-phosphate detergent or soap for my laundry. ^{L} _{SEP}
	I have convinced members of my family or friends not to buy some products which are harmful to the environment.
	I do not buy household products that harm the environment.
	I do not buy products in aerosol containers.
	I buy paper towels made from recycled paper
	To reduce our reliance on foreign oil, I drive my car as little as possible
	I buy toilet paper made from recycled paper.
	I normally make a conscious effort to limit my use of products that are made or use scarce resources.
	Socially conscious consumer behavior (SCCB)
I do not buy products which use advertising that depicts minority groups in a negative way.	
I do not buy products from companies who discriminate against minorities	
I do not buy products from companies who have investments in South Africa.	
In the past, I have not purchased a product because its advertising depicted women in a negative way	
I will not buy a product that uses deceptive advertising.	
I do not buy products from companies involved in a labor dispute	
I do not buy table grapes because of the conditions under which the workers who pick them must live. ^{L} _{SEP}	
I try to purchase products from companies who make donations to charity.	



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The Role of Animosity on Purchasing Foreign-made Products: Evidence in the Relationship between Vietnam and China

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ABSTRACT

The purpose of this research was to contribute to the development of animosity theory by exploring sources of consumer animosity that can stimulate feelings of animosity toward a target country. Also, investigate the relationships among consumer animosity, consumer ethnocentrism, cultural acceptability, product judgment, reluctance to buy foreign product and product ownership in a developing context – Viet Nam.

We find that there are four sources composed of animosity in Viet Nam context called war experience, economic impact, territory conflict and health issue. The research extends the domain of the animosity construct to a four-dimensional structure rather than the two-dimensional structure used in most previous studies. There is a significant relationship between consumer animosity and product judgment, which was not supported in the original research. Also cultural acceptability plays a role in reducing consumer ethnocentrism and improving product judgment. In addition, consumer animosity has a positive impact on ethnocentrism which reinforces consumers' patriotism in order to stimulate reluctance to buy foreign product made in target country. Furthermore, the result shows interesting points are distinctiveness of two constructs: willingness to buy and reluctance to buy foreign products, and significant differences between groups: living in a big city and living in a small city. The study provides theoretical and empirical insights into direct and indirect effects of consumer animosity on purchase intentions, which may be beneficial for both local and international managers who suffer from boycotts of foreign merchandise.

Keywords: Animosity; ethnocentrism; cultural acceptability; product judgment; Vietnam; China

1. Introduction

The extant consumer behavior literature proves that the two most significant non-tariff barriers to international trade are consumer ethnocentrism and consumer animosity (Klein et al., 1998). Ethnocentrism can be defined as a tendency to buy domestic products and avoid buying foreign products whereas animosity refers to an emotional status in consumers toward a country of origin that leads to a denial of choosing that country's commodity.

Animosity or tensions among countries are present throughout the world which may stem from territory disputes, economic arguments, and diplomatic disagreements leading to cool relations between countries or even armed conflicts. The investigation of the impact of such bilateral disputes on consumers' behavior towards products of companies from the offending nation has gained research attention in recent years (Klein et al., 1998; Klein, 2002; Nijssen and Douglas, 2004; Ang et al., 2004; Riefler & Diamantopoulos, 2007; Ferrin et al., 2015; Ahmed et al., 2013; Lee & Mazodier, 2015; Sohail & Opoku, 2016; Ma et al., 2012).

Consumer animosity has been an emerging subject of intense research interest in international marketing during the past two decades. Results from this stream of research show that foreign consumers' anger towards a country they perceive as hostile may affect a country's image perception and the export performance of products associated with it (Riefler & Diamantopoulos, 2007). Studies have confirmed the impact of animosity on products in general (Leong et al., 2008; Nakos & Hajidimitriou, 2007), on specific categories of products (Klein, 2002; Klein & Ettensoe, 1999), and finally on hybrid products (Funk et al., 2010). For example, in a recent study

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reports of the ongoing conflicts in Iraq and Afghanistan have incited anti-American and anti-European sentiments overseas to the point of provoking a rejection of American or European brands (Tabassi et al., 2012).

Consumer ethnocentrism (CET) is also a part of the attitude that consumers hold towards products made in a foreign country. According to Shimp and Sharma (1987) consumers who hold strong ethnocentric beliefs are more likely to evaluate foreign products negatively than are those who do not hold such beliefs. Consequently, due to patriotic reasons, they avoid buying foreign products even though the quality of the foreign supplier is superior. As noted in previous research, consumer ethnocentrism is positively related but distinct from consumer animosity. According to Shankarmahesh (2006) consumer ethnocentrism, or “the beliefs held by ... consumers about the appropriateness, indeed morality, of purchasing foreign-made products”, is a good predictor of a preference for domestic products but it cannot adequately explain foreign product purchase decisions. Moreover, it is noted that consumer ethnocentrism contributes to a consumer's propensity to avoid buying foreign products in general, while animosity is directed towards a specific country (Klein & Ettensoe, 1999).

Recently, China has made a declaration on the ownership of the East Sea, also known as South China Sea called by the Chinese government (Vietnamnet, 2014)*. The debate controversy, has provoked Vietnamese consumers' hatred for China (BBC, 2015). In Vietnam in early 2014, there were a series of anti-China protests. These were followed by unrest and riots across Vietnam in May 2014 in response to China deploying an oil rig in a disputed region of the South China Sea. In addition, some of Chinese products can create a negative effect on people's health. Like using melamine on food, unhealthy Chinese traditional medicine, and meat from dead animals can create unhealthy conditions (vnexpress, 2015)†. As a consequence, Vietnamese consumers have negative attitudes toward “Made in China” products, and are reluctant to buy them (Phan, 2014)‡. It can be seen that the disagreement over China's claims on the East Sea are the dominant source that intensify patriotic attitude and hostility toward China, thus resulting in the hesitation to purchase Chinese commodities.

Mentioned above, these emotional factors are called animosity and ethnocentrism, respectively, and have been adopted in earlier studies as a construct for predicting consumer behaviors in different circumstances (Klein et al., 1998; Ettenson and Klein, 2005; Shoham et al., 2006). However, in light of the current Vietnam-China situation illustrated above, this paper considers tensions arising from the East Sea sovereignty crisis as an opportunity to provide an original contribution to the consumer behavior and international marketing literature in a developing country context as Vietnam.

Moreover, although a large body of research on animosity and ethnocentrism has been conducted in many different contexts and countries, with different modifications, there remain various issues to be addressed in Vietnamese contexts. First of all, there are few papers on Vietnamese consumer behaviors toward purchasing Chinese merchandise and Vietnamese attitudes toward Chinese branded products. Secondly, due to the recent territory and unhealthy product affairs between Vietnam and China, there is an urgent demand to administer this study as it proves to be beneficial for researchers and industry practitioners. Thirdly, although literature recognizes that animosity and ethnocentrism can be interrelated (Klein et al., 1998), this is the first study that empirically investigates the role of animosity as an antecedent of consumers' ethnocentrism and provides a comprehensive framework aiming to clarify the interaction between the two constructs and their impact on the evaluation of foreign countries and products in emerging nation context. In doing so, the proposed research model also responds to calls by Shankarmahesh (2006) stating that “future research should investigate the merit of animosity as an antecedent of consumer ethnocentrism”. Finally, it is the first discussion that covers empirically the role of cultural acceptability on ethnocentrism and product judgment in an animosity model. For the above reasons, it is necessary to analyze consumers' behaviors and attitudes at this moment, when the two countries' connection has become more intense.

2. Literature review and theoretical background

2.1. The Consumer attitude toward foreign product studies

In examining the literature on consumer attitudes towards foreign products, two principal streams of research can be identified. One focuses on the impact of country of origin on consumer attitudes and specifically, its use as a cue in making inferences about or evaluating foreign products (Bilkey & Nes, 1982; Han, 1988; Johansson et al., 1985; Levin & Jasper, 1996; Papadopoulos et al., 1988). This often generated conflicting and ambiguous findings. The second stream looks at factors underlying attitudes towards foreign products, such as the impact of hostile attitudes towards a specific country, and the effect on purchase intent and ownership (Klein, 2002; Klein et al., 1998).

The stream of research examines consumer attitudes towards foreign or imported products and brands. This has typically emphasized negative attitudes towards foreign products in general, though a number of studies have examined attitudes towards specific countries, particularly large industrialized countries such as Germany, Japan and the UK. In some studies, attitudes towards foreign products are the dependent variable and the determinants

* Website: <http://vietnamnet.vn/vn/tuanvietnam/tq-lai-giang-bay-ve-chu-quyen-tren-bien-dong-157847.html>

† Website: <http://vnexpress.net/thuc-pham-doc-trung-quoc/topic-13618.html>

‡ Website: <http://dantri.com.vn/suc-manh-so/cang-thang-leo-thang-dien-thoi-trung-quoc-kho-song-tai-viet-nam-872401.htm>

of these attitudes are the primary research focus, while in other cases, attitudes towards foreign products are used as the independent variable, in understanding purchase behavior or intentions (Balabanis et al., 2001).

More recent research has focused on examining whether hostile attitudes towards a specific foreign country impact attitudes towards products from that country. Klein et al., (1998) for example, suggests that the influences on foreign product evaluations may be extremely complex. They may result from attitudes towards a given country and the history of relations with that country as well as the interaction of quality judgments based on country of origin, and attitudes towards foreign products in general. Klein et al., (1998) defines animosity as the remnants of antipathy related to previous or ongoing military, political, or economic events. They hypothesized that feelings of animosity towards a specific country, as distinct from consumer ethnocentrism, would affect consumers' willingness to purchase foreign products rather than their judgment or evaluation of these products.

This research was also the first to show that animosity affected the willingness to purchase separately from product quality judgments. The finding that animosity affected purchase decisions separately challenged the findings from previous country-of-origin (COO) literature (Riefler & Diamantopoulos, 2007). Previous COO literature had suggested that COO affects purchase decisions through product judgments (Bilkey & Nes, 1982; Liefeld, 1993). Therefore, consumer animosity may act as a direct independent variable instead of a moderating variable of product quality perceptions. This challenged the conventional wisdom in the country-of-origin literature, according to which "made in" influences on consumers' willingness to buy foreign products were assumed to impact on buying decisions indirectly via product judgments (Bilkey & Nes, 1982; Liefeld, 1993; Papadopoulos & Heslop, 2003; Peterson & Jolibert, 1995; Verlegh & Steenkamp, 1999). Importantly, consumer animosity was shown to have independent effects on the willingness to buy from consumer ethnocentrism which describes as the beliefs held by consumers about the appropriateness, indeed morality, of purchasing foreign-made products (Shimp & Sharma, 1987); indeed, animosity and ethnocentrism were shown to be distinct constructs (Klein & Ettenson, 1999; Hinck, 2005; Witkowski, 2000), having distinguishable effects on foreign product preferences. Thus, while ethnocentric consumers tend to avoid buying products from any foreign country, consumers possessing feelings of animosity may find it well acceptable to buy products from a variety of foreign countries but refuse to purchase products coming from one specific foreign country which is the target of animosity feelings.

Since Klein et al.'s (1998) study subsequent research has studied animosity in other contexts. Much of the research studied animosity in less extreme contexts (Shin, 2001; Klein, 2002) because the Nanjing massacre is such an extreme antecedent to the development of animosity. Also, Amine et al. (2005) reviewed animosity research with a focus on managerial implications instead of focusing on the conceptualization or measurement of the animosity construct. However, Riefler and Diamantopoulos (2007) categorize previous consumer animosity studies into three categories. The first group of research is the original papers that contributed to the theoretical foundation of the animosity construct. The second group of research consists of replications of the original animosity research provided by Klein et al. (1998) that sought to validate the behavioral impact of the consumer animosity construct. The third group of research focuses on extending the applicability of the animosity construct. For example, Hinck (2004) studied "domestic animosity", looking at the impact of inter-border tensions on buying behavior. Also, Shoham et al., (2006) studies inter-ethnic animosity between Jewish and Arab Israelis. These more recent studies that attempt to extend the animosity construct supports our suggestion of a need of a broader consumer animosity model.

2.2. Consumer animosity

The animosity concept in a marketing context was introduced by Klein et al. (1998) and has since been applied in a series of studies, most of which are reviewed in Riefler and Diamantopoulos (2007) and in Nes, Yelkur, and Silkset (2012). Most of the bi-national studies that followed the Klein et al. (1998) study built on one or both of their two animosity dimensions (war animosity and economic animosity). Nes et al., (2012a) expanded the animosity concept, and found that animosity is related to four dimensions: war animosity, economic animosity, political animosity, and people animosity. These studies illustrate that animosity toward specific foreign countries has an important role in a wide range of international business and global marketing strategies.

2.2.1. Sources of animosity

Rice & Wongtada, (2007) identified five sources of animosity mentioned in the literature: war, policy, economy, ecology, and social-cultural activities.

War animosity: Existing literature indicated that both historical warlike events and current military conflicts can generate animosity towards a country (Klein et al., 1998).

Policy animosity: Rice and Wongtada (2007) distinguished policy animosity from war animosity as it arises from hostility toward a country's foreign or domestic policies. These policies are implemented and enforced through non-military actions such as diplomatic and legal activity.

Economic animosity: According to Klein et al. (1998), economic animosity arises from a foreign country's economic acts that a consumer finds both grievous and difficult to forgive. Feelings of economic animosity

toward other countries might be based on anger against unfair economic affairs or on fear of being dominated (Rice and Wongtada, 2007).

Ecological animosity: Issues of ecological concern can result in anxiety and animosity among consumers towards alien races or foreign countries.

Social-cultural animosity: Consumers may experience negative emotions such as discontent, worry, and animosity when they feel their own cultures are threatened by invasion of foreign brands related to other cultures.

2.2.2. Extension of animosity sources in this study

In the original study, animosity was assessed on two levels – general animosity and war and economic animosity, using a set of attitude statements. This measurement method was principally adopted by subsequent studies in consumer animosity. Riefler and Diamantopoulos (2007) pointed out that war and economic based factors were presumed to be the standard sources of animosity widely accepted by fellow researchers. However, there is a concern that many possibly relevant sources of animosity were ignored. Taking this into account, they conducted an investigation of Austrian consumers' animosity towards foreign countries. US, Germany and Turkey were found to be the three target countries that Austrian consumers held animosity towards. Moving away from the standard war and economic based causes, this study revealed a number of sources of animosity aimed towards different countries.

The outstanding source of animosity towards the US is foreign policy and economic policy, for example, US was perceived as taking advantage of its economic power at the expense of other nations. This factor was followed by current issues and the rejection of the US President George Bush and his policy in Iraq. Other elements contributing towards the animosity were American mentality and way of life and the existence of the death penalty. In terms of animosity towards Germany, as expected, the occupation during World War 2 was significant. The German mentality, loss of Austrian identity and economic issues all contributed to the animosity towards Germany. Similarly, Turkish mentality, role of women and religion were the key issues associated with Turkey.

As mentioned above, Riefler and Diamantopoulos (2007) underlined the necessity to explore a wider range of sources of animosity and extended these sources into war-related, political, economic and personal factors. Although economic and war related issues play an important role as drivers of animosity, there are further sources that have considerable impact on consumers' negative feelings towards foreign countries. Based on exploratory research and Vietnam context we found that new source should consider in our research: territory conflict and health issue. At the heart of the tension between China and Vietnam is an ongoing territorial conflict over the Paracel and Spratly Islands in the East Sea in recent time. This tension has sparked Vietnamese consumer animosity toward China and protest movement to oppose strongly china's aggression in terms of East Sea. In addition, Consumers may experience worry and animosity when they feel their health and community are threatened by invasion of Chinese product contains many harmful chemicals. Issues of unhealthy product concern can result in anxiety and animosity among Vietnamese consumers towards China country.

2.3. Consumer ethnocentrism

Ethnocentrism is seen a component of attitude that is strongly affiliated with social and interracial factors. This part will review prior research on the construct of consumer ethnocentrism and the measurement issues. In addition, the relationship between consumer ethnocentrism and animosity are analyzed.

Shimp and Sharma (1987) defined consumer ethnocentrism as the beliefs held by consumers about the propriety and morality of purchasing foreign products. It has been further stated that people who are consumer ethnocentric tend to distinguish products from the in-group (home country) and from out-groups (foreign countries) and to shun the purchase of foreign products because they feel that doing so is inappropriate, unpatriotic, and possibly even immoral because it hurts their domestic economy. As such, highly ethnocentric consumers are more likely to rate foreign products' quality negatively and be willing to purchase domestic products (Shimp and Sharma, 1987). The magnitude of consumer ethnocentrism is measured by the CETSCALE (Consumer Ethnocentric Tendencies Scale), which has been developed and validated by Shimp and Sharma (1987).

Relationship between consumer ethnocentrism and animosity

Klein and Ettenson (1999) indicated that consumer ethnocentrism and consumer animosity may be positively correlated. Both can stem from economic and political events and both provide insight into consumers' attitudes towards foreign products. Empirical evidence also suggests that both animosity and consumer ethnocentrism negatively predict purchase intentions. However, animosity is a distinct construct from consumer ethnocentrism in that they play different roles in affecting buying behavior (Klein et al., 1998). More in detail, the animosity is directed toward a particular target country while consumer ethnocentrism concerns beliefs regarding foreign products in general (Klein, 2002). For instance, Chinese consumers have shown a tendency to avoid foreign products in preference for domestic products due to increasing consumer ethnocentrism and improving domestic

products (Zhou & Hui, 2003). However, consumer ethnocentrism cannot explain the refusal of Japanese products, which has been triggered by anti-Japanese sentiment rife in China.

Studies also showed that consumer ethnocentrism and animosity have differing influence on consumers' evaluations of foreign products. Researchers have consistently found that consumer ethnocentrism is significantly related to both product judgments and purchase intentions (Netemeyer et al., 1991; Shimp and Sharma, 1987). Those who believe it is wrong or immoral to purchase foreign products also tend to hold negative attitudes of the quality of those goods. In contrast, the effects of animosity on buying may or may not be associated with quality judgments of the target country's products. For example, consumers who harbor economic animosity towards Japan are likely to rate the quality of Japanese products positively while those who hold war-related animosity might denigrate Japanese products.

2.4. Cultural acceptability

Individuals in a society have different experiences and attitudes toward the value and norms of cultures different to their own. If members of a culture have opportunities to be exposed to individuals belonging to other cultures, their prejudice against the difference of their own culture from others tends to be lessened (Sharma et al., 1995). This characteristic reflects their cultural acceptability, which refers to the degree of awareness, understanding, and acceptance of the values of other cultures (Craig & Douglas, 2005)

Previous research has shown that consumers in the emerging world are willing to participate in, and be perceived as, members of the global consumer community (Venkatesh and Swamy, 1994; Batra et al., 2000). Nguyen et al., (2008) shows that cultural acceptability has a positive impact on imported product judgment. This implies that consumers with a high level of cultural acceptability tend to evaluate imported products more highly. Therefore, foreign exporters should convey to Vietnamese consumers that acceptability to foreign cultures is a means to become members of the global community.

2.5. Judgment of product

Another core aspect of the animosity concept to be questioned is, whether animosity affects purchase intention independent of product judgement. Klein et al. (1998), Klein and Ettenson (1999) and Klein (2002) established that animosity will affect willingness to buy, independent of product judgment. This means that consumers will be unwilling to buy products from a country that they hold animosity against, while acknowledging their products have good quality. It is one of the key distinctions between consumer animosity and consumer ethnocentrism. This was the generally accepted notion and shown to be true in a number of different countries. However, this key argument has been challenged in some recent studies.

Leong et al., (2008) carried out an animosity study in five countries: Indonesia, South Korea, Malaysia, Singapore and Thailand, where were all severely damaged by the 1997 Asian economic crisis. U.S. and Japan were considered to be responsible for this crisis and four of these countries were invaded by Japan during World War 2. The results of this study suggest that animosity negatively affects consumers' willingness to buy U.S. and Japanese products. However, it also revealed animosity negatively affected the consumers' evaluation of U.S. and Japanese products. This contradicts the previous findings that animosity affects purchase intention independent of product judgment, which was the foundation of consumer animosity theory. Maher and Mady (2010) concluded that animosity does not lead to less favorable product judgment but is associated with less willingness to buy products from a target country. It means that product judgment was not completely un-related to purchase intentions. This was further supported by Huang et al. (2010), who examined how consumer animosity, economic hardship and normative influence affect consumers' purchase intention. It tested Taiwanese consumers' attitudes towards Japanese and Chinese products. The results confirmed animosity influenced both Taiwanese consumers' purchase intention and product evaluation on Japanese and Chinese products. There is no doubt that the notion that animosity affects purchase intention independent of product judgment has been effectively challenged. Further clarifications on this fundamental issue of consumer animosity theory are urgently needed to address the contradictions. This indicates consumer animosity is a much more complex issue than originally anticipated.

2.6. Reluctance to buy

This study adopts reluctance of buying foreign products, defined as perceived guiltiness and tendency to avoidance in buying foreign-made product (Suh & Kwon, 2002). The framework would be quite meaningful and challenging because, until now, there is not much research addressing factors determining consumers' reluctance to buy a foreign product. This reluctance to buy construct is selected instead of "willing to buy" in order to clearly show influence of animosity on Vietnamese consumer behavior intention. It may take a more specific research setting with a specific product as attitude target to explain the positive change in a proactive buying behavior (i.e. willing to buy foreign products). A decrease in a passive behavior (i.e. reluctance to buy foreign products), on the other hand, is relatively easy to be induced when a particular product name is not mentioned. This is suitable with this research which applies for general products (Suh & Kwon, 2002).

First of all, previous research has examined a network of relationships involving consumer ethnocentrism and various product attitude measures (Durvasula et al., 1997; Netemeyer 1991, Shimp and Sharma, 1987). Since consumer ethnocentrism has been known as one of the antecedents strongly influencing attitude measures of foreign products including general product beliefs and willingness to buy, we accordingly predict that the construct will significantly affect reluctance to buy foreign products, but positively in this case. Particularly for the effect on reluctance to buy, the magnitude might be stronger because the dependent variable (reluctance) is rather a passive form of attitude, which is relatively easier to be influenced and changed than a proactive attitude (e.g. willingness) (Suh & Kwon, 2002). In sum, consumer ethnocentrism is proposed to influence general product beliefs and reluctance in buying decisions of foreign products. Hypothesized path from consumer ethnocentrism to general product beliefs, here named as product judgment, is supported by previous results. On the other hand, although there is no evidence of literature support, the hypothesized path to reluctance to buy foreign products seems less doubtful in terms of the significance for the reason discussed above.

2.7. Hypotheses development and research model

Hypotheses development

Scholarly literature on ethnocentrism and animosity argues both concepts as antecedents of purchase intention of foreign and domestic products (Javalgi et al., 2005; Maher and Mady, 2010). Therefore, we argue that understanding the interactions between animosity, ethnocentrism and cultural acceptability and their combined effect(s) are critical to understanding the purchase behavior of consumers towards foreign products in a progressive developing country like Vietnam. In this study, we consider the influence of five constructs on Vietnamese consumers: animosity, ethnocentrism, cultural acceptability, product judgment, and reluctance to buy foreign product. The framework used in this research is given in Figure 1.

Relationship between animosity and product judgment, consumer ethnocentrism and reluctance to buy

Consumer animosity is an essential construct that was taken into consideration in measurement and prediction of consumer behaviors in numerous previous researches (Klein et al., 1998; Nijssen and Douglas, 2004; Riefler and Diamantopoulos, 2007). As our review of the academic literatures, most of them adopted Klein's prevalent definition of Animosity (1998, p.90), which is: "the remnant of antipathy related to previous ongoing political, military, economic or diplomatic events will cause a direct negative effect on consumers' purchase behavior in the international markets". Alternatively, another definition shows that animosity is a strong emotion of dislike and hatred stemming from past or present military, political or economic aggression and actions either between nations or peoples that are perceived to be unjustifiable or as going against what is socially acceptable (Abraham, 2013)

Two scholars' definitions on animosity are considerably alike regarding to the primary meanings. Hence, animosity can be understood as people negative sentiments toward a country due to its aggressive manners in various aspects. Animosity consists of two main categories in accordance with the inducements. They are war animosity, which is the reaction to war provocative and impetuous activities, and economic animosity, which is likely to result from trade disagreement or economic dominance from another stronger country (Klein et al., 1998; Hinck et al., 2004). Notwithstanding that Russell & Russell (2006) have placed special emphasis on the restriction of animosity definition to the past crucial occurrences; progressing incidents can actually trigger animosity (Tabassi et al., 2012). Past researches on Country-of-Origin reported that consumers focused on the provenance of the products as an instrument to evaluate that product. In consumers' perception, reputation of the country's name could be much more reliable than impartial information on characteristic (Hong & Wyer, 1990). Furthermore, two psychological theories mentioned in previous sections should be examined. While Social Identity Theory indicates that people would support their in-group and be favorable of it to any other "out-group", Realistic Group Conflict Theory anticipates the fear of sufferings and losses caused by an out-group creating negative bias toward these aliens, and apparently prejudices is dominant in consumers' appraisal of their item rather than objective assessment (Sherif & Sherif, 1979). Likewise, the homogenous hostility results in the reluctance and rejection to redeem product from infiltrating nations (Nijssen and Douglas, 2004). In consequence, animosity toward the foreign counterparts negatively influences product judgment and reluctance to buy products from that country (Ettenson and Klein, 2005; Shoham et al., 2006; Verlegh, 2007). Although Klein denied the negative effect of animosity on quality judgment (Klein et al., 1998; Klein, 2002), Shoham et al. (2006) found that this relationship exists.

In addition, animosity and consumer ethnocentrism are unique constructs and contain several differences. The essential point to mention is the context in which these constructs can be applied. While Ethnocentrism can be applied in all country and culture, Animosity is context- specific (Klein et al., 1998; Abraham, 2013). However, both constructs are relevant in Vietnam context, not only because of the patriotism that has long manifested in the Vietnamese, but also owing to Chinese government's unreasonable action that aroused hostility amongst the people. Through the review of earlier papers, this study figures out the inconsistent hypothesis and findings among different researches and scholars. The majority the animosity studies stated out that animosity would increase the level of ethnocentrism (Klein et al., 1998; Nijssen and Douglass, 2004).

LeVine & Campbell (1972) said that the aggressive behaviors from another country would lead to negative attitude to objects related to that country, hence reinforcing ethnocentrism. Shankarmahesh (2006) also pointed out this relationship as “animosity might be generalized to consumer ethnocentrism. The concepts of ethnocentrism and animosity are variables associated with the origin of a product. They have been introduced into marketing literature from others disciplines such as psychology and sociology (Balabanis et al., 2002). Marketing literature describes animosity and ethnocentrism as concepts that imply psychological and behavioural reactions to specific countries of origin (Nijssen & Douglas, 2004). We could describe ethnocentrism as a link between social and moral norms and consumer behaviour, while animosity is a variable that emphasizes a consumer’s emotional attachment to the geographic origin of a product. Ethnocentric consumers believe that buying foreign products hurts the domestic economy and national employment (Balabanis et al., 2002; Shimp & Sharma, 1987). Animosity refers to remnants of antipathy, or hostility towards a country (Klein et al., 1998; Riefler & Diamantopoulos, 2007). This emotion can act as a protective instinct and increase in-group solidarity, domestic defensive behaviours and ethnocentrism (Nijssen & Douglas, 2004). Researchers have laid great stress on the need to study animosity as an antecedent of ethnocentrism, because they may be related (Klein et al., 1998; Shankarmahesh, 2006). Thus, animosity is an important variable to consider when studying consumer evaluation of foreign products, especially if it can reinforce consumer ethnocentrism (Nijssen & Douglas, 2004).

Furthermore, an out-group’s warlike and hostile behavior will enhance feelings of ethnocentrism, and hence negative attitudes towards objects, people, ideas or products from the aggressor country. Consequently, consumer animosity will lead to reluctance, in some cases refusal to buy products from the aggressor country, as well as reinforcing consumer ethnocentrism.

Therefore, this research aims to examine whether the former hypotheses exist in Vietnamese context.

H1: Vietnamese Consumer Animosity to China negatively affects Chinese Product Judgment.

H2: Vietnamese Consumer Animosity to China positively affects to reluctance to buy Chinese product.

H3: Consumer Animosity to China positively affects Consumer Ethnocentrism.

Relationship between ethnocentrism and product judgment, reluctance to buy

Another distinct construct applies in this paper is Consumer Ethnocentrism, which has been presented widely in multiple marketing papers (Shimp and Sharma, 1987; Klein et al., 1998; Pecotich & Rosenthal, 2001; Balabanis & Diamantopoulos, 2004). It is defined in psychological as well as in consumer behavioral method. An original definition of ethnocentrism is “the view of things in which one’s own group is the center of everything, and all others are scaled and rated with reference to it” (Sumner, 1906). According to Shimp & Sharma (1987), ethnocentrism is defined with respect to consumer viewpoint, being “a belief held by consumers on the appropriateness and indeed morality of purchasing foreign-made products”. Implication can be made that consumers would favor any cultures that are analogous to their own, whereas reject any that is conflicting to their own culture (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950).

Upon our review of previous academic literatures, in ethnocentric consumers’ perspective, buying products manufactured in other countries causes harms to their own economy, and increase unemployment rate. Hence, they boycott these oversea products regardless of various advantageous features of such products (Shimp and Sharma, 1987; Sharma et al., 1995). Ethnocentrism is constantly a vital actor in consumer’s assessment, albeit the unavailability in domestic substitution (Nijssen and Douglas, 2004). Further, Sharma et al. (1995) found out and documented in their studies a belief of ethnocentric consumers that the redemption of exotic commodity involves with morality. Therefore, the construct carries the intention not to purchase such objects. Consequently, the construct has a negative causal relationship with consumers’ behaviors on the purchase intention and evaluation of foreign products, which is identical to the reflection of the CETSCALE score (Olsen et al., 1993; Marcoux et al., 1997; Shoham and Brenic, 2003). Furthermore, previous studies using the CETSCALE to measure consumer ethnocentrism (Netemeyer, Durvasula, & Lichtenstein, 1991; Shimp & Sharma, 1987) have found that high scores on the CETSCALE are related to negative evaluations of foreign products and reluctance to purchase them. Therefore, these mentioned above is a solid theoretical foundation for two next hypotheses:

H4: Consumer Ethnocentrism negatively affects Chinese Product Judgment.

H5: Consumer Ethnocentrism positively affects reluctance to buy Chinese products.

Cultural acceptability and ethnocentrism, product judgment

Consumers with high levels of cultural acceptability are likely to accept the differences between their own cultures and other cultures. They are willing to learn from, enjoy being with, and are less threatened by people from other cultures (Loo & Shiomi, 1999). Accordingly, consumers with a high degree of cultural acceptability tend to evaluate imported products more favorable than those with a low degree of cultural acceptability.

In fact, cultural acceptability reflects the degree of awareness, understanding, and acceptance of the values of other cultures (Craig & Douglas, 2005). This implies that consumers with a high level of cultural acceptability tend to evaluate imported products more highly.

Meanwhile people who are consumer ethnocentric tend to distinguish products from the in-group with positive view (home country) and from out-groups with negative view (foreign countries). Therefore, consumer with a high level of cultural acceptability would decrease their ethnocentric toward to domestic product. For

more detail, in this research when Vietnamese people with a high level of cultural acceptability tend to decrease their ethnocentric toward domestic product. In other words, their attitude toward evaluation Chinese products more positively than others who have low level of cultural acceptability

Research also shows that, when consumers accept the difference in cultures and appreciate the values of other cultures, their degree of ethnocentric behavior is likely to decrease (e.g., Sharma et al., 1993). Therefore,

H6: A positive relationship between cultural acceptability and product Judgment is expected.

H7: A negative relationship between cultural acceptability and consumer ethnocentrism is expected.

Product Judgment and reluctance to buy Chinese product

Product judgment regards to the attitude of consumers toward specific objects or products (Rezvani et al., 2012). When products are taken into account, the evaluation is influenced by both cognitive and affective perspectives. However, emotions often prevail over reasons and logics when it comes to purchasing behaviors. In other word, consumers' sentiments influence buying decision more significantly as emotions could lead to both mental and behavioral responses (Hansen, 2005). Animosity could result in foreign product underestimation as mentioned (Ettenson and Klein, 2005; Shoham et al., 2006). Purchase intention has received special attention in recent marketing studies. The simplest definition of "what we think we will buy" is from the paper by Park (2002). Purchase intention can also be defined as the "the decision to act or psychological action that shows the individual's behaviors according to the products" (Wang and Yang, 2008). Furthermore, purchase intention and attitude are not alike in that attitude is the evaluation of products while intention is the process of self-motivation to perform the purchasing action of individual (Ramadania et al., 2014). Ramadania et al. (2014) has mentioned the essential relationship between product judgment, through consumer attitudes, and purchasing behaviors. If judgment has not had such vital role in the final step of purchasing and owning the product, marketers and scholars would not pay intensive attention to it (Javalgy et al., 2005). In spite of Fishbein et al.'s declaration that the attitude toward merchandise does not strongly affect the behavior to purchase them (Fishbein and Aizen., 1975), other researchers have proven the positive relationship, especially with foreign products (Javalgy et al., 2005). Mowen and Minor (2002) stated that the actual behavior consists of all other behavior "to own, use and dispense" the products (Ramadania et al., 2014). Therefore, spiritual influences such as judgment and feelings are assumed to affect purchase intention (also referred to as "willingness to buy" or "reluctance to buy" as well as the behavior intention to use and dispense a product. Previous researches on Animosity and Ethnocentrism has also established the relationship of the factors and Purchase intention (reluctance to buy), in which Product judgment play a role of a mediator (Huang et al., 2010; Nguyen et al., 2008; Klein et al., 1998). From the result of these studies, it is reasonable to propose the last hypothesis:

H8: Chinese Product Judgment negatively affects reluctance to buy Chinese Product
Reluctance to buy and Chinese product ownership

These hypotheses focus on Vietnamese consumers' attitudes toward buying Chinese products and their behavioral intentions (i.e., reluctance to buy). To assess nomological validity, we also include in the model measures of actual ownership of products from the target country (China). Therefore,

H9: reluctance to buy will be a significant predictor of ownership of products from the target country (China).

Animosity construct and its antecedents

Animosity can also be directed by sources of animosity. This indicated and suggested by Riefler & Diamantopoulos (2007). At a national or macro level, animosity towards a country is based on perceptions of how well that foreign country has treated the home country. At a personal or micro level, animosity can be based on negative personal experiences one has with the foreign country or with people from that country.

Furthermore, according to Riefler & Diamantopoulos (2007), the very nature of the animosity construct is such that it cannot be operationalized on a "general" or "generic" scale but has to be adapted to the underlying reasons of tensions between the specific countries concerned. In this context, it appears the more surprising that the majority of subsequent animosity studies adopt Klein et al.'s (1998) measures with minor adaptations as if they were of a general nature. These adaptations essentially involve the change of the event of reference for war-animosity measures and the swap of the target country's name for economic animosity measures. This is nothing short of a "universal" use of a context-specific scale. The appropriateness of this approach is highly doubtful since there is no obvious reason for which it can be taken as granted that: (1) the same bilateral economic issues causing dispute are present for any two countries; and (2) the same number of war-animosity items are applicable across studies.

Therefore, in the present study, we take a different approach for appreciating of the situation of Vietnam context. The measurement of animosity construct in this research was considered as a latent variable according to suggestion's Riefler & Diamantopoulos (2007). This approach will operationalize the animosity construct goes a long way towards overcoming the measurement problems of extant research identified in previous studies. Thus,

H10a: *There is a positive relationship between war experience to overall animosity*

H10b: *There is a positive relationship between economic impact to overall animosity*

H10c: *There is a positive relationship between territory conflict to overall animosity*

H10d: There is a positive relationship between health issue to overall animosity

Dissimilarity between reluctance and willingness

According to Suh & Kwon (2002), reluctance to buy foreign products, defined here as perceived guiltiness and tendency to avoid buying foreign-made products, is the core construct in our model because a less ethnocentric consumer may be characterized as less reluctant in buying foreign-made products rather than as more willing in buying foreign-made products. One, however, might raise a question that reluctance and willingness are theoretically and statistically convergent. This study argues “reluctance” to buy foreign products to be a distinctive construct from “willingness” to buy foreign products, particularly when they are measured in the general product level of a country. Yet, since the construct has never been previously used, it may be important to justify “reluctance” as a construct distinct from “willingness”, a seemingly related construct previously used in research.

The justification for separating these two constructs can be argued both theoretically and statistically. First, theoretically, if “reluctance” is a different construct than “willingness”, it should be possible for a consumer to be both reluctant and willing, or neither reluctant nor willing to buy the same object. While it is not unrealistic to assume these scenarios, a consumer may have experienced a moment of conflict when he or she not only wanted to buy a foreign product, but also had a reluctant or guilty feeling in doing so. And, in a different situation, consumers can be neither willing nor reluctant in buying foreign products if they think that it is somewhat unlikely for them to buy a particular foreign product and that the very producing country is not perceived as a competitor of their own country. Second, statistically, “reluctance to buy is not a reversed form of “willingness to buy”. For instance, it has been reported that reliability coefficient among measure items tends to be consistently lower when negatively worded or reverse worded items (e.g. “reluctance to buy”) are combined with the positively worded items (e.g. “willingness to buy”) than when only positively worded items are used (Parasuraman et al., 1991). If the two groups of items are theoretically significantly distinguishable, they should be treated separately because each group of items might explain a different construct. Although the non-homogeneity problem in a measure is often created by measurement artifact, this study argues that the expected two-dimension structure reflects the reality.

The assumption of use of “reluctance” to buy foreign products in our model is that the construct makes a different dimension than “willingness” to buy foreign products, since, in some contexts; buyers’ willingness to buy a foreign product is not so highly correlated with their reluctance to buy the same product. Therefore, we hypothesize that, particularly in assessing attitudes toward foreign products at a general level, reluctance to buy foreign products has a heterogeneous structure differentiated from willingness to buy foreign products. We, using a covariance structure modeling, will show that the reluctance is not statistically synonymous with willingness in a buying situation. Thus,

H11: The construct, reluctance to buy foreign products, will be statistically distinctive from willingness to buy foreign products.

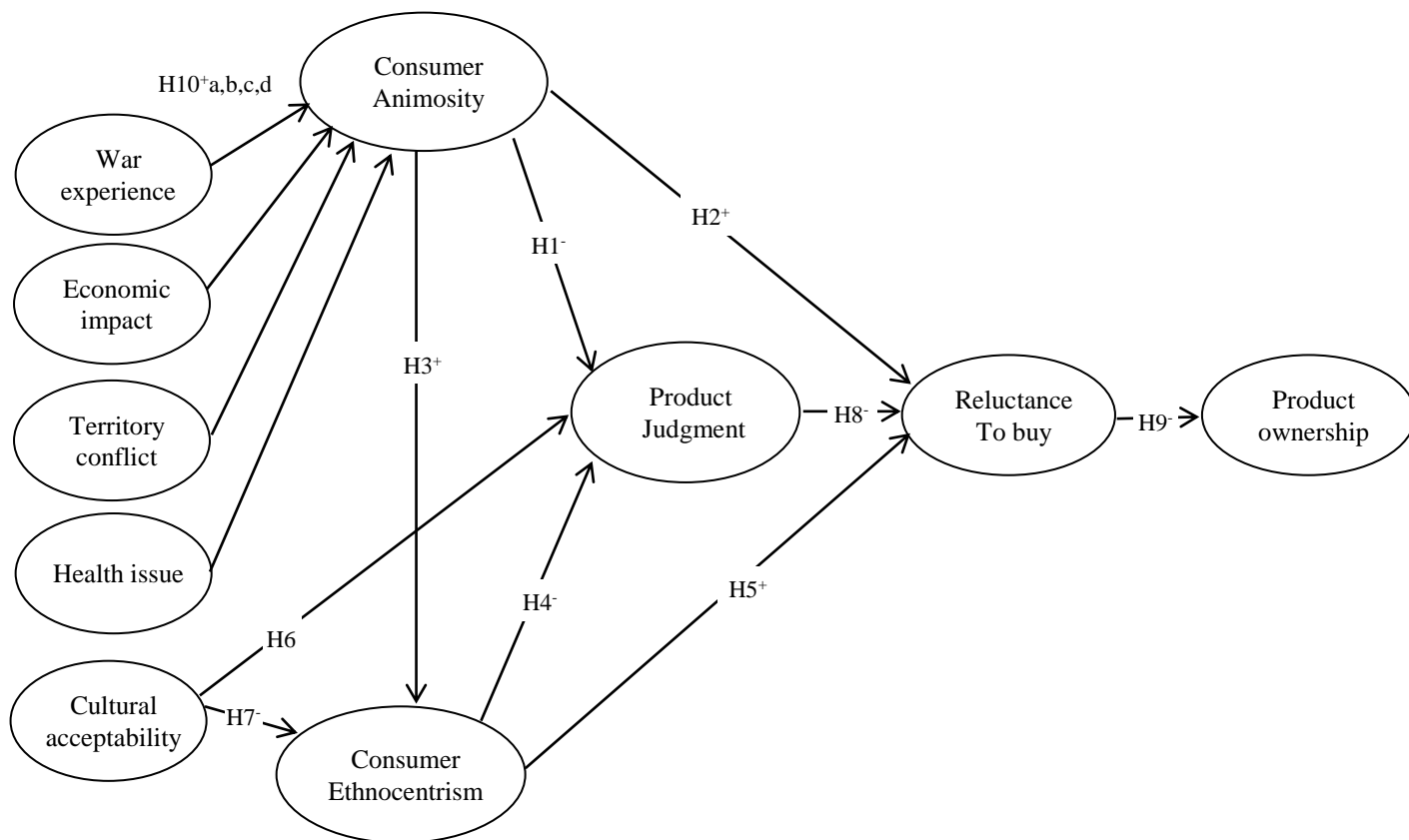


Fig. 2. Conceptual model

3. Methodology

The research comprised two phases, a pilot study and a main survey, and was conducted in (1) Ho Chi Minh City, principal business center of Vietnam; (2) Da Nang city, principal business center of middle Viet Nam; and (3) Da Lat city, the small city located in highland central area. The pilot study was undertaken in two stages: qualitative and quantitative. Focus Group Interview with 8 people (6 students and 2 lecturers) was used in the qualitative phase to explore the sources of animosity and test understandable ability items which translated from original scale adopted previous researches. Then, there were 8 consumers were recruited by an interviewer using a screening questionnaire. A quantitative pilot survey was then undertaken with a convenience sample of 130 consumers. These pilot studies were used to modify and refine the scale items.

The main study was conducted using convenient sampling. The control characteristics were gender, age, education, living area, and income. Interviewers distributed the questionnaire to respondents with instructions of how to complete the questionnaire. In order to minimize possible response bias, instructions also emphasized that the study only focused on the respondents' personal opinions. There were no right or wrong answers. After completing the questionnaire, interviewers were responsible for checking and collecting it. The purpose of the main study was to assess the scales and test the models.

3.1. Population and Sample

The target population for the present research was Vietnamese young consumers in some big and small cities of Viet Nam. As mentioned, the sample was collected by two ways: (1) paper-self survey and (2) online survey* that was formed by author with supported from Google drive. In this study, the researcher made efforts to obtain the relatively large absolute numbers of respondents so the research attempted to carefully match the sample to population demographic characteristics.

* Link of online survey: <https://docs.google.com/forms/d/1HDwiMvL8CVywZCd4YS2gQ72sb24J6mcK-eyZ7bPY4RY/edit>

3.2. Questionnaire development

Among the questions asked were scales for war experience, economic impact, territory conflict, health issue, general animosity, consumer ethnocentrism, cultural acceptability, product judgment, reluctance to buy Chinese product, willing to buy Vietnamese product, and demographics. Eight of ten constructs proposed in the model were measured using preexisting scales drawn from prior studies. The use of established scales from the extant literature leads to a higher level of confidence in the reliability and validity of the measurements in this study. However, two constructs: territory and health issue were developed in discuss group based on Vietnam context. The initial questionnaires were translated into Vietnamese and then back-translated into English to ensure the correct meaning and cross-cultural equivalence of the measures. The revised Vietnamese version of the questionnaire was pre-tested on consumers and items were further refined. A 7-point rating scale was used in the questionnaire with 1 = strongly disagree and 7 = strongly agree.

3.3. Pretesting

Pretesting is a necessary step to ensure face and content validity of the instrument in the process of developing a questionnaire. It is especially useful when researchers in a cross-cultural survey environment need to identify problems in the translated scales or other concepts that may be associated with the target population. At the end of September 2016, a total of 130 pretest surveys were collected from a non-probability sample of Vietnamese consumers through an online survey and a paper questionnaire survey. The questionnaire was composed of three parts. Part 1 inquired about Chinese products owned which was categorized into 7 different categories including cars/trucks, motorbikes, computers/laptops, smartphones/tablets, fashion, household appliances and foods. Part 2 included a total of 39 items about information in ten areas: general animosity, war experience, economic impact, territory conflict, health issue, ethnocentrism, cultural acceptability, product judgment, reluctance to buy foreign product, and willingness to buy Vietnamese products. Part 3 examined about demographics. It took approximately 10 minutes to complete and included opportunities to discuss any difficulties in understanding or answering the questions. They were also asked to provide concrete suggestions to modify and improve the questionnaire.

As a result of the pretest, some adjustments were made to the questionnaire: The wording of items was revised to reflect the context of this study; five positive item wordings were turned into negative ones; and the survey instructions were modified in order to reduce ambiguity. Cronbach's alpha was also analyzed for each scale, and 2 items contributing to low reliability were dropped. This procedure resulted in a total of 36 individual items for the main constructs in this study (4 for cultural acceptability, 5 for product judgment, 3 for reluctance to buy Chinese products, 6 for ethnocentrism, 3 for general animosity, 3 for war experience, 5 for economic impact, 3 for territory conflict, and 4 for health issue). In addition, we also added 3 items for willingness to buy Vietnamese products.

4. Data analysis and Results

4.1 Sample Characteristics

The original dataset consisted of sending surveys to a consumer panel of 800 consumers through the internet and paper administrated, with an expected goal of obtaining at least 60 percent full participation rate. A total of 549 consumers responded to the online survey and paper questionnaire administered. After eliminating 24 incomplete questionnaires, this study was able to include 525 (65.6 percent) participants for the actual data analysis

A summary of characteristics for demographic variables is presented in Table 4.1. Of the 525 individuals who provided gender information, males (50.3 percent, $n = 264$) were in almost equal proportion to females (49.7 percent, $n = 261$) in this study. In terms of respondents' age, approximately two-thirds of the respondents ($n = 492$) were under 30 years of age, 5.5 percent ($n = 29$) in the range of 31 to 40 years, and 0.8 percent ($n = 4$) were over 41. The average age of the respondents was young, this indicated that this study main focus on young people.

Most respondents were students ($n = 486$) accounting for 92.9 percent of total respondents, while a small proportion of respondents (4.2 percent, $n = 22$) were below the bachelor's degree level and postgraduate's degree level (3.2 percent, $n=17$).

The majority of study subjects (76 percent, $n = 399$) reported a personal monthly income of less than 250 USD, while 16.2 percent ($n = 85$) received a monthly income between 250 - 500 USD, 7 percent ($n=37$) received a monthly income between 500 USD and 1000 USD and only 0.8 percent ($n = 4$) indicated that they earned higher 1000 USD per month.

Regarding living areas, 65 percent ($n=341$) of respondents were living in small cities while 23.8 percent ($n=125$) of respondents were living in big cities such as Ho Chi Minh, Ha Noi, Da Nang and 10.5 percent ($n=55$) were living in rural areas of Viet Nam. As a whole, this sample consisted of generally young, well-educated

Vietnamese consumers. These characteristics should be taken into careful consideration during the data analyzing process and discussion.

Table 4.1. description of sample

Characteristics	Frequency (n=525)	percent
Gender		
Male	264	50.3
Female	261	49.7
Age		
< 20	138	26.3
20-30	354	67.4
31-40	29	5.5
41-50	3	.6
> 50	1	.2
Education		
Less than college/college	22	4.2
Undergraduate	486	92.6
postgraduate	17	3.2
Monthly Income		
below 250usd	399	76.0
250-500usd	85	16.2
500-1000usd	37	7.0
>1000usd	4	.8
Living area		
small city	341	65.0
Big city	125	23.8
rural	55	10.5
oversea	4	.8

4.2. Non-response bias

In order to assess non-response bias, t-tests were employed to compare construct scores for all model variables from early respondents to those from late respondents. Following the suggestion of Compeau and Higgins (1995), the survey data was split into two sets based on the dates the responses were received. The early group contained 264 responses and the late group was comprised of 261 responses. T-tests were then conducted to compare differences between these two groups for the model variables. The result indicates that none of the study variables were found to be significantly different between the early and late respondents. Moreover, chi-square tests were also conducted to compare the demographic variables age, gender, living town, education, and income between these two groups. No significant differences were observed in demographic variables. Therefore, it can be assumed that response bias may not be problematic for this study.

4.3. Normality

Data normality is generally focused on the premise that data samples originate from one or more normally distributed populations. Since SEM procedures require normal distribution of data (Hatcher, 1994), the skewness and kurtosis tests were performed using SPSS 18 for Windows to scrutinize univariate normality for each of the variables in the model. DeCarlo (1997) suggests that a sample's skewness and kurtosis values should be within the range of -3 and 3. By applying the above criteria to the skewness and kurtosis coefficients for each of the observed variables, the results were within the +3 to -3 range for skewness and Kurtosis. Hence, these results provide clear evidence that scales data for the study are normally distributed with no outlying observations.

4.4 Measurement Assessment

Reliability Analysis

Reliability was done to test the degree to which the set of latent construct indicators are consistent in their measurements. The reliability of the variables was assessed by the Cronbach's Alpha and Item-total Correlation. The acceptable threshold for Cronbach's Alpha is 0.70, while constructs which are highly inter-correlated indicates that they are all measuring the same latent constructs. Results show that the Cronbach's alpha values ranged from 0.790 to 0.912, which is above the acceptable threshold of 0.70. Also, the Item-total correlation test

results are satisfactory.

Table 4.2. Cronbach’s Alpha of constructs

Construct	Items	Cronbach’s Alpha
Cultural acceptability	4	0.897
Product judgment	5	0.830
Reluctance to buy	3	0.805
Ethnocentrism	6	0.891
Animosity	3	0.912
War experience	3	0.881
Economic impact	5	0.856
Territory conflict	3	0.790
Health issue	4	0.903
Willing to buy Vietnam	3	0.815

Construct Validity Analysis

A confirmatory factor analysis was conducted to test the measurement model. All the model-fit indices exceeded their respective common acceptance levels suggested by previous research, thus demonstrating that the measurement model exhibited a fairly good fit with the data collected ($\chi^2 (558) = 1055.944$, $CMIN/df = 1.892$, $p = .000$; $GFI = .897$; $CFI = .954$; $TLI = .948$; $RMSEA = .041$).

This assesses what the construct (concept) or scale is, in fact, measuring. To construct validity, two checks have to be performed: the convergent validity and discriminant validity. Convergent validity was evaluated by examining composite reliability and average variance extracted (AVE) from the measures. Values for composite reliability are recommended to exceed 0.70 (Chin, Marcolin, & Newsted, 2003) and AVE values should be greater than the generally recognized cut-off value of 0.50 (Fornell & Larcker, 1981). All composite reliability and AVE values meet the recommended threshold values. Table 4.3 summarizes the results indicate that the AVE for each variable was obtained to check discriminant validity. As shown in Table 1, the square root of AVE for each construct is greater than the correlations between the constructs and all other constructs, indicating that these constructs have discriminant validity (Fornell & Larcker, 1981).

Table 4.3. Composite reliability, AVE and correlation of constructs values

	CR	AVE	1	2	3	4	5	6	7	8	9
1.economic	0.86	0.56	0.75								
2.judgment	0.83	0.50	-0.17	0.71							
3.reluctance to buy	0.81	0.58	0.27	-0.55	0.76						
4.cultural	0.90	0.69	-0.07	0.17	-0.03	0.83					
5.ethnocentrism	0.89	0.58	0.28	-0.20	0.36	-0.13	0.76				
6.animosity	0.92	0.78	0.37	-0.37	0.39	-0.17	0.27	0.89			
7.health	0.90	0.71	0.44	-0.26	0.31	0.01	0.25	0.34	0.84		
8.territory	0.81	0.60	0.46	-0.14	0.19	0.09	0.11	0.34	0.35	0.77	
9.war	0.89	0.73	0.57	-0.13	0.22	-0.14	0.36	0.46	0.36	0.32	0.85

Note: Diagonal elements are the square root of AVE; Off-diagonal elements are the correlations among constructs.

4.5 Structural Results: Hypothesis Testing

Structural equation model was used to test the hypotheses. The SEM results indicated that the model had an acceptable fit, $\chi^2 (607) = 1228.901$, $CMIN/df = 2.025$, $p = .000$; $GFI = .881$; $CFI = .943$; $TLI = .937$; $RMSEA = .044$

Table 4.4 presents the unstandardized structural paths; and Figure 4.1 presents the significant structural relationship among the research variables and the standardized path coefficients with their respective significance levels. For more detail, hypothesis H1 postulated that consumer animosity were likely to decrease perceived product judgment while (H2) increase reluctance to buy Chinese products. As shown in figure 3, a significantly negative path was found from “general animosity” to “product judgment” ($\beta_1 = -.33$, $p < .001$) and a significantly positive path was found from “general animosity” to “reluctance to buy” ($\beta_2 = .18$, $p < .001$). This

suggests that increased feelings of animosity will reduce consumers' perceptions of product quality and increased ability of reluctance to buy foreign products. Thus, both Hypotheses H1 and H2 were supported.

In terms of the relationship between consumer animosity and consumer ethnocentrism, hypothesis H3, which proposed that there is a positive relationship from animosity to ethnocentrism, was supported through ($\beta_3 = .26, p < .001$).

Hypothesis H4 and H5 proposed that consumer ethnocentrism has a negative effect on product judgment and a positive effect on reluctance to buy. The proposed relationships were supported by the results: product judgment ($\beta_4 = -.10, p < .05$) and reluctance to buy ($\beta_5 = .22, p < .001$). These suggest that high levels of ethnocentrism will decrease a consumer's product judgment while increasing the reluctance to buy foreign products.

Hypotheses H6 and H7 predicted that cultural acceptability would negatively effect consumer ethnocentrism and positively effect product judgment. $\beta_6 = -.09, p < .05$ and $\beta_7 = .09, p < .1$ indicate that both hypotheses were supported even though the standardized coefficients are not high but still has meaning for this research.

Hypothesis H8 shows the negative relationship between product judgment and reluctance to buy was strongly supported with $\beta_8 = -.47, p < .001$. This suggests that when customers perceive product quality is good, they would decrease their reluctance to buy Chinese products. On the other hand, when they evaluate that product quality is not good they would increase their reluctance to buy.

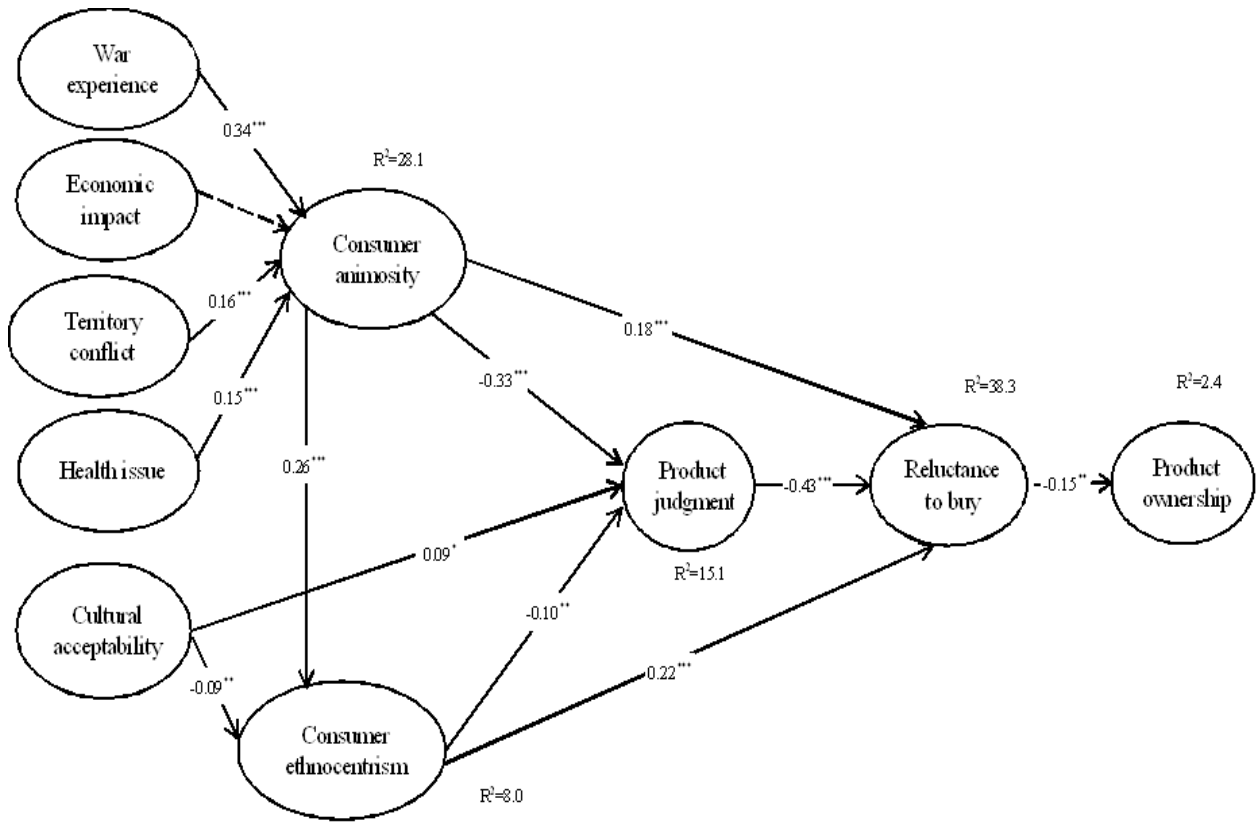
Hypotheses H9 was supported with $\beta_9 = -.15, p < .05$ at the statistical significant level of $p < 0.05$. This indicates that there is a negative relationship between reluctance to buy and product ownership. The reasons can be explained as young Vietnamese consumers trying to have the reluctance to buy Chinese products but in some cases they have no choice because they lack alternative products or they cannot overcome the cheap prices of Chinese products.

Last but not least, Hypotheses H10a, H10b, H10c, and H10d proposed that there are positive effects of war experience, economic impact, territory conflict, and health issues on general animosity. The result was supported for Hypotheses H10a ($\beta_{10a} = .34, p < .001$), H10c ($\beta_{10c} = .16, p < .001$) and H10d ($\beta_{10d} = .15, p < .001$). However, Hypothesis H10b was not supported which means that economic impact has no effect on general animosity

In addition, the squared multiple correlations indicate the proportion of variance of an endogenous latent variable that is explained by its exogenous latent variables. For example, 28.1 percent of the total variance in the general animosity variable is explained by its three predictors: war experience, territory conflict and health issue. The results of path coefficients indicated that the predicting factor of war experience explained more of the variance of general animosity than did the other two predictors: territory conflict and health issue. Likewise, 15.1 percent of the total variance in the product judgment factor is explained by its three predicting factors: general animosity, cultural acceptability and ethnocentrism. Moreover, because ethnocentrism, general animosity and product judgment were the three significant predictors for the latent variable reluctance to buy in the model, they explained 38.3 percent of the variance on consumer intentions reluctance to buy Chinese products

Table 4.4

Hypothesis	Construct	Regression estimate	S.E	C.R	P-value	Accept/reject
H10a	Animosity <--- war	.503	.082	6.2	***	Accept***
H10b	Animosity <--- economic	.064	.091	.71	.483	Reject
H10c	Animosity<--- territory	.434	.138	3.14	.002	Accept***
H10d	Animosity<--- health	.171	.056	3.08	.002	Accept***
H6	Ethnocentrism <---cultural	-.103	.052	-1.98	.048	Accept**
H3	Ethnocentrism<--- animosity	.248	.044	5.63	***	Accept***
H4	Judgment <--- ethnocentrism	-.062	.031	-1.98	.048	Accept**
H1	Judgment<--- animosity	-.198	.030	-6.55	***	Accept***
H7	judgment <---cultural	.065	.033	1.94	.052	Accept*
H8	Reluctance <---judgment	-.523	.068	-7.74	***	Accept***
H5	Reluctance ---ethnocentrism	.170	.036	4.73	***	Accept***
H2	Reluctance <---animosity	.127	.035	3.61	***	Accept***
H9	Ownership <---reluctance to buy	-.138	.063	-2.20	.028	Accept**



$\chi^2_{(679)} = 1228.901$, $CMIN/df = 2.025$, $p = .000$; $TLI = .937$; $GFI = .881$; $CFI = .943$; $RMSEA = .044$.

Figure 1: Results of research model

4.6. Test for dissimilarity between reluctance and willingness

The structural equation models to test the distinctiveness of two constructs: willingness to buy and reluctance to buy foreign products. With no violation of the multivariate normality assumption, the result showed that all model-fit indices exceeded their respective common acceptance levels suggested by previous research, thus demonstrating that the measurement model exhibited a fairly good fit with the data collected ($\chi^2 = 9.385$, $CMIN/df = 2.346$, $p = .052$; $GFI = .995$; $CFI = .989$; $TLI = .973$; $RMSEA = .042$).

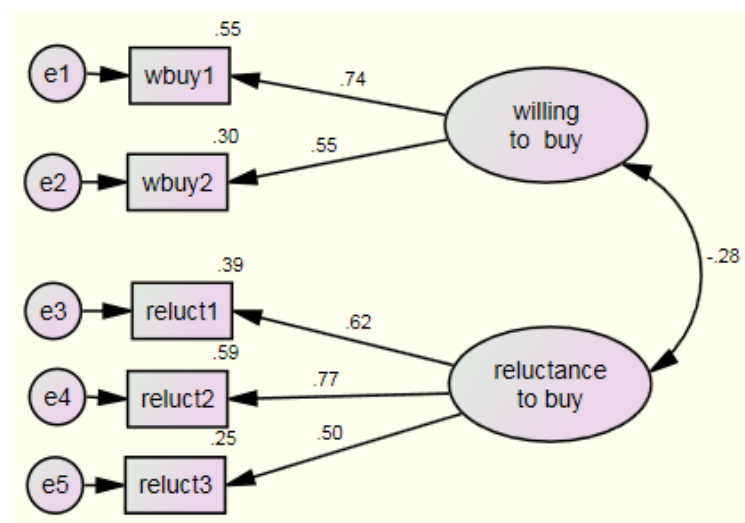


Fig. 3. Distinguishability between reluctance and willingness

As expected, the coefficient estimates between reluctance and willingness to buy foreign products were relatively low (-0.28), which suggests that the two constructs can be considered distinctively different.

Table 4.5. Correlations between the measure items (reluctance versus willingness)

	reluct1	reluct2	reluct3	wbuy1	wbuy2
reluct1	1				
reluct2	.475**	1			
reluct3	.330**	.376**	1		
wbuy1	-.084*	-.198**	-.073*	1	
wbuy2	-.110**	-.123**	-.042	.405**	1

** : Correlation is significant at the 0.01 level (2-tailed); * : Correlation is significant at the 0.05 level (2-tailed).

As shown in Table 4.5, another interesting finding here is the correlations between the five items also confirm the same result of the dissimilarity. For example, it was shown that there were higher correlations between the items within the “same” measures (greater than 0.3) and lower correlations between the “different” measures (i.e. between the reluctance item and the willingness item; all less than -0.198). This result verifies convergent validity between the items of each construct and discriminant validity between the constructs by the multitrait-multimethod approach (Campbell and Fiske, 1959).

4.7. Multi-group analysis

Multi-group analysis was used to analyze the moderating variable. A moderator effect implies that the moderator variable (relationship strength) modifies the form of the relationship (i.e. the slope of the regression line as represented by the regression coefficient) between the independent variable (A) and the dependent variable (B). The chi-squared differences were compared between the two groups (models). In one model, the path co-efficient was constrained to be equal across both groups and in the other, the path co-efficient was left to be unconstrained (unconstrained model). If the difference between the two models based on chi-square test is a significant difference, then the unconstrained model will be chosen. After that, each path in the model will be evaluated and tested again by using Z-score to find the exactly differences among the path coefficients.

The results of the analysis are shown shortly in Table 13 and Table 14. This reveals that significant differences were found between groups: living in a big city and living in a small city ($\Delta\chi = 126.792$, $\Delta df = 10$, $p < 0.000$). For details, the significant differences were found with respect to the following paths: war experience to animosity, health issue to animosity and product judgment to reluctance to buy Chinese products. Therefore, moderating effects exist in these paths.

Table 4.6. Chi-square of two models for living area

	Chi-square	df	p-val
Unconstrained	1542.547	730	
Partial constrained	1669.339	740	
Number of groups		2	
Difference	126.792	10	0.000

Table 4.7. The results of Moderating Effects Exist for living area

Paths	Big city		Small city		z-score
	Estimate	P	Estimate	P	
War → animosity	0.178	0.135	0.861	0.000	3.948***
Health → animosity	0.368	0.000	0.134	0.034	-1.908*
Judgment → reluctance	-0.249	0.010	-0.506	0.000	-2.077**

Notes: *** p-value < 0.01; ** p-value < 0.05; * p-value < 0.10

The rest of the demographic variables such as age, gender, monthly income and education level have no moderating effect on this research model. Therefore, the results were not shown here.

5. Discussion and implications

5.1. Discussion

The research found interestingly that the effects of consumer animosity and consumer ethnocentrism on product judgment were supported. Firstly, the negative impact of animosity on product judgment (H1) indicated an inconsistency with the findings of the initial Nanjing study of consumer animosity by Klein et al. (1998), which indicated that animosity was unrelated to an evaluation of product quality. However, this is not a surprising finding given that many studies reported mixed results with respect to the relationship between animosity and product judgment (Amine, 2008; Klein, 2002; Klein et al., 1998; Nes et al., 2012; Tian & Pasadeos, 2012). Several theoretical and empirical factors may be used to interpret the results concerning the relationship of animosity and product judgment. First, according to Festinger's (1957) cognitive dissonance theory, people are inclined to seek consistency in their attitudes and beliefs in any situation where certain cognitions are incongruous, even if that may lead to irrational kinds of actions. Therefore, the tendency toward harmony and consistency among those who harbor strong animosity toward China could result in Chinese product denigration and hence reluctance to buy Chinese products. Second, the perception of Chinese product quality may have decreased in the Vietnam market due to the entrance of well recognized global brands come from large countries like the United States, Japan, Germany, France and South Korea in comparison with Chinese low quality products and cheap prices. Therefore, the animosity and evaluations of product quality may come to affect one another more easily. Other alternative interpretations for this impact may also exist. Secondly, the negative influence of ethnocentrism on product judgment implies that consumers with strong ethnocentric attitudes are more likely to adversely evaluate Chinese products than those with less ethnocentric attitudes. This is also consistent with previous findings (Klein et al. 1998; Netemeyer et al., 1991; Shimp & Sharma, 1987). This indicates that both antipathy toward China and the feeling of Ethnocentrism affect the assessment of Chinese products. Two constructs affect differently, but both result in Chinese product underestimation. While animosity leads to the depreciation of objects related to its sources, ethnocentric consumers value domestic products much more than foreign countries' products.

Furthermore, it can be seen from the results that there were the positive impacts of animosity (H2) and ethnocentrism (H5) on the reluctance to buy Chinese products. This confirms that animosity towards a particular country (China), is an important variable to consider in relation to attitudes towards foreign products, especially insofar as it reinforces consumer ethnocentrism (H3). This finding is consistent with previous findings on the negative effects of consumer animosity (Klein, 2002; Klein et al., 1998).

Also noteworthy is the finding that animosity reinforces consumer ethnocentrism (H3). Even though the relationship between these two variables has hardly been studied, our findings support the idea that negative emotions, and particularly animosity, can enhance consumer ethnocentrism, strengthening the belief that purchasing foreign products is inappropriate or even morally wrong because it damages the domestic economy and is unpatriotic. Nijssen and Douglas (2004) have obtained similar findings from a study carried out in Holland, in which they report the significant influence of Dutch consumer animosity towards Germany on Dutch consumer ethnocentrism regarding automobiles and televisions.

For the role of cultural acceptability, the result shows that cultural acceptability plays a certain role in this study even though the level of its impact is not big. Previous researches have shown that consumers in the emerging world are willing to participate in, and be perceived as, members of the global consumer community (Venkatesh & Swamy, 1994; Batra et al., 2000). The findings of this study show that cultural acceptability has a positive impact on imported product judgment and a decrease in feelings of consumer ethnocentrism toward foreign products. This implies that consumers with a high level of cultural acceptability tend to evaluate imported products more highly and also their degree of ethnocentric behavior is likely to decrease. Therefore, foreign exporters should convey to Vietnamese consumers that sensitivity to foreign cultures is a means to become members of the global community.

In terms of the relationship between reluctance to buy Chinese products and Chinese product ownership, the result indicates that product ownership can be predicted by the reluctance to buy. Although, only a 2.4 percent variance of product ownership is explained by reluctance to buy, it still has a significant meaning in this research. Therefore, it can be explained that Vietnamese consumers' marketplace behavior (actual ownership of Chinese products) was predicted by attitudes toward buying Chinese products (reluctance to buy), which in turn was predicted by animosity toward China (Klein et al., 1998).

The other interesting finding in this study is that we endeavor to contribute to the development of the animosity theory in important areas. First, due to a shortage of exploratory research, we still have limited knowledge of the domain of the animosity construct. In all previous quantitative studies, the animosity targets, and thus the nature of the conflicts, are selected by the researchers. But this also implies that the domain of the animosity construct is predetermined, and it limits our understanding of the construct itself and the processes through which it influences consumer behavior. In our study we endeavor to explore the domain when the restriction of pre-selection of the animosity target is lifted. We found the domain of the concept is four

dimensions rather than two dimensions as applied in most of the previous studies (Klein, 2002; Klein et al., 1998; Ma et al., 2012; Nijssen & Douglas, 2004; Sohail & Opoku, 2016). By treating four constructs such as war, economic, territory and health issue separately, our study extended this finding. We demonstrated that general animosity mainly resulted from war experience, territory conflict and health issue but not from economic impact. In other words, in four dimensions which can impact general animosity, we found that three dimensions have a directly effect on general animosity such as: war experience, territory conflict, and health issue then impact indirectly on product judgment and reluctance to buy through general animosity, meanwhile economic impact does not have a positive influence on general animosity. Past research found that economic impact is a result of feelings of economic dominance or aggression (Klein et al. 1998). Results of the present study somewhat indicate that Vietnamese consumers appear not to be apprehensive about the China’s economic dominance. This is interesting because previous studies have suggested that people have negative attitudes toward products from a dominant country, resulting in a reluctance to buy products from such a country (Nijssen and Douglas 2004). Also of interest was that, for Vietnamese consumers, historical war-related factors were associated more closely with animosity toward China than were contemporary concerns (territory conflict and health issue), this is consistent with the previous study of Klein et al., (1998) when talking about feelings of Chinese people toward Japan.

The reason why Vietnamese consumer animosity is not affected by economic impact can be explained by China providing capital for infrastructure projects in recent years; also both Chinese and Vietnamese governments have been attempting to incite economic corporation between the two countries more and more. Furthermore, Vietnamese consumers have an obvious attraction and admiration for the economic development of China over the past few years and they think that they can learn from China’s success and apply their methods to their country’s developing process. Since Vietnamese consumers’ longstanding animosity toward China stems largely from past military events, the effect of animosity on product evaluations through general animosity may be stronger for warlike sentiments than for economic issues. Thus, the perceived public opinion on China’s economic dominance may not be as homogenous as it may appear in Viet Nam’s context. In short, this is an important finding because it shows not only the distinct effects of two basic dimensions: war experience and economic impact on evaluating, indirectly, the quality of product in Vietnamese markets but also indicates that there are other sources (territory conflict and health issue) that still impact product judgment through general animosity which has been lacking from previous studies. This result was consistent with the viewpoints of Riefler & Diamantopoulos (2007) who called for extending knowledge about the sources of animosity based on the different contexts of each country.

In terms of comparing the effect level of consumer animosity and consumer ethnocentrism on product judgment and reluctance to buy foreign products, the result found that consumer animosity played more vital role than ethnocentrism when evaluating foreign products, meanwhile for reluctance to buy foreign products, ethnocentrism is more important than animosity. However, this does not mean that ethnocentrism plays a more vital role than animosity on reluctance to buy because animosity has an indirect impact on reluctance to buy through product judgment. The total effects in Table 5.1 indicated that total effects of animosity on reluctance to buy Chinese products were bigger than those of ethnocentrism on the reluctance to buy Chinese products. This result shows clearly that the effect of Vietnamese consumer animosity toward China is quite high which would cause disadvantages for Chinese companies when they want to enter Vietnam’s market in a contemporary context.

Table 5.1. Direct and indirect effects of research model

		Direct effects	Indirect effects	Total effects
A	1.Animosity-->reluctance	0.176**		0.390*
	2.Animosity -->judgment-->reluctance		0.214**	
B	1.Ethnocentrism-->reluctance	0.223**		0.267*
	2.Ethnocentrism-->judgment--> reluctance		0.044*	

* p<0.05; ** p<0.01

Another contribution of this study can be seen where this study used “reluctance to buy” as a core variable rather than “willingness to buy”, we supported the assumption that reluctance to buy is a unique construct theoretically and statistically differentiated from willingness to buy. Even though these two concepts would be used in the same measure of willingness to buy (Ferrin et al., 2015; Klein et al., 1998; Ma et al., 2012), it has been recognized by researchers that reversed items in a measure may form a distinctive factor from other non-reserved items in the same measure (Parasuraman et al., 1991). The result of the research is consistent with the previous study of Suh & Kwon (2002)

Finally, the results of multi-group analysis show some interesting differences between big city citizens and small city citizens. Firstly, the impact of health issues on general animosity is significant in the big city sample meanwhile insignificant in the small city sample. This difference is interesting since urban people usually have a higher education and high income, they seem to be more sensitive to the quality of food because food is one of the factors directly affecting their health. Moreover, traditionally, people in rural areas are farmers, they are used to producing agricultural products for themselves, they rarely buy food items at the market. Secondly, the paths of war experience and general animosity, it is notable that war experience dimension impacts on general animosity of small cities is significant meanwhile this is insignificant in big cities. This difference is attributed to the fact that in the past most wars happened in small cities and caused serious effects on the life, as well as, the people in small cities. Therefore, small city people have bad memories as well as they hate wars that made children orphans, women widows and caused mothers to lose children. They hated the ones who caused wars and hardly felt the desire to forgive those countries. By contrast, city citizens, thanks to many cultural exchange opportunities and the globalization trend, tend to close the past and think of the beautiful and peaceful future; they are ready to shake hands with anyone who treasures friendship and solidarity. Therefore, the animosity of big city people about the war did not impact on general animosity, but it did in small city people. Thirdly, the path of product judgment and reluctance to buy Chinese products, against the backdrop above, it can be seen that small city people have stronger animosity than big city people so that reluctance degree to buy the products of China of small city sample is stronger than that of the big city people. This result is very surprising because in Vietnam small city people buy Chinese products much more than big city people. This is explained by the price factor which requires further research in the future.

5.2. Implication

These findings suggest a number of implications for local as well as international managers in planning marketing strategies, especially positioning strategies in the Vietnamese market.

The strong causal relationship between consumer animosity and product judgments found in this study contradicts previous researches. Some authors have argued that animosity had no impact on product judgments (Klein et al., 1998; Klein, 2002). Our findings predict that animosity negatively affects such product judgments in some contexts. The past war experience, territory conflict and health issues seem to evoke animosity towards China in Vietnam, which lead to a reluctance to purchase Chinese products and biases Vietnamese consumers' judgments regarding such products as well. Overall, this finding provides researchers with considerable evidence that not only war-related factor but also other sources such as territory conflict, health issues are closely associated with the quality of foreign products' judgments in the international marketplace. In addition to, we demonstrated that there are different sources that could directly impact general animosity with had a different nature then influence indirectly on product judgment and purchase intention. Therefore, when animosity threatens their products in practice, marketers should identify the primary sources of that animosity first, and then employ specific strategies to deal with it. In the Vietnamese context, economic impact has no effect on general animosity but other sources (war experience, territory conflict, health issues) relate positively to general animosity, and then impact on the evaluations of Chinese products and exert harmful impacts on purchase intention (reluctance to buy) among Vietnamese people. Therefore, the right way to reduce the detrimental influences of animosity toward Chinese products in Vietnam is to reduce the animosity arising from the war, territory and unhealthy products as is actually occurring. In addition, according to Nes et al., (2012) many research studies provide strong support for the notion that national animosities caused by war, economic policies, and other conflicts may have a profound impact on consumer buying behavior. It is important for those engaged in international business to understand the nature and impact of conflicts and animosity between countries on the demand for products in international markets. For example, Edwards et al., (2007) found that 58% of French businesses operating in Australia and/or New Zealand reported a loss of sales as a result of the French nuclear tests in the South Pacific. Several French companies responded to this increase in animosity by using strategies such as temporarily deferring investment in the region or even modifying their brand/ company name.

Furthermore, the results also enforce the role of consumer animosity and ethnocentrism which has been indicated in many previous researches (Ahmed et al., 2013; Klein et al., 1998; Lee & Lee, 2013; Ma et al., 2012; Maher et al., 2010; Nijssen & Douglas, 2004; Smith & Li, 2010; Sohail & Opoku, 2016). Therefore, seeking to understand controversies would allow managers to consider courses of action in order to mitigate the damaging effects of consumer animosity and consumer ethnocentrism. These could include efforts to improve product quality judgments by highlighting objective product benefits. However, such efforts might be insufficient. Further efforts could be directed toward displaying the source company as international and distinct from the country of origin; reducing the degree of consumer ethnocentrism by emphasizing the benefits to the local market, which a Chinese company provides; and avoiding using symbols of the country of origin in order to reduce the sense of threat on the domestic market (Viet Nam).

Chinese managers should understand that when levels of Vietnamese consumer animosity toward a producer nation (China) are high, consumer ethnocentrism does translate into bias for imported products. Therefore, traditional marketing tools such as sales promotions, price promotions, and brand advertisements will not be

sufficient in attracting highly ethnocentric consumers. Instead, strategies that take into account the role of consumer ethnocentrism are more appropriate. Marketing programs of imported products should convey to Vietnamese consumers that the consumption of imported products is not harmful to the economy in order to reduce such a bias. Furthermore, a more appropriate strategic response might be to downplay promotion of the “made in...” aspect of the product and use brand names that are not obviously associated with the target country (Ettenson & Gaeth, 1991; Levin & Jasper, 1996). In addition, cultural acceptability plays a role in reducing negativity toward foreign products, so Chinese companies or the Chinese government could exploit this to decrease Vietnamese consumer animosity and ethnocentrism through cultural and academic exchange programs.

International marketers also can choose to address the animosity issue directly in certain markets. One strategy would be to engage in public relations and other communications efforts to improve country perceptions and address sources of international tension. Such efforts might be more effective for minimizing animosity stemming from current diplomatic or territory disputes than from historical and military conflicts. For example, South Korea has made many efforts to improve its negative image with Vietnamese people from its participation in the Vietnam War in the 1960s. Such as the Korean-Vietnamese Peace Foundation’s efforts to honor Vietnamese victims killed by Korean mercenaries during the war, cultural and scholarship exchanges between the two countries, “Hallyu (the Korean entertainment wave)” in Viet Nam. These actions have been contributing positively in recovering South Korea’s image in the Vietnamese consumer mind. Therefore, nowadays, Vietnamese consumers have a good perception not only for the South Korean country but also Korean brands. This helps many Korean companies succeed in the Vietnamese market.

On a broader scale, knowledge of international animosity and its effect on product purchase in select target markets can also guide the development of strategic marketing and manufacturing alliances and the production of so-called “hybrid” products (products manufactured in one country and branded by a firm from another country). Marketers of hybrid products have the benefit of promoting or de-emphasizing their products’ origins, as well as flexibility in the selection of the products’ brand names (Ettenson and Gaeth, 1991; Han, 1988; Levin and Jasper, 1996). The manufacture of hybrids might prove fruitful to the international marketer whose products or brands have failed to capture satisfactory levels of shares in a target market because of consumer animosity.

For local managers, as the global trend of cross-border trade increases, the animosity construct can be applied by domestic Firms seeking to defend their markets against increases in imported goods and, in particular, imported goods from a particular nation (China). To the extent that levels of animosity are high toward China, Vietnamese firms can exploit and promote “buy domestic” campaigns, capitalizing on the ethnocentric influence of eschewing goods from China through campaigns such as “Vietnamese use Vietnamese products”, Vietnam’s high quality products, Vietnamese brands festivals, and so on.

Furthermore, marketing managers of domestic companies (Vietnamese companies) should also recognize consumer animosity and consumer ethnocentrism, since they can benefit by using them properly. Local companies understand the local market and consumer feelings better than international companies. Local companies can highlight benefits of the local market and the society at large, while emphasizing relevant topics according to sources of consumer animosity/consumer ethnocentrism (e.g., war, territory, unhealthy product, etc.).

The findings of this study suggest that brand positioning strategies based heavily on the physical attributes of brands are no longer suitable. Such positioning strategies may create serious problems for local brands in the market since Vietnamese consumers often consider imported products to have superior quality to the local products (Nguyen and Nguyen, 2004). Consequently, positioning strategies which focus on consumer ethnocentric tendencies may be more appropriate in persuading highly ethnocentric consumers to purchase local products.

5.3. Limitation and future research

One of the limitations of this study has been in using a majority of student respondents. It has been noted by some researches that studies using a student sample suffer from a lack of external validity (Sears, 1986). Even though concerns about representative samples may be sacrificed in favor of addressing threats to internal validity in research designed for theory testing (Calder et al., 1981), it is hoped that testing should deal with samples from life stages other than late adolescence. According, to recent trends in marketing research, external validity concerns require more attention in theoretical research (Lynch, 1999; Winer, 1999). Nevertheless, using student samples in this research can be plausibly rationalized. The student-age group, which represents the samples of this research, is identified as a large number of Vietnamese young consumers who play a greater vital role in the Vietnamese consumption market. Therefore, future researches should pay attention on how to generalize a whole sample from various groups and areas.

Secondly, this study was based on surveying consumers’ opinions toward general product categories. This may have overlooked two potential problems; consumers could have differentiated product evaluations and purchase intentions across different product categories and their self-reported opinions may not be consistent with their actual consumption decisions. We strongly suggest future studies to further examine our findings with

a variety of product categories and new research methods such as field experiments and post-purchase interviews.

Finally, research to date has not addressed whether and how animosity toward a country negatively affects consumers' responses to brands associated with that country. Since brands vary in the degree to which they are associated with a country, animosity might have different effects on brands that are strongly stereotypic of a country and on brands that are more weakly associated with it. Therefore, future research should consider the relationship of consumer animosity toward brand associations in a target country.

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The Impact of Eco-Labeling on Green Purchase Intention of Vietnamese Consumers: A Conceptual Framework

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ABSTRACT

Environmental pollution is a serious problem that all countries are facing with, especially in a fast growing economy as Vietnam. For enterprises, development and marketing of products designed to reduce negative effects on the environment can meet the needs of consumers and society. This paper deals with the eco-labelling concept as a green marketing tool. The main purpose of this study is to find out the eco-labelling impact on consumers' purchase intentions for the next experimental research. This is to consider the consumer reactions to the impact of the stimulus - eco-label on trust, perceived value, attitudes, and thereby influence consumer purchase intentions on Vietnam market.

Keywords: Eco-labelling; green purchase intention; trust; attitude; perceived value

1. Introduction

Recent studies show that consumers are aware of green issues such as scarcity of natural resources, global warming and pollution. They also take these issues into consideration when making green products purchase decisions (Banyte et al., 2010; Schlegelmilch et al., 1996; Young et al., 2010 cited by (Shao et al., 2017).

Although consumers continue to satisfy their wants and desires, nowadays, they feel that, at the same time, they should adopt a more active role in the protection, preservation and conservation of the environment (Do Paco et al., 2014). When people's consumption trends change, firms must change their perceptions. As consumers move towards using green products, manufacturers must make the transition to survive and thrive.

Earlier studies relating to consumers' green purchase intention/behaviour have been mostly done in the context of developed nations and show their attitude and perspective towards purchasing green products (Yadav & Pathak, 2016).

In this context, the issue of sustainably environmental-friendly production as well as the understanding of the changes in cognitive, psychological, and customer behavior towards nature has become increasingly urgent and needs to be solved. In fact, Eco-labelling now is one of the green marketing tools that promote consumers to buy green products. Understanding more about determinants of consumers' purchasing behaviors can help Vietnamese enterprises identify and obtain the right marketing strategies to meet the consumers' demand. This research aims to propose a model for the influence of Eco-labelling on the green purchase intention of consumers on Vietnam market to understand if consumers are stimulated with eco-labelling or not. Besides, eco-labelling is now still a new issue in Vietnamese enterprises' marketing strategy.

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2. Literature review

2.1. Green marketing

Social marketing adopts a different vantage point and defines “green marketing” as the development and marketing of products designed to minimize negative effects on the physical environment”(Johnson & Wang, 1998).

Green marketing is still a concept debated among scholars today. The earliest definition about green marketing was proposed by Stanton (1987). Each research period is different (see Table 1 on the following page). The authors gave concepts based on various aspects of marketing including the three following dimensions: green marketing orientation, green marketing strategy and green marketing functions. The nearest definition contains basic elements of marketing (e.g., price and promotion) combined with the goal of reducing environmental impact although it is not necessary for the goal of reducing consumption to persuade consumers to purchase green products and services (Groening et al., 2018).

This paper uses the definition of Groening et al. (2018) because we would like to identify how efficient the eco-labelling of firm (which is designed to demonstrate the firm's goal of minimizing the environmental impact of its products and services) to persuade consumers is.

Many of the problems that have hindered the development of effective mainstream marketing in the past have hampered the development of green marketing as well. These problems have contributed to the emergence of five-failed manifestations of green marketing: green spinning, green selling, green harvesting, enviro-preneur marketing, and compliance marketing (Peattie & Crane, 2005).

According to Rahbar & Abdul Wahid (2011), three green marketing tools are used as enhancements to a consumer’s knowledge about environmental friendly products including eco-brand, eco-label and environmental advertisement.

2.2. Eco-labelling- a green marketing tool

Ecolabels have emerged as one of the main tools of green marketing (Rex & Baumann, 2007), and it is a multidimensional concept (Prieto-Sandoval, Alfaro, Mejía-Villa, & Ormazabal, 2016). There are a number of ways by which marketers convey environmental benefits of products. One is through general or specific product claims on product labels, for example, “eco-friendly”, “environmentally safe”, “recyclable”, “biodegradable” and “ozone-friendly” (Morris et al., 1995 cited by (D’Souza, Taghian, & Lamb, 2006).

Sammer & Wüstenhagen (2006) identified eco-label as an important tool to allocate asymmetry information between sellers and buyers. While Rex & Baumann (2007) defined eco-labels as a tool for consumers to facilitate decision-making to select environmental-friendly products, also to enable them to know how products are made. On the other hand, eco-labelling is considered as a form of certification marks or seals of approval to cue consumers about the environmental qualities of a product or service while assuring consumers of the truthfulness of these claims (Atkinson & Rosenthal, 2014).

Eco-labelling is a way to provide consumers with credible and easily accessible information on environmental attributes of a product (Sønderskov & Daugbjerg, 2011). It is an effective measurement which helps in bridging the gap between sellers and buyers by providing information on two aspects: Information function presenting intangible quality measures including product quality and value function which presents the recyclability and corporate social responsibility related brand prestige (Sammer & Wüstenhagen, 2006). The relevance of the increase in using ecolabels appears in three significant facts: (1) the effective ecological role of ecolabels in society, (2) the breadth and depth of their propagation by governments and institutions, and (3) the strategic and innovative value of eco-labelling to the companies that adopt them (Prieto-Sandoval et al., 2016).

Green consumerism requires that the consumers can identify true environmentally friendly goods, which can be obtained through reliable eco-labelling (Sønderskov & Daugbjerg, 2011). Consumers cannot verify green attributes directly and must rely on such signals as eco-labels to authenticate claims (Atkinson & Rosenthal, 2014).

Environmental labels act as a guide for consumers to choose the products which are environmentally friendly. Firms use them to differentiate their products, position them and communicate the environmentally friendly message. Eco-labelling of food can be seen as one of the common routes to deliver the message about the quality of the food product to consumers (Nilsson et al., 2014).

Table 1. The definition of green marketing (Dangelico & Vocalelli, 2017; Groening et al., 2018)

Authors	Year	Definition
Stanton	1987	"Green marketing, which seeks to bring the activities of firms into a new and more harmonious relation with the environment." (p. 3)
Polonsky	1994	"Green marketing incorporates a broad range of activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising... such that the satisfaction of these need and wants occurs, with minimal detrimental impact on the natural environment." (p. 1-2)
Lampe & Gazda	1995	Green Marketing is "the marketing response to the environmental effects of the design, production, packaging, labeling, use, and disposal of goods or services" (p. 303)
Peattie	1995	Green Marketing is "the holistic management process responsible for identifying, anticipating and satisfying the needs of customers and society, in a profitable and sustainable way" (p.141)
Walker & Hanson	1998	"Green marketing refers to marketing practice which is characterized by a demonstrable concern for the environment within which this practice occurs and upon which it impacts, as well as for its various stakeholders." (p. 624)
Fuller	1999	"Green marketing is the process of planning, implementing, and controlling the development, pricing, promotion, and distribution of products in a manner that satisfies the following three criteria: (i) customer needs are met, (ii) organizational goals are attained, and (iii) the process is compatible with ecosystems." (p. 4)
Oyewole	2001	"Green marketing is the practice of adopting resource conserving and environmentally-friendly strategies in all stages of the value chain." (p. 239)
Peattie	2001	"Green Marketing has been used to describe marketing activities which attempt to reduce the negative social and environmental impacts of existing products and production systems, and which promote less damaging products and services." (p.129)
Prakash	2002	"Green Marketing refers to "strategies to promote products by employing environmental claims either about their attributes or about the systems, policies and processes of the firms that manufacture or sell them" (p. 285)
Jain & Kaur	2004	"Green Marketing can be viewed both as a type of marketing and a marketing philosophy [...]. As a type of marketing, it is like industrial or services marketing and is concerned with marketing of a specialised kind of product i.e., green products [...]. As a philosophy, Green Marketing runs parallel to the societal marketing concept and espouses the view that satisfying customers is not enough and marketers should take into account ecological interests of the society as a whole" (p. 170)
Hartmann & Ibanez	2006	"Green marketing typically emphasize the efficiency of cognitive persuasion strategies assuming the consumer's high involvement regarding environmental issues to be a consequence of a growing environmental consciousness." (p. 676)
Alsmadi	2007	"Green marketing is conducting all marketing activities within a framework of environmental responsibility... is a comprehensive and systematic process that seeks to influence consumer preferences in a way that encourages them to demand environmentally friendly products, and help them adapt their behavioural consumption patterns accordingly." (p. 342-345)
Pride	2008	"Green marketing is a strategic process involving stakeholder assessment to create meaningful long-term relationships with customers while maintaining, supporting, and enhancing the natural environment." (p. 23)
Violeta & Gheorghe	2009	"Green marketing is 5Ps + EE, standing for planning, process, product, promotion, people and eco-efficiency" (p. 1344-1347)
Sharma et al.	2010	"Green marketing is beyond the role of linking to green customers and marketing mix, and should expand to include other aspects of corporate demand management, such as predicting demand for environmentally-friendly products, positioning and demand stimulation for recycled and remanufactured products, generating demand for build-to-order products, and building competitive advantages from a focus on environmental priorities." (p. 338-341)
Polonsky	2011	"Scholars define green marketing using a range of terms (e.g., green marketing, ecological marketing, environmental marketing, and even responsible marketing). These definitions have a common focus on the exchange process (i.e., choices and decisions), with a proviso that exchange considers and minimizes environmental harm." (p. 1311)
Liu et al.	2012	"Green marketing identifies and satisfies green customers, and promoting environmentally-friendly products." (p. 581)
Mishra & Sharma	2012	"Green Marketing" refers to holistic marketing concept where in the production, marketing consumption and disposal of products and services happen in a manner that is less detrimental to the environment with growing awareness about the implications of global warming, non-biodegradable solid waste, harmful impact of pollutants etc." (p. 35)
Leonidou et al.	2013	"Green marketing refers to marketing practices, policies, and procedures that explicitly account for concerns about the natural environment in pursuing the goal of creating revenue and providing outcomes that satisfy organizational and individual objectives for a product." (p. 153)
AMA (cited by Davari & Strutton)	2014	"Green marketing as efforts by businesses to produce, promote, distribute, package, or recycle products in ways that are sensitive or responsive to ecological concerns"
Groening et al.	(2018)	"Green marketing consists of actions directed to all consumers, and incorporates a broad range of marketing activities (e.g., planning, process, production, promotion, and people) designed to demonstrate the firm's goal of minimizing the environmental impact of its products and services." (p. 1851)

Vietnamese Green Label is the name of the eco-labelling program in Vietnam implemented since 2009 with the goal of continuously improving and maintaining the quality of the living environment through minimization of energy use and consumption, materials as well as types of waste generated by the production, trading and consumption of consumer products and services. The Vietnamese Green Label is a label used to indicate products with a higher overall environmental precedence than other products in the same group. Green Label Vietnam is attached to products not only good in quality but also good in compliance with environmental requirements in the process of production, use and recycling, which is better than products of the same type in terms of energy saving, and less harmful to the environment. Certification of qualified products bearing the Vietnam Green Label is a certification of conformity of product type with the requirements of the Green Label Criteria published by Ministry of Natural Resources and Environment. According to the provisions of Vietnamese law, products are licensed eco-labels of organizations recognized by the State as environmentally friendly products. When the products of firms are labelled Vietnamese Green Label also means that their firms will be supported by the government in land and capital, exemption, reduction of taxes and fees on environmental protection. Until now, the government have published criteria for nigh kinds of industries, including package, packaging, detergents, lighting, toner cartridge, paint, office equipment, stationery, building materials. However, there have just had six firms that have this certification.

2.3. Green product

According to The Commission of the European Communities (2001), green product is a product that “use less resources, have lower impacts and risks to the environment and prevent waste generation already at the conception stage”

Dangelico & Pontrandolfo (2010) define green products are “such products as having a positive impact in that they reduce the environmental impact of other products”.

2.4. Green purchase intention

2.4.1. Purchase intention

According to Ajzen (1991), intentions are assumed to capture the motivational factors that influence a behavior; they are indications of how hard people are willing to try, or how much of an effort they are planning to exert, in order to perform the behavior.

Purchase intention is a factor used to evaluate the ability to perform behavior in the future (Blackwell et al., 2001). Purchase intention refers to a consumers' intention to purchase a product, or to patronize a service firm. Previous research has supported the link between service quality and purchase intention (Bitner, 1990; Boulding et al., 1993; Zeithaml, 1996 cited by (C. Y. Shao, Baker, & Wagner, 2004)). In short, purchase intention is defined as a consciously decided plan to make an effort to buy a particular product or service (Spears & Singh, 2004)

2.4.2. Green purchase intention

Green purchasing refers to the purchase of environmentally friendly products and avoiding products that harm the environment (Chan, 2001). While Rashid (2009) defines that “Green purchase intention (PI) is conceptualized as the probability and willingness of a person to give preference to products having eco-friendly features over other traditional products in their purchase considerations”.

A nearer point of view that green purchase intention refers to consumers' willingness to purchase green products. Intentions capture the motivational factors that influence green purchase behaviour of consumers (Ramayah, Lee, & Mohamad, 2010)

Each author has his/her own definition of green purchase intention but they all indicate the willingness to purchase green products.

There are many factors that impact on green purchase intention including individual and situational elements which have been studied by authors from 2000 until now. The individual factors such as emotions, habits, perceived consumer effectiveness, perceived behavioural control, values and personal norms, trust, knowledge and lifestyle. The situational factors such as: price, product availability, subjective norm/social norm and reference groups, product attributes and quality, store related attributes, brand image, eco-labelling and certification, environment message (Joshi & Rahman, 2015)

3. Prior research models related to this study

Many green purchase intention and green behaviour studies have used the theories that can divide into six groups: values and knowledge, beliefs, attitudes, intention, motivations and social confirmation. Among these theories, Attitude Theory, Attitude-behavior Theory, Theory of Planned Behavior (TPB), Consumer Choice Theory, Rational Choice Theory and Adaptation Theory are more popular than others, and more specifically the TPB model (Groening, 2017). TPB is a rational choice model where intention is the only direct psychological antecedent for behavior (Ajzen, 1991). This intention is shaped by a combination of three consumer characteristics: 1) perceived behavioral control, 2) attitudes of the behavior, and 3) norms (Albayrak et al., 2011 cited by Groening, (2017)). Thus, we also use the TPB to examine the impact of eco-labelling on green purchase intentions of consumers.

Some recent research now focus on eco-label with three dimensions that have an impact on purchase intention and behavior.

The first dimension is the eco-label seal. Some related researches are: D'Souza (2000) for dolphin seal on four tuna brands; Loureiro, et al.(2001) for apple; Bickart & Ruth (2012) for household cleaners; Testa et al., (2013) for ecological paper and green home cleaner with EU ecolabel and FSC certification; Hoek, Roling, & Holdsworth (2013) for laundry soap powder; Mei, Ling, & Piew, (2012); Atkinson & Rosenthal (2014), for milk and smartphone; Cai, Xie, & Aguilar, (2017) for green furniture. In Vietnam, there is only the eco-label for electrical appliances. According to Bickart & Ruth (2012), while consumer's environmental knowledge and concern has grown in recent years, we have not yet fully understood how eco-seals are processed by consumers with high concern compared to low concern about environmental issues- two very different target markets.

The second dimension is Eco-label knowledge that affect the purchase intention and behavior. Some related researches are D'Souza et al., (2006) for food; Rashid, (2009) for energy-saving bulb-tungsten. Knowledge can be understood as a personal ability to recognize a label and to understand what it means (Thøgersen, 2000). Knowledge, awareness and information that consumers gather on the environmental effect of a product on an eco-label can stimulate an eco-friendly behavior (Daugbjerg et al., 2014). Knowledge included in eco-label can be production standards (Rahbar & Abdul Wahid, 2011), or meaning and message (Khan & Mohsin, 2017). And the last one is Eco-label designed (Teisl, et al, 2008) and (Houe & Grabot, 2009). According to (Bartiaux, 2008), the information contained in a label plays an important part in persuading consumers that are sensitive to the product and brand, so that it can encourage intention toward sustainable consumption. In this study, we focus on the eco-label knowledge that can affect green purchase intention.

Until now, there are more research examining the impact of eco-labelling on consumer purchase intention and behavior in a variety of approaches. Some authors used eco-labelling as a moderating variable Daugbjerg et al., (2014), others used it to measure the direct impact on the intention or buying behavior (Rahbar & Abdul Wahid, 2011; Mei et al., 2012; Testa, Iraldo, Vaccari, & Ferrari, 2015; Chekima, Wafa, Igau, Chekima, & Sondoh, 2016; Joshi & Rahman, 2016; Khan & Mohsin, 2017). And the others examined the impact of eco-labelling indirectly through attitude (toward companies, brands, environment), trust, perceived value, knowledge and emotion of consumers on consumers (Loureiro et al., 2001; Sammer & Wüstenhagen, 2006; Teisl et al., 2008).

Almost all studies have shown the impact of eco-labelling on consumer intentions or behavior in developed countries. Therefore, this present research strives to find out whether Vietnamese consumers' purchasing decisions are affected by the stimuli - eco-labelling or not. Besides, eco-labelling is now still a new issue in Vietnamese firms' marketing strategy. In Vietnam, authors are now concentrating on studies on the intentions and purchases of young consumers. For example, the study of the cultural impact on the purchase intention of energy-efficient appliances (Nguyen et al., 2017). There are also a number of studies that examine the impact of cultural and psychological factors (Pham, 2014) on intentions and purchase behavior (Hoang, 2017). However, there is no research develops the eco-labelling tool and its effect on green purchase intention in Vietnam.

4. Conceptual framework

In this paper, we propose a conceptual model of the impact of eco-labelling on consumer's green purchase intentions through their Trust, Perceived value, Attitudes and Environmental concerns.

4.1 Consumer's trust

Trust has been defined as the individual's expectation that another person, product or organization will keep promises and fulfil obligations (Perrini et al., 2010).

According to Thøgersen (2000), consumers will use a label in their purchasing decisions only if they trust it. Consumers must be aware of the label and understand what they mean.

"Consumer trust will translate into an intention to purchase a product" (Perrini et al., 2010)

Some researches found out that trust to eco-label are positively and significantly correlated with purchase intention (Perrini et al., 2010; Rahbar & Abdul Wahid, 2011; Atkinson & Rosenthal, 2014 ; Daugbjerg et al. 2014; Taufique, Vocino, & Polonsky, 2017).

In Rahbar & Abdul Wahid (2011) research, they found out that trust to eco-label have positive and significant correlated with actual purchase behaviour of consumer in Penang- Malaysia. The respondent's trust in eco-label has a positive effect on consumer's actual purchase behaviour. Without consumer's confidence and trust of eco-label, it is very difficult to convince them to make purchase decision.

Daugbjerg et al., (2014) indicated that there is a relationship between knowledge, label trust and the purchase of eco-labelled products with organic food. Taufique et al., (2017) found out that eco-label knowledge have a significant impact on trust in eco-labels.

Many studies outside the environmental domain have reported a positive relationship between knowledge and trust (e.g. Doney, Cannon, & Mullen, 1998; Jiang, Chen & Wang, 2008; Luhmann, 1979 cited by Taufique et al., (2017)). Both Doney et al. (1998) and Luhmann (1979) believed that knowledge reduces uncertainty and increases trust (cited by Taufique et al., (2017)).

Although consumer's trust has been identified as important for successful eco-labelling, relatively few studies show how its factors affect the attitude and green purchase intention.

Referencing from existing literature, it is thus hypothesized that:

H1a: A significant and positive causal relationship exists between eco-labelling and consumer's trust

H1b: A significant and positive causal relationship exists between consumer's trust and consumer's attitude

H1c: A significant and positive causal relationship exists between consumer's trust and consumer's green purchase intention

4.2 Consumer's Perceived Value

Perceived value is defined as a consumer's overall evaluation of the net benefit of a product or service based on a consumer's appraisal (Bolton and Drew, 1991; Patterson and Spreng, 1997 cited by Chen & Chang, (2012)). Green perceived value is defined as "a consumer's overall appraisal of the net benefit of a product or service between what is received and what is given based on the consumer's environmental desires, sustainable expectations, and green needs" by (Spreng & Patterson, 1997).

The study of Chen & Chang (2012) finds out that "the increase of green perceived value can not only meet both of the strict international environmental regulations and the popular consumer environmentalism, but also enhance both of green trust and green purchase intentions".

According to De Medeiros, et al. (2016) perceived value of green product increases willingness to pay in the purchasing decision.

"Perceived green value is positively associated with purchase intention of green and environmentally friendly products (Rizwan et al., 2013; Chen and Chang, 2012; Chen et al., 2012). Chiu et al. (2014) studied the environmentally responsible behaviour in eco-tourism and found that perceived value positively influence the environmentally responsible behaviour" (Yadav & Pathak, 2017)

When consumers perceive that firms fulfil their social responsibility, they may be more willing to buy the products of these firms, even at a higher price (Grimmer & Bingham, 2013)

Until now, the perceived value of green product through eco-labelling to green purchase intention has not been studied yet.

Referencing from existing literature, it is thus hypothesized that:

H2a: A significant and positive causal relationship exists between eco-labelling and consumer's perceived value

H2b: A significant and positive causal relationship exists between consumer's perceived value and consumer's attitude

H2c: A significant and positive causal relationship exists between consumer's perceived value and consumer's green purchase intention

4.3 Consumer’s environmental concern

The impact of eco-seals depends on the target market’s level of environmental concern. It appears that the types of inferences consumers make about the eco-seal source vary with environmental concern which in turn differentially influences persuasion (Bickart & Ruth, 2012)

Environmental concern affect positively to intention purchase (Hartmann & Apaolaza-Ibáñez, 2012),

Referencing from existing literature, it is thus hypothesized that:

H3a: A significant and positive causal relationship exists between eco-labelling and consumer’s environmental concern.

H3b: A significant and positive causal relationship exists between consumer’s environmental concern and consumer’s attitude

H3c: A significant and positive causal relationship exists between consumer’s environmental concern and consumer’s green purchase intention

4.4 Consumer’s attitude

There are some research focusing on attitude: a first study concerns the attitude toward green product and green purchase (Chan, 2001; Atkinson & Rosenthal, 2014; Paul et al. 2016). Hartmann & Apaolaza-Ibáñez (2012) found out that brand attitude affects purchase intention as a partial mediation of environmental concern. Attitude toward advertising and brand (Bickart & Ruth, 2012) affected by eco-seal leads to positively impact on purchase intentions. And the attitude to company (Cho, 2015) shows that sustainability and environmental labeling impact significantly firm’s attitude and therefore increases consumer purchase intentions.

The second is the attitude toward environmental protection (Rashid, 2009; Mei et al., 2012; Chekima et al., 2016; Khan & Mohsin, 2017). These results indicate that environmental attitude significantly influence green purchase intention.

Although there are many studies measuring consumers’ attitude on green purchase, only a few analyse the impact of eco-labelling through attitude on the purchase of green products.

Referencing from existing literature, it is thus hypothesized that:

H4a: A significant and positive causal relationship exists between eco-labelling and consumer’s attitude

H4b: A significant and positive causal relationship exists between consumer’s attitude and consumer’s green purchase intention

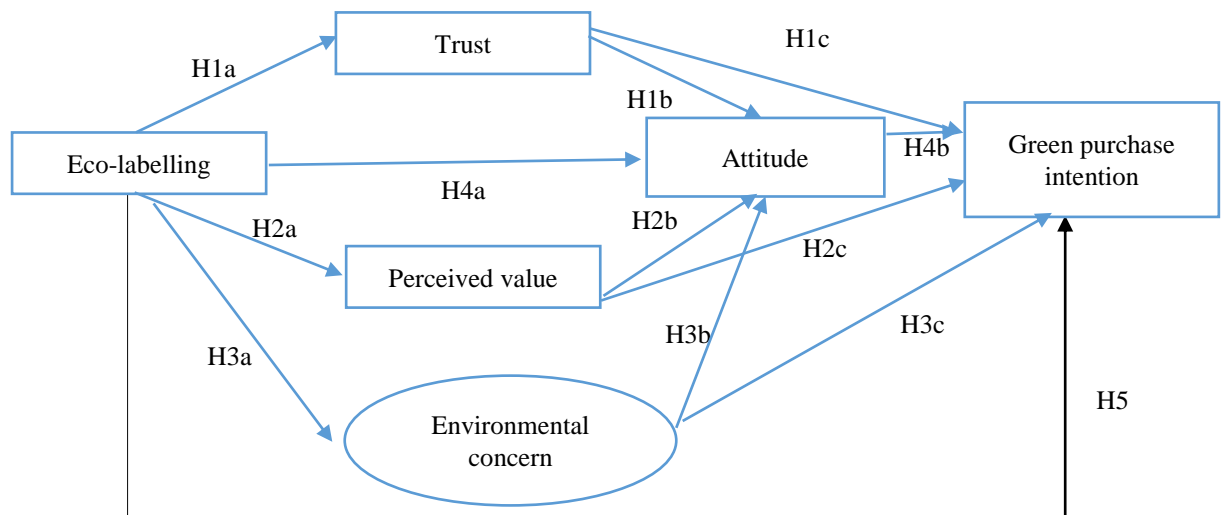


Fig. 1. The conceptual framework

4.5 Eco-labelling and green purchase intention

Eco-labels are information tools that aim to internalize the external effects on the environment of the production, consumption and disposal of products (Bougherara and Combris 2009, cited by Atkinson & Rosenthal, 2014).

According to the literature review above, it is thus hypothesized that:

H5: A significant and positive causal relationship exists between eco-labelling and consumer's green purchase intention

4.6 Measurement items

Table 2. The Constructs and measurement items

Constructs and measurement items	References
<p>Eco-labelling knowledge I know the meaning of the term “recycled”. I know the meaning of the term “eco-friendly” I know the meaning of the term “organic” I know the meaning of the term “energy-efficient” I can recognise the eco-label seal The eco-label on package provides information about environmental protection</p>	<p>(Taufique et al., 2017) (Thøgersen et al., 2010)</p>
<p>Trust in eco-labelling The label is genuinely committed to environmental protection Most of what label say about its products is true If the label makes a claim or promise about its product, it’s probably true I feel that this product’s environmental performance is generally dependable This product’s environmental concern meets my expectations This product keep promise and commitments for environmental protection</p>	<p>(Taufique et al., 2017) (Chen & Chang, 2012)</p>
<p>Perceived value in green product This product’s environmental functions provide very good value for me This product’s environmental performance meets your expectations I purchase this product because it has more environmental concern than other products. I Purchase this product because it is environmental friendly I purchase this product because it has more environmental benefit than other products</p>	<p>(Spreng & Patterson, 1997) (Chen & Chang, 2012)</p>
<p>Environmental concern I am worried about the worsening quality of the environment The environment is my major concern I am emotionally involved in environmental protection issues I often think about how the environmental quality can be improved</p>	<p>(Lee, 2008)</p>
<p>Attitude toward green purchase I like the idea of purchasing green Purchasing green is a good idea. I have a favorable attitude toward purchasing a green version of a product.</p>	<p>(Chan, 2001) (Paul et al., 2016)</p>
<p>Green purchase intention I will consider buying green product because they are less polluting. I plan to switch to other brands/versions green product I intend to purchase this product in the future because of its environmental performance I will buy green product in my next purchase</p>	<p>(Nguyen et al., 2017) (Chan, 2001), (Chen & Chang, 2012)</p>

5. Conclusion

Eco-labelling is one of the important tools of green marketing that can affect green purchase intention. In many transition economies such as Vietnam, this tool now has not really been applied effectively. Therefore, examining this model through empirical studies or adding other factors that affect other green purchase intentions will be a significant contribution for economies that are geared towards sustainability.

This is the first step of our research. After finding out the impact of eco-labelling on consumer green purchase intention model, qualitative and quantitative methods will be implemented to examine the hypothesized

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Factors at Points-of-sale Affecting Impulse Buying Behaviour

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ABSTRACT

The purpose of this paper is to provide an overview of impulse buying behavior and the factors at the point-of-sale affecting this behavior of consumers from the perspective of many different researchers. Based on the content of the research, the article will classify the various factors at the point-of-sale affecting impulse buying behavior and further develop the research framework suggesting the direction of further research on impulse buying behavior in the socio-economic context of Vietnam.

Keywords: Impulse buying, consumer behavior, retail in Vietnam

1. Introduction

Vietnam is considered one of the dynamic and attractive retail markets in Asia and around the world. The trend of opening up markets under the commitments of bilateral and multilateral free trade agreements and increasing participation of large retailers in the world has created opportunities as well as challenges for domestic enterprises. In 2017, retail sales in Vietnam reached approximately \$129 billion. Consulting firm A.T. Kearney has placed Vietnam in the sixth place in the Global Retail Development Index (GRDI) in 2017. Organized retail sales in Vietnam is expected to grow over the next five years, mainly due to lifestyle change, income growth and younger consumer segment which accounts for 60% and the middle class growing, according to an HSBC report, Vietnam's middle class will grow from 12 million people to 33 million people, super-rich people will double to around 403 by 2020. This has led many Vietnamese consumers to gradually abandon the traditional habit of planning, savings on consumption and instead, they start to participate in impulse buying. In this context, impulse buying plays an important role for modern retailers and researchers. In this article, we have reviewed the studies on impulse buying, point-of-sale factors affecting impulse buying behavior, and suggested future research in the socio-economic content of Vietnam.

2. Literature review abroad

Impulse buying is a matter of great concern for marketing executives and researchers as it is a popular phenomenon worldwide [31]. In addition, it is an important clue for marketing [34] and marketing strategies to ensure customer satisfaction [31]. Understanding impulsive buying behavior can help retailers make good use of the tools of visual merchandising to stimulate consumer desires and motivate them [6].

Many works and models of impulse buying behavior have been researched and developed in countries around the world such as USA, India, China, South Africa, Turkey, etc. and the author mainly focuses on building and developing conceptual issues, factors that affect impulse buying behavior and the consequences of

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this impulse buying behavior.

2.1. Definitions of impulse buying

In 1962, Stern represented the first view that impulse buying behavior means unplanned purchase. Impulse buying behavior describes any buying behavior that consumers make without prior planning, as this occurs when “consumers enter the store with certain products in mind, but they make other purchase transactions which are subject to special prices, discount offers, and similar services” [36]. In line with this view, David T. Kollat and Ronald P. Willett [44] argue that impulse buying is “buyer’s impulsive behavior or merely unplanned, intentional purchase, the purchase intention is replaced by the actual purchase result”. According to Verhagen and Dolen [41], impulsive buying behavior is characterized by two factors: (1) the process is unplanned and lacks consideration when product exposure occurs and (2) this process is dominated by emotions. Other researchers include Bellenge; Engel, James F; Weinberg, P. and Gottwald, W [10, 1, 43] also supported the view that impulse buying is the difference between the actual purchase and the previous purchase plan.

Future studies suggest that impulse buying behavior can often be classified as unplanned, but unplanned purchase is not always categorized as impulse buying [21, 43, 41]. This difference is due to the fact that an unplanned purchase transaction may simply occur because consumers have demand for the product but do not place the product on a predetermined shopping list. Unplanned purchase may not be accompanied by a strong demand or strong positive emotion related to impulse buying.

The first to point out the difference between impulse buying behavior and unplanned buying behavior is Rook [34]. According to Rook, impulse buying behavior occurs when “consumers experience a sudden, impulsive sensation of buying something immediately. This impulse buying shows quite complex emotional status and can create certain contradictions in the mindset of consumers. In addition, at the time of impulse buying, consumers tend to be less interested in the consequences of their purchase.” When compared to planned buying behavior, impulse buying is more interesting, unintentional, less computational, and more attractive [39, 18]. Later researchers also shared the same view with Rook and extended this concept: Impulse buying is a sudden, immediate requirement without the intention of purchasing or buying a particular product. The behavior occurs after the urge to buy and tends to be spontaneous and with not many reflexes (i.e., it “impulses”) [11]. Consumers do not intend to purchase this item before entering the mall and performing a planned task, such as buying a gift for someone, not impulse buying [11, 9, 45]; impulse buying is accompanied by intense [45], spontaneous feelings without adequate consideration of consequences [15].

While, unplanned buying behavior is understood as the difference between the total purchase of a consumer when completing a shopping trip and the items to be purchased listed before entering the shop [34]. In other words, unplanned buying behavior is the act of purchase in a store different from what consumers plan before entering the store [20]. This means that the consumer intends to buy a particular product before entering the store but then they buy more or differently from the predetermined plan, while impulse buying is the decision to purchase suddenly, immediately, not intended to purchase or to enter a particular store before.

Thus, it can be seen that the term “impulse buying” refers to a narrower and more specific range of “unplanned” purchase [34] and impulse buying behavior is different from unplanned buying behavior and also different from shopaholic behavior of consumers [14].

Based on the definitions of the researchers in this field, impulse buying behavior is a sudden behavior and has three main characteristics to distinguish from other buying behavior: (1) the behavior is spontaneous and often accompanied by a positive emotion, (2) individuals making impulse buying are not interested in any costs or consequences, (3) this behavior often involves a temptation of pleasure, which causes one to purchase immediately [12, 37, 41].

2.2. Point-of-sale factors affecting impulse buying behavior

The shopping environment at the store is a very important determinant of impulse buying. It is constituted by specific micro variables for specific purchase situations and limited to a specific geographic area. Factors such as background music in stores, showrooms, scents, in-store promotions, prices, and store staff all make up the shopping environment at the store that can motivate the consumer towards impulse buying. There are many researchers pointing to the impact of these factors as detailed in the table below.

Table 1. Order of research papers on impulse buying behavior and point-of-sale factors.

Author	Year	Contributions
Applebaum [8]	1951	The first pointing out that impulse buying behavior could come from consumer exposure with a stimulus at the store.
Rook and Hoch [34]	1987	Emphasizing that impulse buying occurs when consumers experience a sudden urge by external stimuli
Hoyer and Macininer	1999	Shopping environment with high stimulus will promote impulse buying
Dholakia [12]	2000	Finding out consumers may be tempted towards impulse buying when encountering visual cues like promotions
Jiyeon Kim [6]	2003	Finding out the relationship between visual attributes at the point-of-sale (display of promotion, mannequin, merchandise, visually displaying outside the store) with impulse buying behavior. Then, promotional display and mannequin have a powerful impact.
Xueming Luo [40]	2005	Having found out the relationship between shopping companion and impulse buying behavior
Gupta et.al [16]	2009	Assuming that size and price are two factors that can motivate impulse buying. In large stores, the display of their products and product prices are the main stimulus. For small-scale stores, product prices are the major factor in attracting impulse buying.
Mariri Tendai and Chipunza Crispen [26]	2009	Shown in research results: The shopping environment at the store improves consumers' impulse buying opportunities. Factors such as coupons, promotions and advertising, sales staff, store exhibits have a direct impact and increase the likelihood of impulse buying. The other remaining factors such as music, scent, atmosphere do not directly affect impulse buying, but keep customers in the store longer.
Karbasivar, A. and Yarahmadi [22]	2011	Adding the factor “credit card” with its ability to spur impulse buying

Source: Collected by the Authors- - Thong Huy Vu and Anh Phuong Thi Nguyen (2018)

Research by Xueming Luo [40]: This study uses a completely different approach to previous “empirical” studies to measure the effect of a shopping companion on impulse buying behavior of consumers. The author has conducted two studies on 254 consumers. In the first study, 152 students were invited and asked to imagine that after receiving salary, while they were wishing to buy some pairs of socks but when they came to the mall through a clothing store, they saw a very beautiful sweater. There are 5 scenarios: Go alone, have a companion (close friends, new colleagues, family members, not very close family relatives). The students would put themselves in each situation and told about their decision to buy that sweater or buy socks in each situation. The results indicate that the shopping companion is likely to motivate impulse buying behavior of sweater rather than going alone. In particular, close friends would motivate impulse buying and family members would keep this behavior intact. The second study was conducted with 102 students with the same background but instead of a sweater, a jacket was offered, and the objective was to examine the relationship between individual sensitivity and impulse buying behavior while having shopping companion. The results show that for people with high sensitivity (the degree to which buyers are vulnerable to external influences), the presence of co-workers and close friends promotes impulse buying behavior. But the presence of family members will reduce impulse buying behavior of people with high sensitivity. These results are a valuable contribution to the field of impulse buying behavior. However, there are still limitations in this research methodology because the presence of a shopping companion in research is just unrealistic. Future studies are needed to explore the real world.

Research by Mariri Tendai and Chipunza Crispen [26]: The research was conducted in South Africa using quantitative method with a sample of 320 consumers (of which 60% were low income people) in some shopping malls in the town of King Williams, South Africa to explore the impact of the shopping environment at the store (including 9 factors: prices, coupons, advertising and promotions, sales staff, store display, scent, background music, atmosphere) for impulse buying behavior of consumers here. The study makes the following conclusions: Shopping environment at the store improves consumer impulse buying behavior. Factors such as bargains, coupons, promotions and advertisements, sales staff, store displays have a direct impact and increase the

likelihood of impulse buying. Remaining factors such as music, scent, atmosphere do not directly affect impulse buying, instead they keep customers in the store longer. Although they are not likely to directly affect impulse buying, consumers who stay longer in a store may be more likely to engage in price comparisons, search for promotions and listen to the store staff introducing products. Therefore, they are more likely to be involved in impulse buying. This is a theoretical study, but there are still limitations on the sample. Those selected in the sample were primarily young, low-income immigrants and therefore could represent other age groups.

Research by Mohammad Mahmoudi Maymand and Mostafa Ahmadinejad [27]: The research was conducted in Iran by consulting retail marketing managers in Tehran city. A total of 385 questionnaires were sent for the purpose of examining the stimulus role of the shopping environment for impulse buying behavior by examining the relationship between impulse buying trend and shopping environment, product display, promotion, advertising, promotion program, characteristics of goods and inspection of goods. The study suggests the following: (1) Shopping environment has a positive influence on impulse buying trend, (2) Product display has a positive effect on impulse buying trend, (3) Promotion and advertising have a positive effect on impulse buying trend, (4) Product testing has a positive influence on impulse buying behavior, (5) Impulse buying trend has a positive influence on impulse buying behavior. One-way analysis of variance (ANOVA) was used to achieve the objective of this study. The results show that the shopping environment has a positive influence on impulse buying trend. Different factors in the shopping environment can keep customers in the store longer. Shopping environment factors such as music, arrangement, lighting and color usage can significantly influence consumer behavior and can help establish long-term interaction with consumers. The authors did not find a link between product display and impulse buying. But promotion and advertising have a positive influence on impulse buying trend. Product testing has a positive influence on impulse buying trend. The results of the study also showed that impulse buying trend positively influenced impulse buying behavior. The findings of the study are expected to add to the existing literature by providing insight into consumer impulse buying behavior and be used as a guide for retailers in developing strategies for creating shopping opportunities. These marketing strategies can help retailers strongly promote their buying intentions. Benefits include increasing market share for retailers and positive perceptions towards encouraging consumers' impulse buying. However, this study has some limitations such as data collection having taken place in Iran. Therefore, future studies with experiments in other cultures, are needed to enhance the generality of the findings of the study. In addition, the research context encompasses a wide range of stores, futuristic studies focusing on a single store type that can provide more detailed information about the store's stimulus role and social factors in influencing impulse buying. In addition, other demographic variables need to be explored: for example, future studies may include social influences; internal signals such as cognitive and emotional states, etc.

Research by Karbasivar, A. and Yarahmadi [22]: The objective of this study was to examine the impact of four factors: Shop display, credit card, discount, free products to impulse buying behavior of clothing products. There are four hypotheses to be made by the author: (1) There is a positive relationship between consumer impulse buying behavior and credit card; (2) There is a positive relationship between consumer impulse buying behavior and cash discount; (3) There is a positive relationship between consumer impulse buying behavior and free products; (4) There is a positive relationship between consumer impulse buying behavior and store display. The sample group for the survey included 275 people selected from shoppers at the market center and Kadoos Mall, Abadan, Iran. Quantitative method was used by the authors to perform research with tools as SPSS and SEM model for data analysis. The results show that all four factors: Product display, credit card, discount, free products have positive impact on consumer impulse buying behavior. In particular, product display and discount have the strongest impact on consumer impulse buying behavior and the remaining factors have weaker impact. The research has very useful conclusions, however, research methodology is limited to quantitative method only. Qualitative and quantitative research methods or empirical studies should be combined to produce clearer results for future research.

Research by Mehta and Chugan [28]: Taken at the shopping center of Ahmedabad India to find out the impact of various aspects of visual merchandizing (store display, product sample/mannequin, advertising signboard, product display in the store) to impulse buying behavior of customers shopping at "trade centers". Sampling technique is central interception method, when customers go out of the store, they are surveyed using structured questionnaires. The survey was conducted at Ahmedabad's Central Mall over four days with 100 consumers in attendance. Quantitative research method was used to perform the study with the aid of SPSS reliability testing, factor analysis, correlation and linear regression run on the data to obtain some findings. The results demonstrate that there is an important relationship between consumer impulse buying behavior and store display, product sample/mannequin, advertising signboard, store display. Although product sample/mannequin does not lead to consumer impulse buying behavior, the results show that this variable and consumer impulse buying behavior are correlated. When consumers are exposed to these visual stimuli, they can make decision on impulse buying behavior. Regression analyzes show that store display, product display in the store have a low

level of impact on impulse buying behavior. Meanwhile, advertising signboard significantly influences consumer impulse buying behavior.

2.3. Some models of impulse buying behavior

- **Model 1: The Impulse Buying Process by Engel and Blackwell (1982)**

According to Engel and Blackwell [1], the consumers' buying process goes through five stages and each stage comes with a purpose in mind. However not all purchasing decisions go through the full five stages where buyers can ignore some of the stages but directly go from the problem recognition stage to the purchasing decision. At the problem recognition stage, if human impulse behavior is stronger than their reason, they will ignore the stages of search for alternative solutions and evaluation of alternatives and then immediately buy the product.

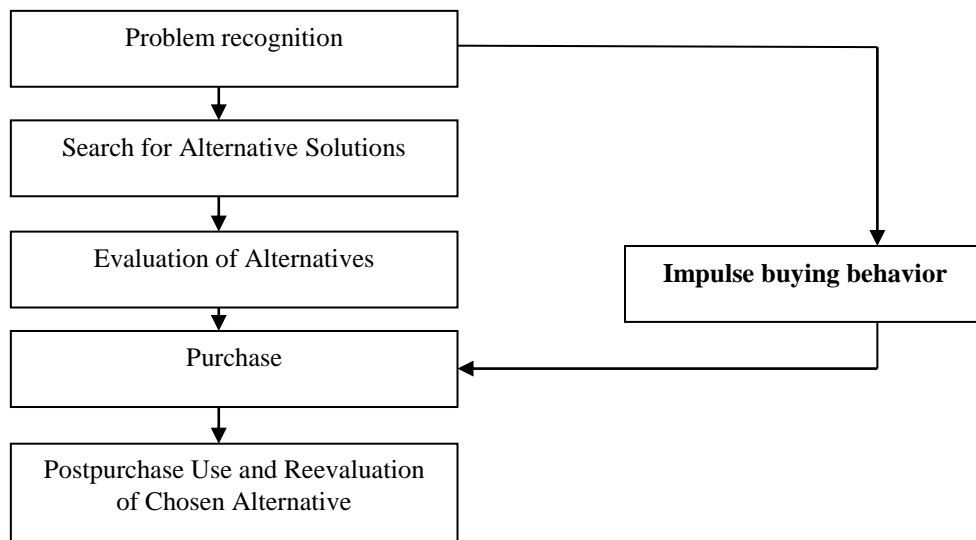


Fig.1. The Impulse Buying Process by Engel and Blackwell

Source: Compiled by authors- Engel and Blackwell (1982)

- **Model 2: Factors affecting students' impulse buying behavior**

Research by JIYEON KIM [6]: Quantitative research is used to measure the relationship between impulse buying behavior of undergraduates towards apparel products and visual merchandizing under four forms (window displays, in-store form/mannequin display, floor merchandizing, and promotional signage). The sample selected for this survey included female students over 18 years old at that time taking course at Georgia University in Athens. A total of 238 out of 245 completed questionnaires were completed and four hypotheses were made: H1: College students who purchase on impulse are influenced by window displays; H2: College students who purchase on impulse are influenced by in-store form/mannequin display; H3: College students who purchase on impulse are influenced by floor merchandising and H4: College students who purchase on impulse are influenced by promotional signage. Descriptive statistics, reliability testing, correlation testing, and regression analysis were used by the author to examine the correlation between the impulse buying trend of college students and four visual merchandizing practices and to test the hypotheses to find out the relationship between impulse buying trend of undergraduates (dependent variable) and the four types of visual merchandizing (independent variables).

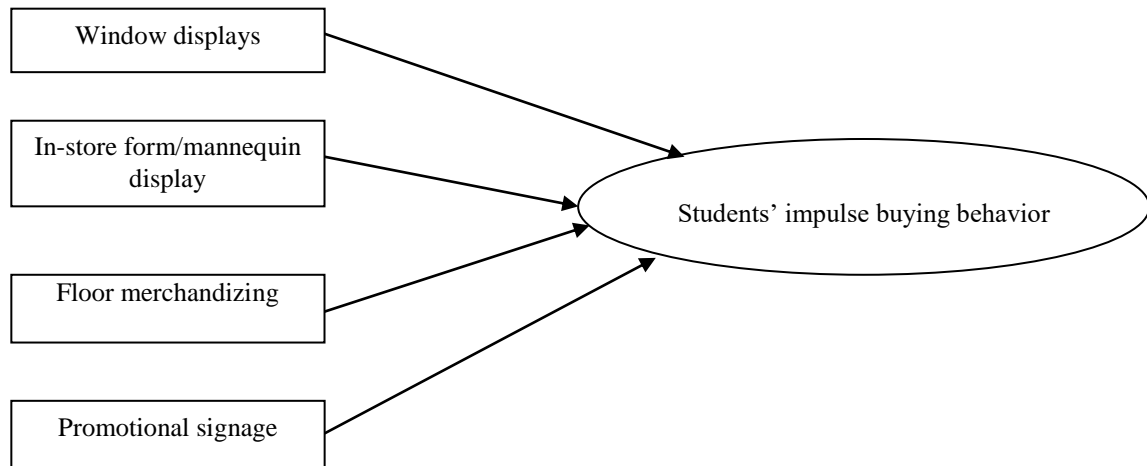


Fig. 2. Factors affecting students' impulse buying behavior

Source: Compiled by author- Jiyeon Kim (2003)

The results of this study demonstrate that there is a relationship between impulse buying behavior of students and visual merchandizing: window displays, in-store form/mannequin display, floor merchandizing, and promotional signage. In particular, promotional signage and in-store form/mannequin display have a stronger relationship. This study provides information on why visual merchandizing should be considered as an important component of strategic marketing plans to support increasing sales and improving business/store image positively. The study also provides insights for retailers about the types of visual merchandizing that may affect consumer impulse buying behavior. The important contribution of this study was to clarify the relationship between impulse buying behavior and visual sales, which were neglected in academic research (Buttle, 1988). However, the research still has limitations: research sample has limitations in geography and narrow age range. Data collected in other areas may have different results. Tools are limited to quantitative research method, empirical research method, and qualitative research method which can bring a variety of results. Respondents had limited time. Since the survey was requested to be completed in the classroom and returned immediately, time pressure for respondents might affect data quality. In addition, this study points to the relationship between visual merchandizing and improper buying behavior of undergraduates towards apparel products but it does not point out whether the relationship is positive or negative.

• **Model 3: Factors affecting impulse buying behavior in Delhi**

“Consumer Research” Journal shows some factors that influence consumer impulse buying behavior in Delhi are *price, discount, interior and exterior display, consumer mood, brand, festive season, advertising and promotion, etc.*

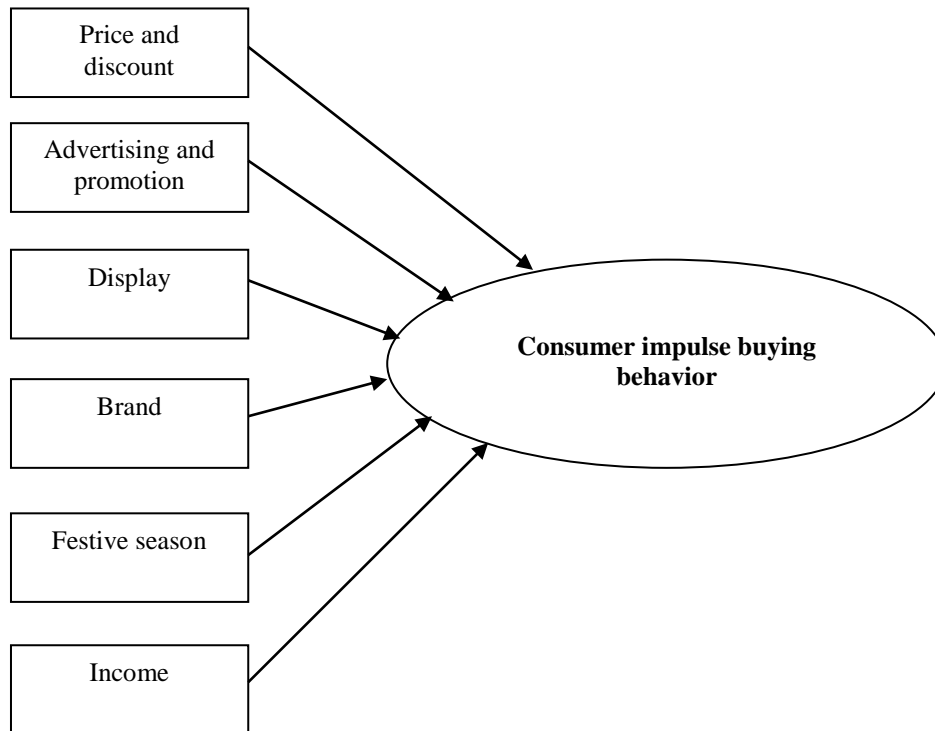


Fig. 3. Factors affecting impulse buying behavior in Delhi

Soucre : www.scribd.com/.../consumer-behaviour-on-impulse-buying (2010)

• **Model 4: Factors of the shopping environment affecting impulse buying behavior**

Research by Geetha Mohan, Bharadhwaj Sivakumaran, Piyush Sharma [30]: Aimed at exploring the relationship of four factors of the *shopping environment (music, lighting, staff, and layout) and impulse buying behavior*. Quantitative method was used to perform this study. Data were collected from 720 consumers at 44 stores in various shopping locations in Chennai, India. Of these, 52% were male and 48% were female aged 30 and over, mostly office workers and housewives. Research results show that all factors of the shopping environment, such as music, lighting, staff, and layout, promote impulsive buying behavior. In particular, product layout promotes the strongest impact. The study also showed that store environment factors promote impulse buying behavior more than personal factors. Those results are very valuable, theoretically: it adds a new set of factors that influence impulse buying behavior; practically, retailers are suggested a solution to increase sales by enhancing store staff friendliness, releasing appropriate music, designing suitable layout, and having enough light for the store to encourage impulse buying behavior. However, the research will be more valuable if having done empirically in different shopping environments with different products.

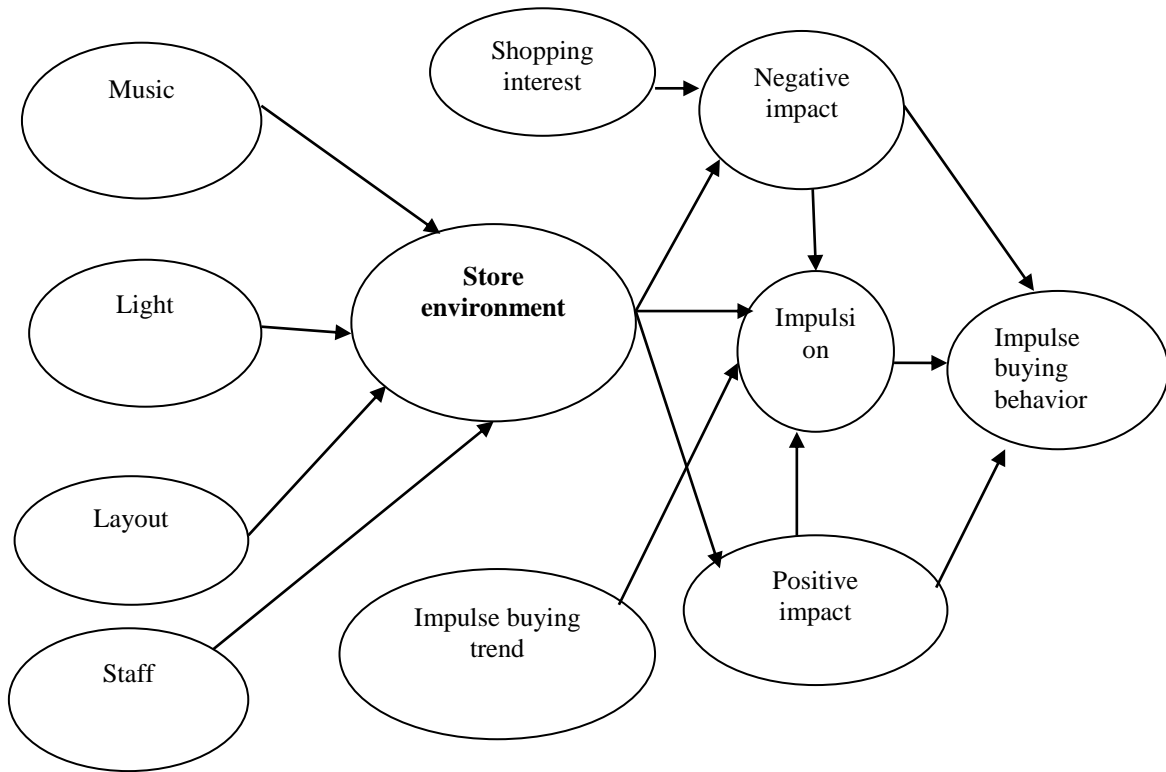


Fig. 4. Factors of the shopping environment affecting impulse buying behavior
 Source: Compiled by authors- Geetha Mohan, Bharadhwaj Sivakumaran, Piyush Sharma (2013)

3. Literature review at home

In Vietnam, changes in the retail system have facilitated impulse buying development, especially in big cities [24]. However, studies on this buying behavior are still limited.

Table 2. In-country studies on impulse buying behavior

Author	Year	Contribution
Nguyen Thi Tuyet Mai et al.[24]	2003	The first study of impulse buying behavior in Vietnam. The study has identified a number of factors that affect impulse buying behavior of Vietnamese consumers such as sex, age, income, and pointed out that clothing and footwear are two products that are mostly involved in impulse buying in Vietnam.
Nguyen Thi Tuyet Mai et al. [23]	2006	The research has shown the consequences of impulse buying behavior for Vietnamese consumers. Firstly, the feelings of grace and regret are mentioned by consumers as the prevalence and prominence of impulse buying behavior. Secondly, consumers are not satisfied with almost all of impulse buying.
Phan Mai Phuong Duyen and Nguyen Van ngoc [33]	2014	Studying the factors influencing impulse buying behavior in Nha Trang city. The results show buyer mood, price and discount, product display, shopping companion, advertising and promotion, festive season influencing impulse buying behavior of consumers in this city.
Pham Quoc Trung and Nguyen Ngoc Hai Ha [32]	2017	The results of the linear structural model analysis show that hypotheses in the model are accepted. In particular, the four factors (Impulsion, Appropriateness Evaluation, Instant Feeling, Confidence) have a direct impact on online impulse buying behavior. The other factors like available products, easy-to-use website, visual attractiveness have indirect impact on online impulse buying behavior.

Author	Year	Contribution
Khuong Ngoc Mai and Tran Bao Ta [25]	2015	This study found direct effects of internal variables (demand for uniqueness, self-control of spending, new fashion sense, optimal stimulus) of consumer impulse buying behavior towards fashion products in Ho Chi Minh City, Vietnam.

Source: Collected by the Authors - - Thong Huy Vu and Anh Phuong Thi Nguyen (2018)

Research by **Nguyen Thi Tuyet Mai [24]**: This study was conducted in Vietnam on a sample of 358 people living in Hanoi and Ho Chi Minh City, including men and women aged 16-60 to provide a general understanding of impulse buying behavior of Vietnamese consumers during the transitional period. Specifically, it found that whether *sex, age and income* affected impulse buying behavior and the difference in this behavior between consumers in Hanoi and Ho Chi Minh City as well as which *kind of product* was purchased impulsely most. The research was done by qualitative and quantitative methods. It concluded that young and high-income consumers tend to be more involved in impulse buying behavior. Men tend to be more involved in impulse buying behavior than women, because in Vietnam men do not like to go shopping and especially negotiate, so they often decide to buy faster when they see what they like. In contrast, women often spend their time carefully planning, evaluating and choosing. The study also found that consumer products such as clothing and footwear were more impulsely bought and there was no difference in impulse buying behavior between consumers in Hanoi and Ho Chi Minh City.

This is a special study and is of great significance when it comes to identifying the impediment of impulse buying behavior of Vietnamese consumers in a transitional economy in order to see a significant change in buying behavior of Vietnamese consumers compared to the previous period's. However, the scope of the study is relatively narrow, the representative of the sample is not high. The survey was just conducted in the two major cities rather than being expanded to both rural and urban areas to see the difference in consumer impulse buying behavior in both urban and rural areas.

Research by Khuong Ngoc Mai and Tran Bao Ta [25]: The objective of the study is to investigate the direct and indirect effects of internal variables (demand for uniqueness, self-control of spending, new fashion awareness, optimal stimulation) of consumers for impulse buying behavior towards fashion products in Ho Chi Minh City, Vietnam. The study was conducted with the sample of 355 people in 4 most famous commercial centers in Ho Chi Minh City. Regression analysis and path analysis were used to examine the hypotheses of the study. Research results show that all four variables directly affect consumer impulse buying behavior. This research provides a more comprehensive model of factors influencing consumer impulse buying behavior in Vietnam, where internal variables play a major role. However, the research has only pointed out the impact of those factors rather than the direction of the impact.

In addition to those studies, some authors have chosen "impulse buying behavior" as their specific master theses: Phan Mai Phuong Duyen [4] with the topic "Research on factors affecting impulse buying behavior in Nha Trang city." This topic examines the relationships among the factors (buyer mood, price and discount, product display, shopping companion, advertising and promotion, holiday season, brand) affecting impulse buying behavior of consumers in Nha Trang city. The results show that the factor "brand" does not affect impulse buying behavior of Nha Trang consumers, while the remaining factors are influential.

Truong Thi Thu Huong [5] conducted the study on "Research on factors influencing impulse buying behavior of consumers in Da Nang when shopping at supermarkets" in 2017. The author tested the relationship of five factors Advertising, Product display, Promotion, Staff, and Channeling with impulse buying behavior. The results indicate that the factor "staff" does not have any impact on impulse buying behavior, while the others do have.

Cao Thi Phuong Mai [3] conducted the study on "Studying the factors affecting impulse buying behavior: Retail market in supermarkets in Ho Chi Minh City" in 2017. The project was conducted to study the factors influencing impulse buying behavior in HCMC retail market. The results of the study identified and tested the external factors of the shop and the human factors affecting impulse buying behavior as follows: external factors: promotion method, product display method, atmosphere at the store, staff; human factor: whether consumers use any type of payment card or not, consumer satisfaction towards external factors in the store.

4. Research direction discussion and proposal

By the time of writing this paper, domestic literature on impulse purchase behavior was limited. With the economic, cultural and human characteristics of Vietnam, however, researchers have found some differences in the consequences of impulse purchase behavior as well as some factors affecting this behavior. Throughout the review process, the authors found that the domestic researches on the factors at the retail outlets affecting the

impulse purchase behavior are of limited, mainly master's theses and researches at supermarkets. There is a lack of literature at traditional retail outlets, one of the main distribution channels in Vietnam. This is really a gap for marketing researchers in Vietnam.

Generally evaluating foreign studies of point-of-sale factors affecting consumer impulse buying behavior, there are some various factors mentioned in previous studies which may be categorized into two groups, "External Visual Factors," and "Inside Visual Factors in the Store." However, the results of these studies have similarities and differences and are concentrated in developed countries.

Today, with the rapid development of information technology, e-commerce and online shopping have become commonplace in both developed and developing countries. Thus, in the area of research on impulse buying behavior alongside studies of the effects of point-of-sale factors, online impulse buying is a trend that has been studied by many researchers in the world in recent years [42,41, etc..]. These studies are primarily focused on the factors that influence online impulse buying such as product availability, site accessibility, visual appeal, site trust, instant feeling, etc.

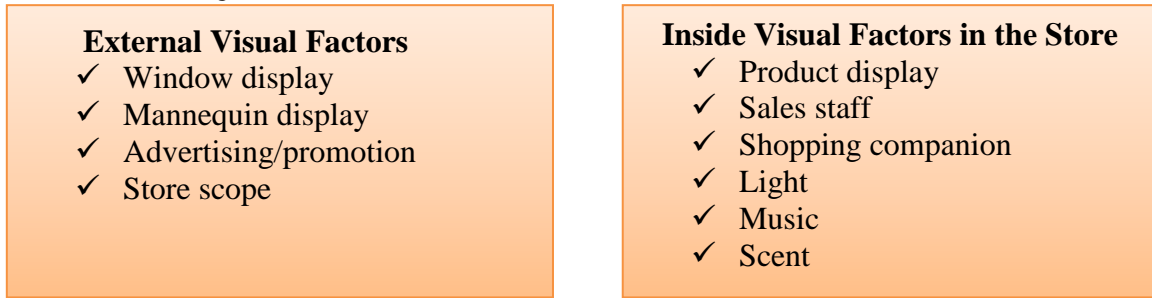


Fig. 5: Point-of-sale factors affecting impulse buying behavior

Source: Compiled by authors- Thong Huy Vu and Anh Phuong Thi Nguyen (2018)

In Vietnam, studies on impulse buying behavior in general and online impulse buying behavior are limited, but the factors that influence online impulse buying behavior have also been found in Pham Quoc Trung and Nguyen Ngoc Hai Ha's study (2017), which has shown that: Impulsion; Appropriateness Evaluation, Instant Felling, Confidence have a direct impact on online impulse buying behavior. The other factors such: Product availability, easy-to-use site, visual appeal have an indirect impact on online impulse buying behavior.

In the study, the authors just focused on point-of-sale factors affecting impulse buying behavior: because: firstly, although the trend of online shopping increased (from 0.7% in 2016 to 2.7% in 2017 according to a survey conducted by the Business Association of High-Quality Vietnamese Goods in January 2018). Secondly, the retail market of Vietnam is on the rise and is becoming more and more attractive in the article "Retail market more and more attractive" by Minh Son posted in Business and Market Journal (7th April 2018), according to the forecast by the Trade Research Institute (Ministry of Industry and Trade), in the period of 2016 - 2020, the retail trade growth rate of Vietnam will reach 11.9% per year, market scope is estimated to reach USD 179 billion by 2020, of which modern retail trade will account for over 45% as compared to 25% in 2016. By 2020, according to the plan, the country will have around 1,200 - 1,500 supermarkets and 180 commercial centers, 157 shopping centers. Thirdly, based on the changing trend of the market in a developing economy like Vietnam today, it can be deduced that impulse buying behavior will become popular behavior among consumers. Therefore, there is a need for more research in this field to get a more specific glimpse of the factors at the point-of-sale that may affect impulse buying behavior to help businesses develop effective marketing strategies and create an attractive and stimulating shopping environment to increase sales through consumer impulse buying.

On the other hand, the study by Raghbir and Srivastava [35] also showed that payment method can affect the buying behavior of consumers and consumers will spend more when they use gift card or credit card. However, payment method is rarely mentioned by scientists in the world and in Vietnam in the field of research on factors that affect impulse buying behavior. This factor only appears in the study by Karbasivar and Yarahmadi [22] but is also very unimportantly recognized. In addition, in Vietnam, card payment/electronic wallet/code or phone is one of the preferred trends of consumers especially young people. This is indicated in the article " Five trends of shopping for Vietnamese youth in 2018" posted on <http://cafebiz.vn> (10th February 2018). Therefore, future studies may examine the influence of the "payment method" on consumer impulse buying behavior of Vietnamese consumers, thereby improving the research model of point-of-sale factors affecting impulse buying behavior and knowledge development in the field of research.

5. Conclusion

Impulse buying behavior has been a subject of interest to researchers for over 60 years and is a popular phenomenon for consumers not only in developed countries but also in developing countries. However, this behavior is complex and multifaceted [17], so this is also a field that raises a lot of debate among researchers. Previous research on this area has focused on developed countries; however, a significant increase in income and personal life has prompted impulse buying behavior by consumers in developing countries. Thus, in developing countries there is a need for more research into impulse buying behaviour due to the recent development of the retail market and large differences in culture as compared to developed countries [21].

On the other hand, during the literature review, the authors found that there were a large number of foreign studies on the factors at the retail outlets that affected impulse purchase behavior, while those researches in this field in Vietnam are very limited. There are only a few master theses in this field at supermarkets in a single province or city. Meanwhile, the retail market in Vietnam is increasingly developing and impulse purchase behavior of consumers is increasingly popular. Therefore, there should be more research in this field to see the impact of factors at retail outlets on impulse purchase behavior to help retailers in Vietnam create an attractive shopping environment at their retail outlets to increase sales through impulse purchase.

In addition, according to a review of foreign studies on the factors at retail outlets affecting impulse purchase behavior, the authors found that the scientists were interested in two groups of factors: External visualization (including: external display, mannequin display, advertisement/promotion display, outlet scale) and internal visualization (including product display, sales staff, shopping companion, lighting, music, aroma). However, payment method is rarely mentioned by scientists in the world in this field of study. This factor only appears in the study by Karbasivar and Yarahmadi (2011) but is also not a notable point. Meanwhile, with the development of information technology, there has been many new and convenient payment methods for consumers in the world and in Vietnam. This poses an urgent need and also an opportunity for a thesis to be centered on this factor.

For the above reasons, the authors propose a new direction for research in the field of impulse purchase behavior: the study of the factors at retail outlets affecting the impulse purchase behavior of Vietnamese consumers and the authors also propose further clarification of the impact of the payment method factor that has not been thoroughly studied by scientists in this field. Therefore, the research can not only complement and refine the research model, but also provide the most comprehensive and in-depth analysis of the factors at retail outlets affecting impulse purchase behavior, contributing to the improvement of the theoretical and practical basis for solutions applied in the retail sector in Vietnam.

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The Relationship Between Final Consumption and Economic Sectors – A Structural Path Analysis Approach

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ABSTRACT

There are many ways to measure the importance and the level of interdependent impact between consumption and production, in which structural path analysis is considered as one of the most powerful methods. Application of extended structural path method captures not only the linkages within the production system but also the transfer of the induced effect into different layers of impacts. Final demand purchases initiate production processes that ultimately lead to grow sectoral output into various channels. This evaluates the role of consumers' decisions in determining the production scale. The previous findings show that it is necessary to require two approaches for policy to focus on sustainable production in order to fully identify important sectors in conditions of limited resources.

Keywords: structural path analysis; extended input-output model; final consumption; sectoral output.

1. Introduction

An economy is considered as a major set of interrelated economic production and consumption activities. If the quality and the consumption model are determined by the size of the product structure, quality as well as the nature of the product, speed of capital rotation, production rotation helping enterprises increase their competitiveness and improve their position in the market will be intensified by consumption. It is highly recommended that consumption plays an enormous role in the development of society, enterprises and employees' interest nowadays. In terms of social aspect, the consumption contributes to the balance between supply and demand, ensure the stability of the economy. Any change resulting from the final consumer demand for the products of industries can also lead to the process of social reproduction, which increases the productivity of the enterprises. The expansion of production of enterprises raises the incomes of employees, hence improving the living standard of the population. The change in income again affects the final consumer demand of the household groups. This spread takes place in the economy through many rounds with less impact than previous ones. The calculation of the overall effect of these turns helps to measure the relationship among the economic components including production, distribution and consumption.

Utilizing robust methods such as structural path analysis (SPA) is able to dependably reflect the complexity of connections in an economic system. This method not only reveals the linkage in the production system, but also refers to the spread of influence into different channels of effects. Structural path analysis is used for both input-output model (I/O model) and social accounting matrix (SAM) data frames. For conventional I/O models, this

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method is limited to illustrate only the connections among production areas. The combination of SPA with extended I/O model is more commonly applied in research drawing attention to the importance and impact of final consumption in the economy. The advantage of the extended I/O model is the ability to consider consumption accounts of household groups as endogenous variable instead of the exogenous one and the traceability chains of intermediate purchases instigated by final demand through layers of the production system the using SPA. Theoretically, a final demand purchase transfer an infinite number of supply chains as tree-like structures through the economy. For this reason, studies using SPA are impossible to exhaustively quote SPA results, only the most important paths by ranking (Peters, G. P., 2006; Acquaye, A. A., 2011). Almost all less important supply chains expressing only a small fraction of total output, to the point of rendering them individually negligible, can together represent a considerable share of total sectoral output (Wiedmann, T.; Lenzen, 2007). Compared with the SAM model, extended I/O model would probably be a more economical solution to research on the issues related to production and consumption, because the data served for constructing SAM framework is collected to be quite complicated and expensive. Despite these strong points, the I/O model has certain limitations including fixed technology and unrestricted supply. So, prices do not play an important role in this model.

In Vietnam, since the transition from subsidy to market economy, the relationship between production and consumption has been the subject of considerable research. Besides the quality of products, designs, types and prices of goods, enterprises should assess the role of selling products from the results of market research. Based on that, they are able to decide that will they produce to meet those needs in accordance with their production ability? In addition, rely on final consumer demand economic sectors would probably predict and construct new production strategies accounting to related factors, such as market, supply situation, sector development...in order to make their business activities more effective. As differences in the obvious roles and responsibilities of upstream and downstream when viewed through final production and consumption attributions of sectoral outputs increasingly come to the attention of policy-makers, there is an ever greater need to understand how and why such differences occur. Therefore, the study focusing on the role of final consumption on the production activities of the economic sectors in an exhaustive manner is essential.

The purpose of this article is to introduce the possibility of applying SPA into Leontief model to determine the link between consumption and production in the economy that has not been investigated clearly in Vietnam before. This relationship, in particular, is represented in the extended I/O model in an attempt to underline the final consumption role of household groups in improving the output of the economy. Apart from the direct and indirect effects on sectors revealed in common SPA, this extension also indicates the induced effects of consumption. These latest effects come from the raise of income in production expansion caused by new demand, which generates new demand, and so on. The addition of ones overcomes the restrictive input-output assumption relied on the idea that the income creation chain. Our extension of the SPA method provides a more precise understanding about which sectors are most affected by consumption factors, not only directly and indirectly but also inductively, is extremely helpful at making management policies more effective.

The rest of the paper is organized as follows. Section 2 describes the extended input-output model of consumption as a basis for the structural path analysis. The results of the empirical investigation are in section 3. Finally, a conclusion section ends the paper.

2. Methodology

2.1. Extended input-output model

Conventional I/O model only considers production for all the income creation mechanisms. Correspondingly, exogenous shocks affecting sectoral output involve all the possible alterations in consumer demand, while the subsequent transmission from new output to new income and new consumption and so on is overlooked. For extended I/O model, the key point of the interactions among the various parts of the macroeconomic system reflect that the increase in the size of production of the sectors requires increased demands for labor in addition to other intermediate inputs and thus create additional employment and income for workers. These extra incomes are able to be used for household consumption and this additional consumption in turn will stimulate production. All of which can be taken into account constructing the extended I/O model by moving households' decisions from the final (exogenous) demand to the input-output matrix.

Thus, the expanded I / O model is completion of a simple I / O model adding one line and one column as shown in the table 1. In which, households consume products and services purchased from the economic and

own household sectors to reproduction of labor power, represented in n+1 column. Labor is provided for industries in the economy and for household groups themselves, expressed in the n+1 line.

Table 1. Extended input – output model

	Intermediate consume					Final consume				GO
Intermediate Input	X11	X12	X13	...	X1n	C1	G1	I1	X1 - M1	X1
	X21	X22	X23	...	X2n	C2	G2	I2	X2- M2	X2

	Xi1	Xi2	Xi3	...	Xin	Ci	Gi	Ii	Xi- Mi	Xi

	Xn1	Xn2	X13	...	Xnn	Cn	Gn	In	Xn- Mn	Xn
Added value	L1	L2	L3	...	Ln					
	K1	K2	K3	...	Kn					
	P1	P2	P3	...	Pn					
	T1	T2	T3	...	Tn					
GI	X1	X2	X3	...	Xn					

$$\left[X_{n+1,1}, X_{n+1,2}, \dots, X_{n+1,n} \right]$$

$$\left[X_{n+1,1}, X_{n+1,2}, \dots, X_{n+1,n} \right]$$

Then matrix of direct technology coefficients of extended I/O model (\bar{A}) consists of a line vector representing the cost coefficient of labor by sectors (H_R), a column vector representing the household final consumption coefficient for the products of the sectors (H_C), the cost coefficient of the services provided by the households themselves (h) despite of the matrix of technical coefficients A of typical I/O model.

$$\bar{A} = \begin{bmatrix} A & H_C \\ H_R & h \end{bmatrix} \tag{1}$$

The linear relationship among the production value, the direct technology coefficients and the final consumption in our used extended input–output model can be expressed as follows:

$$(I - \bar{A})X = F \tag{2}$$

Or:

$$X = (I - \bar{A})^{-1} F \tag{3}$$

The elements of the matrix $(I - \bar{A})^{-1}$ are called the multipliers of the extended I/O matrix, which capture the overall effects on both the sectoral production and consumption from unitary and exogenous changes in final

demand. Aside from Type I income multipliers showing direct and indirect effects, the extended model also provides Type II ones (Miller, R.E., 1980) indicating induced effects.

2.2. Extension of the SPA Method

SPA was introduced into economics and regional science by Defourny and Thorbecke and Crama et al. (1984) and gradually becomes useful tool in researching economic issues related to energy (Treloar et al., 1997, 2001a, 2001b), carbon (Wood, 2008), water (Maria, L.L., 2014) and other physical quantities through industrial networks. Compared to the traditional multiplier decomposition proposed by Stone (1978) and Pyatt and Round (1979), SPA is more detailed and more apparently represents explicit the direction of spillover effects in addition to their magnitude.

The inverse in Eq. (3) can be written as its Taylor expansion (Waugh FV., 1950) leading to deeper knowledge into the analysis of the preceding multipliers:

$$(I - \bar{A})^{-1} = I + A + A^2 + A^3 + \dots \tag{4}$$

Matrix of direct technology coefficients of extended I/O model (\bar{A}) in Eq. (4) can be split into two parts, which reflect different economic relationships, related to production (matrix A - this is also a matrix of technical coefficients A of typical I/O model) and consumption (matrix B -including vectors representing the cost coefficient of labor by sectors (H_R), the household final consumption coefficient for the products of the sectors (H_C), and the services provided by the households themselves (h), as follows:

$$\bar{A} = A + B = \begin{bmatrix} A & 0 \\ 0 & 0 \end{bmatrix} + \begin{bmatrix} 0 & H_C \\ H_R & h \end{bmatrix} \tag{5}$$

By taking this distinction into account of Eq. (4), we can write:

$$\begin{aligned} (I - \bar{A})^{-1} &= I + (A + B) + (A + B)^2 + (A + B)^3 + \dots \\ &= I + (A_1 + A_2) + (A^2 + 2AB + B^2) + (A^3 + 3A^2B + 3AB^2 + B^3) + \dots \end{aligned} \tag{6}$$

This expression iron-out interdependencies between sectors into linear supply chains, that are activated when exogenous shocks to production and consumption appear and is an extension of the traditional SPA decomposition. On the right-hand side of Eq. (4), each element in the expansion denotes a different production layer (PL) or tier. We define a production layer (PL) as each term in the power series expansion, $PL^t = (A)^t$. Each additional layer, $PL^{t+1} = PL^t A$, represents the production of intermediate products in (t + 1)th production tier used as inputs into the preceding layer.

Because of aggregation of many industries, factories, and processes in each sector, so some sectors may be more aggregated than others. Our representation is able to become more realistic for lowly aggregated IO models or less realistic for number of sectors decreases. Note that the difference between the proposed SPA approach and the traditional one responds to:

$$\begin{aligned} (I - (A+B))^{-1} - (I - A)^{-1} &= I + (A + B) + (A + B)^2 + (A + B)^3 + \dots - (I + A + A^2 + A^3 + \dots) \\ &= B + 2AB + B^2 + 3A^2B + 3AB^2 + B^3 \end{aligned} \tag{5}$$

This indicates the added impacts in according with each of the infinite layers by the extended SPA. These new impacts involve those transferred from private consumption decisions ($B, B^2, B^3\dots$) and the connections between sectors and private consumption ($2AB, 3A^2B, 3AB^2\dots$). The sum of all these terms in Eq. (5) in fact, measures the induced effects that obtain the new income flows added by the expanded SPA method.

3. Analysis of results

To empirically implement the model, an input – output table for Vietnam economy with data for the year 2012 was used to calculate matrix A. For computational convenience, the author has added up 164 sectors listed in the 2012 I/O table into 14 basic ones, including: Agriculture (code1), Forestry (code 2), Fisheries (code 3), Mining (code 4), Processing and Manufacturing (code 5), Electricity and Water (code 6), Building (code 7), Wholesale, Retail trade and Repair of motor vehicles and motorcycles (code 8), Warehouse and Transportation Services (code 9), Accommodation and Catering services (code 10), Information and Communication services (code 11), Financial, Banking and Real estate services (code 12), Public service (code 13), Other services (code 14).

3.1. Output multipliers of conventional and extended I/O model

Leontief Inverse Matrix of two models are defined in Appendix A.1 and A.2. The empirical results show that the output multipliers measured by the expanded I/O model are significantly larger ones measured by the

conventional I/O model and achieved about 145% increase. Consequently, household expenditures are considered as component, joining into the spread of the impacts in Vietnamese economy. The analysis indicates that although Fisheries (7,58), Building (7,55), Processing and Manufacturing (7,4), Warehouse and Transportation Services (6,87), Agriculture (6,8) lead in terms of output multipliers in extended I/O model, consumption of household groups makes the greatest impact based on increased output on other industries (figure1) encompassing Public service (233,6%), Retail trade and Repair of motor vehicles and motorcycles (205,3%), Other services (203%), Forestry (176,6%), Banking and Real estate services (172,4%). It can be said that, the linkage between final consumption and later industries is appreciated higher than the rest of the economy.

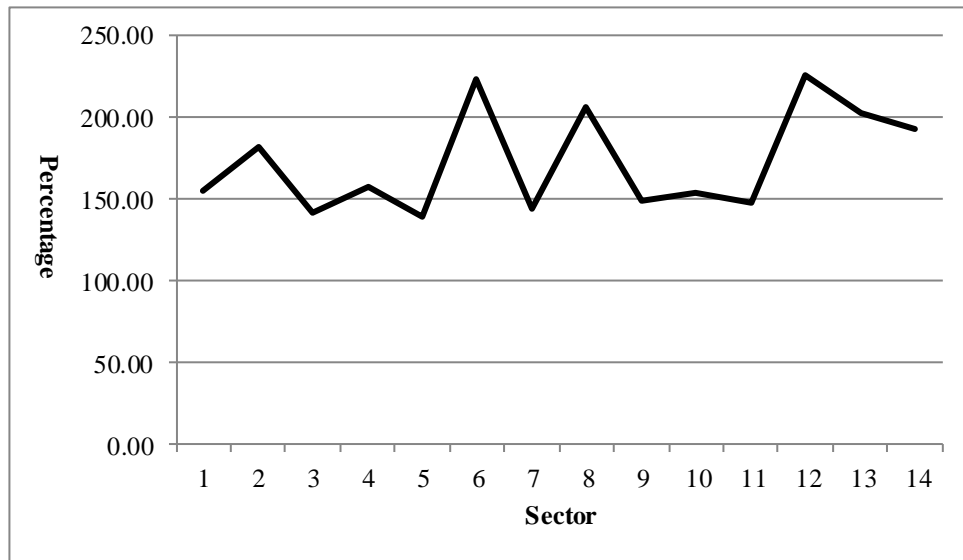


Fig.1. Output, generated in extended I/O model (%)

3.2. Diffusion effect of sectoral output

Diffusion effect of sectoral output is defined as the column sums in the matrices of output multipliers in each channel of impacts. These values imply the amount of output, generated in an attempt to satisfy a unitary increase in the exogenous shock of the corresponding field. The differences between both model in terms of sectoral outputs throughout the layers and its importance in the different chains are represented in tables 2,3 and 4. It can be seen that in the traditional model, almost all multiplier effects are activated from the first stages and sharply down in the next stages, while ones are activated from the second and subsequent stages in the extended model except Processing and Manufacturing industry and Information and Communication services. This is obviously reveals an interesting role of different layers between the two frameworks. Specifically, early layers played less important role in relation to ones away from the initial shock when consumption is taken into account in the multiplier process, and impacts propagated from later layers are greater than the conventional SPA. These values illustrate an opposite role of layers in the induced effects of final consumption as an element of the multiplier process to the general results relied on the rule that early layers have higher influence in terms of the impacts involved.

Table 2. Diffusion effect of sectoral output using traditional SPA method (Vietnamese dong)

Industry	1 st layer	2 nd layer	3 rd layer	4 th layer	5 th layer	6 th layer	7 th layer	8 th layer	9 th layer	10 th layer	Others layers	Total
1	0.58	0.39	0.27	0.18	0.12	0.09	0.06	0.04	0.03	0.02	0.04	2.82
2	0.49	0.27	0.16	0.10	0.07	0.04	0.03	0.02	0.01	0.01	0.02	2.23
3	0.71	0.53	0.37	0.26	0.17	0.12	0.08	0.06	0.04	0.03	0.06	3.41

4	0.55	0.38	0.26	0.18	0.12	0.08	0.06	0.04	0.03	0.02	0.04	2.74
5	0.79	0.56	0.38	0.26	0.18	0.12	0.08	0.06	0.04	0.03	0.06	3.56
6	0.28	0.17	0.11	0.08	0.05	0.04	0.02	0.02	0.01	0.01	0.02	1.81
7	0.70	0.50	0.35	0.24	0.16	0.11	0.08	0.05	0.04	0.02	0.05	3.31
8	0.35	0.20	0.13	0.08	0.06	0.04	0.03	0.02	0.01	0.01	0.02	1.94
9	0.63	0.45	0.31	0.21	0.15	0.10	0.07	0.05	0.03	0.02	0.05	3.06
10	0.61	0.40	0.27	0.19	0.13	0.09	0.06	0.04	0.03	0.02	0.04	2.87
11	0.66	0.45	0.31	0.21	0.15	0.10	0.07	0.05	0.03	0.02	0.05	3.10
12	0.35	0.16	0.09	0.06	0.04	0.03	0.02	0.01	0.01	0.01	0.01	1.79
13	0.34	0.20	0.14	0.09	0.06	0.04	0.03	0.02	0.01	0.01	0.02	1.98
14	0.35	0.23	0.16	0.11	0.07	0.05	0.03	0.02	0.02	0.01	0.02	2.08
Total	7.396	4.887	3.308	2.252	1.537	1.050	0.717	0.490	0.335	0.229	0.494	22.70

Source: results are calculated from data of the 2012 I / O table for Vietnam economy

According to results in table 4, while the diffusion effects in the other sectors increase slightly, Public, Other services and Wholesale, Retail trade and Repair of motor vehicles and motorcycles express exert high growth on sectoral output (13%, 11,5%, 10,7% of total from the second layer, corresponding), caused by the induced effects of consumption that cannot be reflected in the traditional method. This applies useful information about the connections captured by the SPA methodology because of the distinction between direct, indirect and induced effects. Channels to Public, other services, Wholesale, Retail trade and Repair of motor vehicles and motorcycles transfer an enormous impact in extended SPA because of the induced effects despite of inflows to ones generate low effects in traditional SPA because of their direct and indirect. Conversely, the rest of economy generate a significantly impact effects in traditional SPA because of its direct and indirect effects while the induced effects caused by consumption in their product are relatively low in extended SPA, for example the Processing and Manufacturing. These sectoral differences must be taken into account in the definition of a sustainable production system.

Table 3. Diffusion effect of sectoral output using extended SPA method (Vietnamese dong)

Industry	1st layer	2nd layer	3rd layer	4th layer	5th layer	6th layer	7th layer	8th layer	9th layer	10th layer	Others layers	Total
1	0.58	0.65	0.53	0.49	0.42	0.37	0.33	0.29	0.25	0.22	1.66	5.80
2	0.49	0.57	0.47	0.43	0.38	0.34	0.30	0.26	0.23	0.20	1.50	5.17
3	0.71	0.74	0.60	0.54	0.47	0.42	0.37	0.32	0.29	0.25	1.86	6.58
4	0.55	0.58	0.48	0.43	0.37	0.33	0.29	0.26	0.23	0.20	1.47	5.19
5	0.79	0.67	0.59	0.52	0.46	0.40	0.35	0.31	0.27	0.24	1.78	6.40
6	0.28	0.37	0.29	0.27	0.23	0.20	0.18	0.16	0.14	0.12	0.91	3.15
7	0.70	0.73	0.60	0.54	0.47	0.42	0.37	0.32	0.29	0.25	1.85	6.55
8	0.35	0.60	0.45	0.43	0.37	0.33	0.29	0.25	0.22	0.20	1.44	4.92
9	0.63	0.66	0.54	0.49	0.42	0.37	0.33	0.29	0.26	0.23	1.66	5.87
10	0.61	0.64	0.53	0.48	0.42	0.37	0.32	0.29	0.25	0.22	1.64	5.77
11	0.66	0.63	0.53	0.47	0.41	0.36	0.32	0.28	0.25	0.22	1.61	5.75
12	0.35	0.44	0.35	0.33	0.29	0.25	0.22	0.20	0.17	0.15	1.12	3.88
13	0.34	0.69	0.51	0.49	0.42	0.38	0.33	0.29	0.26	0.23	1.66	5.60
14	0.35	0.66	0.48	0.46	0.40	0.35	0.31	0.27	0.24	0.21	1.56	5.29
Total	7.40	8.64	6.96	6.37	5.53	4.90	4.31	3.80	3.34	2.94	21.73	75.92

Source: results calculated from data of the 2012 I / O table for Vietnam economy

Table 4. Induced effect generated in diffusion process (% of total)

Industry	1 st layer	2 nd layer	3 rd layer	4 th layer	5 th layer	6 th layer	7 th layer	8 th layer	9 th layer	10 th layer	Others layers
1	0.0	6.8	7.3	7.3	7.4	7.5	7.5	7.6	7.6	7.6	7.6
2	0.0	8.0	8.5	8.1	7.8	7.6	7.4	7.3	7.2	7.1	6.9
3	0.0	5.6	6.4	7.0	7.5	7.8	8.0	8.1	8.2	8.3	8.5
4	0.0	5.6	6.0	6.2	6.3	6.5	6.5	6.6	6.6	6.7	6.7
5	0.0	3.1	5.7	6.2	6.9	7.2	7.5	7.7	7.8	7.9	8.1
6	0.0	5.4	4.8	4.6	4.4	4.4	4.3	4.3	4.3	4.2	4.2
7	0.0	6.1	6.9	7.4	7.7	8.0	8.1	8.2	8.3	8.4	8.5
8	0.0	10.7	8.8	8.3	7.7	7.5	7.2	7.1	7.0	6.9	6.7
9	0.0	5.6	6.3	6.7	7.0	7.2	7.3	7.4	7.4	7.5	7.6
10	0.0	6.4	7.0	7.1	7.3	7.3	7.4	7.4	7.5	7.5	7.5
11	0.0	4.6	6.0	6.3	6.7	6.9	7.0	7.1	7.2	7.2	7.4
12	0.0	7.4	7.2	6.5	6.1	5.9	5.7	5.6	5.5	5.4	5.2
13	0.0	13.0	10.3	9.7	8.9	8.6	8.3	8.2	8.0	7.9	7.7
14	0.0	11.5	8.9	8.6	8.0	7.8	7.6	7.5	7.4	7.4	7.2
Total	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: results calculated from data of the 2012 I / O table for Vietnam economy

3.3. Absorption effect of sectoral output

Table 5,6 and 7 show the absorption effects, calculated by summing up each row in the output multiplier matrices, reflects the increase in the sectoral output used by the corresponding sector when the final demand rises by 1 monetary unit in all sectors. The total amount of output consumed indicated in table 5,6, and 7 give more different outcomes than in the diffusion effects. It is noticeable that, in the traditional model multiplier effects are especially remarkable in Agricultural because they are activated from the second stages while others are activated from first ones. It can be said that, the indirect linkage play a more important role than direct one in effect spread, generated by exogenous shocks. The role of layers removed from the initial impact, are more important in the induced effects of final consumption as an element of the multiplier process to sectors involving Agriculture, Fisheries, Processing and Manufacturing, Mining, Wholesale, Retail trade and Repair of motor vehicles and motorcycles, Warehouse and Transportation Services, Accommodation and Catering services, and Other services. Meanwhile, early layers have higher influence to others.

Table 5. Absorption effect of sectoral output using traditional SPA method (Vietnamese dong)

Industry	1 st layer	2 nd layer	3 rd layer	4 th layer	5 th layer	6 th layer	7 th layer	8 th layer	9 th layer	10 th layer	Others layers	Total
1	0.40	0.52	0.42	0.30	0.21	0.14	0.10	0.07	0.05	0.03	0.07	3.29
2	0.39	0.23	0.15	0.10	0.07	0.04	0.03	0.02	0.01	0.01	0.02	2.07
3	0.16	0.14	0.10	0.07	0.05	0.03	0.02	0.01	0.01	0.01	0.01	1.61
4	0.28	0.23	0.16	0.11	0.08	0.05	0.04	0.02	0.02	0.01	0.03	2.04
5	4.03	2.83	1.95	1.33	0.91	0.62	0.43	0.29	0.20	0.14	0.29	14.02
6	0.20	0.09	0.06	0.04	0.03	0.02	0.01	0.01	0.01	0.00	0.01	1.48
7	0.13	0.04	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.22
8	0.27	0.20	0.14	0.10	0.07	0.05	0.03	0.02	0.01	0.01	0.02	1.92
9	0.27	0.13	0.08	0.06	0.04	0.03	0.02	0.01	0.01	0.01	0.01	1.66
10	0.09	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.17
11	0.36	0.13	0.05	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	1.60
12	0.55	0.23	0.12	0.08	0.05	0.03	0.02	0.02	0.01	0.01	0.02	2.14

13	0.20	0.07	0.04	0.03	0.02	0.01	0.01	0.01	0.00	0.00	0.01	1.40
14	0.06	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.09
Total	7.40	4.89	3.31	2.25	1.54	1.05	0.72	0.49	0.33	0.23	0.49	22.70

Source: results calculated from data of the 2012 I/O table for Vietnam economy

Table 6. Absorption effect of sectoral output using extended SPA method (Vietnamese dong)

Industry	1st layer	2nd layer	3 rd layer	4 th layer	5th layer	6th layer	7th layer	8th layer	9th layer	10th layer	Others layers	Total
1	0.40	0.90	0.80	0.76	0.67	0.59	0.52	0.46	0.41	0.36	2.64	9.51
2	0.39	0.25	0.20	0.17	0.15	0.13	0.11	0.10	0.09	0.08	0.57	3.23
3	0.16	0.30	0.22	0.21	0.18	0.16	0.14	0.13	0.11	0.10	0.72	3.44
4	0.28	0.29	0.27	0.25	0.22	0.19	0.17	0.15	0.13	0.12	0.85	3.91
5	4.03	4.25	3.81	3.40	3.00	2.64	2.33	2.05	1.81	1.59	11.74	41.65
6	0.20	0.16	0.13	0.12	0.10	0.09	0.08	0.07	0.06	0.05	0.40	2.46
7	0.13	0.11	0.07	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.20	1.81
8	0.27	0.39	0.30	0.29	0.25	0.22	0.19	0.17	0.15	0.13	0.97	4.33
9	0.27	0.30	0.21	0.20	0.17	0.15	0.13	0.12	0.10	0.09	0.66	3.39
10	0.09	0.26	0.12	0.13	0.10	0.10	0.08	0.07	0.06	0.06	0.42	2.50
11	0.36	0.24	0.14	0.11	0.09	0.08	0.07	0.06	0.05	0.05	0.35	2.62
12	0.55	0.53	0.38	0.34	0.29	0.25	0.22	0.20	0.17	0.15	1.12	5.19
13	0.20	0.16	0.12	0.10	0.09	0.08	0.07	0.06	0.05	0.05	0.35	2.33
14	0.06	0.49	0.20	0.23	0.18	0.17	0.14	0.13	0.11	0.10	0.73	3.54
Total	7.40	8.64	6.96	6.37	5.53	4.90	4.31	3.80	3.34	2.94	21.73	75.92

Source: results calculated from data of the 2012 I/O table for Vietnam economy

A comparison of the two models reveals that consumption–income channel has more significant impact on the Processing and Manufacturing, and Agricultural sector (table 7) than the rest of economy. In which, the importance of Processing and Manufacturing in the induced effects is highest in all layers. This suggests that the product of Processing and Manufacturing sector is needed for consumption of the economy but its output generated from demand of other economic sectors than itself. The differences of sectoral output in the absorption effects indicate the necessary of completing the circular flow of income by adding final consumption.

As a whole, the comparison the results between the two SPA methods give both obviously quantitative and qualitative differences. Multiplier effects of the extended SPA, which is higher compared with the traditional one, emphasize the role of final consumption to the spread of the influence of exogenous effects throughout the economy. On the other hand, the outcome also indicates the relative importance of sectors and layers change significantly when consumption accounting is added to a SPA approach. This also clarifies the degree of linkages among economic entities, including final consume of household groups and sectors as well as the nature of ones (direct, indirect, induced) spread in the economic system. In addition, the measurement of the impact magnitude of diffusion and adsorption processes circulated in different pathways serves as the basis for policy formulation and implementation supporting the production process or regulating consumer behavior to meet the objective of economic development in each period.

Table 7. Induced effect generated in absorption process (% of total)

Industry	1st layer	2nd layer	3 rd layer	4 th layer	5th layer	6th layer	7th layer	8th layer	9th layer	10th layer	Others layers
1	0.0	10.1	10.6	11.3	11.6	11.7	11.9	11.9	12.0	12.0	12.1
2	0.0	0.6	1.4	1.7	2.0	2.2	2.3	2.4	2.5	2.5	2.6
3	0.0	4.3	3.4	3.5	3.4	3.4	3.4	3.4	3.3	3.3	3.3
4	0.0	1.6	2.8	3.2	3.5	3.6	3.7	3.8	3.8	3.8	3.9
5	0.0	38.0	50.9	50.2	52.2	52.5	53.0	53.2	53.4	53.6	53.9
6	0.0	1.7	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8
7	0.0	1.9	1.4	1.2	1.1	1.1	1.0	1.0	1.0	1.0	0.9
8	0.0	5.0	4.5	4.6	4.5	4.5	4.5	4.5	4.5	4.5	4.5
9	0.0	4.5	3.5	3.4	3.3	3.2	3.2	3.1	3.1	3.1	3.1
10	0.0	6.2	2.8	3.0	2.4	2.4	2.2	2.2	2.1	2.1	2.0
11	0.0	3.1	2.5	2.2	2.0	1.9	1.8	1.8	1.7	1.7	1.7
12	0.0	8.0	7.0	6.3	5.9	5.7	5.5	5.4	5.3	5.3	5.2
13	0.0	2.4	2.0	1.9	1.8	1.7	1.7	1.7	1.7	1.6	1.6
14	0.0	12.7	5.3	5.6	4.5	4.3	4.0	3.8	3.7	3.6	3.4
Total	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: results calculated from data of the 2012 I / O table for Vietnam economy

4. Discussion and Policy relevance

We applied structural path analysis to the national production chains instigated by the Vietnam economy. By comparing the traditional and extended models separately we were able to highlight the description of the transmission channels of the exogenous impacts. Through the SPA we identified the production paths, provides a deeper knowledge of inter-sectoral linkage and interdependencies among sectors and final consumption. Analyzing production perspectives adding final consumption, we can determine the accumulated impacts for sectoral output. Accordingly, this information is of extreme essential when demand - pull and supply - push policies are to be individually applied to the different sectors of production. We found that an absorption effect in which the Processing and Manufacturing and Agricultural are supplying the greatest input for whole economy and further reinforced with the addition of the induced effects. It should be pointed out that Vietnam develops modernization technology in Processing and Manufacturing, and Agricultural processes in order to improve their business efficiency. However, the rebound effects can mitigate the results expected by these policies based on technological improvements in above sectors. So, the policy maker is able to propose tax in order to keep the cost of use the same. Furthermore, the strong point of our expanded SPA model expressed in which it captures not only the direct and indirect effects but also induced effects, so it illustrates a better quantification of total output from improved efficiency in sectoral output in Processing and Manufacturing, and Agricultural in different channels. In addition to, this method is able to identify which sector has the greatest implicit influence on overall output of Processing and Manufacturing, and Agricultural sectors.

However, mechanism behind diffusion and adsorption processes in both processes under assumptions of the model and in the context of Vietnam I/O data 2012 encompass some limitations that should be kept in mind. The extension of the SPA method compared with the traditional ones, increases the total output of economy, generated by induced effect in both diffusion and adsorption processes. Obviously, the source of input to the server for the response output in order to meet the final demand thus is not limit. On the other hand, the price doesn't play an important role in the model as said above, so the application of the proposed SPA to the quantity-oriented input-output is suitable in the short-run.

Interestingly, the induced effect, derived from the use of the extended SPA method in two diffusion and adsorption processes shows the different roles of final consumption decisions to the production of industries. If, during the diffusion process the change in the consumer decision of one sector influences the output performance of other sectors, the adsorption process indicates how the output of a particular industry effected by the

consumption decision of the entire economy. This is useful when policy makers regulate consumer behavior to ensure that the output of the any sector or of the economy, corresponding to the most appropriate strategy.

5. Conclusion

In summary, our research applied two different SPA approaches in elucidating the reasons behind sectoral output in an economy. To this end, the SPA is a useful tool to illustrate the linkages between consumption and production by considering final consumption of household groups as endogenous account of the I/O. The findings of comparison the two models suggest that extended SPA method capture not only the direct and indirect effects, but also induced ones. The analysis drawn by the traditional and the proposed (extended) approach evaluate the importance of various pathways since multiplier process effects are displaced into layers that are more remote from the initial impact. Our results add to the research literature on relationships among entities in the Vietnamese economy by acquiring SPA method and offers additional scientific basic to policy development.

Appendix A: Leontief Inverse Matrix of conventional I/O models

Sector	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	1.41	0.06	0.22	0.15	0.35	0.06	0.20	0.07	0.18	0.24	0.15	0.04	0.08	0.09
2	0.04	1.58	0.06	0.04	0.09	0.02	0.06	0.02	0.05	0.04	0.04	0.01	0.02	0.02
3	0.03	0.01	1.18	0.03	0.08	0.01	0.05	0.02	0.04	0.05	0.04	0.01	0.02	0.02
4	0.06	0.02	0.09	1.20	0.14	0.11	0.10	0.03	0.07	0.07	0.06	0.02	0.03	0.04
5	1.02	0.43	1.58	1.07	2.57	0.44	1.50	0.45	1.31	1.12	1.11	0.27	0.51	0.66
6	0.03	0.01	0.04	0.03	0.04	1.07	0.03	0.03	0.03	0.05	0.04	0.02	0.02	0.02
7	0.01	0.01	0.01	0.01	0.01	0.00	1.07	0.01	0.01	0.01	0.01	0.04	0.01	0.01
8	0.08	0.03	0.11	0.06	0.11	0.04	0.11	1.03	0.08	0.08	0.08	0.02	0.04	0.04
9	0.04	0.02	0.05	0.04	0.06	0.02	0.05	0.04	1.15	0.04	0.05	0.02	0.04	0.03
10	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.02	0.01	1.01	0.01	0.01	0.03	0.01
11	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.02	0.01	0.01	1.39	0.02	0.06	0.02
12	0.05	0.02	0.05	0.06	0.06	0.02	0.07	0.15	0.08	0.12	0.06	1.29	0.05	0.05
13	0.02	0.01	0.02	0.03	0.03	0.01	0.04	0.04	0.04	0.03	0.04	0.03	1.06	0.02
14	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	1.03

Source: results calculated from data of the 2012 I/O table for Vietnam economy

Appendix B. Leontief Inverse Matrix of extended I/O models

Sector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Household groups
1	1.88	0.52	0.70	0.55	0.80	0.33	0.70	0.53	0.62	0.69	0.58	0.40	0.62	0.59	0.74
2	0.12	1.66	0.15	0.11	0.18	0.07	0.15	0.10	0.13	0.13	0.12	0.08	0.12	0.12	0.14
3	0.17	0.15	1.32	0.15	0.22	0.09	0.19	0.15	0.17	0.19	0.16	0.12	0.18	0.17	0.22
4	0.20	0.16	0.23	1.33	0.27	0.19	0.25	0.17	0.20	0.21	0.19	0.13	0.19	0.19	0.22
5	3.09	2.47	3.74	2.86	4.56	1.65	3.70	2.52	3.29	3.14	3.00	1.87	2.90	2.85	3.27
6	0.11	0.09	0.11	0.10	0.11	1.11	0.11	0.11	0.10	0.12	0.11	0.08	0.11	0.10	0.12
7	0.05	0.06	0.05	0.05	0.05	0.03	1.11	0.06	0.05	0.05	0.05	0.07	0.06	0.06	0.07
8	0.26	0.21	0.30	0.22	0.29	0.14	0.30	1.21	0.25	0.26	0.25	0.16	0.25	0.24	0.29
9	0.17	0.15	0.19	0.16	0.18	0.10	0.19	0.17	1.27	0.17	0.17	0.12	0.19	0.16	0.21
10	0.11	0.11	0.11	0.09	0.11	0.06	0.12	0.12	0.11	1.11	0.11	0.09	0.15	0.12	0.16
11	0.09	0.09	0.09	0.08	0.08	0.05	0.09	0.10	0.09	0.09	1.46	0.08	0.14	0.10	0.12
12	0.28	0.24	0.29	0.26	0.28	0.16	0.32	0.38	0.30	0.35	0.27	1.47	0.32	0.29	0.36
13	0.09	0.08	0.09	0.09	0.09	0.05	0.11	0.11	0.10	0.09	0.10	0.09	1.15	0.09	0.11
14	0.19	0.18	0.19	0.16	0.18	0.11	0.20	0.19	0.18	0.18	0.18	0.15	0.23	1.22	0.29
Labour Income	1.48	1.46	1.54	1.28	1.42	0.87	1.57	1.48	1.41	1.44	1.35	1.15	1.71	1.56	2.33

Source: results calculated from data of the 2012 I/O table for Vietnam economy

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Conceptual Model of Customer Satisfaction in A Multi-Channel Banking Service Context: A Case of Vietnam

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ABSTRACT

Faced with the array of distribution channels available to them, customers have been increasingly adopting a multi-channel behavior. The objective of this article is to identify the impact of different channels used by the client on their overall satisfaction in a multi-channel service context. Semi-structured individual interviews with 20 banking customers in Vietnam were conducted to collect the empirical data for this explorative study. The results show that individual variables and nature of the operation are the main factors influencing customer's choice for banking services' distribution channels. Moreover, we also find that service quality perceived by customers among different channels have dissimilar effects on overall customer satisfaction. The results also propose a conceptual model of multi-channel customer satisfaction in a Vietnamese banking context. Therefore, this subject not only offers interesting perspectives in terms of development strategies of multi-channel banking service in Vietnam but also provides suggestions for future researches.

Keywords: Multi-channel integration; service quality; customer satisfaction

1. Introduction

Today, apart from the physical distribution networks, the telephone platforms and the Internet are all channels allowing the company and its customers to interact. Among these technological channels, the Internet has become one of the most used distribution channels and a “decisive factor in the development of multi-channel distribution strategies” (Vanheems R., 2009). Many service companies, thanks to the growth of information and communication technologies, offer their customers several service delivery systems. Alongside the traditional distribution channels of services described as “physical channels” (Sousa and Voss, 2006), technological service delivery channels have emerged. Among these channels, we can mention that Internet, telephone or automata, which act as an interface between service companies and its customers, have become alternatives to traditional modes of service delivery such as face to face. In addition to greater productivity, service companies seeks to get closer to customers while being at a distance (Dabholkar, 1996). And among service companies that have opened up to multi-channel, we can mention banks, an emblematic sector of multi-channel distribution. With these different distribution channels, they can better meet the expectations of customers who are becoming more and more demanding. They want to receive the desired service when they want, where they want, and in their preferred channel. Today this is possible: the service is delivered 24/24 and 7/7, in multiple and varied locations. The multi-channel strategy has thus become a necessity (Neslin et al., 2006) for service companies, because beyond the transactional dimension, it introduces a relational dimension that strengthens the relationship between

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the service company and its customers. In a competitive environment, where the customer has become more and more volatile, working for greater customer satisfaction and thus better loyalty becomes a key issue for service companies. In this way, the latter seeks to deliver the service to the customer via efficient service delivery systems that meet the customer's expectations. It is therefore crucial for multi-channel service providers to gain a better understanding of how customers evaluate different service delivery systems.

This leads us to focus on the problem of global service quality and global customer satisfaction of their service experience in a multi-channel environment. The different channels of service delivery have attracted the interest of many researchers who have been particularly interested in customers' perception of service quality and their satisfaction in the different channels taken in isolation. Few studies, with the exception of recent work (Hummel, Schacht, and Maedche, 2017; Bapat, 2017; Patrício, Fisk, and Falcão e Cunha, 2003; Montoya-Weiss, Voss, and Grewal, 2003; Sousa and Voss, 2006), have had a global vision of customer evaluation taking into account the set of channels. In a context of multi-channel service distribution where the customer goes through the various channels made available by the company to obtain a service, customers' perception of service quality may depend on all the channels used (Payne and Frow, 2004). It therefore seems important to take into consideration the global service quality perceived by customers and their global satisfaction, the multi-channel behavior of the latter, trying to see: how does the use of several channels influences his behavior and his global evaluation? Very little research in Vietnam has been done so far on overall customer satisfaction in multi-banking which involves different types of interaction: face to face, ATM, online, mobile, apart from branch banking. Especially, in Vietnam, although in early 2018, the omni-channel model has been implemented by banks and multi-channel concept is not too strange to both Vietnamese banks and customers, overall customer satisfaction is still an important issue to banks.

The purpose of this article is to evaluate the impact of the various channels used by customers on perceived global service quality and on its global satisfaction in a multi-channel service experience. In other words, we focus on understanding multi-channel customer behavior in terms of overall satisfaction. Its objective is to identify quality factors influencing the satisfaction of multi-channel customer. This brings us to a certain number of questions:

In a multichannel service distribution context:

- What is the evaluation of the multi-channel customer satisfaction?
- What are the quality factors that most influence the overall customer satisfaction?
- What is the customer's overall satisfaction based on?
- How does each channel contribute to the overall customer satisfaction?

To answer these questions, we will first examine the conceptual framework underlying this research. An exploratory study of the banking sector in Vietnam will then be presented and the results of this research will be discussed. From a managerial point of view, this research aims to arrive at a better understanding of the customers' multi-channel behavior in terms of overall satisfaction.

2. Literature review

2.1. Concept of service experience

Customer experience is the cognitive and affective outcome of the customer's exposure to, or interaction with, a company's people, processes, technologies, products, services and other outputs (Buttle, 2015). This author suggested that differences between competitors' products and service performance evaporate quickly and that customers end up making choices based on the totality of their experiences of searching, acquiring and using an offering. Today's consumers and businesses have become more sophisticated about shopping for their needs across multiple channels, but what it really means is that customers will come at companies in various ways, in ways that suit those customers, and companies must be ready to present a logical, coherent response to each customer - not just messages sent through media channels - and to remember what is learned through each interaction and apply that learning to all channels (Don Peppers and Martha, 2017). The service experience in a multichannel distribution context, the analysis unit of this study is a "concept close to the service encounter" (Bitner & al., 1990; Bartikowski B., 1999). Several definitions of the service encounter have been given in the service marketing literature. According to (Bitner M. J. et Hubbert A. R., 1994), the service meeting is a "moment of truth" involving at least two people: the client and the firm. For a long time, most traditional service marketing research has studied service encounter as a dyadic interaction between a service provider and a client. One reason for this is that human interaction is at the heart of many service encounters. Much emphasis is placed on the leading role played by the staff in contact (Parasuraman A., Zeithaml V. A., Berry L. L., 1988) in the

creation of the service but also in the customer satisfaction of the service meeting and in the improvement of service quality (Bitner M. J. et Hubbert A. R., 1994).

Broader definitions of the service encounter are also proposed which do not limit the latter to a “human interaction”. The service encounter is also seen as: “a period of time during which a consumer interacts directly with a service”, “a moment of truth in which customer develops indelible impressions via the firm” (Bitner M. J. et Hubbert A. R., 1994). The irruption of technology into the service meeting has changed the traditional conception of service: the service can be delivered without interaction with staff in contact.

The introduction of information and communication technologies into services will cause major changes, especially in the delivery of services. It offers service companies the ability to produce and distribute the service in a variety of ways. With the advent of the multi-channel, the service company now has a variety of distribution channels available to the customer: agencies or physical points of contact, telephone platforms, automata, Internet, etc. These different channels can be grouped along a continuum from the most physical to the most virtual (Payne and Frow, 2004; Sousa and Voss, 2006). Thus depending on the virtual or physical nature of the channels, the process of issuing the service will not be the same. On the one hand, we can distinguish the traditional physical channels which are: “all the means of communication with the customer using physical infrastructures (including physical facilities in a context of face-to-face service and logistics infrastructures in a logistics service context) (Sousa and Voss, 2006). And on the other hand, the virtual or technological channels like the Internet, the automata or the interactive telephone which are: the whole of the means of communication using advanced technologies of the information and the communication, the multimedia technologies”. Providing the client with these two types of channel leads to a multi-channel behavior that causes the client to switch from one to the other depending on the stage of the decision process (Filser M., 2001). Through these different channels, the customer is therefore required to interact with the service company to receive the service and to evaluate the service experience in these different channels.

In summary, service experience is defined as a “slice of life” (P. Eiglier and é. Langeard, 1987), “a set of interactions between a client and a service company to achieve a specific outcome” (Llosa S., 1997). It can thus contain several service meetings (Bartikowski B., 1999). These definitions convey the concept of service experience in a multichannel distribution context that includes all the interactions between the service company and its customers across the different service delivery channels.

2.2. Service quality and satisfaction in a multi-channel environment

Perceived service quality and satisfaction are two concepts that have attracted the interest of many works in marketing services. The literature proposes several definitions of these two concepts. Being at the heart of the customer’s evaluation of the service experience, these two concepts have been the subject of much controversy as to how to define them, to measure them and to their causal link.

Service quality has been described in the literature as a “customer’s overall impression of the relative inferiority/superiority of the organization and its services” (Bitner M. J. et Hubbert A. R., 1994). It is defined by (Parasuraman A., Zeithaml V. A., Berry L. L., 1988) as the result of a “difference between expectations and perceptions”. It represents both a state and a process (Bitner & al., 1990; Wolfinbarger and Gilly, 2003). The service quality is often measured in the literature by customers’ perception of this quality (Parasuraman A., Zeithaml V. A., Berry L. L., 1988). It is defined as “global judgment relating to the superiority of the service or product”.

The concept close to the service quality, *customer satisfaction* is also characterized by a heterogeneity of definitions. One of the most common definitions of satisfaction is that of a “psychological state” resulting from a dual cognitive and affective process (Y. Evrard, Pras, and Roux, 1993; Vanhamme J., 2002) and in contrast to service quality, requires a consumption experience (Llosa S., 1997; Vanhamme J., 2002). These aforementioned characteristics of the satisfaction that are its cognitive, emotional and evaluative orientation make it often confused with attitude (Y. Evrard, Pras, and Roux, 1993). The latter differs from satisfaction in that it “does not necessarily require consumption experience”, it is “sustainable”, can rely on “beliefs” (Vanhamme J., 2002), and has a “stable character” expressing an overall judgment contrary to the satisfaction that is a “situational construct” (Bartikowski B., 1999). Customer satisfaction has been defined and measured in many ways. In this paper, we also define customer satisfaction as follows “*Customer satisfaction is the customer’s fulfilment response to a customer experience, or some part thereof*” (Francis, 2015).

In a *multi-channel* environment, (Montoya-Weiss, Voss, and Grewal, 2003; Sousa and Voss, 2006) show that the customer experience is formed through all the moments of contact. The *multi-channel customer*, using at least two channels in his relationship with the company, can base on his perception of the service quality and his

satisfaction, not on one, but on all the channels used (Sousa and Voss, 2006; van Birgelen, de Jong, and de Ruyter, 2006).

(Krishnan et al., 1999) conclude that the service quality delivered by the different banking channels is decisive for the overall customer satisfaction. The works of (Montoya-Weiss, Voss, and Grewal, 2003) go in the same direction by showing that in a multichannel distribution context, the perceptions of the service quality in each of the channels used by the customer have a positive effect on the with the financial service provider. However, neither of these two studies measures the interaction between the different channels.

Among the elements to be taken into account in the customer experience in a multi-channel context, (Sousa and Voss, 2006) emphasize the integration of channels. From a customer perspective, channel integration aims to live a seamless, smooth experience across all the channels used. With channel integration, the customer moves easily from one channel to another and has seamless experience across the different channels. This uniform and continuous multi-channel experience is likely to result in a higher level of customer satisfaction (Bert Rosenbloom, 2007; Sousa and Voss, 2006) favoring a long-term relationship (Patrício, Fisk, and Falcão e Cunha, 2003) based on trust. The importance of channel integration for the customer has led authors such as (Sousa and Voss, 2006) to introduce into their conceptualization of service quality and multi-channel satisfaction, the concept of integration quality that refers to “the ability to provide a consistent customer experience across the channels”. We consider it relevant to include the concept of multi-channel integration quality in the elements influencing overall customer satisfaction in a multichannel distribution context. When the customer interacts with two or more channels, the evaluation of his overall experience takes into account both the quality of the experience lived through the different channels used and the way in which these channels interact and are integrated (Bert Rosenbloom, 2007; Sousa and Voss, 2006). Thus, the customers’ perception of the good integration across all the channels is likely to have a positive influence on the overall customer satisfaction.

From a transactional perspective, *customer satisfaction* is “an evaluative judgment after immediate purchase or an effective response to the most recent transactional experience with a firm” (Ellen Garbarino and Mark S. J, 1999). Transactional quality is “customers’ current perception of a good or service”.

From a global or relational perspective, *customer satisfaction* corresponds to an global judgment resulting from an accumulation of experiences over time (Ellen Garbarino and Mark S. J, 1999; Montoya-Weiss, Voss, and Grewal, 2003), “summing up the satisfactions via the specific products or services of the organization “ (Montoya-Weiss, Voss, and Grewal, 2003). It is a “continuous overall assessment of the ability of the company or brand to deliver the benefits sought by the customer”.

Global or relational service quality, on the other hand, is “the overall customer impression of the superiority/inferiority of the company and its services” (Ngobo 1997). In our research, we focus on the customer’s evaluation of his overall experience lived through all the channels used. We therefore retain a relational or global perspective of service quality and satisfaction. We thus consider the overall customer satisfaction in a multi-channel context as being the result of cumulative experiences (Jamal A. et Naser K., 2002) across all the channels used (Zeithaml, Parasuraman A., and Molhotra, 2002).

2.3. Customers’ evaluation of service experience

• Customer evaluation in a physical environment

The perceived service quality in the physical environment is based primarily on the face-to-face interaction with the customer and the staff in contact. Many conceptualizations of traditional service quality have been proposed in the literature attempting to capture the key dimensions of face-to-face service quality. Among proposed models, we have the SERVQUAL model of Parasuraman et al. (1988) as one of the “origins of service quality theories” (Brady M.K. and Cronin J. J., 2001).

In this model, five dimensions of the service quality with 22 items emerge from this model: tangibility, reliability, empathy, assurance and interactivity. SERVQUAL was developed by its authors based on five service industries: repair and maintenance, retail banking, brokerage and credit card companies. The results of this study show that the efficiency defined as “the ability to perform the service promised in a safe and relevant way” (Parasuraman A., Zeithaml V. A., Berry L. L., 1988) is one of the most important dimensions of this model. The SERVQUAL model will serve as a starting point for a large number of other service quality work.

One of the main criticisms of this model by many authors is that it is too general (Cronin J. J. et Taylor S. A., 1992; Llosa S., 1997; Meuter M.L et al., 2000) and more applicable to a face-to-face relationship with staff in contact (Patrício, Fisk, and Falcão e Cunha, 2003; Sousa and Voss, 2006). Many researchers have adapted the model to the study area (Carman J.M., 1990; Dabholkar, 1996).

All the work relating to the traditional service quality in face-to-face is thus based mainly on the SERVQUAL model and show that the service quality is a multi-dimensional construct whose number of dimensions and their composition depend on the sector studied (Jamal A. et Naser K., 2002). Subsequently, perceived physical service quality is measured by the perception of the quality of the relationship with the staff in contact.

The emergence of self-service technologies such as Internet, automata and the opportunities they offer to improve customer expectations will lead to a series of studies on the decisions to use its technologies and their evaluation by the client. Works show the inability of traditional models of quality (the SERVQUAL model) to capture all facets of information technology-based services. Today, there are many service companies that offer their services in part or totally via information technology that a plethora of researchers will be interested in customers' evaluation of these technologies.

- **Customer evaluation of self-service technologies**

Virtual channels such as Internet, automates or the interactive telephone are means of communication or service delivery using advanced information and communication technologies, multi-media technologies (Sousa and Voss, 2006). With these technologies, the service is delivered without the intervention of the staff in contact. Many authors (Meuter M.L et al., 2000; Bitner M. J. et Hubbert A. R., 1994; Iglesias V., 2004) focused on the sources of satisfaction and dissatisfaction via self-service in the service encounters. For (Meuter M. L et al., 2000), utility, ease of use, availability, convenience play an important role in customer satisfaction. According to these authors, the unsatisfactory effects of the service encounters via self-service technologies can lead to user complaints about the provider, non-recommendation and non-use of this technology. (Snellman K. and Vihtkari T., 2003) identify sources of consumer dissatisfaction with self-service technologies: technology mainly, then processes. These factors can have an impact on the user's assessment of these technologies and on his behavior. (Dabholkar, 1996) investigating the decision-making models that clients could use to select and evaluate self-service technologies offers two alternative models of service quality for self-service technologies based on:

- A cognitive process with five attributes (speed, reliability, ease of use, enjoyment, control).
- An affective process based on attitude towards technological products and the need for interaction.

Therefore (Iglesias V., 2004) said that the customers' evaluation of service encounters via self-service technologies depends on both cognitive and affective factors. According to (Walker R.H. and Johnson L.W., 2006), the desire to use self-service technology is based on:

- Beliefs: A person's ability to engage in this type of service delivery system, perceived risk, and relative benefits associated with the use of this system compared to other service delivery systems.
- Attitudes: preferences for staff in contact.

And if the first works that have studied the quality of electronic service have focused more on the interface with the site, other series of works (Wolfenbarger and Gilly, 2003; Parasuraman A., Zeithaml V. A., 2005) follow taking into account the entire online customer experience.

Despite the lack of consensus on the dimensions to be taken into account, a review of the literature highlights some of the components of electronic service quality that come up frequently: "Efficiency" (Parasuraman A., Zeithaml V. A., 2005), "Security" (Wolfenbarger and Gilly, 2003; Parasuraman A., Zeithaml V. A., 2005), "Site design" (Montoya-Weiss, Voss, and Grewal, 2003; Wolfenbarger and Gilly, 2003), "Ease of use" (Dabholkar 1996; Collier, 2006), "Quality of information" (Collier, 2006).

Also the dimension "efficiency" which is "the ability of the consumer to access the website, to find the desired product and/or information with a minimum of effort" is, as in the physical environment, one of the dimensions the most important of this channel (Zeithaml, Parasuraman A., and Molhotra, 2002)

A review of the literature on service quality based on self-service technologies shows that most work is focused on the Internet. On the one hand, it suggests the need to take into account other equally used technologies such as automata, telephone and, on the other hand, more research should be done on the impact of all the technologies made available customer's overall assessment.

- **Customer evaluation in a multichannel distribution context**

The different models from the studies on traditional physical service quality on one side and the virtual service quality on the other show differences in the factors influencing the customer's evaluation in different channels (Wolfenbarger and Gilly, 2003). (Hummel, Schacht, and Maedche, 2017) showed that complex services with a high value are rather purchased in a branch than the online channel, thereby demographics and behavior-related constructs are important control variables. With virtual channels, on the one hand, new dimensions appear specifically related to technology (Sousa and Voss, 2006; Wolfenbarger and Gilly, 2003) as: ease of use, design of the site. On the other hand, information plays a key role in the evaluation of service quality and

satisfaction in the virtual environment, a dimension not found directly in traditional service quality measures. Virtual channels have specificities that physical channels do not have (Collier, 2006) and vice-versa. As a result, customers in a multi-channel context can alternatively use both types of channels depending on the advantages and disadvantages of each channel (Patrício, Fisk, and Falcão e Cunha, 2003). According to (Payne and Frow, 2004), when a client interacts with multiple channels, which is increasingly the case, the customer experience must be considered cumulatively across all channels of interaction. Similarly, studies by both researchers and practitioners in both the financial services sector and the retail sector demonstrate that the client using multiple channels (in his decision-making process) spends more and is much more cost effective than the single-channel client (Dholakia, Zhao, and Dholakia, 2005; Kumar and Rajkumar Venkatesan, 2005). Focusing on the factors influencing the overall customer satisfaction, (Krishnan et al., 1999) conducted a survey of 1,280 clients at a US retail bank. The study showed four factors that lead to the overall customer satisfaction: the quality of the types of products offered, the financial reports and the establishment of the accounts, the service quality delivered via the automata and that delivered in the traditional channel (in an agency). It appears in this study that the service quality delivered in the various banking service delivery channels appears decisive for the client. This is confirmed by the work of (Montoya-Weiss, Voss, and Grewal, 2003) which show that in a relational context of multi-channel service delivery, perceptions of online and agency service quality have a positive effect on the overall satisfaction with the financial service provider.

Therefore, it is necessary for the conceptualization of satisfaction and service quality in a multi-channel environment to take into account the customer experience in all the channels used (Montoya-Weiss, Voss, and Grewal, 2003; Sousa and Voss, 2006) and “how the elements of the service experience contribute to the overall satisfaction” (Llosa S., 1997). This work has empirically shown the variable weight contribution of the various elements of a service experience (in the banking sector: underwriting a car loan) to the customer satisfaction. The author, based on a factorial analysis of correspondences, identified “elements having a weight fluctuating on the overall satisfaction” which depends on the perceived performance by the client on the one hand and on the other hand elements “contributing in a stable to the customer’s satisfaction, regardless of its rating”.

In our study, it is therefore important to understand in a multichannel distribution context, where the customer uses different channels, on which the global evaluation of the customer is based. This brings us to question the field through an exploratory study conducted with a number of customers (individuals) of retail banks in Vietnam.

3. Exploratory study

Data collection:

A qualitative approach through individual semi-structured interviews was chosen to explore satisfaction in a multi-channel banking service delivery context. The total number of participants was 20 banking customers with an average duration of 30-45 minutes. The study was carried out between April 10 and June 10, 2018 in Danang. We opted for the choice of a reasoned choice sample: we mainly targeted people using at least two banking service delivery channels. The objective is to enable us to have a better understanding of the customer in terms of evaluation and attitude in a multi-channel environment. These interviews were completed by two others conducted with two bank experts responsible for multi channel distribution.

All interviews were written to meet the research objectives. They cover the following topics: How do customers choose between the different service delivery options available to them from banks?; How do they evaluate different service delivery systems in a multi-channel context?; How do the different channels used contribute to the overall customer satisfaction via banks?

Data analysis

All recorded interviews were transcribed for thematic content analysis by breaking down the text by theme and frequency of occurrence (Evrard, Pras, and Roux, 2003). We constructed an encoding grid, which organized around the themes to be studied. We counted the frequency of appearance of the extracts having a similar meaning for each theme. We will present the main results analysis.

4. Results analysis and discussion

4.1. The profile of the respondents

A total of 20 clients were interviewed including 11 men and 9 women aged 20 to over: students (4), young workers (3), officers and employees (9), and middle-aged people (4) with an average age of 29 years. 34% of the

respondents report an average income between 5.000.000 *dong* and 10.000.000 *dong* per month. In general, this exploratory study provides an overview of the profile of our respondents and the different banking channels used.

First, the main service delivery systems, the most used, have been targeted: Internet, telephone. Second, two channels are used by “*everyone*”: face to face and automata (ATM/POS machine). They are frequented by a large majority even if the pace of attendance is not the same: most customers go to an agency (branch banking) at least once a year and the automata (ATM/POS) are regularly used by customers. The phone is used occasionally. As for the Internet, it is the most popular channel in terms of rhythm at least once a week by a young client (29 years on average), as one bank expert pointed out: “*The new channels, Internet and telephone, have considerably increased the contacts between customers and banks*”. The exploratory study allows us to see that out of the 20 people interviewed, 14 use Internet banking. This suggests that today Internet banking begins to be well inked in manners. The banking services delivered via Internet channel are seen in the eyes of the customer as being undeniably a revolution. 20% of respondents said that “*It facilitates the autonomy of client, it gives me more resources, more opportunities to manage my account without having to go through bank employee*”, “*There are big advantages over the situation. Especially because we have direct and instant access over Internet. We have more the impression of being able to follow oneself*”. This is particularly important in the banking services where have the characteristic of being produced at the same moment in which the customer consumes them.

4.2. Factors influencing the choice of different channels

Different factors that influence the choice different channels are analyzed as below.

- The type of service or the nature of the operation

Each channel has a particular dominance and attributes that make it better placed to perform this or that operation. For “elaborate”, “simple operations”, “specific”, “important topic”, “rare”, “complicated”, “exceptional” operations, most customers prefer the branch over other channels. In contrast, for “simple”, “standard”, “classic” operations, remote channels are no longer used. The Internet is favored for its informational side and for simple current operations. Table 1 displays the types of operations and service delivery system used. The results also show that 75% of respondents said that “*For services with a high complexity, customers prefer the branch, while for services with a low complexity, they prefer the online channel*”. Further, 53% of respondents said that “*For services with a high value, customers prefer the branch, while for services with a low value, they prefer the online channel*”.

Service delivery systems Types of operations	Face to face in agence	Internet	Automata (ATM)	Telephone
Common or simple operations				
- Consultation		X	X	X
- Transfer		X	X	X
- Withdrawal			X	
- Monitoring of operations		X		X
- Collection of Information		X		X
Non-routine or complex operations				
- Loan	X			
- Amendment of contract	X			
- Opening-closing account	X			
- Savings account	X			
- Operations with high value	X			
- Advice	X			
- Etc.				X

Table 1. Types of operations and service delivery system used

These results confirm the work done by (Bendana, 2006). According to the author, face-to-face is the most appropriate medium for dealing with “ambiguous” situations, which are rather complex. The arrival of

technological channels such as the Internet in the banking sector is reflected in “a change in the roles of traditional channels”, such as agencies that are more used for high value-added activities. In accordance with the work done by (Hummel, Schacht, and Maedche, 2017; Walker R.H. and Johnson L.W., 2006), the level of “complexity” and “security” associated with the operation performed will determine the choice of channel in this study, and impact on perceived service quality in each of the different channels. For instance, complexity leads to a different channel choice between branch and the online channel. However, “value” associated with the operation performed was added as a distinctive feature of this study compared with previous studies. Here, service value describes the monetary value of a service purchased. Service complexity is a well-known construct to characterize a service. The construct is adapted from product complexity and is defined as “the extent to which the consumer perceives a service to be difficult to understand or use”.

- Individual variables

According to studies conducted by a number of researchers (Daholkar, 1996), situational, demographic and personal factors influence customers’ choice and evaluation of different channels. Among these factors, the “need for interaction with staff” defined by (Dabholkar, 1996) as “*the importance of human interaction in the service encounter for customers*” is a factor that has an impact on the use and evaluation of different service delivery systems. Some customers (70%) consider human interaction as essential in the service encounter: “*Going to an agency allows me to talk a little with the advisor and also benefit from his advice at the same time*”, “*On the Internet, it’s not easy to understand some things, I prefer to have someone in front of me*”.

Clients with a strong need for interaction with staff in contact will be more likely to turn to physical channels and avoid self-service technologies as much as possible (Dabholkar and Bagozzi, 2002). Consequently, some customers continue to go to the agency regardless of the nature of the operation, because “*the value created by the Internet/automata does not compensate the value lost by the contact with the employee*”. According to the work done by (Hervé Bregeard, 2000), related to the factors influencing the choice of different channels, one of the motivating factors for some people to use the physical channel is social. This is confirmed by our interviews.

Sociodemographic variables: Age, income and occupation are three individual variables influencing the choice of channels. Thus, seniors in a multi-channel context will opt more for the mix or combination of channels: agency-phone primarily for the interactive side.

On the other hand, for the profession, customers with limited time available because of their profession, will opt more for the channel mix: Internet-phone.

Previous work by (Hervé Bregeard, 2000; Burke, 2002) confirms this by showing that a number of demographic variables have a significant impact on client preferences, including age and occupation. On the other hand, (Jamal A. et Naser K., 2002) go further in an empirical study conducted in the banking sector to evaluate the history of customer satisfaction. Their study showed that demographic variables significantly influenced customer satisfaction.

- Situational variables

It emerges from our interviews that the urgency of the moment, the temporal pressure or the situation of the moment influences the choice of the different channels. 50% of respondents expressed the idea that the choice of different channels depends on the situation or the urgency of the moment. Depending on where they are, the urgency of the situation or the time constraints they have, they will favor one channel over another (Hervé Bregeard, 2000; Patrício, Fisk, and Falcão e Cunha, 2003). 25% of respondents said that “*If we are in the week and I have time, I can go directly to the agence while in the weekend it’s closed*”.

- Attributes of the channels

As we pointed out earlier, each channel has attributes that make it better placed to perform this or that operation. Depending on the characteristics of each channel, customer will choose the one that best meets his need. Thus, the different intrinsic dimensions of each channel will affect the choice of different channels (Patrício et al., 2003). The surveyed experts cite, in accordance with the clients’ point of view, three main benefits associated with the Internet:

- A practical benefit: accessibility, immediacy, easier time
- A psychological benefit: customer relationship with his money more distended, better control and control, autonomy.
- A fun benefit: more enjoyable.

However, the “risk” dimension related to the “security” aspect and the “fear of being mistaken” aspect in the use of technology in carrying out an operation is one of the most cited disadvantages for this channel. As a result, some customers prefer the branch over other channels for certain operations. On the other hand, they also prefer the branch over other channels for the “friendliness”, “interactivity” and “expertise” of the staff in contact.

The “lack of convenience” (need to move) and the “waste of time” (due to queues) at the counter make this channel less and less used.

The telephone channel (with an online advisor) is mainly used for its “speed of use” and its “interactive” side. Apart from the specific characteristics of each channel, the choice of the different channels can be influenced by the cost aspect of service delivery (Jo Black et al., 2002). And customers tend to favor the Internet which costs them nothing in terms of money and is less procedural than the telephone channel.

Table 2 summarizes customers’ assessment of main banking distribution channels. We find the main dimensions mentioned in the literature on the “face to face” service quality (Parasuraman A., Zeithaml V. A., Berry L. L., 1988) and on the “virtual” service quality.

Channels	Advantages		Disadvantages	
	Advantages	% of customers	Disadvantages	% of customers
Internet banking	Easy access and use	68%	Security risk	60%
	Speed	50%	Restricted services	10%
	Autonomy	48%	Impersonal	22%
	Information capacity	40%	Lack of interactivity	20%
	User-friendly (design)	30%		
Face to face in an agency	Interactivity	80%	Lack of convenience	40%
	Competence/expertise	54%	Waste of time	40%
	Usability	60%		
	Advice	38%		
	Reassuring	20%		
	Listening	18%		
Phone	Speed	35%	Too expensive	38%
	Autonomy	16%	Unavailability	18%
	Interactivity	30%	Procedural (voice server)	20%
			Restricted services	10%
Automata: ATM/POS	Easy access and use	80%	A manipulation error	30%
	Information capacity	45%	Limit withdrawals	20%
	User-friendly (design)	43%	Limit number of ATMs in rural and remote areas.	35%
	Autonomy	45%		

Table 2. Evaluation of different banking channels by customers

4.3. Overall customer satisfaction

Overall, in a context of multi-channel distribution of banking services, customer adopts multi-channel behavior. As a result, our interviews show that each channel contributes in its own way to overall customer satisfaction. With the different channels, the latter finds several ways to satisfy himself. However, the impact of the different channels used on the overall customer satisfaction will not be the same.

For some of those interviewed, we find that the Internet is the most used banking channel, the agency is less. But paradoxically it is the agency contacts that are the most important in their overall assessment.

Customers judge that human interaction is essential to an agency, especially in the case of “worries” or “complex operations”, or “high service value”. Some respondents said that “*For the telephone, Internet, I do not say that it should be neglected but the quality of the staff, agency advisers is more important*”, “*It’s still the contact that I have at my agency that is the most determining ...the advisor is able to solve all my problems and that’s the most important*”, “*What plays the most is the agency relationship. The Internet channel, it’s only a machine*”.

The dimensions of agency service quality most cited by this segment are the quality of the staff in contact (competence) and the quality of the “interactivity” which some respondents refer to as “the way we are welcomed”, to “the way we answer our questions”.

And this segment is more demanding vis-à-vis the physical channel than technological channels. For another part of the interviewees, each channel plays “its partition”. Their level of overall satisfaction will depend on all the channels. Some respondents said that “*Overall, I am satisfied with my bank, the site is well done and the agency is available and competent*”, “*To carry out operations, the bank gives me the freedom of choice of channels*”.

In total, it follows from this exploratory study that there may be:

- A direct effect of evaluation of each channel on overall customer satisfaction. In a multi-channel service context, each service delivery option contributes to the overall customer satisfaction (Patrício, Fisk, and Falcão e Cunha, 2003). Depending on the attributes of each channel, customers will turn to the one that will help them better meet their current needs.

- An “interactive” or combined effect of channel evaluation on the service quality and overall satisfaction. Some respondents said that “*Overall, I would not say that there is such and such a thing, it is a whole*”, “*The bank has informed me different functions of the channels (Internet, telephone, automata, branch , etc.)*”, “*The information I receive (about a banking service) is the same regardless of the channel: phone, branch, automated teller machines – ATMs, POS, Internet, etc.*”, “*When I perform an operation by a channel (Branch, automata, Internet, phone, ...), I am sure to find trace by the other channels*”.

A perception of high quality of service across all channels will lead to higher overall customer satisfaction. Each of the service delivery options has its own characteristics and attributes that contribute to increased customer value and thus overall customer satisfaction (Montoya-Weiss, Voss, and Grewal, 2003; Patrício, Fisk, and Falcão e Cunha, 2003). Moreover, in the eyes of the customer, the different channels are inseparable. In particular the Internet/branch and telephone/ automata (ATM/POS)/branch channels are used in a complementary way. As the work done by (Patrício, Fisk, and Falcão e Cunha, 2003), the benefits found in one channel outweigh the disadvantages of the other.

An indirect effect of the perceived service quality in each of the channels of distribution of banking services used on overall customer satisfaction.

4.4. Proposal of a conceptual model of multi-channel customer satisfaction

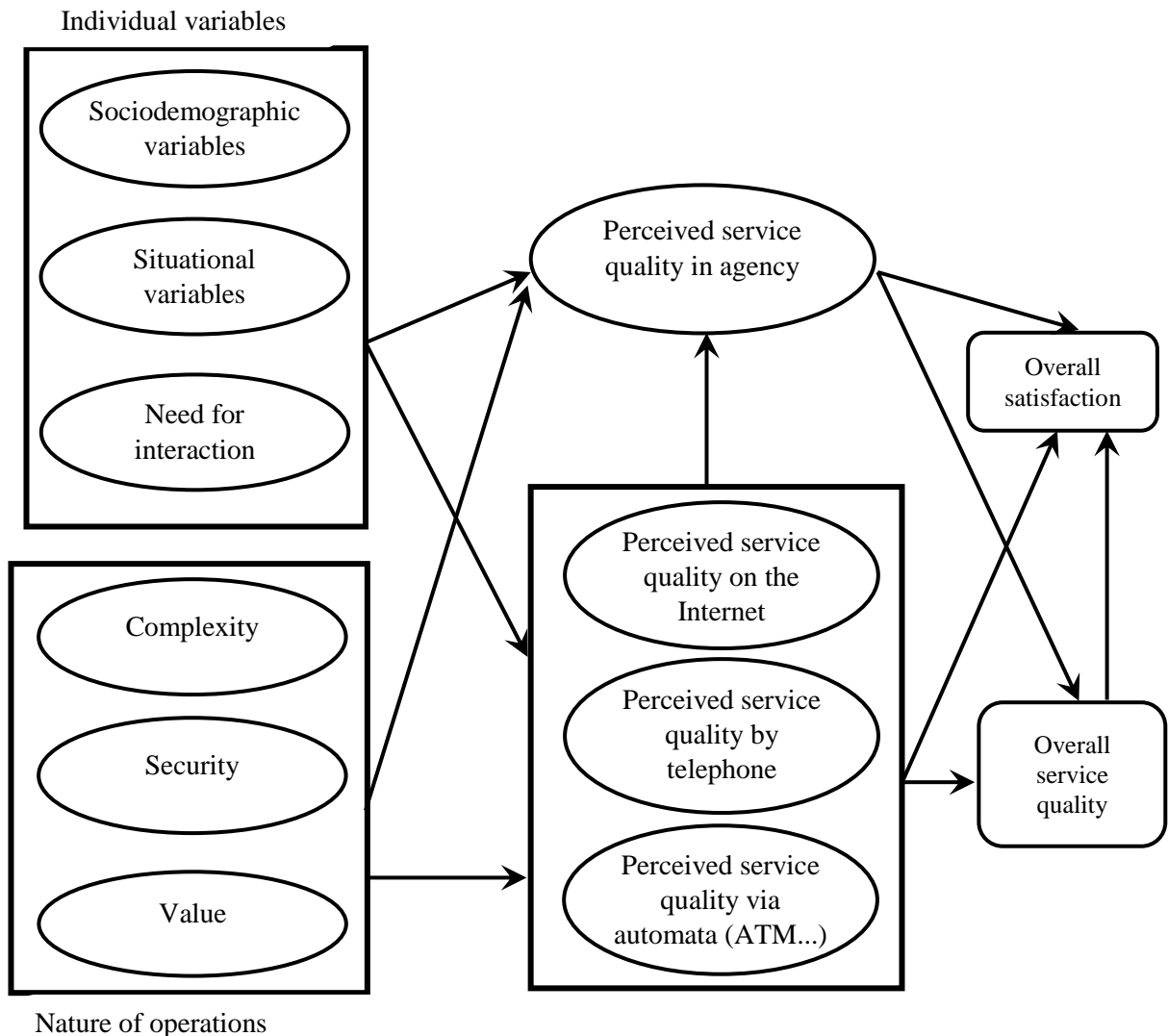


Fig.1: Conceptual model of multi-channel customer satisfaction in a Vietnamese banking context

Based the below considerations, we propose a following model of multi-channel customer satisfaction in a Vietnamese banking context (Fig.1).

In this model, individual variables (sociodemographic variables, situational variables, interaction need) and nature of the operation (complexity, security and service value) are the main variables influencing customer’s perception of service quality in a multi-channel environment (face to face in agence, Internet, Automata, Telephone). Moreover, service quality perceived by customers among different channels have effects on overall service quality perceived by themselves and on overall customer satisfaction. The choice of variables in this model is mainly based on the previous studies of (Bendana, 2006; Hervé Bregéard, 2000; Burke, 2002; Patricio et al., 2003; Jo Black et al., 2002; Montoya-Weiss, Voss and Grewal, 2003). However, the results of our explorative study find that “value” associated with the operation performed was added as a distinctive feature of this study compared with previous studies.

We also summarize the variables and conceptual definition in the model of our study (see Table 3).

Variable	Conceptual definition
Overall satisfaction	<p>Customer satisfaction is the customer's fulfilment response to a customer experience, or some part thereof" (Buttle, 2015).</p> <p>A psychological state resulting from a dual cognitive and affective process (Y. Evrard, Pras, and Roux, 1993; Vanhamme J., 2002) and in contrast to service quality, requires a consumption experience (Llosa S., 1997; Vanhamme J., 2002).</p> <p>The multi-channel customer, using at least two channels in his relationship with the company, can base on his perception of the service quality and his satisfaction, not on one, but on all the channels used (Montoya-Weiss, Voss, and Grewal, 2003; Patrício, Fisk, and Falcão e Cunha, 2003).</p> <p>Overall customer satisfaction in a multi-channel context as being the result of cumulative experiences (Jamal A. et Naser K., 2002) across all the channels used (Zeithaml, Parasuraman A., and Molhotra, 2002).</p>
Overall service quality	<p>Customer's overall impression of the relative inferiority/superiority of the organization and its services" (Bitner M. J. et Hubbert A. R., 1994).</p> <p>The result of a "difference between expectations and perceptions", "Global judgment relating to the superiority of the service or product" (Parasuraman A., Zeithaml V. A., Berry L. L., 1988)</p>
Complexity	<p>Complexity represents the degree to which an innovation is perceived to be difficult to understand, learn or operate (Rogers, 1983).</p>
Security	<p>Customer confidence in transaction security and privacy are linked to behavior (Montoya et al., 2003)</p>
Service value	<p>(Hummel, Schacht, and Maedche, 2017) showed that complex services with a high value are rather purchased in a branch than the online channel.</p> <p>Service value describes the monetary value of a service purchased (Exploratoire study).</p>
Perceived service quality in agency	<p>The perceived service quality in agency is based primarily on the face-to-face interaction with the customer and the staff in contact. Many conceptualizations of traditional service quality have been proposed in the literature attempting to capture the key dimensions of face-to-face service quality Parasuraman et al. (1988)</p>
Perceived service quality of self-service technologies (the Internet, telephone, automata)	<p>Perceived service quality of self-service technologies such as Internet, automates or the interactive telephone are means of communication or service delivery using advanced information and communication technologies, multi-media technologies (Sousa and Voss, 2006). With these technologies, the service is delivered without the intervention of the staff in contact.</p>
Sociodemographic variables	<p>Age, income and occupation are three individual variables influencing the choice of channels (Exploratoire study).</p>

	Sociodemographic factors influence customers' choice and evaluation of different channels (Daholkar, 1996).
Situational variables	<p>The urgency of the moment, the temporal pressure or the situation of the moment influences the choice of the different channels (Exploratoire study).</p> <p>Depending on where they are, the urgency of the situation or the time constraints they have, they will favor one channel over another (Hervé Bregeard, 2000; Patrício, Fisk, and Falcão e Cunha, 2003)</p>
Need for interaction	<p>This refers to the need that some individuals feel for interacting with the service employee in a service encounter (Dabholkar, 1992).</p> <p>The need for human contact in a service encounter was very important to some customers (Langeard et al., 1981; Bateson, 1985).</p>

Table 3: Variables and conceptual definition of model in the study

5. Managerial implications

Analyzing the influence of each service delivery channel on overall customer satisfaction allows banks to identify or target the key dimensions of each channel with the greatest impact on customer satisfaction. This will allow them, on the one hand, to have a better design and management of the different channels according to the client's expectations, better allocation of resources (Johnston, 1997) and a better improvement of the multi-channel organization's system in order to better cover and saturate as quickly as possible the needs and desires of customers. In this context, banks need to integrate and reconcile the different information sources for a holistic overview of the customer, in order to be able to provide a consistent experience across channels. On the other hand, banks will be able to better target their marketing actions for better customer satisfaction, guaranteeing customer loyalty and better channel profitability. The various interviews confirmed bank's need to ensure the integration of their various channels. Indeed, our exploratory study shows that customers use the channels in a complementary way. In particular, Internet channel and the branch become inseparable to the customer as one of the respondents pointed out: *"When we deposited savings at branches, the Internet allows us to see if it has been taken into account"*.

In a sector where the products offered and the prices charged are approximately the same from one bank to another, these banks can only differentiate themselves from their competitors through good management of the various distribution channels. This cannot be done without the integration and coordination of the different channels as well as without a more customer-oriented management.

6. Conclusions and future research

This research enriches the existing literature and contributes a deeper understanding of overall consumer satisfaction in a multi-channel banking service delivery with the context of Vietnam. In a context of multi-channel banking service distribution, different factors can influence customers' choice as well as their assessment of different distribution channels. Among these factors, we have: the nature of the transaction or the type of services, individual variables and situational variables. Also, the perceived service quality by the customer in each of the different channels can have a differential impact on overall customer satisfaction (Krishnan et al., 1999). In general, practitioners can use the findings to determine which of their service offered by appropriate channels.

Our results show that more and more customers are trusting technological channels like the Internet. The latter, unlike a few years ago, is one of the channels most used by customers in the banking sector mainly for its informational and practical sides. Today, customer service experience's quality in the banking sector is definitely improved thanks to the arrival of Internet, which is pointed out in this study and in accordance with previous studies. And more and more banks are going so far as to offer the "bank without a counter". Face-to-face

interaction for the branch channel, even if it is less and less used, has a strong effect on the overall assessment of the client, especially for non-routine services. The customer uses this channel mainly for complex, risky, or “high service value” transactions and mainly seeks the interactivity and competence of the staff in contact. The arrival of technological channels has led, as many authors have pointed out, to a change in the roles of traditional channels.

However, this research has some limitations that can lead to future research pathways. Due to the exploratory nature of this research, the results cannot be generalized. It would be interesting to supplement it with a quantitative bank customer survey that will allow us to test and measure the influence of different channels on overall customer assessment of its service experience in a multi-channel banking environment. Few studies to our knowledge have focused on service quality and customer satisfaction in a multichannel distribution context.

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Demographic Variables in the Research of Hanoian's Intentions of Buying Chinese Garments

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ABSTRACT

This research supplies the theory of Chinese garments with some information about the demographic characteristics of consumers, which are related to their intentions to buy Chinese garments. The research is conducted in Hanoi with the scale of 406 consumers. Quantitative methods, which depend on the result of multiple regression analysis and group comparison, are used to come up with the conclusion of the research. The results indicate that 3 out of 4 demographic variables are ineffective on Hanoian consumers' intentions to buy Chinese garments, which includes: (1) age, (2) gender, (3) income. The "literacy" variable was discovered to have impacts on the consumers' Chinese garments buying intentions. The group of buyers who have not graduated from high school have the highest tendency to buy Chinese garments.

Keywords: Hanoian consumers; Buying intentions; Chinese garments

1. Introduction

Regarding clothes, it can be said that China is a top competitor of domestic companies in the Vietnam market in general and the Hanoi market in particular. To acquire the market's competitive advantages, companies which produce and provide domestic clothing items must have a good understanding of the customers to fulfil their needs better than the competitors. Researching customers' behaviors helps business people have a better comprehension about how motivation, mentality, attitude, awareness, faith, etc. affects the buying decision, thus make efficient management decision. This research is undertaken to justify the differences between groups of customers according to some demographic variables in the Chinese garments buying intentions.

2. Theoretical foundation and research hypothesis

2.1. The intention of the consumer

The sales of enterprises can be tracked through the customers' buying intentions. Forecasting buying intentions is the first step to predict the customers' actual buying behaviors (Howard and Seth, 1967). And according to some theories, buying intentions is considered a basis to predict the demand in the future (Warshaw, 1980; Bagozzi, 1983; Fishbein and Ajzen, 1975). Examining the consumers' buying intentions, authors of some researches (Ajzen and Driver, 1992; Pierre et al., 2005; Schlosser et al., 2006) indicate that the intentions are more essential than behaviors and tend to have a positive effect on the actions of one individual. Zeithaml (1988) argued that the consumers' buying intentions depends on the felt quality, value, objective level, and the product's

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characteristics. The higher the value of awareness, the higher the buying intentions. According to Ajzen (1991), when humans have a stronger intention for a behavior, the tendency to conduct that behavior is higher. Keller (2001) indicated that buying intentions can be seen as an important figure to predict consuming behaviors. Schiffman and Kanuk (2004) also showed that buying intentions are a tool to measure the probability to buy a product of consumers. Elbeck (2008) stated that buying intentions are described as the customers' willing to buy a product.

2.2. Theoretical foundation and research hypothesis

According to a report of the survey about the habit of fashion consumption of the Vietnamese in 2012 conducted by the online market researching company named W&S, the expenditure for clothing of Vietnamese consumers is the third highest (lower than food and savings), account for 13.9% in the total personal spending. Women have the tendency to choose and buy their own clothes more than men with the percentage of 13.6%. Women are more likely to shop than men and this likelihood decreases due to older age. Simultaneously, the results also showed that the needs to shop of consumers usually increases when they have much money or recently receive their salary. Location also affects the customers' fashion buying behaviors. According to Bui Thanh Huan and Nguyen Hoang Tran (2011), the youth buys items of clothing when they are satisfied with their selection criteria. Thus, there might be a difference in the intentions to buy clothes between groups of people categorized by some controlling variables. On that basis, the authors conducted a research about the impact of four demographic variables including age, gender, educational level, incomes on Hanoian consumers' Chinese garments buying intentions, at the same time examine the heterogeneity between the intentions at the different groups in these demographic variables. Therefore, a research model is given:

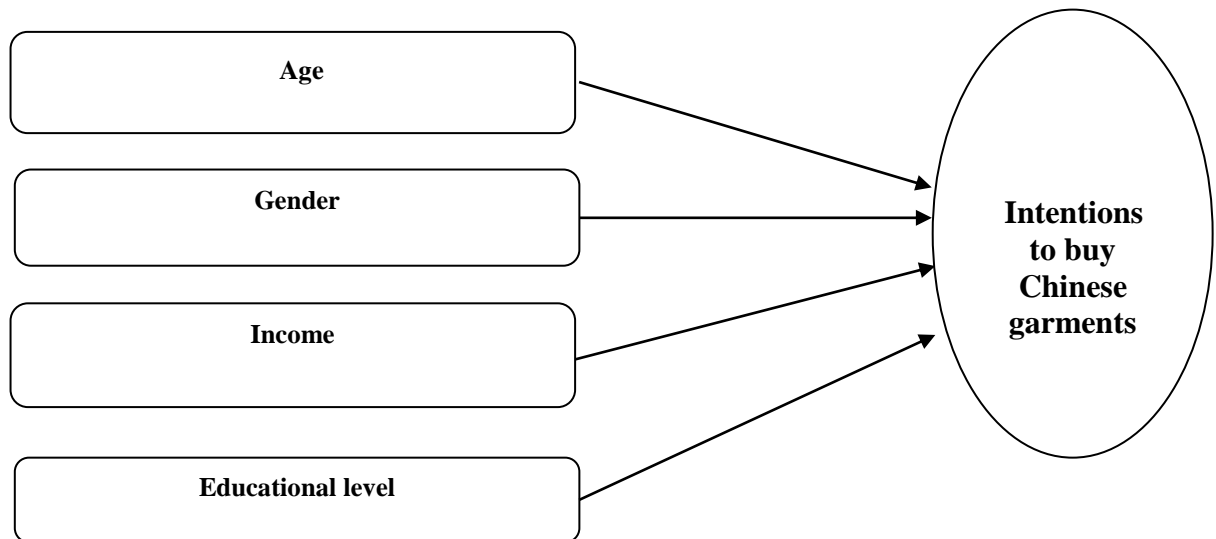


Fig. 1. Proposed research model

Source: Author's design, 2017

3. Research methodology

3.1. Quantitative method

Quantitative researching method is used to complete research goals. The demographic variables are divided into groups according to real life. The measure scale, which relies on the buying intentions, includes 4 variables following Mathur's research (1998). The questionnaire has been prepared to measure Hanoian consumers' intentions to buy Chinese garments. Apart from the introduction and the invitation to take part in the survey, the main contents of the questionnaire include questions about the buying intentions scale, and questions about consumers' demographic characteristics. The respondents will mark the best answers according to their opinion level of the statements. Every variable in every element uses the Likert 5 measure scale with the choice "1" means "totally disagree" and the choice "5" means "totally agree" with the statement. The questionnaires are directly given to the consumers. To examine the effect of demographic variables on the intentions to buy Chinese garments of Hanoian consumers, the authors uses the multiple regression method. The multiple linear regression

(MLR) illustrates the connection between two or more independent variables with a quantitative dependent variable (Nguyen Dinh Tho, 2011). MLR is operated and tested with the level of significance of 5 percent. The research conduct multiple regression by the Enter method: every variable is input once and consider the relevant statistic results. To compare the impact of different groups in each demographic variable on the Chinese garments buying intentions, the authors use the group comparing method. There are 4 demographic variables are used in the model: age, gender, educational level, income.

Gender includes 2 groups: 1) male and 2) female. To examine the difference in the Chinese garments buying intentions between the two genders, the authors use the Independent- sample T-test with Sig < 0.05

Age is divided into 4 groups: 1) 18 – 25 years old, 2) 26 – 35 years old, 3) 36 – 54 years old, 4) 55 years old and above. To examine the difference between these age groups in the Chinese garments buying intentions, the authors use the Analysis of Variance method with Sig < 0.05

Educational levels include 4 groups: 1) Undergraduate from high school, 2) Graduated from high school, 3) Graduated from college/university, 4) Master/Doctor. To examine the difference between these different educational levels in the Chinese garments buying intentions, the authors use the Analysis of Variance method with Sig < 0.05

Income has 8 groups: 1) Under 5 million dong, 2) 5 – 7.5 million dong, 3) 7.5 – 10 million dong, 4) 10 – 12.5 million dong, 5) 12.5 – 15 million dong, 6) 15 – 17.5 million dong, 7) 17.5 – 20 million dong, 8) Above 20 million dong. To examine the difference between groups of income in the Chinese garments buying intentions, the authors use the Analysis of Variance method.

3.2. Survey Sample

Choosing models in researching is carried out by the stratified random method. According to this method, the total is divided into groups following the geographic norms, each group is a district in Hanoi. Inside each groups' areas, choose randomly, non-probably the consumers in markets and supermarkets to hand out the questionnaires. 600 surveys were sent directly to consumers, research team received 520 surveys, of which 406 surveys were used for analysis.

4. Research results

4.1. Statistics descriptive of the researching sample based on the controlling variables

The model included four controlling variables: age, gender, income and education level. According to the results provided by an online market research company W&S in 2012 in "A Survey on Vietnamese People's Clothing Consumption Tendencies 08/2012", about 50.5% of Vietnamese consumers choose and buy clothes for themselves. However, when comparing men and women, women choose and buy their clothes for themselves more than men. Thus, the sample was based on high female ratio. Statistical results show that the number of women is 312 people, accounting for 76.8% of sample. The number of men is 94, accounting for 23.2%.

Regarding the age structure in the sample, the number of people from 18 to 25 years old was the highest, including 245 people, accounting for 60.3%; the number of people aged 26-35 was the second largest (92 people), accounting for 22.7%. According to a survey of an online market research company on Vietnamese people's clothing consumption tendencies in 08/2012, the higher the age of the customer the lower the tendency of purchasing clothes is. Therefore, the number of people aged between 36 and 54 is the third highest with 68 people, accounting for 16.7%. In the group of people aged 55 and above, there is only one person, which accounts for the smallest proportion of 2%.

In terms of education level, there are 6 consumers who did not go to high school, accounting for 1.5%. The number of people completing high school in the sample was 99, accounting for 24.4%. The number of community college or university graduates is 230, accounting for 56.7%. This is the group with the highest rate. The number of people with Master's degrees or Doctorate degrees is 71 people, accounting for 17.5%. Statistics descriptive of the sample indicate that people in the sample possess relatively high education levels (56.7% of people in the sample have community college degrees or higher). This is because the sample was selected in Hanoi and Ho Chi Minh City, two large cities which are believed to be the focus of most intellectuals.

In terms of income, the group of people with incomes below 5 million VND accounts for the highest proportion of 55.7%, equivalent to 226 people. The second highest group included 70 people with income of 5 million VND to 7.5 million VND, corresponding to 17.2%. The group with income from 7.6 million VND to 10 million VND, including 54 people, makes up 13.3%. There are 25 people with income from 10.1 million VND to 12.5 million VND, accounting for 6.2%. There are 9 people with income of 12.6 million VND to 15 million VND, accounting for 2.2%. Only 2 people have income from 15.1 million VND to 17.5 million VND, accounting for 0.5%. There are 3 people with income from 17.6 million VND to 20 million VND, accounting for 0.7%. Finally, there are 17 people who earn over 20 million VND, accounting for 4.2%. As can be seen in the

sample, the proportion of high-income consumers is low. The reason for this may be the high proportion of young consumers, who has not worked for a long time and thus, cannot have high income.

4.2. Regression analysis

Table 1 shows that the adjusted coefficient R2 is 0.340. This shows that the compatibility of the model with demographic variables is reasonable. Thus, the demographic variables: Gender, Age, Education and Income can explain for 34% of the fluctuations in Intention to purchase Chinese garments.

The test result F shown in Table 1 shows that F = 2.588, sig = 0.007a. Thus, this relationship ensures the reliability with a permissible level of 5%. Consequently, it is possible to conclude that the demographic variables have an impact on consumers' willingness to buy safe products and that a linear regression model is consistent with the data set and is usable.

The results of multi-collinearity test showed that the VIF variance coefficients of the demographic variables included in the model analysis were < 10. Thus, the multivariate multi-collinearity can be neglected and the variables in the model can be accepted.

The results of the regression analysis in Table 1 show that only the variable, Education level below high school, affects the intention to purchase Chinese garments because it has Sig < 0.05. The remaining variables do not affect the intention to buy Chinese garments because they have Sig > 0.05. The relationship between dependent variables and independent variables is shown in the following linear regression equation:

$$Y1 = 2.261 + 0.640Xa$$

In which:

Y1: Intention to buy Chinese garments

Xa: Educational level below high school

The standardized Beta Equivalence curves for Education level below high school is larger than 0, which shows that the controlling variable is positive for the dependent variable. Accordingly, as Intention to buy Chinese garments is increased by 1 unit, there is a positive resonance of 0.640 units of Educational level below high school.

Table 1. Results of regression analysis

Demographic variables	Beta
Gender	0.131
Age 18-25	- 0.310
Age 26 – 35	-0.171
Age 36 – 55	-0.537
Education level below high school	0.640*
High school graduates	0.086
Community college/University Graduates	0.021
Income	- 0.011
R2 adjustment	0.34
F	2.588
N	406

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

To understand more about the different levels of intention to buy Chinese garments among groups of the variable Education level, the authors use group comparisons. Anova testing between controlling variable Educational level and dependent variable Intention to buy Chinese garments.

Table 2 shows the Levene test results for the groups of education level. Results show that value sig Leneve Statistic = 0.000 < 0.05. Thus, the hypothesis of uniform variance among the variable value groups has been

violated. That means there are differences in the variance between the groups of education level. This does not satisfy the assumption of One way Anova test. Thus, Anova analysis cannot be used.

Table 2. Levene tests for homogeneous groups of education level

Test of Homogeneity of Variances			
Ydinh			
Levene Statistic	df1	df2	Sig.
6.890	3	402	.000

Table 3 shows the results of the Anova analysis between education level and the intention to buy Chinese garments from Hanoi consumers. With sig = 0.001 < 0.05, we can conclude that there is a difference in intention to purchase safe products among different education levels.

Table 3. Anova Testing Between Education Level and Intention to Buy Chinese garments

ANOVA					
Y_Dinh					
	Sum of squares	Degree	Average	F	Sig.
Among the groups	1.812	3	.604	1.331	.001
Within the groups	182.422	402	.454		
Sum	184.234	405			

Table 4 shows the difference in the average of Hanoi consumers' intentions of buying Chinese garments among different groups of education level. According to the descriptive table, the average of Hanoi consumers' intentions of buying Chinese garments of Education level below high school group is 2.5833, of High school graduates group is 2.0303, of Community college/ University graduates group is 2.0880, of Masters/ Doctors group is 2.0563.

Table 4. Table describing the average of Hanoi consumers' intentions of buying Chinese garments among different groups of education level

Descriptions								
Ydinh								
Group	N	Average	Standard deviation	Standard error	Average difference with 95% reliability		Smallest	Largest
					Lower Limit	Upper Limit		
1	6	2.5833	.46547	.19003	2.0948	3.0718	2.00	3.00
2	99	2.0303	.59897	.06020	1.9108	2.1498	1.00	4.00
3	230	2.0880	.62918	.04149	2.0063	2.1698	1.00	4.00
4	71	2.0563	.89062	.10570	1.8455	2.2671	1.00	4.00
Total	406	2.0757	.67446	.03347	2.0099	2.1415	1.00	4.00

Thus, we can see that the group with education level below high school has the highest tendency to buy Chinese garments, second is the group of community college/ university graduates, third is the group of Masters/ PhDs and finally, the group of high school graduates have the lowest tendency to buy Chinese garments among the four groups.

5. Discussions

The research shows that consumers with education level below high school are most likely to buy Chinese garments. The results of this study can be explained as follows: according to data from the Vietnamese Living Standards Survey in 2014, the results of the estimated personal income function show that education is an important factor in determining personal income. The salaries of community college or university graduates are higher than those of [people with education level below high school. Additionally, Chinese garments mentioned in this study is in the low-end segment, which is appropriate for consumers who have low incomes and low education levels. Therefore, it is reasonable that the research shows results of consumers with education level below high school having the highest tendency to buy Chinese garments is reasonable.

The results of researching the impact of demographic variables on the intention to buy Chinese garments show that: gender, age and income do not affect the intention to purchase Chinese garments. This may be because garments are essential and important to every person regardless of gender. In addition, the type of garments in this study is limited to conventional, cheap and available products, so consumers of all ages and income levels can easily find and satisfy their needs.

Also according to the research results, consumers of lower than high school educated have the highest intention to buy Chinese garments. The research results of may be because low educated consumers are often less knowledgeable, so they will not care much about the brand, material, or ethnicity of the product they buy but pay attention to the design, especially the variety and constant change of this product line, which is the strength of Chinese garments. Therefore, the results of this study are reasonable.

6. Conclusions

Developing local apparel market can bring many business opportunities to domestic enterprises. However, to be successful, these enterprises must always understand and meet the needs of customers better than their competitors. The results of this research provide some conclusions that help businessmen identify their customers better. The research shows that demographic factors including gender, age and income do not affect the intentions of buying Chinese garments. Education level has a positive impact on consumers' intentions to buy Chinese garments, with people with education level below high school being the most likely to buy Chinese garments. Thus, in order to gain competitive advantage over Chinese garments in the market with target consumers who are low educated, domestic firms should focus on the variety of styles and design of the product. Based on this research, further researches can go into directions that examine new independent variables, broadening the scope of the research.

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Applying Exploratory Factor Analysis (EFA) in Analyzing Factors Affecting the Intention to Choose Traditional Markets for Buying Fresh Food: A Case Study in Southern Central Coastal Region, Vietnam

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ABSTRACT

Since renovation, the structure of shopping venues of Vietnamese consumers have changed rapidly. The system of modern shopping centers such as megamall, mart also are growing rapidly. However, that does not mean the system of traditional market will be replaced in the future. These two systems will continue to coexist and become competitors in the development of the market economy. To improve competitiveness the system of traditional markets contributed to the construction of civilized trade system in Vietnam. This study is aimed at applying EFA method in analyzing some factors affecting the consumers' intention to choose traditional markets for buying fresh food. The data for the study were collected from consumer surveys in three grade 1 cities representing the southern central coastal region of Vietnam, namely Da Nang City, Quy Nhon City, Nha Trang City. Research results have shown that convenience, product quality, product selling price, consumer buying habits, and traditional market management are factors that strongly influence the choice that traditional markets are the place to buy fresh food in the Southern Central Coast of Vietnam. Thereby, the author has proposed some suggestions to help suppliers to be able to attract more consumers to buy fresh food at traditional markets.

Keywords: Intention to buy; fresh food; consumers; traditional markets; South Central Coast Region.

1. Introduction

After more than thirty years of reform, the Vietnamese economy has made great achievements in both economic development and social change. Along with the current flow and the process of rapid integration, the system of modern shopping places has appeared more and more rapidly in the urban areas of Vietnam. This system has strongly influenced the psychology and behavior of Vietnamese consumers. A large proportion of Vietnamese consumers show quick adaptation to the system. This has changed the structure of Vietnamese retail trading system, in terms of economic composition, level of civilization and consumer's trust. However, a large part of consumers still choose traditional markets as the place to buy fresh food because of the distinct features that modern shopping places do not have. This seems indispensable even for countries with modern market economies. Traditional markets and modernization shopping venues system are coexist and became direct

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competitors. To promote the overall development of the market economy and improve the civilization of retail trade, every nation must enhance competitiveness of both systems, especially the traditional market system. What's set up going on is more and more urgent for Vietnam.

In addition to economic contribution, traditional markets also have many cultural and social values: cultural marks, soul of Vietnam reflected in the transaction and in the market culture (Linh Anh, 2012). Consumers who come to a local market often want to buy a traditional local product, so this is also a good channel for promoting and selling Vietnamese goods. (Ha Anh, 2013).

In addition, the results of the review show that, previous studies conducted in Vietnam in general and in the South Central Coast in particular have focused relatively heavily on the location of the Modern shopping such as supermarkets, online shopping channels ... Therefore, in the view of the authors, the implementation of research with shopping venues as traditional markets, The type of shopping product that is fresh food is essential and ensures novelty for research.

Therefore, studying the factors influencing the intention to choose traditional market as place to buy fresh food in the southern central coastal region is necessary to answer the question: why consumers do not quit purchasing fresh food at traditional markets to transfer to shopping at modern trading centers?

2. Research overview

Behavior and behavioral intentions involve choosing where to shop of some domestic and international scholar's attention and development of different research directions. Among them, can be mentioned the following:

The study by Masayoshi Maruyama and Le Viet Trung (2006) suggested that the choice of supermarkets for buying fresh food of Hanoians was influenced by: personal factors, product factors, and location factors. Of personal factors, family income plays the most important role; the higher the family income is, the more they want to buy fresh food at supermarkets. For product factors, safe products, fresh products, quality products with clear origin, well-known brands, product diversity are important factors in determining consumers' intention to buy fresh food at supermarkets. The higher levels of these factors are, the more consumers want to buy fresh food at supermarkets. The location factors show that the closer to a home a supermarket is and the more convenient it is to buy fresh food, the more consumers come to buy fresh food.

Also, research by N.Chamhuri & P.J. Batt (2010) shows that the key factors that attract Malaysian consumers to buy fresh food (namely, fresh meat products) at supermarkets include product factor, price factor, and location factor. Product factors refer to fresh products, quality products, product diversity; the price factor includes low prices. The more satisfactory these factors are, the more people choose supermarket when buying fresh food. For location factors, the convenience and the environment of where to buy fresh food are the advantages for supermarkets to attract consumers.

Another study in the Chinese market, which has a relatively similar culture to Vietnam - study by Zhou et al. (2003) found that the factors influencing the decision to choose supermarket channel when buying fresh food included product factor, and location factor. In particular, the product factors including safe food, good quality, fresh products, good packaging positively influence the decision to choose the supermarket channel when buying fresh food, which means that the more satisfactory these factors are, the more people choose supermarket as fresh food channel. For the location factor refers the distance from home to the supermarket; the farther it is, the more people choose supermarkets.

Whereas, Goldman et al. (1999) argue that although modern supermarkets "grow" a lot in Asian countries like China, Indonesia, Japan, Singapore, Taiwan, etc., the supermarket system cannot dominate the fresh food line to attract consumers for such reasons as in traditional markets, retailers can supply different quantities and quality of products as required. Namely, for fish or meat products, when consumers want to buy products that are alive, the modern system such as supermarkets or other convenience stores cannot meet the requirements. Therefore, both traditional markets and modern ones will coexist.

In Vietnam, also analyzing the factors affecting the selection of fresh food, Chu Nguyen Mong Ngoc, Pham Tan Nhat (2013) used supermarket channels for the purchase of products. More specifically, the aim of the research was to understand the relationship between the factors and the decision to choose supermarket channel of consumers in HCM city when buying fresh food. The research analysis were conducted on 120 samples; the research results showed that the factors affecting the decision to buy fresh food at the supermarket channel included those related to products, form of packaging, price and location, whereas the factors related to marketing did not show clear impact on the decision to buy fresh food at the supermarket.

Based on the research overview, the variables were synthesized as follows:

Table 1. Variables and basis for variable selection

Variables	Basis for variable selection
Product quality	
CL1. I think the food at traditional markets are fresh, delicious (quality assurance)	Norshamliza Chamhuri and Peter J. Batt (2013)
CL2. The quality of fresh food in traditional markets is better than in other places	
CL3. The quality of fresh food at traditional markets does not cause any health risk	
CL4. The origin of fresh food in traditional markets is clear	
CL5. I know that fresh food at traditional markets is not as good as in supermarkets but I still decide to buy.	
Price	
GC1. The sale price of fresh food in traditional markets is reasonable	Norshamliza Chamhuri and Peter J. Batt (2013)
GC2. The price of fresh food at traditional markets is cheaper than in other markets	
GC3. I am willing to pay high prices when buying fresh food at traditional markets	
GC4. I can bargain when buying fresh food at a traditional market	
GC5. I can easily compare the prices of fresh food in traditional markets with other places	
GC6. I am offered a discount for being a patron	
GC7. At the traditional market I can buy on the nod for my acquaintance with the seller	
Advantages	
TL1. At traditional markets, fresh food is very diverse	Norshamliza Chamhuri và Peter J. Batt (2013), Chu Nguyen Mong Ngoc et al (2013)
TL2. At traditional markets, fresh food is clearly classified	
TL3. Traditional markets are open daily	
TL4. Traditional markets open very early	
TL5. Traditional markets offer a variety of fresh products to choose	
TL6. Traditional markets are near home and convenient	
TL7. Just call an order, the seller will bring home	
TL8. It is easy to change the items you have bought	
TL9. It is convenient for parking when buying fresh food at traditional markets	
TL10. Payment at the traditional market is favorable/familiar	
Sellers	
BH1. Sellers are funny, enthusiastic and friendly	Norshamliza Chamhuri và Peter J. Batt (2013), Tinnie (2011)
BH2. Sellers know very well about the products	
BH3. Familiar sellers do not cheat about the quality of the product.	
BH4. I have a good relationship with a seller at traditional market	
BH5. I go to the traditional market because I have an appointment with a seller	
BH6. I go to the traditional market because I like talking to sellers	
BH7. Familiar sellers do not need to bargain	
Habits	
TQ1. I choose traditional markets because this is a beautiful local culture of the Vietnamese.	Teynamphet (2013)
TQ2. I go to traditional markets as a habit of my family	
TQ3. I have no other choice than traditional markets to buy fresh food	
TQ4. I go to the traditional market because my family cooks regularly at home	
TQ5. I often go to the traditional market early in the morning after doing morning exercise	
TQ6. I often go to the traditional market early in the morning before going to work or school	
TQ7. I often go to the traditional market on my way home from work or school	
TQ8. I usually go to the traditional market to meet my friends, acquaintances to exchange and talk	

Traditional market management	
QL1. The market has full rules, regulations and promotes good effects	Nguyen Tri Vu (2017)
QL2. The market management goes smoothly, and effectively	
QL3. Stalls are well designed and well-equipped to do business	
QL4. Service quality provided at the market is good	
QL5. Market land use and prices are cheap	
QL6. Market management board coordinates with stakeholders to well serve consumers and traders.	

Source: The author's synthesis

3. Research methods

3.1. Data collection

Primary data was collected from consumer interviews - Fresh food buyers in traditional markets or in supermarkets - using standardized questionnaires with a 5-point Likert scale to measure the perception of the respondents by the level from 1 to 5 corresponding from strongly disagree to strongly agree with the opinion given in the questionnaires.

The author conducted a survey for 990 consumers - those who buy fresh food at traditional markets in three cities: Quy Nhon City - Binh Dinh Province, Da Nang City and Nha Trang City, Khanh Hoa province

- 990 questionnaires were distributed equally to three localities:
- 330 questionnaires in Binh Dinh Province
- 330 questionnaires in Da Nang city
- 330 questionnaires in Nha Trang city, Khanh Hoa province

Duration of the survey: from August 2017 to the end of December 2017.

Consumers selected for survey according to the convenient sampling method are those who have been carrying out fresh food shopping at traditional markets of Nha Trang, Da Nang and Quy Nhon.

After gathering information, the author cleaned the data; in the event that the number of samples after cleaning was not enough to ensure the minimum number of samples, the author conducted further interview to ensure the sample size to meet the minimum requirement for statistical analysis.

With 990 questionnaires distributed, the author collected 936 questionnaires. After inserting the data, some survey questionnaires were not satisfactory, the author eliminated those. Then, there remained 906 satisfactory questionnaires. For the convenience of data processing, the author selected 900 among those questionnaires, inserted data into the excel software and performed the analysis with the help of SPSS software 20.0.

3.2. Data analysis

The EFA method was used to analyze a number of factors affecting the intention to choose traditional markets for fresh food in the South Central Coast region of Vietnam with the help of SPSS software 20.0.

4. Research results

In order to perform the exploratory factor analysis (EFA), firstly the author conducted Cronbach's alpha testing to verify the reliability of the scales. The test results removed some of the unreliable scales; the others are used to perform exploratory factor analysis.

Table2. Reliability Statistics

Reliability Statistics	
Product quality	
Cronbach's Alpha	N of Items
0,836	5
Price	
Cronbach's Alpha	N of Items
0,847	7
Advantages	
Cronbach's Alpha	N of Items
0,842	10
Seller	
Cronbach's Alpha	N of Items
.763	7
Habits	
Cronbach's Alpha	N of Items
.720	8
Traditional market management	
Cronbach's Alpha	N of Items
.760	6

Source: The analysis results are based on the survey data

Then, the author conducted the KMO and Bartlett’s tests to check whether the data set was suitable for the factor analysis or not; the results are shown as follows:

Table 3. KMO and Bartlett’s test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,854
Bartlett's Test of Sphericity	Approx. Chi-Square	1847,044
	Df	10
	Sig.	,000

Source: The analysis results are based on the survey data

From the table above, we see KMO = 0.854; Bartlett test statistic Sig. = 0.000 <0.05. This indicates that the observations are correlated to each other with a significance level of 99%. So the research model of the author is appropriate.

Then, the author performed factor analysis with Eigenvalues > 1; 7 groups of factors extracted with explanation level of 68.612%

Thereby, the matrix rotates the extracted factors as follows:

Table 4. Rotated component matrix

Rotated Component Matrix ^a							
	Component						
	1	2	3	4	5	6	7
TL10	,886						
TL5	,872						
TL9	,869						
TL7	,865						
TL4	,863						
TL8	,850						
TL6	,848						
TL3	,837						
TL1	,801						
TL2	,782						
GC2		,854					
GC5		,840					
GC7		,839					
GC6		,819					
GC3		,799					
GC1		,782					
GC4		,758					
BH7			,875				
BH6			,846				
BH2			,839				
BH1			,811				
BH5			,798				
BH3			,793				
BH4			,764				
QL4				,912			
QL5				,885			
QL2				,881			
QL3				,852			
QL1				,850			
QL6				,819			
TQ8					,876		
TQ6					,875		
TQ2					,796		
TQ5					,775		
TQ1					,736		
TQ3					,725		
TQ7					,687		
TQ4					,518		
TD5						,856	
TD1						,795	
TD4						,787	
TD3						,750	
TD2						,695	
CL3							,755
CL2							,746
CL4							,745
CL5							,737
CL1							,718

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 6 iterations.

Source: Analysis results of the author based on survey data

Table 3 shows that the first factor consists of 10 scales and is named as convenience factor group in which the scale with the greatest impact score is TL10 - Payment at the traditional market is favorable/familiar - with the impact score of 0.886; the lowest impact factor is TL2 - At traditional markets, fresh food is clearly classified with the impact score of 0.782.

$$FAC1 = 0,886TL10 + 0,872TL5 + 0,869TL9 + 0,865TL7 + 0,863TL4 + 0,85TL8 + 0,848TL6 + 0,837TL3 + 0,801TL1 + 0,782TL2$$

The research results of the author are consistent with the reality, as compared with other modern shopping places, queuing up and waiting to pay the food often cause negative psychology to consumers, especially in rush hours. The convenience in payment is also highly appreciated by the survey respondents.

The second factor is made up of seven scales:

$$FAC2 = 0,854GC2 + 0,84GC5 + 0,839GC7 + 0,819GC6 + 0,799GC3 + 0,782GC1 + 0,758GC4$$

The second factor is named as the price factor group in which the scale with the greatest impact score is GC2 - The price of fresh food at traditional markets is cheaper than in other markets - with the impact score of 0.854. The lowest impact factor is GC4 - I can bargain when buying fresh food at a traditional market – with the impact score of 0.758. Price is always a competitive factor for suppliers to attract customers; the more competitive the price is, the better advantages the sellers have.

The third factor is the sellers, which is made up of seven scales, namely:

$$FAC3 = 0,875BH7 + 0,846BH6 + 0,839BH2 + 0,811BH1 + 0,798BH5 + 0,793BH3 + 0,764 BH4$$

The scale with the greatest impact score is BH7 - Familiar sellers do not need to bargain with the impact score of 0.875. The lowest impact factor is BH4 - I have a good relationship with a seller at traditional market – with the impact score of 0.764.

The fourth factor is traditional market management with six scales in which the scale with the greatest impact score is QL4 - Service quality provided at the market is good - with the impact score of 0.912.

$$FAC4 = 0,912QL4 + 0,885QL5 + 0,881QL2 + 0,852QL3 + 0,85QL1 + 0,819QL6$$

The service quality is always the priority and gets the attention of consumers/ customers; the service quality will better attract customers.

The fifth factor is the consumer's habits:

$$FAC5 = 0,876TQ8 + 0,75TQ6 + 0,796TQ2 + 0,775TQ5 + 0,736TQ1 + 0,725TQ3 + 0,687TQ7 + 0,518TQ4$$

The consumer's habit factor includes 8 scales in which the scale that has greatest impact score is TQ8 - I usually go to the traditional market to meet my friends, acquaintances to exchange and talk- with the impact score of 0.876. The lowest impact score is TQ4 - I go to the traditional market because my family cooks regularly at home- with the impact score of 0.518.

The sixth factor is the product quality:

$$FAC6 = 0,755CL3 + 0,746CL2 + 0,745CL4 + 0,737CL5 + 0,718CL1$$

This factor includes 5 scales in which the scale that has greatest impact score is CL3 -The quality of fresh food at traditional markets does not cause any health risk - with the impact score of 0.755. The health of family and relatives is always the biggest concern of consumers; therefore, the product's quality assurance to avoid health risks for consumers is considered as the greatest influence of this variable. It is also consistent with the increasing demand of consumers in terms of product quality beside product design.

In the scope of this study, the author does not focus on analyzing consumer behavior variable (TD).

Results of statistical analysis using data from the survey showed that the factors with the influence of different sizes in the view of the object to be examined are consumers buy fresh food at traditional markets in the South Central Coast. Research's results have shown with different groups of factors that influence the level of the scale according to the consumer are different corresponding to that is expressed through the impact point is different.

Based on the analysis of the study, the authors make recommendations that contribute to further enhancing the level of "coverage" of traditional markets with consumers through recommendations in turn relating to each group of factors from price, convenience, product's quality, traditional market management, ...

5. Recommendations

First, further improve the quality of products in order to ensure the origin and freshness of products, meeting the increasing demand of consumers.

Second, ensure that the product prices are competitive in comparison with other suppliers of the same product. Also, there should be a price list to avoid fraud that affects the prestige of the traditional markets.

Third, rearrange stalls to make it attractive and convenient for consumers when choosing to purchase goods at a traditional market; ensure that consumers can easily find the products they need.

Fourth, it is necessary to further enhance the responsibility of sellers with their products to consumers; the sellers themselves must really understand the products to be able to introduce to consumers.

And finally, ensure security in the market area, creating the feeling of safety and trust for consumers when shopping.

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The Current Status of Production and Consumption of Dragon Fruit in Tien Giang Province

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ABSTRACT

Dragon fruit is one of the fruits that has a rapid growth in Tien Giang province. On 4.5 thousand hectares of planted area in 2016, Tien Giang supplied to the market about 94 thousand tonnes of dragon fruit. Although dragon fruit planting has brought profitable outcome to many growers, production and marketing of the fruit still face unstability in terms of price and marketing. This study was carried out to assess the current status of production and marketing of dragon fruit in Tien Giang province and propose some solutions to improve the production and marketing of dragon fruit. The research used the secondary time series data from the Tien Giang Department of Agriculture and Rural Development, farm cooperatives, and related research papers and primary data from interviewing farmers, managers and cooperative managers in the production areas. Results showed that dragon fruit production of Tien Giang province has high economic returns. However, production of the fruit is still spontaneous, small scale, lacking of linkage to the market and production according to GlobalGAP/ VietGAP standards is weak and lacking. In order to enhance the dragon fruit production and consumption efficiency, it is necessary to raise awareness about technical issues, linkages and build GAP production areas, promote trade promotion.

Keywords: production; consumption; dragon fruit

1. Introduction

Tien Giang is one of the provinces in the Mekong Delta having its agricultural economy depends largely on crop production. Fruit tree production plays important role in creating income for rural households and foundation for the stability for socio-economic development of the province. Tien Giang has tropical monsoon climate with high and stable temperature throughout the year, with soil, climate, hydrography suitable to many tropical crops.

Production of fruit crops in Tien Giang has rapidly expanded in recent years. Dragon fruit is one of the most rapid expansion in the province. In 2016, the planted area has reached 4494 hectares, with a harvest of 95 thousand tonnes. The fruit is grown in most of the districts, particularly concentrated in Cho Gao district with a total area of 3872 ha (accounting for 86% of the province's dragon fruit area of the province). Although production of dragon fruit in Tien Giang province is highly profitable, there are still many difficulties, challenges and risks such as: (1) lacking connection to market demand and new plantings are spontaneous and expanding at high rate; (2) production according to Global GAP or VietGAP is still weak; unstable prices. This study analyzes the status of production and consumption of dragon fruit in Tien Giang province and proposes recommendations to improve production efficiency and the consumption of dragon fruit in the province and in the Mekong Delta.

2. Methodology

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2.1. Data collection methods

Secondary time series data on production and consumption of dragon fruit in Tien Giang Province were collected from the Tien Giang Province Statistical Yearbook, Tien Giang Department of Agriculture and Rural Development, cooperatives of fruit growers.

Primary data were collected through in-depth interviews fruit growers, My Tinh fruit crop Cooperative, staffs of Department of Agriculture and Rural Development of Cho Gao district, and staffs of Department of Agriculture of Tien Giang province by semi-structured questionnaire.

2.2. Analytical methods

Using descriptive statistical analysis and qualitative analysis methods to conduct in-depth interview farmers, managers on the production situation, advantages and disadvantages of dragon fruit production in the region. The study then applied the value chain approach of [7], [6], a set of tools for value chain analysis of [12] and participation of chain actors to assess production and distribution situations of dragon fruit in Cho Gao district, Tien Giang province, description of dragon fruit value chain, and make suggestion of strategic solutions for upgrading dragon fruit production and sustainable development of the dragon fruit value chain.

3. Results and Discussion

3.1. Situation of dragon fruit production in Tien Giang

Dragon fruit (*Hydrocereus undatus*) is a fruit tree of the cactus family originating in the desert of Mexico and Colombia. Initially, the fruit was mainly introduced to drought region in Binh Thuan province in the southern central and sandy mounds in Cho Gao district (Tien Giang province) and Chau Thanh district (Long An province). The fruit is only been widely known in domestic market and become an export fruit in recent years.

Dragon fruit has become a key export crop, playing an important role in the economy and a source of income for farmers. The fruit has been exported to markets in China, Hong Kong, Singapore and European Union.

The fruit was introduced to Tien Giang since 1995 with an area of 500 hectares. Up to now, the dragon fruit of Tien Giang province has about 5000 hectares that ranking third in country in terms of area (after Binh Thuan province about 24000 hectare and Long An province about 6000 ha). Dragon fruit gives fruit all year round, the main season is from March to September and the off season is from October to April. The time from flowering to harvest is from 25 to 28 days. However, the dragon fruit can be anchored on the tree for 10-15 days and fruit sweetness will increase.

At present, there are about ten thousand farmer households involved in producing, trading and processing of dragon fruits for export, creating regular employment for 30000-40000 workers. In addition, the production value of dragon fruit accounts for an increasing proportion of the cultivation and fruit trees.

Two varieties are usually grown for commercial purposes, white pulp and red pulp dragon fruit. The fruit is consumed primarily as fresh fruits and considered to have many beneficial effects on health. About 80% of the dragon fruit production in Vietnam is exported to 39 countries and territories, including the fastidious markets such as the US, Europe, Japan and Korea. Besides, since dragon fruit has been consumed strongly in the North and exported to many countries for 10 years, the area of dragon fruit cultivation has expanded rapidly.

In general, the area and output of dragon fruit in the province increased continuously in the period 2012-2016, the average increase in area of dragon fruit is 19.2%, the highest in 2013 (28.2%), average growth rate of fruit area was 17%. The annual average yield increase was 26.7% in the period, highest yield increase was 32.2% in 2014. The average annual productivity increased 8.6%, the highest in 2013 (18.8%) (Table 1).

Table 1. Dragon fruit production in Tien Giang in the period 2012-2016

Targets	2012	2013	2014	2015	2016	Average
Planted area (hectare)	2449	3139	4052	4494	5170	3861
<i>Rate of increase (%)</i>		28.2	22.5	10.9	15	19.2
Area for fruit (hectare)	2132	2364	3006	3572	3961	3007
<i>Rate of increase (%)</i>		10.9	27.2	18.8	10.9	17
Production (tonne)	43108	56823	75109	94009	110431	75896
<i>Rate of increase (%)</i>		31.8	32.2	25.2	17.5	26.7
Productivity (tonne/hectare)	20.2	24	25	26.3	27.9	24.7
<i>Rate of increase (%)</i>		18.8	4.2	5.2	6.1	8.6

Source: Tien Giang Statistical Yearbook, 2017

Production costs and profit varies depending on crop seasons. The costs and wholesale price of dragon fruit in off season are higher than those of main season due to the investment of lighting and electricity. As the rate of increase in wholesale price was higher than the rate of increase in costs in the off season (85.3% and 72.7%, respectively) compared to those in main season, the profit of off season was still higher VND 7001/kg than that of main season (Table 2).

Table 2. Cost and profit of dragon fruit production in 2016

Item	Main season	Off season	Average
Price (VND/kg)	11333	21000	16167
<i>Rate of increase (%)</i>	-	85.3	
Cost (VND/kg)	3667	6333	5000
<i>Rate of increase (%)</i>	-	72.7	
Profit (VND/kg)	7666	14667	11167
<i>Rate of increase (%)</i>	-	91.3	

Source: Farmer in-depth interview results, 2017

The results of in-depth interviews with officials of Cho Gao district and Tien Giang province showed that there were many support programs for dragon fruit farmers. Project "Dragon fruit development in the province up to 2015" from provincial budget and from ADB source assisted the construction of electricity grid and transformers for dragon fruit production and preserve dragon fruit in off season, upgrading roads and banks loans to dragon fruit farmers.

Farmers cooperation and quality control practices in production

There exist farming enterprises and companies to invest in dragon fruit production meeting VietGAP standards such as dragon fruit farms of Cat Tuong company in Thanh Tan commune, Tan Phuoc district (48 hectares of VietGAP standard/2 farms), dragon fruit farm of Long Viet limited liability company in Hung Thanh commune, Tan Phuoc district (15 hectares of VietGAP standard) [1]. Farmers cooperatives and farmers groups producing and consuming dragon fruit: Luong Phu dragon fruit cooperative - Luong Hoa Lac commune, dragon fruit cooperative Hung Ngai commune - Dang Hung Phuoc commune, the dragon fruit cooperative of Quon Long commune and Truong Tho dragon fruit cooperative group - My Tinh commune. The existing cooperatives/cooperative groups are mainly in Cho Gao district, other districts have not had cooperatives/cooperative groups to develop dragon fruit. The farm cooperative/cooperative groups have been recognized as typical VietGAP standards such as: Hung Ngai dragon fruit farming cooperative Hung Dang commune, Cho Gao district, Cho Gao district (area of 21.85 ha meeting VietGAP standards), the dragon fruit farm in Luong Phu commune, Luong Hoa Lac commune, Cho Gao district (area of 29.95 ha meeting VietGAP

standards), dragon fruit farms cooperative production Truong Tho My An commune, Cho Gao district (32.7 ha meeting the VietGAP standards) [4].

Trading enterprises play a focal point in distribution and consumption of dragon fruit. The enterprises in the province are actively investing in dragon fruit production as well as enhancing the search and expansion of the market. The dragon fruit procurement systems of exporters are increasingly taking a high share of the buying chain, accounting for about 26% (including buying and selling of self-produced products). Enterprises have actively contacted foreign partners such as China and Thailand to directly export dragon fruits to these countries. These export orders now account for a small share of the total dragon fruit export trade nationwide but are an important development direction, contributing to the development of dragon fruit production in the province.

Advantages and disadvantages in dragon fruit production in Tien Giang province

• Advantages in dragon fruit production

The Ministry of Agriculture and Rural Development has a policy to develop the dragon fruit production area under the Decision No. 4573/QĐ-BNN-KHCN dated 22nd October 2014 approving the adjustment of the Central Agricultural Extension Project: "Building a sustainable and safe epidemic dragon fruit intensive farming model" deployed in Binh Thuan, Tien Giang and Long An. At the same time, the People's Committee of Tien Giang Province has had a plan for planning specialized areas for dragon fruit production. The dragon fruit farmers agreed to plan dragon fruit production. There is support from the authorities and scientific and technical research institutions.

In recent years, dragon fruits have been sold easily and prices have increased so the profit is higher than previous years because dragon fruit farmers have applied well in the seasonal production and export markets of dragon fruit have been expanded.

• Disadvantages in dragon fruit production

Dragon fruit production in Tien Giang also is being encountered many difficulties. Growers still practice based on own experience (application of pesticides, growth stimulants,...), not complying with the requirements of pesticides use recommended by professional agencies, occurrence of insects and diseases (white spot disease, brown spots, and fruit flies). The problem of pesticide and chemical residues in the product is a major technical barrier to export markets.

Lack of supply of high quality dragon fruit for high-class markets. According to the Department of Agriculture and Rural Development of Tien Giang province, by the end of 2016, the province has about 220 hectares of production complied with GlobalGAP, VietGAP standards. Meanwhile, Binh Thuan province has more than 7300 hectares of dragon fruit complied with VietGAP standards (5100 hectares have been certified) and more than 300 hectares of certified GlobalGAP dragon fruit.

According to the interview with deputy manager of the My Tinh An cooperative, dragon fruit produced under the GAP process usually produces small fruits, low yield, time consuming and high cost but the price is not much different from price of fruits produced by traditional methods. In addition, the cost for the initial certification is high, about 150 million and the cost of re-certification after one year is 100 million VND. In the past, state agencies supported a part of those cost of GAP certification, but at present this program has ended. As the cost of re-certification is quite high, complicated procedures, strict production process, farmers are unfamiliar and not compliant. This is also a problem that authorities and professionals need to have strategic solutions in the future.

3.2. The situation of dragon fruit marketing in Tien Giang province

At present most of dragon fruit farmers sell their produce directly to traders. There are different forms of buying dragon fruits in the province:

Enterprises buy dragon fruits from traders. The purchased price depends on the time of transaction, and there is no buying contracts. Traders often use the form of "buy off the sale" mainly through collectors or farmers. The sale and purchase of dragon fruit between producers and collectors is made via telephone or in person. Depending on the relationship between the two parties or the need that the seller or the buyer actively contact for negotiation, agreement on the price attached to the form of delivery [4].

The classification of dragon fruit is based on the weight and shape of the fruits: Grade 1 weighing more than 460 grams, grade 2 weighing 300-460 grams, grade 3 weighing less than 300 grams. However, depending on the market will have different classification. Dragon fruit exported to China, or to Southeast Asian countries are usually in the form of grade 1 (from over 460 grams), with good appearance, "green" ear - hard, not diseased, intact, not scratched. The dragon fruits exported to fastidious markets such as Japan, South Korea, USA ... belong to weigh class of 230-300 grams per fruit, having good appearance, produced according to the GAP process [9].

• **Preliminary processing**

The quantity of dragon fruits that has preliminary processing in Tien Giang province accounts for a small proportion. Preliminary processing of dragon fruits depends on the market requirements and the actual ability of the preliminary processing unit. The main preliminary processing include the following steps: cleaning shell; quarantine treatment and preservatives; fruit handling by physical methods; put in the boxes.

Rinsing the fruits with water and wipe the fruit with a towel. For products exported to the US, Japan, Europe often washed with clean water (drinkable). Some enterprises are using ozone production equipment, also known as an old equipment for surface disinfection, to prolong the storage time of fruits. However, this device has not been thoroughly researched on the effectiveness of dragon fruit handling.

Treatment of plant protection chemicals by soaking the fruit into fungicides (Benomyl 500 ppm solution within 1 minute). Treatment fruits by immersing 3 minutes in 200 ppm chlorine solution controlled the development of postharvest disease.

• **Preservation**

Dragon fruits can be preserved for 22 to 40 days if stored at temperature 5°C-10°C, humidity 90% - 95%. To preserve dragon fruit, temperature in the storage container should be decreased from 27°C to 5°C within 48 hours and when taking out the dragon fruit from the storage container should follow the reverse process. The preservation of dragon fruits in most packaging facilities has ensured the standard refrigeration conditions as studied to maximize the maximum possible storage time without the chilling injury to the fruits. In addition, dragon fruit is preserved by covering the fruit with perforated polyethylene (1 fruit in a bag, 10 holes with 1 cm in diameter) or polystyrene (plastic bag) to avoid mechanical damage and placed in a binspace for each fruit.

Storage containers are regularly sterilized and checked technical inspection to ensure standard storage conditions [4].

• **Packaging**

For domestic consumption: far areas (North and Central), dragon fruit is packed in wooden or carton box, weighing 20 to 25 kg/carton; close areas, dragon fruit is usually contained by crates or baskets. For export markets, the dragon fruit cartons are labeled to indicate where they are produced. According to the needs of customers, the size and weight of the barrels are different.

• **Transport**

Domestic consumption: means of transport are usually by truck. Due to lack of care during storage and transportation, the dragon fruit is consumed in the domestic market often quickly degraded, the peel and ears were quickly withered and yellowing, fruit easily bruised. Dragon fruits exported to China are transported by cold containers from the packing places to the destination; to other countries transported by cold containers; Exported to Laos and Cambodia by truck, exported to markets such as Europe, America, Japan, Australia ... often transported by air.

Export conditions: The dragon fruit is usually transported in cool and dark weather by cold containers at 5°C and 20-25m³/h in ventilation rate [4].

• **Market channel**

There are four channels for dragon fruit consumption in Tien Giang [1]:

Channel 1: Dragon fruit growers → Collectors/traders → Exporters of primary categories/small enterprises → Foreign consumers.

Channel 2: Dragon fruit growers → Collectors → Traders → Markets in the area → Consumers.

Channel 3: Dragon fruit growers → Traders → Retailer → Consumers

Channel 4: Dragon fruit growers → Markets → Consumers

Traders: traders sell about 71% of dragon fruit to the companies, to Binh Dien, Tay Ninh, Ca Mau, Dalat, 28% of production and to retailers in the province [1].

Trading companies collect 98% dragon fruit from traders. Collectors buy fruits from farmers, assemble at home in sufficient quantity and then transport to the export companies during the day (Doan Minh Vuong et al., 2015). There are about 30% of direct export or through consignment, 35% of production is sold to enterprises in Ho Chi Minh City and about 35% of the remaining output is sold for enterprises in Binh Thuan province. Tien Giang province now has established companies to export dragon fruit directly to the markets of China, Thailand but export volume is not large, export through trust, export quota remains is mainly [1].

• **Assessment of dragon fruit markets**

Demand for dragon fruits in high-class markets is still very high, but the implementation of export contracts of companies is difficult due to requirements to ensure both quantity and quality standards. Meanwhile, the area of dragon fruit complied to GlobalGAP standard, VietGAP of the province is very limited. In addition, there are areas certified to GlobalGAP standards, however, chemical residues in dragon fruits over the allowed level when testing because growers have not fully complied with the provisions of the GAP process during dragon fruit production process.

The price of the fruits is not stable, there is no contract involved in buy and sell practice. Dragon fruit export has a great diversity of markets, but it is too dependent on the Chinese market while other markets still account for a small share.

The linkage between farmers in dragon fruit production and consumption has not been well implemented. Area of dragon fruit production increased but not planned, spontaneous, production and consumption in the form of "buy off, sell the segment", no official contract.

3.3. Proposed solutions to improve the production and consumption of dragon fruits in Tien Giang province

From the advantages and disadvantages of producing and consuming dragon fruits in Tien Giang Province, the study proposes some solutions to improve the dragon fruit production and consumption in the coming time:

Firstly, it is necessary to improve the knowledge and capacity of actors in the dragon fruit value chain. Establishing linkages between farmers and enterprises to produce and consume dragon fruit that meet market demand in terms of quantity and quality. Training and updating information on supply and demand of dragon fruits in the country and in the world in order to help agents understand market demand, understand the role of actors in the chain to bring products to the market in a sustainable way.

In order to shorten market channels, create a stable production and consumption, increase profits for dragon fruit growers, it is necessary to have policies to attract investment enterprises in association with farmers to form raw material production zones in accordance with a technical process, creating products in equal quality and making the contract of stable consumption. Organizing training and vocational training on dragon fruit cultivation techniques under the GAP standard to raise awareness and provide knowledge on good production practices to create quality products that meet the increasing demands of the market.

Support training for leaders of cooperatives, cooperative groups on knowledge of supply chain management, and planning production and business according to market requirements to improve management capacity and help them manage and run their production and business activities effectively.

Secondly, dragon fruit production in the province has opportunities such as dragon fruit markets are growing, there are many provincial and government policies on production and consumption. However, the dragon fruit production in the province has many weaknesses such as the lack of dragon fruit meet quality standards; Lack of linkage between production and consumption; High residues of pesticides and chemicals; Production and consumption plans are not suitable to the market; The forms of economic cooperation are weak and lacking. Therefore, it is necessary to:

Forming and reorganizing cooperatives and cooperative groups focusing on the production of quality dragon fruit, production according to GAP standards, linking with the company to buy products. The main goals are to create products that meet market requirements and to develop stable and sustainable production.

Support to build voluntary production linkages between farmers and farmers (horizontal linkages) to form large fields of production according to a technical process to produce products that meet the requirements of quantity as well as quality and have a stable output contract.

Thirdly, dragon fruit production in the province is facing risks such as competition in price and quality with other countries; The increase of technical barriers for Vietnam dragon fruit; Depending on the Chinese market heavily; The demand for food safety and hygiene products is increasing while the dragon fruit quality of the province is very limited. In addition, Tien Giang has strengths in specialized farming areas, full of factors in trade, economic efficiency from the production of dragon fruit is high and planting dragon fruits by crop is reasonable. Therefore, in order to develop strengths and overcome the risks, it is necessary to:

Reviewing and planning the area of concentrated cultivation, limiting the increase of the area of spontaneous planting and investing in raising the quality in the specialized production areas in order to ensure sustainability in the production and consumption of dragon fruits are highly competitive in terms of quantity and quality.

Promoting trade promotion activities, expanding the market, popularizing products and brand names of dragon fruit to new markets know about Tien Giang dragon fruit to create the dragon fruit brand of the province.

Investing in research to create different types of dragon fruit to meet the tastes of the market in terms of color, flavor and quality of fruit.

4. Conclusion and Recommendation

4.1. Conclusion

Dragon fruit is the main fruit trees of the province, bringing high returns to producers and involved traders. Productivity of the fruit has increased continuously over the years. However, the production of dragon fruits of Tien Giang province has many shortcomings and lack of sustainability: Attention to the quality of dragon fruit has not been paid by farmers; limited production area met the requirements of GlobalGAP standards, VietGAP; Price fluctuation at the time at harvest; There are limited linkage between production and consumption; Horizontal links such as co-operative/cooperative groups is very rare.

The province has support policies in implementing the model of linking production towards improving the quality and processing of dragon fruits. However, the support package has not synchronized from production to consumption, not as effective as expected by the actors involved in the chain. In addition, the province has not actively sought and worked directly with export companies in the development of business links. Therefore, the province needs to change its management and operation by actively working with exporting companies, especially reputable companies as partners to invite and attract investment of companies to build supply zones, carry out business linkages.

The analysis of the current situation of dragon fruit production and consumption indicates that the demand of the market is stable in terms of quantity, quality and price but dragon fruit production in Tien Giang has not met the demands. The research has proposed some solutions to develop dragon fruit industry in the province in the near future.

4.2. Recommendation

By analyzing the situation of dragon fruit production and consumption in Tien Giang, the authors propose some recommendations as follows:

• *For Tien Giang province*

Focusing on researching and investing to improve the quality of dragon fruit according to VietGAP and GlobalGAP standards instead of developing the area. Investing to diversify dragon fruit varieties according to market requirements, focusing on supporting the development of specialized dragon fruits in Cho Gao district as planned.

Building successfully large-scale, high quality dragon fruit production models. From there, register the brand and develop the brand, create prestige in the long run, keep the market share from now.

Support to strengthen dragon fruit cooperatives and cooperatives in knowledge, management and business capacities. In addition, cooperative and cooperative groups should also be supported to register for certification and to re-certify under GAP standards.

Promoting advertising / marketing of Tien Giang fruits in general and dragon fruit in particular on the website, at fairs and exhibitions and in export markets.

• *For dragon fruit farmers*

It is necessary to improve market knowledge and value chain approach in order to be aware of the production of dragon fruit and meet the GAP standard right now to develop the brand name for dragon fruits of Tien Giang.

It is important to understand the benefits of cross-linking and vertical integration to voluntarily cooperate in large-scale production in the same production process and quality to reduce production costs.

• *For the company*

It is necessary to develop high quality raw materials areas with investment and purchase of products, creating prestige and developing the brand in the future.

Provide market information for horizontal links (cooperative groups, cooperatives) to produce marketable quantities and quality.

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The Impact of CRM on Tourism Enterprises' Performance: A Case Study in Ho Chi Minh City, Vietnam

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ABSTRACT

This study was conducted to analyze the factors of CRM affecting tourism enterprises' performance. By combining qualitative and quantitative research, the authors have surveyed 450 tourism enterprises' managers in Ho Chi Minh City (HCMC). The result shows that there are 4 groups of CRM's factors affecting tourism enterprises' performance including: (i) CRM Technology; (ii) CRM Organization; (iii) CRM Processes; (iv) Customer Orientation. The results provides the dimensions for CRM, enhance performance of tourism enterprises in HCMC. The study also proposes the conceptual framework of relationship between CRM and tourism enterprises' performance for future research.

Keywords: Customer Relationship Management; CRM; Tourism Enterprises' Performance.

1. Introduction

In the period when the world economy is changing with the leaps and bounds of science and technology; The process of industrialization and modernization is taking place faster in developing countries, the people's intellectual level and social life have been constantly improved,... Tourism is becoming an indispensable and objective requirement of human and leading industry in the process of international economic integration of many countries and regions in the world. In addition, tourism is a mass economy as anyone can be part of its supply chain. All organizations and enterprises can provide goods and services for tourism business regardless of what environment they originate from. The supply chain of tourism and tourism demand has helped the "smoke-free industry" become one of the most exciting, advanced and dynamic industries in the world.

In Vietnam, the tourism industry is being oriented as a "spearhead" in the economic development of the country. Recently, Vietnam has been very active and actively integrating into the regional and world economy. Accordingly, the door of free trade is increasingly open for the business travel in Vietnam on the international playground. However, the greater the opportunity is, the greater the challenge is. The competition in the industry has become more and more intense, multinational enterprises are increasingly expanding the market, creating change and fluctuations in the supply chain. Young and small enterprises are having to confront with enterprises from all over the world. In the tough and hatred battle for profit in the tourism industry, being able to stick with a long-term "fellow trader" of prestige and potential is always the desire of every enterprise. Exploiting value from existing customers helps enterprises save 5 to 15 times more than finding a new customer. Similarly, the cost of product selling and customer serving between the two types of objects also varies from 3 to 13 times (Dyché, 2001). So, it can be seen that regular customers are a great source of value for enterprises if they can exploit effectively. But the question is how to exploit that value, this requires a customer relationship management (CRM) policy suitable for enterprises. In the more dynamic and competitive business environment, service

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enterprises must pay more attention to improving the ability to manage relationships with customers (Ozgener, Iraz, 2006). The concept of “Customer Relationship Management” is no longer unfamiliar to Vietnamese enterprises, but the understanding and implementation of CRM work in tourism enterprises still have many shortcomings. The concept of CRM is understood by enterprises and applied in different perspectives, which is why this work is still ambiguous and intertwined with many other management activities. In addition, in Vietnam through many studies, the author found that most of the researches in Vietnam only discuss the performance of organizations in business or CRM. Few others have a more objective view of the relationship between these two concepts, but they are more about qualitative research. In the world, this issue is more focused but only studied for the effectiveness of specific activities such as marketing, customer care, sales, ... or assessing this relationship based on satisfaction, loyalty of the customers. In such circumstance, systematic research combines the quantitative and qualitative analysis of the impact of CRM on the overall performance of business activities of tourism enterprises in Vietnam helps giving scientific arguments to propose views and solutions to ensure a strong relationship with customers; so improving the performance of tourism enterprises in the future, which is critical both in theory and practice.

From the theoretical and practical issues mentioned above, the author has selected the research “Impact of customer relationship management (CRM) on business performance: Case study research in Ho Chi Minh City, Vietnam”.

2. Theoretical framework and research model

2.1 Theoretical framework

Customer relationship management has long been no long a new content. Since late 1960s, researchers have found the attraction and keeping the customers are the purposes of the business values (Mendoza & ctg, 2007). Over time, CRM has understood in many different ways with significant differences. When reviewing the process of developing a definition of CRM system, one can see that the former focuses mainly on the definition of information technology and automation in marketing, and customer care. However, these views seem to no longer fit into the role of CRM in today's economy. In the recent period, CRM has been referred to as a management strategy with modern management methods combined with the support of technology elements that enable the customers to have more profound vision on the enterprises; helping enterprises increase their ability to approach customers, interact more effectively with them, and start incorporating business activities across their entire trading system; thereby, supporting the enterprises to perform internal functions “(Buttle, 2009; Gartner, Inc., 2013).

Although there are so many ways to define CRM and so far the executives, market researchers are still debating the exact concept of it. However, in order to generalize and approach as per the nature and role of CRM in the current economic context, based on the review of the development stages of CRM concepts in human perception, this research considers CRM as a management strategy in business. Thus, the CRM concept in this study is as follows: CRM is an acronym for “Customer Relationship Management”; is used to describe a customer-oriented business strategy aimed at effectively managing the network of relationships established between the customers and the organization (Vahdati; Abdolmanafi; Sarlak, 2014).

In the process of application to business practice, CRM has demonstrated its role through its positive impact on loyalty, satisfaction and even the performance of business organizations such as the findings from Abbott & GCG, 2001; Bell & amp; ctg, 2007; Coltman & ctg, 2011; Bavarsad & Hosseinipour, 2013; ElKordy, 2014; Šebjan & ctg, 2014; Bhat & Dazi, 2016; Cambra-Fierro & GCG, 2016.

Though the process totalize the previous studies, it show that there are 2 main ways to recognize about the CRM's effect to enterprise's performance in business. The first way show the effect of CRM assignment by evaluating the impact of frameworks, the reception method and the resource support to the enterprise's performance in business (Organization Performance/ Organizational Performance) like: the way of Keramati & ctg (2010); Ivanovic & ctg (2011); Elkordy (2014). The second way show the direct effect of CRM activity to the performance of specific activities of the enterprise in business. Like selling, marketing, supporting,... For example, the study of Sotodeh (2007), Moaheb & ctg (2015), Mohammed & ctg (2014). When we approach to evaluate this relationship by the first way, the component elements of CRM assignment is priority. In addition, the internal studies show that to enhance activities of the organization in business, improving the component elements is necessary (Thao, 2009; Lam, 2010; Hoai, 2010;...). At the same time, when we consider opinion of the previous studies, the author recognize that it have the particular relationship in the approach method. Therefore, the first approach method is chosen to evaluate the influence of CRM assignment to the performance of tourism business in business. Typical for the first approach method is the study of ElKordy (2014) about the effect of CRM assignment to the performance of some big enterprises at Egypt, ElKordy defined the favorable

connection of the elements of CRM assignment to the performance of organization in business, include: (i) *CRM Technology*, (ii) *CRM Process*, (iii) *Customer Orientation*, (iv) *CRM Organization*. By that, the author confirmed that CRM have positive effect to Organization Performance. Beside 4 components above, through the summary process of theory, refer to internal studies, experimental interview, the authors added “Resource CRM” variable into the research model of ElKordy (2014). Belong that, the research model propose total 5 independent variables (1) CRM Resources, (2) CRM process, (3) Customer Orientation, (4) CRM Organization, (5) CRM Technology and 1 dependent variable “Organization Performance”

2.2 Research model

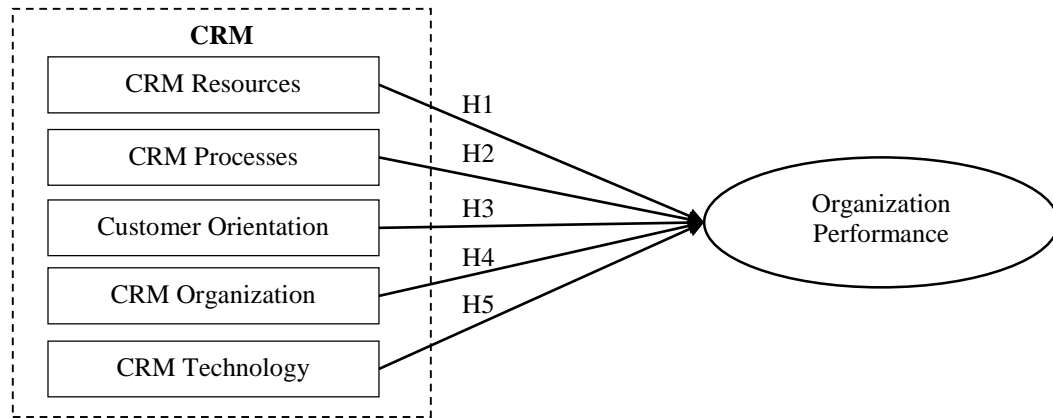


Fig. 1. Proposed research model

Research hypothesis:

H1: “CRM resources” have a positive impact on the tourism enterprises of the tourism enterprises in Ho Chi Minh City. (+).

H2: “CRM process” has a positive impact on performance of tourism enterprises in Ho Chi Minh City. (+).

H3: “Customer orientation” has a positive impact on performance of tourism enterprises in Ho Chi Minh City. HCM. (+) H4: “CRM organization” has a positive impact on performance of tourism enterprises Ho Chi Minh City. (+).

H5: “CRM technology” has a positive impact on performance of tourism enterprises Ho Chi Minh City (+).

Table 1. Summary on the scale

Factor	Encoding	Observed variable	Trích dẫn
CRM Resources (RES)	RES1	Customer information system is integrated on different functional areas.	Mozaheb & ctg (2015)
	RES2	Material elements (eg tables, chairs, etc.) are arranged reasonably.	Mohammed & ctg (2014)
	RES3	Helps enterprises save on operating costs during business.	Ivanovic & ctg (2011)
	RES4	Capital used to bring the desired benefit value.	Keramati & ctg (2010)
CRM Processes (PRO)	PRO1	Allows the customer to capture contact information with the enterprises	ElKordy (2014), Öztayşi & ctg (2011) Reinartz & ctg (2004)
	PRO2	Continuously expand the range of customer serving.	
	PRO3	Focus on periodic interaction with customers.	
	PRO4	Pay attention to prolong the lucrative life of customers.	
	PRO5	Use the information obtained to group clients.	

Customer Orientation (ORIO)	ORI1	Maintaining customers is the first priority of the enterprises	ElKordy (2014), Öztayşi & ctg (2011) Reinartz & ctg (2004)
	ORI2	Customer relationships are seen as assets of the enterprises	
	ORI3	Employees are encouraged to focus on relationships with customers.	
	ORI4	Always emphasize the importance of relationships with customers.	
CRM Organization (ORG)	ORG1	The performance of customer service teams is assessed according to defined criteria.	ElKordy (2014), Öztayşi & ctg (2011) Reinartz & ctg (2004)
	ORG2	Enterprises have a clear business goal of attracting, maintaining and developing customers.	
	ORG3	The company is well equipped with expertise and resources to ensure success in managing customer relationships.	
	ORG3	Employee training programs are designed to develop the skills needed to make the attachment between enterprises and customers.	
	ORG4	The results achieved in approaching, satisfying customer needs are the basis for employee reward assessment.	
	ORG5	The results achieved in approaching, satisfying customer needs are the basis for employee reward assessment.	
CRM Technology (TEC)	TEC1	Provide enterprise members the necessary information	Mozaheb & ctg (2015) ElKordy (2014) Keramati & ctg (2010)
	TEC2	Facilitate sales force “cross sell/up sell”.	
	TEC3	Regularly monitor the delivery of products/services.	
	TEC4	Allows the enterprises to forecast the potential demand of the customer.	
	TEC5	Allows the enterprises to evaluate the customer's lucrative lifecycle.	
Organization Performance (PER)	PER1	Customer relationship management affects performances of enterprises in business.	Vahdati & ctg (2014) Gavrea; Ilies; Stegerean, (2011).
	PER2	Customer relationship management helps enterprises achieve business results as desired at the lowest cost.	
	PER3	You believe that customer relationship management will help improve performance of enterprise activities in business	

3. Research methods

The study was conducted between December 2017 and May 2018, into 3 phases:

Stage 1: At this stage, the author uses expert methods. Scales and questionnaires are designed and completed on the basis of expert consultation and group discussion.

Stage 2: Verification of the scale reliability with Cronbach's Alpha and exploratory factor analysis. In this study, the author uses a convenient sampling technique to conduct the survey. According to Hair and et al (2006) the sample size must be at least $\geq m \times 5$, where m is the number of observed variables. So, with 26 variables observed in this study, the sample size must be at least ≥ 130 . However, to ensure high reliability, the author conducted survey of 450 subjects from the manager level of sales and more of tourism enterprises in Ho Chi Minh City; experienced managers in the tourism industry and professionals. All data collected from the survey questionnaire will be encrypted, processed by SPSS and AMOS. To ensure reliability of the scale, these observational variables must have a coefficient of correlation greater than 0.4 and a Cronbach's Alpha coefficient greater than 0.7. The EFA factor analysis is used to abbreviate and summarize the data. Each observation variable is calculated as a factor called Factor Loading (> 0.5), which is used to classify the factors. After each grouping, consider the KMO (Kaiser-Mayer-Olkin) coefficient to be [0.5; 1 and Bartlett's test statistically significant (Sig < 0.05), the observed variables were correlated in the overall.

Stage 3, analyze the CFA confirmation factor and inspect the research model by analyzing the structural equation modeling. The purpose of CFA confirmation factor analysis helps to clarify: (i) Unidirectionality; (ii) reliability of the scale; (iii) convergence value; (iv) Distinct value. According to Steenkamp and Van Trijp (1991); Hair et al. (1998), a study model that is considered to be suitable for market data if Chi-square testing is P-

value > 5%; CMIN/df ≤ 2, some cases CMIN/df may be ≤ 3 (Carmines and McIver, 1981); GFI, TLI, CFI ≥ 0.9. However, according to recent researchers, GFI is acceptable when it is greater than 0.8 (Hair et al., 1998); RMSEA ≤ 0.08. Apart from the above norms, the test results must also ensure the synthetic reliability of > 0.6; the citation deviation must be greater 0.5.

4. Research results and findings

The reliability test shows that Cronbach's alpha coefficients of the scales were all greater than 0.7 (the lowest is the customer orientation scale with α = 0.870). The coefficient of correlation for total variables is greater than 0.4. However, the variables RES1, OGR5 have a total variable correlation < 0.4 so they are not accepted. (See Table 2).

Table 2. Reliability test

Encoding	Factor	Cronbach's Alpha coefficient
RES	CRM Resources	0.903
TEC	CRM technology	0.900
PRO	CRM process	0.893
ORG	CRM organization	0.874
ORI	Customer orientation	0.870

4.1 Exploratory Factor Analysis – EFA

Bartlett Test (table 3) with mean Sig. = 0.000 < 0.05; The coefficient KMO = 0.754 has reached the required level. Thus, the observed variables in the whole are correlated.

Table 3. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.754
Sig.	0.000

Table 4. Exploratory factor analysis

Variable	Symbol	Factor					
		1	2	3	4	5	6
CRM technology	TEC2	0.937					
	TEC5	0.927					
	TEC4	0.769					
	TEC3	0.700					
	TEC1	0.606					
Customer orientation	ORG3		0.862				
	ORG2		0.857				
	ORG4		0.756				
	ORG1		0.719				
CRM Resources	RES2			0.936			
	RES3			0.895			
	RES4			0.785			
CRM process	PRO3				0.861		
	PRO4				0.828		
	PRO2				0.824		
	PRO1				0.784		
CRM organization	ORI2					0.843	
	ORI4					0.796	
	ORI1					0.789	
	ORI3					0.748	

Organization Performance	PER1						0.962
	PER3						0.742
	PER2						0.615
Eigenvalue		4.730	3.850	2.958	2.832	1.864	1.296
Variance extracted (%)		20.566	16.739	12.861	12.314	8.103	5.634
Total variance extracted (%)		20.566	37.304	50.166	62.479	70.583	76.216

Results of the exploratory factor analysis in Table 4 show a total extracted deviation of 76.216% (> 50%), which means that the recursive factor explained 76.216% of the model, while the remaining 23.784% would be explained by other factors. The extraction factor (Eigenvalue) is greater than 1 and should be retained. The above results show that the Exploratory Factor Analysis (EFA) model is consistent with data from six factor groups and can be used for further analysis.

4.2 Analyzing CFA confirming factor

Analysis of confirming factor was performed with 23 observational variables. Based on the results of the EFA analysis, six factors were drawn with corresponding scale groups that formed the conceptual measurement model and were included in the CFA analysis to examine the suitability of the model with the research data.

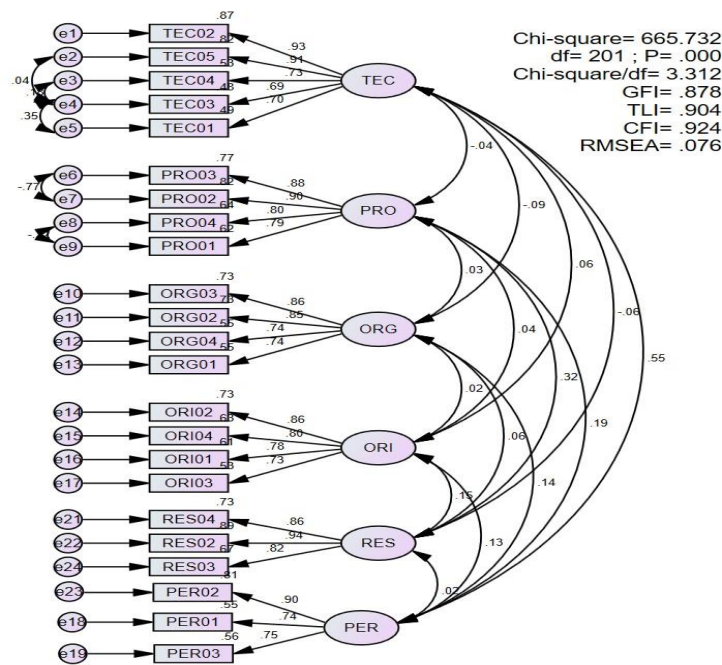


Fig. 2. CFA results in the critical measurement model

The weighted CFA results were statistically valid (≥ 0.5) and statistically significant at all p values of 0.000. The observable variables used to measure the six components of this scale attain convergence values. The CFA shows that the model has 201 degrees of freedom, inspection results Chi-square = 665,732 with P-value = 0.000 and Chi square/df = 3,312, which satisfies the requirement of <4 and the model indices are appropriate for the market data (CFI = 0.924; TLI = 0.904; RMSEA = 0.076). However, only four components achieve unidirectional: which are natural resource CRM (RES), Customer Orientation (ORI), CRM Organization (ORG), Performance (PER), the remaining components have correlation between the deviations of the observed variables so they don't reach unidirectional. The coefficient of correlation between the components and the standard deviation shows that the coefficient is less than 1 (statistically significant). Therefore TEC, PRO, ORG, ORI, RES, and PER have different values. The reliability values of the scale will be evaluated by the coefficient of general reliability and the deviation (Table 2). This result shows that the scale components meet the required values in terms of value and reliability, after CFA analysis of the measurement scale consists of six components (CRM technology, CRM cycle, CRM organization, Customer Orientation, CRM resources, Performance) with 23 variables.

As such, the CFA results for the final measurement model show that the factors in the model are unidirectional, ensuring convergence values, ensuring reliability and distinct values. The research model is consistent with market data.

4.3 Analysis of SEM linear structure model

4.3.1 Inspecting theoretical model

After analyzing CFA, the study uses the SEM model to determine the factors influencing and affecting each factor to performance of tourism enterprises HCMC. SEM analysis was conducted starting from the initially proposed research model, then model adjustment was performed to obtain a better model.

Table 5. Analysis results of SEM linear structure model

Mối quan hệ tương quan giữa các nhân tố			Estimate	S.E.	C.R.	P
PER	←	TEC	0.438	0.043	10.182	0.000
PER	←	PRO	0.170	0.042	4.099	0.000
PER	←	ORG	0.152	0.042	3.609	0.000
PER	←	ORI	0.082	0.041	2.018	0.044
PER	←	RES	-0.043	0.051	-0.846	0.397

Estimated results of major parameters show that in the 05 relationships, only 4 relationships were statistically significant ($p < 0.05$). The relationship between CRM resources and the performance of tourism enterprises business was not statistically significant with p -value = 0.397. Thus, the relation of concepts has not reached the theoretical expectation. In order to select a more relevant value model, the relationship which is not statistically significant (CRM-performance resources) will be removed from the model.

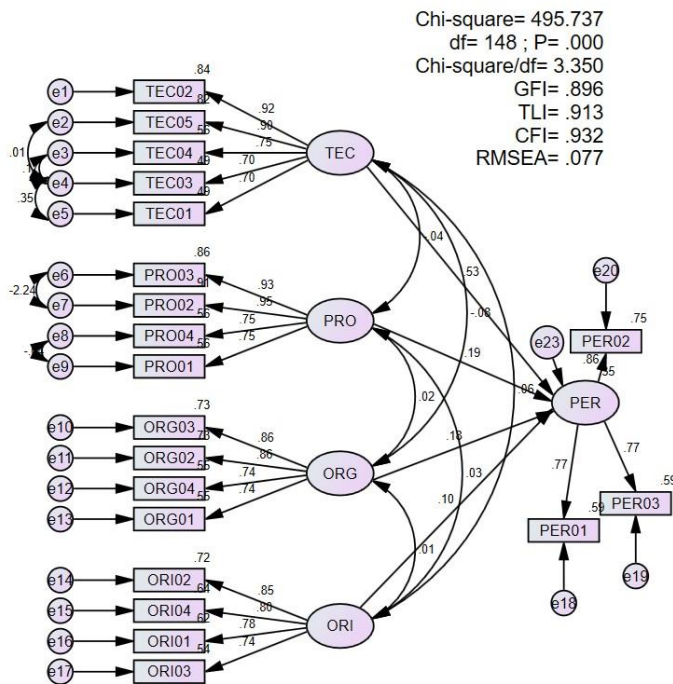


Fig. 2. SEM results of official research model

The final study model after removing insignificant relationships with 148 degrees of freedom. Although chi-square = 495,737 with p -value = 0.000, the indices suitable with model chi-square/df = 3,350; CFI = 0.932; TLI = 0.913 and RMSEA = 0.077 indicate that the model is consistent with market data. The normalized estimation

parameters (Fig. 2) were statistically significant ($p < 0.05$). Based on the weighted regression results between the concepts of CRM technology with a strong, same direction impact on performance with a weighting of 0.438 (explanation capacity $R^2 = 62.6\%$). Thus, through the elements of the CRM work, it can be said that CRM work has a positive impact on the performance of the tourism enterprises.

4.3.2 Theoretical inspection results

Table 6. Results of the causal relationship test between concepts in the formal research model

Relationship	Estimated value (ML)	Deviation (SE)	Critical value (CR)	P
PER ← TEC	0.438	0.043	10.248	0.000
PER ← PRO	0.148	0.042	3.551	0.000
PER ← ORG	0.151	0.042	3.594	0.000
PER ← ORI	0.083	0.040	2.057	0.040

The estimated result (standardisation) the primary parameters of the official research model is showed in Table 4.6. The relationship among concepts in the official research model all have statistical meaning ($p < 0.05$). Or in the other hand, in 04 theory is conducted in the formal research model about the relationship between concepts, all of 04 theory is accepted. The impact level of factors is performed at the equation:

$$PER = 0.438 * TEC + 0.151 * OGR + 0.148 * PRO + 0.083 * ORI$$

(In which: PER: Organization Performance; TEC: CRM Technology; ORG: CRM Organization; PRO: CRM Processes; ORI: Customer Orientation)

4.4 Bootstrap test

Estimation results from the 800 samples are averaged with the deviation shown in Table 4. Absolute CR value is very small compared to 2, so it can be said that the deviation is very small; At the same time, it was not statistically significant at 95% confidence level. Thus, the estimates in the model can be reliable.

Table 7. Estimation results of Bootstrap with N=800

Relationship	Estimation (ML)	Bootstrap Estimation					
		SE	SE-SE	Mean	Bias	SE-Bias	CR
PER ← TEC	0.531	0.062	0.003	0.530	-0.003	0.004	-0,75
PER ← PRO	0.186	0.054	0.002	0.153	-0.001	0.003	-0,333
PER ← ORG	0.177	0.051	0.002	0.171	-0.003	0.003	-1
PER ← ORI	0.100	0.050	0.002	0.104	0.003	0.003	1

4. 5. Conclusions and recommendations

After analyzing the research results with SPSS and AMOS tools, results of testing linear model shows that there are 4 elements of CRM affecting performance of tourism enterprises in Ho Chi Minh City, specific impact of each factor is shown in the table 8.

Table 8. The impact level of CRM factors to the business performance

Variable	Regression coefficient
CRM Technology	0.438
CRM Organization	0.151
CRM Processes	0.148
Customer Orientation	0.083

Based on the level of impact presented above, the study offers CRM application solutions to improve the performance of tourism enterprises in Ho Chi Minh City. Accordingly, the solutions focus on four factors: (i) CRM technology, (ii) CRM organization, (iii) CRM cycle and (iv) customer orientation. These are important contents for enterprises to consider and apply when they want to deploy or complete existing CRM work in their own enterprises, thereby improving performance. The specific solutions are as follows:

Firstly, about CRM technology. This is the factor that has the strongest impact on the performance of tourism enterprises in Ho Chi Minh City. Therefore, in order to improve performance, it is necessary to focus on improving this factor, specifically: (i) developing customer information criteria which sufficiently quantitative, consistent, clear, feasible and updated to ensure the ability to provide appropriate information to the divisions of the organizational structure of enterprises. (ii) information processing, evaluation and adjustment. Tourism enterprises HCMC needs to select the appropriate information processing methods based on making the most of information technology tools, analyzing and assessing the real status of CRM so that business leaders can make situation adjustment decisions. (iii) Selecting a suitable CRM technology system. CRM software is an important component of a CRM technology system that creates a method that detects potential customers, turns them into customers, and then maintains a long-term relationship between the customers with the enterprises. The most popular software systems available for tourism enterprises are CRM Viet, Microsoft Dynamics CRM for Travel and Travel, SugarCRM for Travel, etc. with a variety of technologies. Enterprises need to select and deploy a CRM system with the model appropriate to its current needs as well as suitable to the needs in the future. In addition, when deploying a CRM technology system, enterprises should make adjustments to make the system more effective and more suitable to the actual needs of enterprises.

Secondly, about CRM organization. This is the second most influential factor in performance of tourism enterprises Ho Chi Minh City. Therefore, in order to improve performance, we need to focus on improving this factor, specifically: (i) The organization of CRM implementation should be conducted in a comprehensive, consistent and synchronized manner. "Comprehensive" means that CRM is not just done with one or a few measures but with a variety of activities that include the proper distribution of the resources of enterprises with the strategic decisions in difference aspects. "Synchronization" is understood that these measures must be conducted concurrently, matched and without "patchy works". And finally, "consistency" is that the measures taken to implement CRM work must be consistent, logical, sticking together without conflict or self-negation. (ii) establishing the organization and personnel in the implementation of CRM. Accordingly, make he clear assignment of responsibilities and positions of the departments in the organizational structure, personnel groups and individuals performing CRM work. Enterprises need to be aware that people are the key to CRM implementation, including: (i) senior leadership; (ii) personnel directly implement CRM. Make special attention should be paid to raising the level, management skills, direct operation.

Thirdly, about the CRM processes. This is the third most powerful factor in performance of tourism enterprises in Ho Chi Minh City. Therefore, to improve performance, we need to focus on improving this factor, specifically: (i) Enterprises should be aware that the application of CRM does not depend on the size of the enterprise. This means that not only large enterprises are interested in CRM application, but small and medium enterprises are also required and can apply CRM. (ii) When implementing CRM, enterprises should pay attention to the level of application, depending on the conditions of each enterprise, each work type will be implemented differently. (iii) conduct CRM work step by step, without haste. In addition, the CRM cycle also includes specific business processes, such as customer contact processes, sales processes, information processing processes, as well as a number of other internal processes. The specific content of these processes should be designed to maximize the ability to collect customer information.

Fourthly, on customer orientation. This is the fourth strong impact factor for tourism enterprises in Ho Chi Minh City. Therefore, in order to improve performance, we need to focus on improving this factor, namely: (i) Putting customers in the center position, all services provided must aim to maximize profits of the customers (ii) tourism enterprises Ho Chi Minh City needs to establish customer orientation through CRM innovation and perception. It is a good idea to immediately remove the wrong way of thinking that CRM is simply the use of software or a technology solution, or, in other words, the application of information technology to monitor and manage customer data.

6. Limitations and further research

Although the research results have made a certain contribution to the theoretical framework as well as practical value, there are still some limitations. As follows:

Firstly, research conducted only in the tourism enterprises operating in Ho Chi Minh City, so the results of this study may not cover other types of enterprises such as passenger transport enterprises, accommodation

facilities, catering services and other services in the field of tourism, due to the particularity of competition, resources and customers. Moreover, the scope of research was conducted in Ho Chi Minh City so the application of research results may be different for different localities. Consequently, further research can be undertaken for other enterprises such as transportation, accommodation facilities, entertainment services, banking or industrial manufacturing and agricultural production. At the same time, broadening the scope of research of the topic in other localities or in one economic region in Vietnam to increase the generality of the study.

Secondly, there are many factors that affect performance of enterprises, but this study only considers the impact of CRM. At the same time, the study examines the impact of CRM on performance through the following five elements: (i) CRM resources, (ii) CRM cycle, (iii) Customer orientation, (iv) CRM organization and (v) CRM technology. Thus, the next study may examine the impact of other factors on tourism enterprises's performance, and may add other CRM components to adapt to each specific case.

Thirdly, CRM is defined as a set of strategic management activities, tools, and decisions that select, establish, maintain, and develop good, lasting relationships with customers. Thus, we have two ways to approach research on CRM work including: (i) the content of the CRM work; (ii) the purpose of CRM. However, in this study, the authors only study the content of CRM work. Further researches can be conducted by approaching the purpose of CRM or the integration of both to compare their differences to the research issue.

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The Relationship Between Internal Marketing and Employee Commitment: The Case of Seafood Companies in Mekong Delta, Vietnam

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ABSTRACT

Internal marketing is a critical factor in enhancing the attainment of organizational goals and objectives. The objective of this paper is to examine the relationship between internal marketing via four internal marketing practices – internal communication (IC), reward system (RS), organizational culture (OC) and training and development (TD) and the factors of employee commitment to the organization in the seafoods companies at the Mekong River Delta provinces, Vietnam. Data was collected from 352 employees at seafood companies and collected through the use of standardized questionnaires measuring **internal marketing** and employee commitment. The previous researches are canvassed thoroughly using for theoretical foundations and the econometric model is built by Structural Equation Model (SEM). The study's results will help the managers find the relationship between **internal marketing** and employee commitment in the Mekong River Delta provinces, Vietnam, at the same time understand the employee, employee's expectations for their organisation. Therefore, they will propose the orientations to more developmental than human, finding solutions to improve the level of **internal marketing** and employee commitment in the case of limited resources. Beside, this research also creates the competitive advantage over the human resources for enterprises in the fierce competitive environment and rapid change recently.

Keywords: internal marketing; employee commitment; seafood companies; Mekong Delta.

1. Introduction

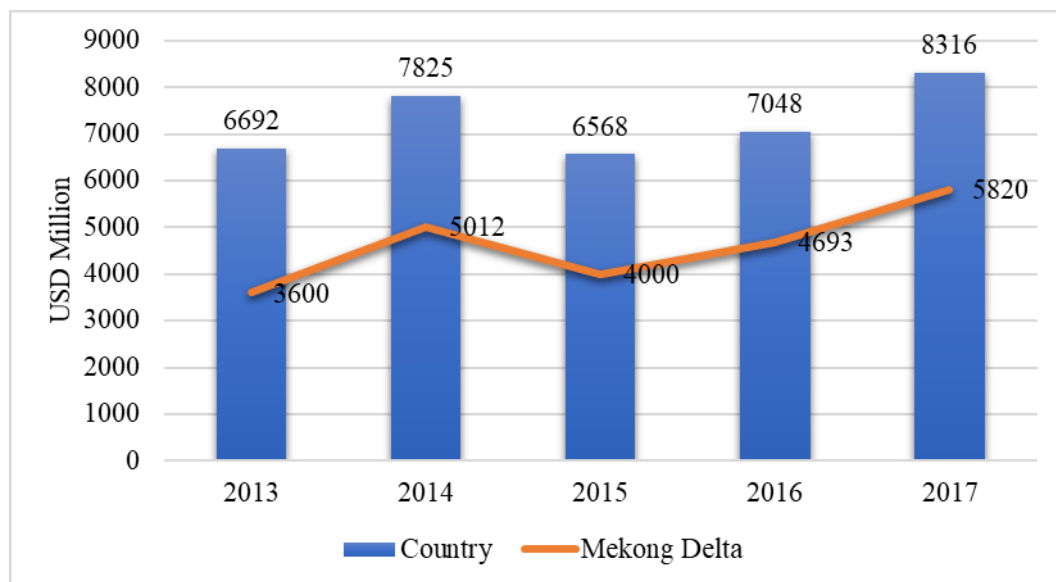
Vietnam's fisheries sector is developing into a key economic sector, a major commodity producer, a leader in the agricultural sector, one of the fastest growing industries with a high value for metals, the largest export of the country nowadays. Every year, the fisheries sector contributes 4-5% of the country's gross domestic product (GDP); 5-6% of Vietnam's total export turnover and seafoods are the sixth most important export commodities of Vietnam in 2017 (General Department of Customs, 2017). According to the report of the Directorate of Fisheries, in 2017, the total output of aquatic products reached over 7.28 million metric tons (MT), up 5.6% over 2016, including capture production with nearly 3.42 million MT (up 5.7%); aquaculture output with 3.86 million MT (up 5.5%) and the farming area hit 1.1 million ha. So far, in 2017, the total exported turnover value reached USD 8.3 billion of aquatic products, an increase of 18% compared to the value in 2016 (General Department of Customs, 2017). The Vietnam fishing products have been exported to 164 countries and territories, including the important markets such as the European Union (EU), Japan, the United States, South

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Korea and Russia (Dang Lam, Hai Mien, 2017). According to Vietnam Seafood Exporters and Producers Association (VASEP, 2018), among the six major exported Vietnamese aquatic products, shrimp and catfish have been the key products and contributed significantly to Viet Nam's export turnover value. The target for aquatic export turnover for 2020 will be in the order of USD 11 billion with an annual average growth rate of 7-8%, approximately 50% of fisheries workers will be trained, workers' average per-capita income will triple the current amount (VASEP, 2018).

The fishery sector plays an important role in the national economy, contributing to the agricultural and rural restructuring, poverty reduction and improvement in the lives of communities not only in coastal rural areas, but also in the mountains, midlands and highlands. The Mekong River Delta is known as the “backbone” of the country, supplying 70% of aquaculture production and 65% of the country's seafood exports. Significant livelihoods of approximately 17 million people living in 13 provinces and cities, contributing to the stabilization of social security and development of the country (VASEP, 2018). The value of fishery exports in the Mekong River Delta in 2013 reached 3.6 billion USD, by 2017 this value reached nearly 6 billion USD. In the period of 2013 - 2017, the Mekong River Delta's seafood export values increase over 6.5%, achieving the growth rate in terms of value higher than the national average. The country will have USD 6.7 billion in 2013 and USD 1.624 billion in 2017. In terms of the average growth rate of the fisheries sector for 2013 - 2017, it is 6.25% per year, higher than the increase in output. This confirms the quality of the product is gradually increasing by the value of the fishery (General Statistics Office of Vietnam, 2017).

Table 1. VietNam seafood export in 2013-2017



(Source: General Statistics Office of Vietnam, 2017).

However, the Mekong River Delta faces many risks such as: environmental pollution; limited resources. Many export consignments are returned because of the excessive amount of antibiotic residues in the product. In particular, the conflicts between businesses and employees, one of the evidences of the alarming state of internal marketing in seafood enterprises, is evident by the rapid increase in number of strikes in the past time. These risks are largely due to subjective reasons, resulting from a lack of understanding of the company, workers, tighter management by state management agencies, or a lack of serious internal marketing. The above shows the importance and urgency of internal marketing because all human behavior is controlled by their consciousness. Therefore, the current issue is to understand and quantify those problems how theirs might be affected Vietnamese's exporters. On this basis, a number of research implications are proposed to promote fisheries.

2. Literature review

The more and more integration of the economy, the increasingly fierce competition, the human resource problem becomes more and more important. To retain good employees, businesses are using all the ways such as increased salaries, bonuses, increased training, the allocation of additional powers for employees ... But no one seems to discuss the use of values of internal marketing to make “weapons” in the “battle for human resources”.

They do not know that to building a good relationship with customers, the first factor that determines success is the human factor in the business. That means that customers want to be satisfied with the business, the business must first meet the needs of employees (Lings, 2004; Kaur, Sharma & Seli, 2009) and make them align with the organization. That will determine the future prosperity of the business. If lacking of commitment from employees can be harmful to an organization, resulting in poorer performance arising from inferior service offerings and higher costs (Caruana and Calleya (2010). One way of achieving such commitment is the application of internal marketing programs (Cauana and Calleya, 2010; Farzad et al., 2008). In addition, Lings (2004) suggests that an internal marketing has a direct positive impact on internal aspects of organizational performance, including employee commitment. However, at present, the movement of human resources among enterprises is becoming more and more common, causing a lot of headaches for most enterprises. Qualified and highly qualified employees often move to high-paying, better-paying or better-informed local marketing practices. Therefore, it is necessary to have an internal marketing strategy so that employees are truly loyal and committed to sticking with businesses, especially seafood enterprises in the Mekong River Delta. As a result of the perceived benefits that organisations practising internal marketing is conceived to derive, scholars have sought to understand its impact on employee commitment (Mishra, 2009; Ting, 2010).

Internal marketing (IM)

Several researchers have identified the importance of internal marketing as a recipe for business success (Ahmed et al., 2003). Internal marketing has been studied and debated rigorously during the pastimes to understand its complex problems. The objective of internal marketing is to get motivated and customer conscious employees in order to achieve service excellence. The use of marketing in internal marketing context suggests an emphasis on the application of marketing techniques, approaches, concepts, and theories aimed at achieving customer satisfaction in the context of internal customers, in order to achieve success in the external market (Gronroos, 1981). Internal marketing was first proposed as the key to satisfying the internal employee as a means of realising organisational intent (Berry, 1981). For Kotler (1991), internal marketing is the mission of recruiting, training and motivating staff can serve the customer better. According to George (1990); Berry and Parasuraman (1991); Gaplin (1997); Davis (2001) also suggests that internal marketing has internal communications, training, teamwork, empowerment, and reward system. For Ahmed, Rafiq & Saad (2003), internal marketing contains the factors involved: Strategic rewards, Internal communications, training and development, organizational structure, senior leadership, physical environment, staffing, selection and succession, interfunctional coordination, incentive systems, empowerment, operational/process changes. For Chang and Chang (2009) the dimensions of internal marketing included employee-oriented measures, internal communication and external activities. Like the previous ones, Huang & Rundle-Thiele (2015), namely these include Internal communication, training, internal market research. Torfeh, Ghadim & Khamisabadi (2015), internal marketing contains 04 factors involved: internal communication, employee recruitment, employee training, employee empowerment, external market research and segmentation. Clearly, there is no meeting of minds when it comes to the elements of internal marketing. This gap is a major challenge with current internal marketing literature. This study however operationalised the constructs of internal marketing scale consists of four dimensions that include internal communication, reward system, organizational culture and training and development. This paper will draw on this dimension for in Mekong Delta seafood enterprises in Vietnam.

Internal communication (IC)

Internal communication is the transmission of information between organizational members or parts of the organization. It takes place across all levels and organizational units of an organization. Communication is remarkably important in manufacturing industries, especial seafoods manufacturing industries. It has been shown to directly effect the bottom line results, effectiveness of change management, corporate culture, organisational effectiveness and productivity (Sprague & Brocco 2002; Welch & Jackson 2007), as well as the overall performance of an organisation, work behaviour and employee commitment, increases the competitive advantage of a company in the severe market environment (Hola, 2007). Thus Beyerlein, McGee, Klein, Nemiro and Broedling (2003) suggested that management should align support systems that employees can communicate their needs and frustrations as this will lead to employee satisfaction and effective functioning of the organization. Highly engaged employees are committed to the success of their organisation. They will promote their company with lots of other customers, in sharing their ideas, and they exert discretionary effort above and beyond what is required (Miller, 2014). According to Rafiq and Ahmed, 2000; Lings, 2004; Lings and Greenley (2005), internal marketing is promote positive employee behavior, namely job satisfaction and employee commitment. Therefore, the essence of the process is important for understanding.

Reward system (RS)

Reward systems are two basic types of rewards, financial and non - financial. Both of them can be utilized positively to enhance employee commitment. Financial rewards relate to the benefits that an organization provides to its employees and non - financial rewards motivate and enhance commitment of employees (Armstrong and Murlis, 2007). Jiang et al (2009) argues that rewards systems influence the efficiency of an organization and it also helps it to achieve its goals by increasing commitment. Zain, Ishak and Ghani (2009) emphasizes that there is a direct relationship between rewards system and employee commitment. Danish (2010) argued that effective reward systems leads to increased employee motivation and this may in turn enhance employee commitment. Armstrong (2012) observes that employees are satisfied with their organizations that provide competitive rewards and this makes them to want to stay at their organizations thereby leading to high levels of employee retention. Therefore, organizations should take actions so as to obtain employee commitment through total reward system. In this regard, a study on the effects of rewards system on employee commitment can be valuable.

Organizational culture (OC)

According to Nystrom (1993), organizational culture suggests that in the strong institutional culture employees feel more committed with the organization. Brewer (1993) further suggested that if an organizational culture is not articulated strongly enough, the subculture may take precedence over the organizational culture for individual employees and thus gain their commitment (Lok and Crawford, 1999). Samad (2007), organizational culture influence the commitment of employees, leadership styles and performance of the organization. Muhammad Suleman Sabir et al., (2010), “organizational culture is compulsory part of the organization on which organization’s success or failure depends. The organizational culture increases the employee’s commitment through installing different level (surface level, espoused values, basic assumptions and values) of culture in the organization”. The culture of an organization has an important impact on its performance (Naicker, 2008). Thus, it is the intention of this study is to investigate the relationship of organizational culture with commitment of employees.

Training and development (TD)

Training and development is important for every organization to make investments in this programs for the successful accomplishment of its goals (Bassanini & Scarpetta, 2002). Waris (2005) argues that, when employees believe employers have invested in them through training and development, they become satisfied and commitment with the organisation. Employees who have undergone training and develop new skills and acquire knowledge are competent, secured and confident in service delivery far better than their counterparts with inadequate training (Martensen and Gronholdt, 2000). Training and development has direct bearing on performance of an individual and functioning of the organization (Apospori et al.,2008). Few studies have seen training and development as an instrument to improve performance in the place of work (Lee et al., 2012; Barzegar & Farjad, 2011). Several studies show that companies that master innovation have invested considerably in training and development programs. The best way to achieve that is to empower and equip employees with the necessary knowledge and experiences and build their commitment.

Employee commitment (EC)

Organizational commitment which is defined as the degree to which an employee identifies with the organization and wants to continue actively participating in it (Newstrom and Davis, 2002) is an interesting topic in the field of organizational behaviour. All of them have shown that employee engagement positively influence on employee performance (Zheng, 2010; Dixit, V. & Bhati, M., 2012). As such, it is important for employers and managers alike to know how to get the best of their workers. One of the antecedent determinants of workers’ performance is believed to be employee commitment. Armstrong (2012) emphasizes that employee commitment signifies both the behavioural tendencies and the feelings that employees have towards an organization. Robbins và Judge (2013), employee commitment is increased when their leader is knowledgeable, friendly, knows how to give compliments when the employee performs well, hears the opinion of the employee and is interested in the benefits. Or rather, employee commitment is increased when the company performs well internal marketing.

There are so many researches have been done on the new employee commitment components methods to how to increase employee commitment in the organization (Porter, Mowday, Steers, 1982). According to Meyer and Allen (1990) suggested 03 components of employee commitment including: affective commitment, continuance commitment and normative commitment. Employee commitment to organisation could be based

upon any one of these three types of commitments, or all of them as all the three sub-components are not mutually exclusive (Park & Rainey, 2007). Ho Huy Tuu and Pham Hong Liem (2012) emphasizes that employee commitment measurement by three factors: effort, pride and loyalty. Research results show that employee commitment is influenced by job satisfaction, organizational alignment, knowledge, organizational support, and branding. However, among the many components of employee commitment, the results of Meyer and Allen (1991); Cohen (2007) is widely used. This study is also no exception but the research will adjust to suit the area. The scale of employee commitment includes: affective commitment (AC), continuance commitment (CC), normative commitment (NC). Therein, affective commitment refers to an employee's belief and acceptance of the goals and values of an organisation (Swales, 2002); Continuance commitment refers to an employee's awareness of the costs associated if they leave their organisation (Narteh, 2012). In normative commitment, the individual commits to and remains with an association because of approaching the obligation, the last constituent of managerial commitment. This approach may derive from a strain on a person before and after combination an association (De Cuyper et al., 2009). Beside, there has not been any study which has shown the relationship between internal marketing and employee commitment, particularly in Mekong Delta seafood enterprises in Vietnam. This study introduces a model which relates internal marketing, employee organizational commitment.

Relationship between internal marketing and employee commitment: research hypotheses

The relationship between internal marketing and employee commitment has been demonstrated by the different research (Chang & Chang, 2007, 2009; Pappasolomou - Doukakis, 2014). Thus verifying how employee commitment improvements represent one consequence of internal marketing strategy. Internal marketing could be the answer to gaining employee commitment, succeeding where traditional internal communications strategy have failed. Internal marketing has a positive effect on organizational commitment and development and rewards has effect on organizational commitment. Pappasolomou - Doukakis (2014) recognized the fact that companies can satisfy external customers effectively, if there is successful exchange with its employees. Internal marketing can be regarded as employees's selection that needs to be conversant, urban, and forced in order to elicit their commitment to managerial target (Pappasolomou-Doukakis, 2014).

Based on the relevant studies, this study adjusts the scales to build a model of the internal marketing factors affect employee commitment in the seafoods companies at Mekong River Delta. It's used the four factors scale of the previous authors about internal marketing and adjust for compatibility with Mekong River Delta conditions and the three components scale about employee commitment of Meyer and Allen (1991); Cohen (2007) inherited and perfected for Mekong River Delta enterprises. The proposed model is shown in Figure 1 and the hypotheses of this paper, based on the literature review from the previous section, were placed as :

04 dimensions (IC, RS, OC, TD) and employee commitment concept is measured by 03 dimensions (AC, CC, NC).

H1: IM of employees at seafood firms affects AC (expectation +)

- + H11: IC of employees at seafood firms affects AC (expectation +)
- + H12: RS of employees at seafood firms affects AC (expectation +)
- + H13: OC of employees at seafood firms affects AC (expectation +)
- + H14: TD of employees at seafood firms affects AC (expectation +)

H2: IM of employees at seafood firms affects CC (expectation +)

- + H21: IC of employees at seafood firms affects CC (expectation +)
- + H22: RS of employees at seafood firms affects CC (expectation +)
- + H23: OC of employees at seafood firms affects CC (expectation +)
- + H24: TD of employees at seafood firms affects CC (expectation +)

H3: IM of employees at seafood firms affects NC (expectation +)

- + H31: IC of employees at seafood firms affects NC (expectation +)
- + H32: RS of employees at seafood firms affects NC (expectation +)
- + H33: OC of employees at seafood firms affects NC (expectation +)
- + H34: TD of employees at seafood firms affects NC (expectation +)

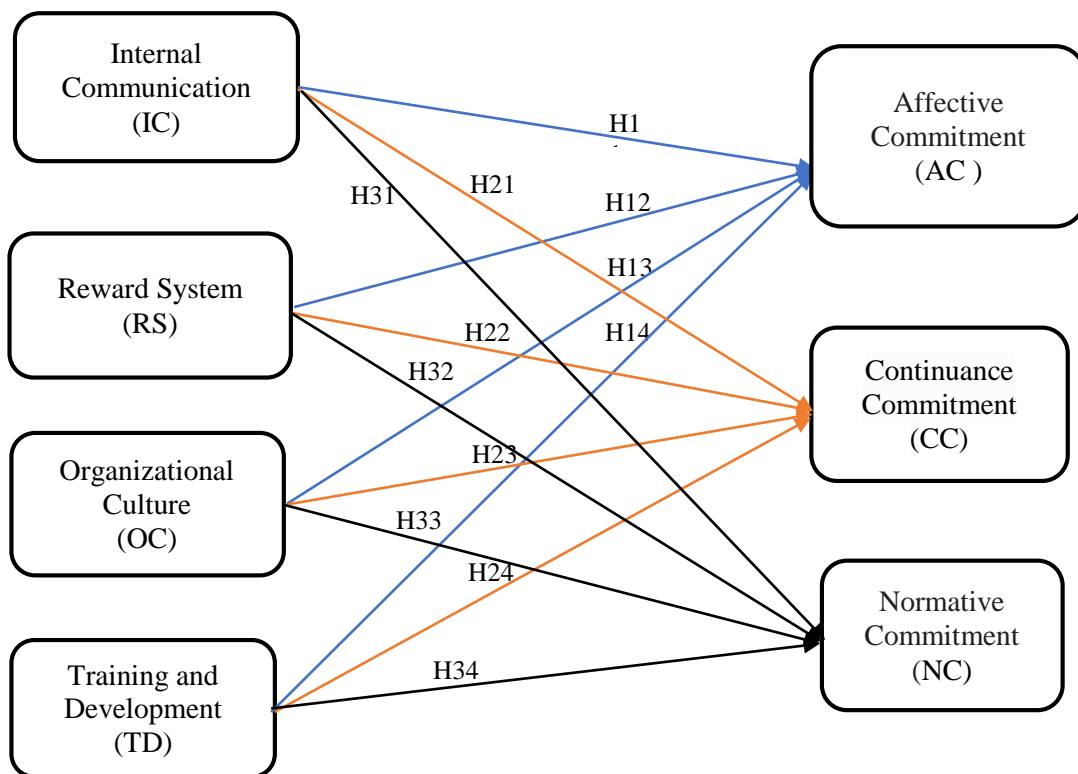


Fig. 1. Models and hypotheses proposed by authors

3. Methodology

Research Process

This study has combined qualitative and quantitative research methods. Qualitative research method has been conducted by focus group discussions with 30 chief executive officers of seafood firms in 12/2017 at meeting room of Statistics Office in Ca Mau province, Tien Giang province, Kien Giang province (Viet Nam) to modify observational variables that have been used to measure research concepts. The result has shown that concept is measured by 04 dimensions (IC, RS, OC, TD) and employee commitment concept is measured by 03 dimensions (AC, CC, NC). All dimensions has measured through 27 variable observations, these variables were measured on a five-point Likert scale, anchored by 1 = strongly disagree and 5 = strongly agree.

Response Rate

A total of 420 questionnaires size were distributed to staff through by hand to hand at seafood companies in the Mekong Delta region from 12/2017 and by the cut off date to 02/2018. 420 yielded a response rate of 100% were recovered, however, only 352 usable replies were obtained, representing an effective response rate of 83.8%. Convenient sampling was used a detailed questionnaire to test model and research hypotheses.

Data Processing Techniques

Quantitative data analyses techniques in SPSS version 20 and transformation of variables was done to make it usable for AMOS which included Cronbach's Alpha reliability, Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were used to analyse the collected data for the study. Structural equation modeling technique (SEM) was used to analyze the data and test hypotheses. The structural equation model technique is an important tool which involves identification of variable and development of theoretical model.

Hypotheses are then framed based on theoretical model. Primary data is collected through survey questionnaires and hypotheses are tested on the bases of collected data.

4. Result and discussion

The sample characteristics

With 352 valid respondents (included 83.8% in all questionnaires): 178 employees at private enterprises (50.6%), 86 employees at joint stock enterprises (23.5%), 91 employees at other types (25.9%) were conducted in the analysis. As regards gender, females overwhelmingly predominate (73.8%). The most representative age group is between 35 - 50 years of age (49.3%), with the < 25 age group being the least representative one (7.1%). There is some contractual instability given that only 28.5% of respondents hold permanent working contracts.

The results analysis of scales' reliability

The results presented in Table 2. show that of the 29 observed variables used to measure research concepts these variables satisfy the conditions in the reliability analysis of the scale via the Cronbach's Alpha coefficient (Cronbach's Alpha coefficient > 0.6 and correlation coefficient – total > 0.3, Nunnally & Burnstein, 1994). Thus, all observational variables will be used in the exploratory factor analysis (EFA).

Table 2. Results of Scales' reliability

Code	Scale	Cronbach's Alpha if Item Deleted
IC	Internal communication	0.843
RS	Reward system	0.951
OC	Organizational culture	0.849
TD	Training and development	0.712
AC	Affective commitment	0.839
CC	Continuance commitment	0.870
NC	Normative commitment	0.816

(Source: Authors' survey data, 2018)

The results of EFA

The results of the last factors of internal marketing and employee commitment presented in Table 3. and Table 4. show suggested scales which have satisfied the standard. EFA factors affecting the internal marketing are respectively extracted into 04 factors corresponding to observe variables from 04 concepts with a total obtained variance of 68.898% > 50% at the Eigenvalue of 2.48 found satisfactory EFA analysis (Anderson *et. al.*, 1988) and KMO = 0.923 ($0.5 \leq KMO \leq 1$) is appropriate for conducting CFA assay, Barlett Test for Sig value. = 0.000 < 0.05, so the variables correlated (Hoang Trong, Chu Nguyen Mong Ngoc, 2008). EFA employee commitment results have been extracted into 03 factor with an extracted variance of 71.07 % at the Eigenvalue of 1.93. KMO = 0.844 ($0.5 \leq KMO \leq 1$) is appropriate for conducting CFA assay, Barlett Test for Sig value. = 0.000 < 0.05, so the variables correlated. The EFA results are analyzed by Varimax rotation method. This results show that observed variables in a total corresponding together.

Table 3. EFA results of internal marketing

	Component			
	1	2	3	4
IC4	0.834			
IC2	0.823			
IC3	0.815			
IC1	0.808			
IC5	0.796			
RS1		0.904		
RS2		0.874		
RS4		0.851		
RS3		0.848		
OC2			0.885	
OC3			0.849	
OC4			0.813	
OC1			0.766	
TD1				0.879
TD4				0.858
TD3				0.823
TD2				0.800

(Source: Authors' survey data, 2018)

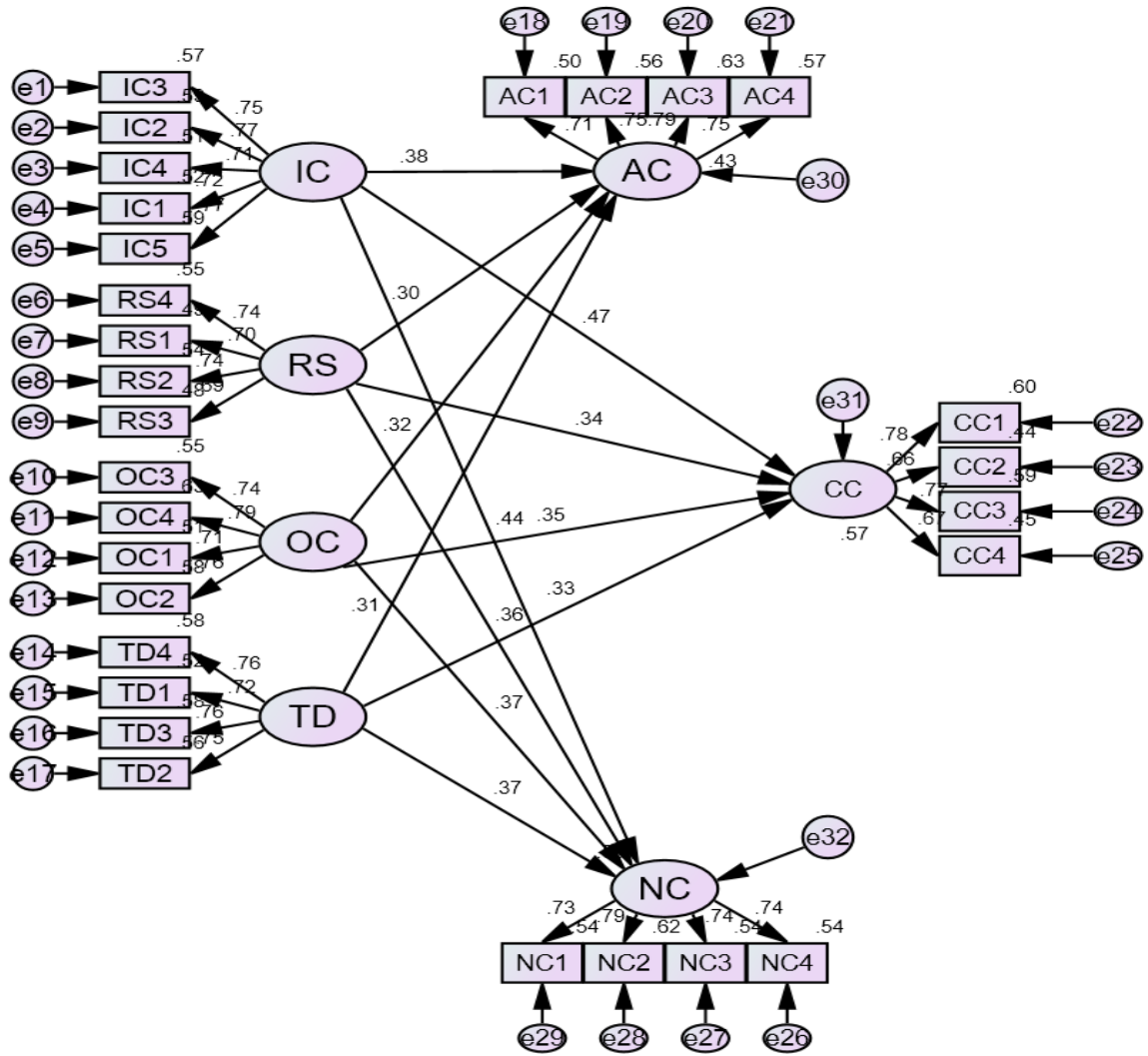
Table 4. EFA results of employee commitment

	Component		
	1	2	3
AC2	0.862		
AC3	0.833		
AC4	0.800		
AC1	0.800		
CC3		0.881	
CC1		0.874	
CC2		0.849	
CC4		0.803	
NC1			0.892
NC2			0.868
NC4			0.855
NC3			0.853

(Source: Authors' survey data, 2018)

The results of CFA

The CFA results of the last measurable model show that the model is suitable with data, Chi squared value as 531.724; Df at 365; CMIN/df at $1.407 < 3$ with p-value at $0.000 (< 0.05)$. Other measurement criteria are also suitable: TLI = 0.961; CFI = 0.965 > 0.8; RMSEA = 0.037 < 0.8 (details see Figure 2). Measurement results are on the basis of CFI, TLI, RMSEA, Chi squared/df, showing all scales reached unidimensionality, convergent validity, discriminant validity and reliability. Thus, this model is consistent with data collected from the market. In addition, the correlation coefficients together with the standard deviations show that they are different from one, according to the concepts of discriminative research. The error of the measurement variables is not correlated; the weights (λ_i) are greater than 0.5 and statistically significant. Thus, the observed variables are unidimensionality, convergent validity, and discriminant validity.



Chi-square=513.724;df=365;CMIN/df=1.407;p=.000;
TLI=.961;CFI=.965; RMSEA=.037

The results of the test hypotheses:

The results of the study hypotheses presented in Table 5. show that all hypotheses are acceptable at

significance (alpha) level of 0.05, the corresponding confidence level of 95% as following.

Table 5. Results of authors’ hypotheses test

			Estimate	S.E.	C.R.	P	Hypothesis test result
AC	<---	IC	.386	.064	6.026	***	Supported H11
AC	<---	RS	.288	.060	4.790	***	Supported H21
AC	<---	OC	.316	.061	5.215	***	Supported H31
AC	<---	TD	.321	.064	4.986	***	Supported H12
NC	<---	IC	.414	.057	7.214	***	Supported H22
NC	<---	RS	.329	.054	6.089	***	Supported H32
NC	<---	OC	.337	.054	6.273	***	Supported H13
NC	<---	TD	.359	.057	6.257	***	Supported H23
CC	<---	IC	.494	.065	7.608	***	Supported H33
CC	<---	RS	.338	.060	5.685	***	Supported H14
CC	<---	OC	.357	.060	5.998	***	Supported H24
CC	<---	TD	.362	.063	5.737	***	Supported H34

(Source: Author’s survey data,2018)

Discussion and conclusion of the research

Discussion

The findings of this study provide seafood firms managers with insights into how employee commitment and internal marketing orientation are related. According to the study’s result, it is shown that the internal marketing scale at seafoods firms are affected by internal communication (IC), reward system (RS), organizational culture (OC) and training and development (TD). The employees commitment scale are affected by affective commitment (AC), continuance commitment (CC) and normative commitment (NC). The study’s result show that all hypotheses are accepted.

- To hypothesis H1, the study’s result show that all factors internal communication (IC), reward system (RS), organizational culture (OC) and training and development (TD) have positive relationship between internal marketing and affective commitment (AC) as following:

$$AC = 0.386*IC + 0.288*RS + 0.316*OC + 0.321*TD$$

- To hypothesis H2, the study’s result show that the factors Internal communication (IC), reward system (RS), organizational culture (OC) and training and development (TD) have positive relationship between internal marketing and Continuance commitment (CC) as following:

$$CC = 0.494*IC + 0.338*RS + 0.357*OC + 0.362*TD$$

- To hypothesis H3, the study test show that the factors internal communication (IC), reward system (RS), organizational culture (OC) and training and development (TD) have positive relationship between internal marketing and normative commitment (NC) as following:

$$NC = 0.414*IC + 0.329*RS + 0.337*OC + 0.359*TD$$

This means that,

(i) Employees are committed to the organizations when seafood firms have made better internal marketing strategy. The key success factors for organizations today are internal communication, reward system, organizational culture, training and development. This is suitable to the actual situation in the seafoods companies at the Mekong River Delta.

(ii) According to author' study results, there are the relationship between the factors of internal marketing and employee commitment. Firstly, seafood companies are concerned about the quality of workers' life. Secondly, seafood firms contribute to the improvement of the community and behave equally and respectfully to employees in their companies. Thirdly, employees feel that working in their company brings safety and peaceful things of their mind.

(iii) At seafood firms, employees think that they are treated fairly and properly, fully guaranteed their benefits. They believe that their leaders is always interested in my ideas. Moreover, they can develop their career and take part in picnics annually at their companies. In recent years, the economy has encountered many difficulties, so some have cut the welfare level. Even so, there are bonuses every year on Holidays, Lunar New Year, welfare funds for travel allowances and medical examinations for staff.

The research's results have brought about practical results for the business and human resources of the fisheries companies in the Mekong River Delta. It helps the managers see internal marketing's role for cohesion members. Through this, the managers have to measures to monitor, manage and adjust marketing strategies for employee commitment more sustainable. For example, to facilitate for optimal employees commitment, internal communication has to be integrated with modern technology. In fact, today employees in the organization, most of them have own at least a social network account and need to connect, expand the information network anywhen, anywhere. Making and using e-mails and social media to engage your employees. This will ensure understanding among all the employees. However, the importance of face-to-face meetings between employees and management still administrate.

Beside, the fishery sector is significant contribution to the economy of Vietnam, fisheries and aquaculture industries have also absorbed millions labors of Vietnamese population. There, the companies need to conduct the exactly and scientific employee assessment, the pay is based on the capacity and efficiency of work associated with condition and circumstances to complete specific work. Employees who poor treatment by managers, dissatisfaction with that job and career prospects, and a perception that reward system was not sufficient and fair were the main reasons for abandonment their organization, if they find another job opportunity. Most employees are satisfied with the salary and benefits, but they do not feel their pay is commensurate with their performance and has not been fully involved in welfare programs. Therefore, fisheries companies should ensure the equitable distribution of income, the need for a clear salary and bonus policy, based on objective and fair assessment of capacity and effectiveness. So the quality of employees's life will ensure and employees commitment with the organization is more during.

The organizational culture factor should concern by leadership. They got an important role in shaping and sharing common values of the business. In addition to the material benefits, the motivational activities of employees such as sightseeing, picnic, group activities not only arousing excitement in employees' work but also the occasion of sticking relations, improve the spirit of the employees in the company.

To build the company into a learning organization, strengthen training courses on soft skills for employees and training courses for professional work. Always create the environment and opportunities for employees to learn from their own work environment; organize sharing knowledge, experiences on labor safety, food hygiene and safety ... among the parts of the company; encourage employees to open up new ideas, innovations ... so that they can be assured of commitment to work.

5. Conclusion

This study implies that internal marketing is very beneficial and effective approach towards the employees positive behavioural outcomes such as employee commitment. In order for managers to assess and understand internal marketing as well as the impact of internal marketing on the employee commitment at seafood companies in Mekong River Delta provinces, Vietnam. The study results are shown the relations between internal marketing and employee commitment. Factors that influenced employee commitment in this study were internal marketing, specially as: internal communication (IC), reward system (RS), organizational culture (OC) and training and development (TD). There are several practical implications that can be derived from the reseach. Managers should be encouraged to monitoring employee behavior to improve it by changing internal marketing strategy facilitated to the fishery sector improve products quality and profitability toward a more sustainable and responsible development.

However, the research's study has certain limitations: (i) Due to limited resources in conducting research, the sampling in regarding only 352 employees at seafood companies in Mekong River Delta, Vietnam. Therefore, the results might not be able to be represented for a large scale nationwide. (ii) This study has been conducted a convenient sampling technique using direct interview methods from the respondents. So, the reliability of the research scale may be higher if random sampling would be chosen.

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Organizational Climate for Employee Work Innovation: A Case Study of Hotels and Resorts in Nha Trang City.

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ABSTRACT

In the hospitality industry, the brand is the tangible element so that the customer can identify and evaluate the service quality of the supplier. Therefore, spreading the organizational brand value and image to retain talent and attract customers is one of the strategies to create competitive advantage for businesses. In order to balance the benefits of service providers and customers, innovation is the solution that plays an important role. This study explores the impact of organizational climate on brand loyalty and brand support behaviour, thereby affecting employee work innovation. The results of the analysis based on data from 428 staff at hotels and resorts in Nha Trang confirmed the important role of these factors. Therefore, creating an organizational climate that fosters brand loyalty and enhances brand support behaviour of staffs is essential. This is the basis for stimulating the innovation of employees. This is also the proposed theoretical framework to provide holistic view of various factors that influence employee work innovation. The results of this paper have important HR and political implications for managers and policy makers to attract talent, affirm brand value and promote employee work innovation in hospitality industry.

Keywords: Brand loyalty; brand support behaviour; Hotels and resorts; Organizational climate; Work innovation.

1. Introduction

In fact, the demand of customers is increasingly diversified, requiring enterprises to have appropriate and creative solutions, which help to increase customer satisfaction (Wang & Netemeyer, 2004). Moreover, consumers with more choices but less satisfaction (Prahalad & Ramaswamy, 2004) will always aim for a higher satisfaction. Therefore, they will be attracted by new suppliers with better capabilities, more diversified products and services to better satisfy their needs. In the hospitality industry, the organizational brand is the visible element so that the customer can identify and evaluate the service quality (invisible) of the hotels and resorts.

Improving the organizational climate to promote positive brand support behaviour and innovation of employee is an important research topic for both academics and practitioners. Research has shown that organizational culture, especially work environment factors such as encouraging the dynamics, creativity and professionalism of employees, has a positive influence on brand support behaviour, increase the satisfaction and promote the return (Ayupp & Chung, 2010). In addition, close relationships and interaction among employees also contribute to the formation of positive behaviours such as brand support and loyalty to the organization (Punjaisri et al., 2009b). However, the factors that drive branding behaviour as well as the psychological mechanisms underlying such behaviour have not been properly addressed and there is a lack of quantitative

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evidence (Helm et al., 2015). The relationships between brand loyalty and brand support behaviour with work innovation of staffs as well as the organizational climate is relatively new and no research has been found in Vietnam.

In the field of travel services, when the difference is always the top search element of the travellers, the flexibility and skills of the staff are the main factors that make the differences and increase the satisfactions of customers. As a result, the hospitality industry always wants to have employees who are talented, capable and thriving at work because they can anticipate, recognize, understand, analyse and meet the needs of their clients in a the fastest. Innovation is seen as the right solution to balance the interests of customers and service providers. Therefore, the theoretical and practical issues of the employee work innovation need to be discovered more.

This study examines the impact of work environment cultural factors on brand loyalty and brand support behaviour, thereby stimulating work innovation of workers in hotels and resorts at Nha Trang city. In this area, employees have a very important role in providing services that assure the brand's commitment to the customer. However, job hopping has put businesses in a difficult position in maintaining their brand identity. The absence of specific products and services, the emergence of internationally displaced brands, the freedom of movement of the workforce, the intense competition from the surrounding regions has put pressure on organizations. It is required to improve the working environment of enterprises in the direction of increasingly integration. This research, therefore, focuses on the key factors that shape the advanced and competitive organizational climate of affiliation, fairness and innovativeness (Bock et al., 2005; Porter, 2008), and explore their role in shaping brand loyalty, branding support behaviour and work innovation of employee. The findings of this study are expected to contribute significantly to enhancing the organizational climate and increasing the brand image of the organization (Herrera et al., 2011).

The research model was tested using the structural equation modelling (SEM), based on survey data of different staff groups from 50 hotels and resorts in Nha Trang. Tourism business is a type of regional service, based on different standards and characteristics, in accordance with culture, and tourism resources in the region. So this research context is expected to provide an interesting perspective on the phenomenon of research.

2. Conceptual framework and hypotheses development

2.1. Innovation

Innovation has been defined by various authors and expresses some important aspects of it, but all emphasize “novelty” as the core of innovation. Most definitions of innovation involve the development and implementation of new ideas. Innovation is defined “as the development and implementation of new ideas by people who over time engage in transaction with others within an institutional order” (Van de Ven, 1986, p.591). More specifically, Scott & Bruce (1994) defined innovation as “a multistage process, with different activities and different individual behaviours necessary at each stage” (p.582). And according to Amabile (1996), innovation is “the successful implementation of creative ideas within an organization” (p.1).

Personally, innovation in the workplace is an individual's activity in initiating and proactively introducing new or/and useful ideas, processes, products, or mechanisms. However, because innovation is characterized by intermittent activities rather than sequential stages, workers can participate in this activity at any time. Employee innovation is the foundation for the company's efforts to renew its business in the creation of new products and services (Janssen, 2000).

Innovation is an important subject of research in tourism. The tourism sector recognizes increasing competition worldwide, not only between destinations but also between firms within the destinations (Dwyer et al., 2009; Tseng et al., 2008). With the ability to offer differentiated products and services, innovative hotels are more successful than non-innovative competitors. Employee work innovation, consider from the behavioural perspective as innovative work behaviour, is seen as an important factor to increase the effectiveness of organizational innovation performance (De Jong & Den Hartog, 2007; Janssen, 2000; Scott & Bruce, 1994). In service, employee innovation is the result of the process of interacting with customers (Michael et al., 2011). In this study we focus on the employee work innovation and consider it a multi-stage process, not consider each of the concepts of innovation as well as a multidirectional scale.

2.2. Brand supporting behaviour

The brand is referred to as the value that the organization will provide and guarantees to the requirements of the customer (Aaker, 2004). A brand is formed through a process of interaction between the company, the customer, and the employee (Schlager et al., 2011). In that process, the interaction between the customer and employee who convey the brand through their brand supporting behaviour is the most important (Machtiger,

2004). According to Burmann & Zeplin (2005, p.282), brand supporting behaviours is “an aggregate construct which describes a number of generic employee behaviours that enhance the brand identity”.

Attitudes and behaviors of employees play a very important role in the transmission of brand image in the service. They have transformed the brand identity into the minds of consumers (Gronroos, 1994; Wangenheim et al., 2007). Service staff not only understands what the brand represents, but more importantly, acts to support the brand as well as fulfil the brand promise to the customer. Without these actions, negative consequences can occur, creating a bad image of the organizational brand in the minds of the parties involved (Miles & Mangold, 2004).

Today, brand supporting behaviour is important because it has a positive impact on the branding of hotels and resorts (Burmann et al., 2009). In the process of providing services, employees should behave in accordance with customer’s requests or feedbacks. And employee brand-supporting behaviour is evident to the customer to assess the quality of hotel service (King, 2010). The studies also show the role of brand-supporting behaviour in positively influencing the hotel brand, and are the basis for better employee performance (Baker et al., 2014; Thomson et al., 1999). The next hypothesis is proposed:

H1: Brand supporting behaviour positively relates to employee work innovation.

2.3. Brand loyalty

Brand loyalty of staffs is “An employee’s willingness to remain with the present brand” (Punjaisri et al., 2009b, 567). Employee brand loyalty contributes to organizational brand value, and is a major factor influencing employee brand supporting behaviour (Burmann & Zeplin, 2005; Shaari et al., 2012).

The study by Mowday (1998) and Meyer et al. (2002) concluded that brand loyalty is a key factor for measuring brand value from employee perceptions. When employees are loyal to the organization's brand, they engage in sharing the values of the organization more easily, taking care of others and being accountable to the whole community (Mowday et al., 1979). Studies also show that brand loyalty leads to better employee performance, through their brand supporting behaviour (Baker et al., 2014). In addition, brand supporting behaviour is enhanced when employees feel empathetic and loyal to the organizational brand (Punjaisri et al. 2009a; Punjaisri & Wilson 2011; Punjaisri et al., 2013). The theory of organizational commitment also shows that, once employees trust and accept the values and goals of the organization, they will be more willing to work for the prestige of the organization. Thus, brand loyalty contributes to organizational brand value, and is a major factor influencing employee branding behavior (Burmann & Zeplin, 2005; Shaari et al., 2012). So we propose that:

H2: Brand loyalty positively relates to employee brand supporting behaviour.

H3: Brand loyalty positively relates to employee work innovation.

2.4. Organizational climate

Organizational climate is “a relatively enduring characteristic of an organization which distinguishes it from other organizations and embodies members collective perceptions about their organization with respect to such dimensions as autonomy, trust, cohesiveness, support, recognition, innovation, and fairness ...” (Moran & Volkwein, 1992, p.20). An effective organizational environment consists of appropriate characteristics to promote the capacity of workers as well as allow them to support each other or even replace colleagues in unpredictable situations.

Organizational climate studies have shown that managers can increase employee positive attitudes and behaviors, creations and innovations by paying attention to the environment they are creating, by creating suitable elements of organizational climate. And the salient elements of organizational climate have been pointed out by scholars are: climate supports innovation (Baer & Frese, 2004; Gilson & Shalley, 2004; Jung et al., 2003; King et al., 2007; Pirola-Merlo & Mann, 2004; Richardson & Vanderberg, 2005; Smith et al., 2005) and tolerance with reasonable failures (Leonard & Sensiper 1998); climate increase the sharing of knowledge, leading to innovation (Wasko & Faraj, 2000), and creating positive climate (Glisson & Jannes, 2002; Hui et al., 2007; Liao & Chuang, 2004; Salanova et al., 2005; Schneider et al., 2005); ethical or justice climate: (Ambrose et al., 2008; Colquitt et al., 2002 ; Cullen et al., 2003; Ehrhart, 2004). Therefore, within this study, the employee's perceptions about their organization with respect to such dimensions as:

(i) Affiliation (The perception of social norms),

(ii) Fairness (The perception of trustworthiness) and

(iii) Innovativeness (The organizational practices accepts failure, and transparent information, free publicity) (Brock et al., 2005).

Many factors have been consistently found to be facilitators of innovation at differing levels of analysis.

These are organizational, team, job, and individual label factors. However, there is a small body of research that focuses on climate factors. Climate factors also contribute to employee individuality. So there is a need for better understanding of its relationship with employee outcomes (Luthans et al., 2008).

Organizational support plays an important role in shaping employee attitudes and behaviors (Eisenberger et al., 1986). In addition, relationships and close interaction among employees also contribute to their positive behaviors (Herrera et al., 2011). When employees work in an organization where they are recognized and rewarded appropriately, trained and developed, and confident, it will stimulate and motivate them to share their knowledge with colleagues (Kim & Ko, 2014), as well as increase the satisfaction and commitment to the organization, develop their own capacity, thereby improving the efficiency of the work of employees (Luthans et al., 2008).

Previous research has confirmed the close relationship between the organizational climate and the brand supporting behaviour, such as preserving core values, improving service quality, the activities to strengthen the brand identity (Burmam & Zeplin, 2005), and activities to best satisfy the needs of customers (Ayupp & Chung, 2010; Herrera et al., 2011; Yang & Tsai, 2014). In addition, positive working environment will help employees to find happiness in their work, to commitment to the organization and more effort for the development and success of the business (Chiang et al., 2012), thereby increasing brand supporting behaviour (Punjaisri & Wilson, 2011). Hence we expect that:

H4: Organizational climate positively relates to employee brand supporting behaviour.

H5: Organizational climate positively relates to employee brand loyalty.

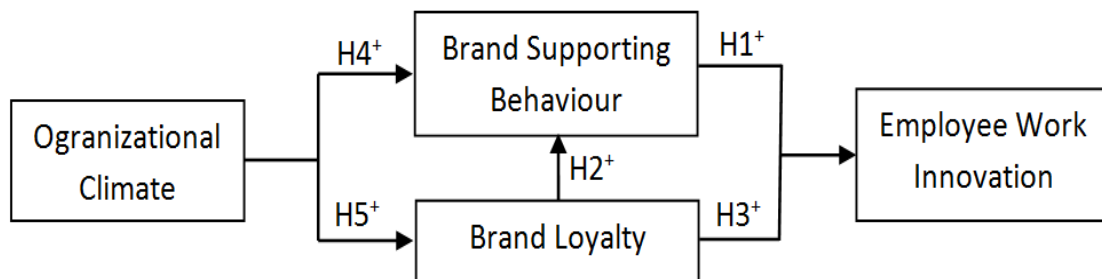


Figure 1. Model of employee work innovation.

3. Research methodology

3.1 Research sample

This study employed a survey method, using a questionnaire to test the conceptual model and developed hypotheses. The prospective respondents were chosen in convenience sampling method from 50 hotels and resort (classified from 3 stars to 5 stars) in Nha Trang City. Furthermore, during the survey, researcher tried to keep the ratio between participants in Food and Beverage, Housekeeping, and Front Office and other departments around 1:1:1. The questionnaires were distributed to respondents. They completed the questionnaire and handed it to the researcher. The survey was conducted officially from May 2016 to April 2017. The number of questionnaires is expected to be 450. However, due to incomplete samples, only 428 valid samples are used for further analysis. The sample consisted of 167 males (39.02%) and 261 females (60.98%). The working time is less than 3 years: 198 staffs (46.26%), 93 staffs (21.73%) worked 3 - 6 years, and 137 staffs with more than 6 years (32.01%). The result also shows that 38.08% of respondents work in Food and Beverage, 26.87% in Housekeeping, 18.69% in Front Office and 16.36% in other departments.

3.2 Scale of concepts

To measure the various constructs, validated items were adapted from prior studies. The measurement of the three components of the organizational climate (Bock et al., 2005), brand loyalty and brand support behaviour (Punjaisri et al., 2009b) and employee work innovation (Scott & Bruce, 1994) inherited from previous studies using a five-point Likert scale, with a rating scale from (1) “strong disagree” to (5) “strong agree”. To create the measurement, a group interview was conducted with 10 experts in hotels and resorts. The content of each item is discussed. As a result, all items of the scales were retained in the study. Moreover, in line with the research context in Vietnam, the items were adjusted according to expert opinion, through in-depth interviews. All expert opinions are recorded. Finally, adding or decreasing or using the appropriate word for each item is decided by

the majority of experts. Preliminary research was conducted with 30 samples to examine and adjust the scales. The results show that the scales are reliable with a value that exceeds the minimum threshold of 0.60 for commonly used scales (Hair et al., 2010).

3.3 Analytical procedures

The research followed a two-step approach. Firstly, the scales are evaluated by the Cronbach's alpha values, the exploratory factor analysis (EFA) and the confirmatory factor analysis (CFA). Next, the Structured Equation Modelling (SEM) method is used to test the structural relationships between concepts in a theoretical model.

4. Results

4.1. Reliability and validity of measurements

The results of the EFA analysis yielded results consistent with the structure of the six scales. The CFA model with six concepts also demonstrates good fit with the data (CFI = 0.983; TLI = 0.981; GFI = 0.942; RMSEA = 0.032). The factor loading of all concepts are high (≥ 0.696), as well as variance extracted (ρ_{vc}) of 0.691 to 0.820, composite reliability (ρ_c) of 0.820 to 0.914. Finally, the squared correlation coefficient between the two concepts is less than the variance extracted of each concept. Thus, the scales are convergent validity, discriminate validity and reliable (Bagozzi & Yi, 1988) (see Table 1, Table 2, and Figure 2).

Table 1. Test results of measurement models

Concepts	Factor Loading	t- statistics	ρ_c	ρ_{vc}
Affiliation (AF)			0.914	0.796
AF06	0.872	21.758		
AF07	0.856	21.169		
AF08	0.858	21.239		
AF09	0.827	21.169		
Innovativeness (IN)			0.890	0.820
IN51	0.880	24.305		
IN52	0.782	20.199		
IN53	0.905	24.305		
Fairness (FA)			0.830	0.747
FA51	0.802	15.473		
FA52	0.822	15.761		
FA53	0.741	15.473		
Brand Loyalty (LO)			0.820	0.7365
LO61	0.799	17.110		
LO62	0.702	14.847		
LO63	0.829	17.710		
Brand Support Behaviour (SU)			0.871	0.721
SU71	0.738	17.803		
SU72	0.794	16.088		
SU73	0.848	17.083		
SU74	0.790	15.943		
Employee Work innovation (EW)			0.876	0.619

EW81	0.790	15.096		
EW82	0.778	16.641		
EW83	0.696	14.647		
EW84	0.715	15.096		
EW85	0.730	15.461		
EW86	0.707	14.914		
$\chi^2(215) = 310.615 (p = 0.000)$; CFI = 0.983; TLI = 0.981; GFI = 0.942; RMSEA = 0.032				

Table 2. Correlation coefficients between concepts

Concepts	AF	IN	FA	LO	SU
Affiliation (AF)					
Innovativeness (IN)	0.517				
Fairness (FA)	0.529	0.626			
Brand Loyalty (LO)	0.538	0.578	0.632		
Brand Support Behaviour (SU)	0.485	0.585	0.690	0.744	
Employee Work innovation (EW)	0.224	0.349	0.326	0.313	0.445

Note: correlations are statistically significant at 5%.

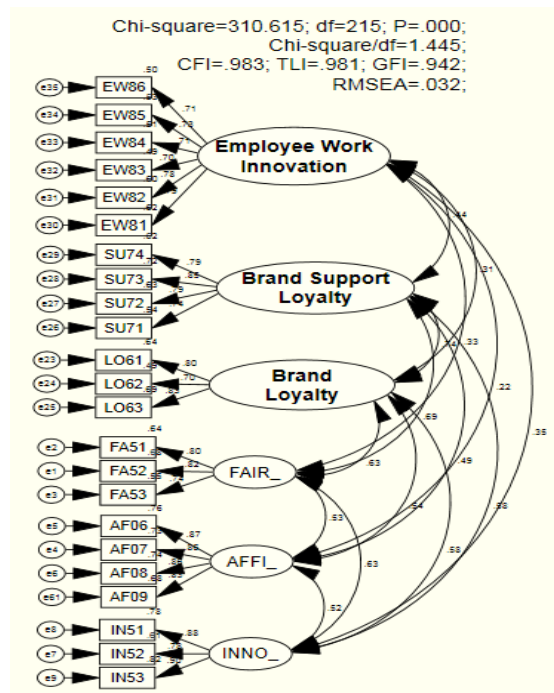


Figure 2. Verification of CFA components in the research model.

4.2. Evaluate structural relationships and test hypotheses.

The results of model testing by SEM in Table 3 show the fit of the model with data (CFI = 0.983, TLI =

0.980, GFI = 0.941, RMSEA = 0.033). Accordingly, organizational climate has positive influence on brand loyalty and explains 59.8% change in this factor. Moreover, both organizational climate and brand loyalty have positive influence on brand support behaviour (R2 = 67.5%). Next, brand support behaviour also has a positive influence on employee work innovation. However, the H3 hypothesis was not supported because their direct impact on employee work innovation was not statistically significant (see Table 3, and Figure 3).

Table 3. Result of verifying relationship between concepts

Relationship			Hypothesis	Path Coefficient		P-value	Result
				Not standardized	Standardized		
Organizational Climate	→	Brand Loyalty	H5	0.799	0.773	0.000	Accept
Organizational Climate	→	Brand Support Behaviour	H4	0.593	0.551	0.000	Accept
Brand Loyalty	→	Brand Support Behaviour	H2	0.331	0.317	0.000	Accept
Brand Loyalty	→	Employee Work innovation	H3	(0.037)	(0.034)	0.709	Reject
Brand Support Behaviour	→	Employee Work innovation	H1	0.498	0.476	0.000	Accept

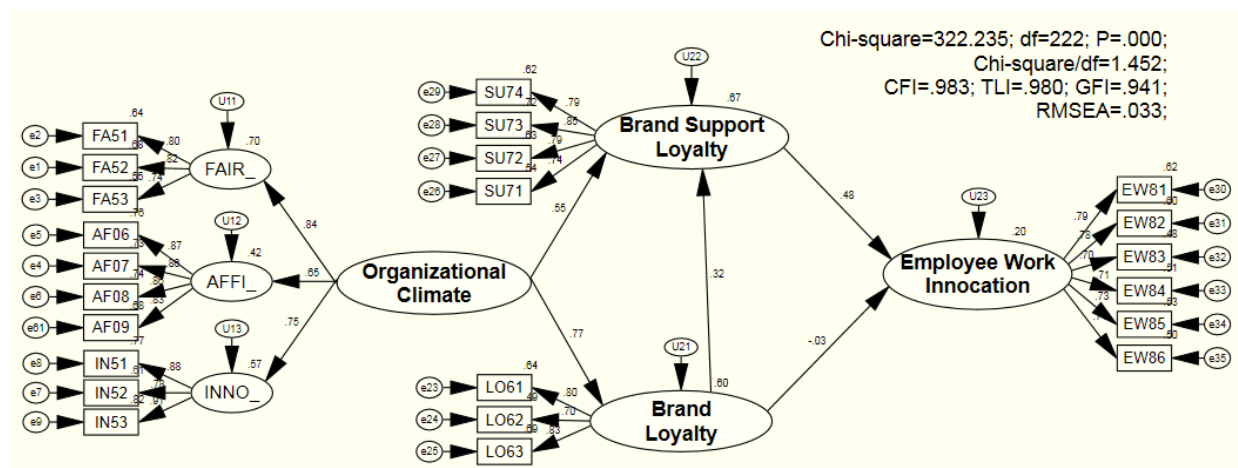


Figure 3. Test modeling with SEM.

5. Discussion

This study shows the relationship between organizational climate, brand loyalty, brand support behaviour and work innovation of employee in the hotels and resorts. It is the role of the organizational climate in shaping the brand loyalty and branding behaviour of staffs. While brand loyalty does not directly impact innovation, it has contributed to increasing employee brand support behaviour, thereby indirectly impacting innovation. This discovery demonstrates the prudence of hotels and resorts in providing high quality services to visitors. Any negligence undermines the quality of service delivery. Therefore, brand loyalty employees need time to accumulate knowledge and skills to better meet customer needs as well as fulfil the brand promise. It is the foundation for employee work innovation in the hotels and resorts.

The results highlight the importance of building the true organizational climate in hotels and resorts. It is an environment that fosters loyalty, and shapes brand support behaviours of employee (Danish & Usman, 2010). In particular, this study provides important evidence for the role of organizational climate in locating the corporate

brand in the minds of employees and customers. In addition, brand support behaviour is quite new construct, and exploring the factors that influence it has received much debate among scholars (Punjaisri et al., 2009a, 2009b).

This finding is consistent with previous studies of the direct impact of brand loyalty on brand support behaviour of employee (eg, Burmann et al., 2009; Punjaisri et al., 2009a, 2009b; Shaari & et al., 2012). This is the motivation for employees to achieve the highest level of service quality, meeting the brand standards of the organization, the diverse needs of customers, thereby fulfilling the brand promise for customer with service innovations. (Baker et al., 2014; Burmann et al., 2009).

The findings of this study are important for service providers, as customers are always geared towards the differences and uniqueness of the services they provide. Therefore, it is necessary to appreciate the role of service personnel in the service delivery process: They are the people who deliver the Organizational service brand to the consumer. And so human resource management needs to establish positive relationships in the workplace, create the affiliation and fairness climate that encourages knowledge sharing, and provides learning opportunities for employees, thereby stimulating work innovation.

Thus, research has generated a better understanding of how to maintain and spread the brand identity through harmony, equity, and innovation in the corporate environment with brand support, with the transmission of brand loyalty and work innovation of workers in hotels and resorts.

6. Conclusion and limitations

The study explores the positive effects of organizational climate factors in creating brand loyalty and promoting brand support behaviour as well as work innovation of employee. When employees are properly assessed, connected to colleagues, encouraged to change for development, they will gradually form their brand loyalty. From there, to create a basis for belief in positive behaviour to fulfil the brand promise, and to increase innovation in the workplace. As a result, the organizational brand image is closer to the community, and positioned in the mind of the customer.

This result has important implications for better understanding and clarification of the nature of organizational climate: not just at the level that affects the intention to share knowledge (Bock et al., 2005), or motivational work (Danish & Usman, 2010), but at a higher level, implementing branding behaviour and innovation in the workplace. It is the foundation for employees to develop their abilities through positive actions to spread the brand identity of the organization, and positioning in the minds of customers. The study also clarifies the nature of relationships that have not been fully explored in previous studies, between the organizational climate (Affiliation, fairness, innovativeness), brand loyalty, brand support behaviour and work innovation of employees in the hospitality industry.

In addition to the results obtained, the research still has certain limitations. First of all, it is not a representative sample of Nha Trang accommodation, surveyed only in 50 hotels and resorts. The results have not been analysed for each type of hotels and resorts. A number of other unique factors in the organizational climate of the hotels and resorts have not been included in this study (egg, sincerity, openness, norms). These restrictions are a hint for future research.

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Internal Branding Affecting Brand Citizenship Behavior of Office Staff in Ho Chi Minh City

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ABSTRACT

This study examines the internal branding factors that influence brand citizenship behavior (BCB). It suggests managerial implications to enhance brand citizenship behavior. Data were collected from a direct survey of 193 office employees, measuring based on a scale of King & Grace's (2008, 2009, 2010). Cronbach's Alpha results are reliable. Exploratory factor analysis (EFA), multiple regression analysis and differential determination were conducted. The study is finding that there are four factors affecting to BCB: (1) Knowledge dissemination ($\beta = 0.437$); (2) Information generation ($\beta = 0.350$), The "H" factor ($\beta = 0.158$) and Openness ($\beta = 0.110$). The four groups of the managerial implications are suggested for practice.

Keywords: Brand citizenship behavior; Internal branding

1. Introduction

Building a strong brand is expected from any organization. Branding can be done by customers or employees (Nouri et al., 2016). Research on building customer-based brand equity have conducted by many researchers. De Chernatony and Cottam (2006) recommend a more holistic approach to brand equity and employees in the organization act as brand ambassadors. This approach has constructed the Employee Based Brand Equity (EBBE). King & Grace (2008) has suggested that internal branding or internal brand management is an important component of Employee Based Brand Equity. Employees are important factors cultivating the brand in the mind of the customers (Nouri et al., 2016).

Brand Citizenship Behavior (BCB) is extended from Organizational Citizenship Behavioral (OCB); where employees volunteer to contribute to the growing organization. Many successful brands recognize that they have BCB (King & Grace, 2008, 2009, 2010). A lot of studies have also shown that internal branding influences the BCB (Nouri et al., 2016, Javid et al (2016), Erkmen, 2013, King & Grace, 2008, 2009, 2010, Punjabi et al, 2009); Adamu et al, 2017; Ghenaargar & Jalali, 2016; Porricelli et al, 2013; Chang et al, 2012; Nguyen Thanh Trung, 2015; Nguyen Thu Lan, 2016). The components of internal branding have many different dimensions. King & Grace (2009, 2010), internal branding has four components: (1) Information generation; (2) Knowledge dissemination; (3) Openness; (4) Human factor - "H". King & Grace (2012) builds an internal brand of 4 components: (1) Relationship orientation; (2) Brand commitment; (3) Employee receptiveness and (4) Organizational socialization. Punjaisri et al. (2009) proposed four components: (1) Training; (2) Orientation; (3) Group meeting; (4) Briefing meeting. The King & Grace (2012) model was verified by Nguyen Thu Lan (2016) from a survey of bank staff in Vietnam. The model of Punjaisri et al. (2009) was audited by Nguyen Thanh Trung (2015) through interviewing the staff and lecturers at the University of Economics Ho Chi Minh City.

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There are no studies examining the four components of King & Grace (2009, 2010). The purpose of this research is to measure and evaluate the impact of four internal branding components: (1) Information generation; (2) Knowledge dissemination; (3) Openness; (4) Human factor - "H" to BCB of office staff in Ho Chi Minh City. It suggests the managerial implications that can help the managers of organizations to enhance BCB.

2. Literature review

2.1. Internal branding

The internal brand building is a part of internal marketing that focuses on developing, strengthening and maintaining the brand. Internal branding is about making employees communicate their "Brand Promise" through the sharing of brand insights within and outside the organization (Adamu et al, 2017). Burmann and Zeplin (2005) argue that internal branding has three levels: first is human resource management that emphasizes the personal identity of the organization through recruitment and promotion; Second, socialization of employees' organizations through educational orientation and social and educational programs to understand brand identity; Third, strengthen the brand through the creation of brand awareness and internal communication. According to King & Grace (2009, 2010), internal branding consists of the following four components: (1) Information Generation; (2) Knowledge Dissemination; (3) Openness; (4) The "H" factor (human factor). Information generation is the extent to which an employee perceives the organization generating information through formal or informal employee feedback (Foreman and Money, 1995; Lings and Greenley, 2005). This means that the organization is willing to receive information from employees and help employees understand the organization better. Brand knowledge dissemination is the extent to which employees perceive that brand knowledge is passed from the organization to the employee in a meaningful and relevant manner (Foreman and Money, 1995; Conduit and Manvodo, 2001; Lings and Greenley, 2005). Openness is a communication consideration in the relationship between management and employees; It is the environment that receives actively information. Openness is manifested through the support of management, organizational socialization and employee attitudes toward work and employee engagement. The "H" factor is the human factor that indicates how well the employee feels treated with respect, cooperation, good communication, trust and is encouraged to work towards a common goal. This study focused on four components that influence BCB.

2.2. Brand Citizenship Behavior (BCB)

Brand citizenship behavior (BCB), proposed by Burmann & Zeplin (2005), is rooted in the concept of Organizational Citizenship Behavior (OCB), including voluntary employee behavior. Although the OCB considered inside the organization, BCB is beyond the boundary of the organization. BCB is an overall structure that includes voluntary employee behavior to enhance brand awareness (Verma & Dhar, 2015). Burmann and Zeplin (2005) define brand citizenship behavior as follows: an overall structure of employees' behavior which reinforces brand identity and involves the voluntary decisions of employees for some behaviors outside of their determined and official duties (Porricelli, 2013). BCB is a voluntary behavior that is not necessary for the success of the product or service but contributes to the well-being of the organization's services (Ahn, Kim, & Lee, 2016). BCB refers to the efforts of employees in the organization such as implementing additional tasks, implementing company rules even if they are not under the control of someone, hold a positive attitude and tolerate difficulties (Helm, Renk, & Mishra, 2016). These employees have high levels of behavioral support associated with brand value, brand enthusiasm - brand engagement - followed by self-branding and so they can communicate with positive words of mouth about the brand. Burman, Zeplin & Riley, through extensive interviews and studies in 2009, concluded that brand support behavior can operate in seven dimensions: (1) *Helping behavior*: the positive attitude of the staff towards building friendships, helpfulness, empathy towards internal and external customers; (2) *Brand Consideration*: employees are always willing to learn the principles and guidelines related to the brand; (3) *Brand enthusiasm*: employee's ability to show extra initiative while engaging brand - related behavior; (4) *Brand sportsmanship*: related to n the spirit of employees do not feel any disadvantage when working in relation to the brand of the organization; (5) *Brand endorsement*: the status of the employee determines and supports the brand's monetary value even if they work outside the official duties; (6) *Brand self-development*: represents the volunteer behavior of employees to improve the brand's knowledge, skills and capabilities; (7) *Brand development*: involves the contribution of employees to expand the brand identity through customer feedback and new ideas. Burmann, Zeplin, and Riley (2009) grouped these into three components: (1) Brand acceptance; (2) Brand enthusiasm and (3) Brand self-development.

2.3. Hypotheses and research model

Many studies have confirmed that internal branding has a positive effect on BCB. Where different perspectives define the different internal branding components that influence the BCB. This research is based on four components of King & Grace (2009, 2010) to develop hypotheses and research models.

Information Generation

Building effective information that ultimately brings about change in employee behavior, organizations need to understand the capabilities of their employees as well as their needs and desires. Information generation enables the organization to develop internal products and services that employees feel are meaningful and relevant to them in fulfilling their roles and responsibilities. For example, conducting employee research provides organizations insight into the state of the organization's environment, employee skills, or lack of it, as well as activities such as providing information related to customer satisfaction. From such an understanding, organizations can meet the needs of the internal market through innovations such as improvements to internal systems and processes, targeted training and development, and product enhancements. and services for the benefit of consumers. Therefore, the information generation is considered to play an important role in the management of the internal brand because it is consistent with the effective practice of external brand management, properly assess the target market has rationalized and thus meet the brand management efforts that allow decision making to be made. As a result, organizations have a good chance of re-engineering and provide branding information (knowledge dissemination) that is consistent with the behavior of the employee, thus aligning with internal capabilities and expectations of organization.

H1: Information generation has a positive impact on BCB.

Knowledge Dissemination

Knowledge dissemination involves providing the context in which the identification of the brand is created in accordance with each employee. That is, to allow employees to show a positive attitude and be able to deliver a clear brand promise, it is important to provide them with information that links the brand identity that is being promoted outside or promises and roles and responsibilities. In addition to dissemination of external marketing information, employees, to enhance their understanding of the expectations of the organization, also draws on additional sources of information. Such resources include training and development and human resources management, in which both human resources function to communicate information to employees about their roles and responsibilities. Therefore, it is imperative that they are developed in a context that facilitates the employee's ability to deliver the brand promise. Rely on the content provided by the organization's brand identity to provide a context for training and development and personnel management initiatives. In addition, using brand identity as a reference point for internal systems and procedures also allows consistency in the message for what employees need to do to meet their expectations. Compared to the support and systems that organizations provide to facilitate this.

Information development and knowledge dissemination represent the coding and transmission phases of the communication process required for employees to be provided with the branding information they need to deliver the brand promise. However, providing meaningful and relevant information does not necessarily mean that employees will respond to such information as the intended organization. Employees must also be motivated or aspire to be truly committed to the company's brand.

H2: Brand dissemination has a positive impact on BCB.

Openness

For the information to be conveyed effectively and interpreted as intended by the sender, the recipient (in this case the employee) must be prepared to receive the information. Openness, therefore, represents aspects of the organizational environment that are considered important contributions for employees who are responsive to the organization and subsequently to the organization's customers. This aspect of internal brand management is considered unique to this concept. The unique qualities of this component are reinforced by the fact that evaluating openness as an internal brand management component, some aspects of marketing literature and management contribute. The role of management, and especially management support, is considered important in creating an open environment for friendly closeness in working relationships with employees.

In addition, organizational socialization, or the process by which employee appraisal the values and beliefs of the organization and their expectations by the organization, is also considered an important factor for enhancing the organization response of staff. This is because socialization has been found to lead to greater motivation and commitment to the organization on behalf of employees. Employee attitudes towards their work are thought to be another important contribution to minimize distortion in the communication process, with the attitude of employees, affected by the feeling they are being treated. As a member of an organization affects the employee's job satisfaction. The extent to which an employee is satisfied with their work is believed to affect their

acceptance of the information generated by the organization. Given that employees must be willing to receive information generated from the organization if appropriate brand knowledge is being made, a positive attitude of employees towards their work is significant. Furthermore, the concept here is that employee engagement or engagement is very important for creating an open environment or receiving organizational orientation information. Employee engagement involves the degree to which an active employee has an opportunity to participate in organizational initiatives such as providing feedback or helping to shape consumer decisions. Such participation is considered to enhance the organizational commitment of the staff and thus increase their autonomy in such information.

H3: Openness has a positive impact on BCB.

"H" factor

Based on all internal branding exchanges, through human nature, bring their perceptions and interests into the exchange. Thus, successful exchanges are raised by the need to consider the factors that have been motivated in the relationships that motivate successful relationships. The motives of successful relationships include common goals, trust, bonding or bonding, mutual respect or empathy, and cooperation. Thus, the human factor or "H" factor relates to employee management organizations with respect, cooperation, good communication, trustworthiness, encouraging work towards a common goal. From the point of view of this concept, the "H" factor is the way through which exchanges between organizations and employees are made.

Although such consideration is normal and occurs spontaneously in relationships, especially in internal communications and in internal marketing materials, when considering the approach Comprehensive to influence employee behavior. Thus, to consider considerations of the exchange of relations is thought to be insufficient to recognize the behavior of active employees. Instead, successful exchanges between employers and employees require a clear understanding of that intention, along with identifying and measuring the dynamics of positive relationships, as mentioned earlier. Thus, the "H" factor is an essential component of internal brand management.

H4: Human factor has a positive impact on BCB.

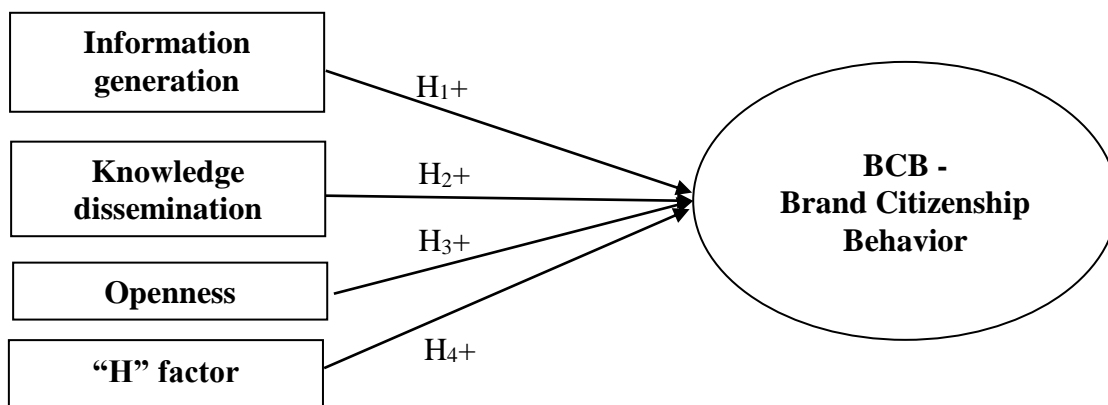


Fig. 1. Conceptual framework model

3. Research methodology

Qualitative research was conducted for adjusting scale through focus group discussions with seven office staff and three experts on internal branding and BCB. The scale of internal branding and BCB are aggregated and adjusted by King & Grace (2008, 2009, 2010).

This quantitative study was conducted through direct interviews with office staff in Ho Chi Minh City using convenience sampling. Survey results are used to re-examine the model and hypotheses in the model. The study team directly generated 200 questionnaires for office staff. After eliminating the inadequate survey panels for data cleaning, the study included 193 questionnaires (97.5 %). The demographic data collected from 193 respondents as follows: 39.4% male, 60.6% female; 31.6% under 30 year-old, 40.4% 31 to 40, 18.7% 41 to less than 50 and 9,3% above 50; 34.7% undergraduate, 65.3% graduate; and experience year 0 to 6 years, 32.1%, from 6 to under 9 years 36.8%, over 9 years 18.1%.

4. Research results

4.1. Cronbach's Alpha reliability test results

Cronbach's Alpha reliability test results: Information generation (INF) is 0.288; Knowledge dissemination (KNO), 0.791; Openness (OPE), 0.831; Human Factor (HFA), 0.809; Brand Citizenship Behavior (BCB), 0.858. Through the Cronbach's Alpha reliability scale, factors were found to be highly reliable with a Cronbach's Alpha coefficient greater than 0.60. However the OPE1 observation variable excluded from openness factor because the corrected item-total correlation is less than 0.3 so that it is not suitable for conducting EFA. The remaining 24 variables are eligible for inclusion in the exploratory factor analysis (EFA).

4.2. Exploratory factor analysis - EFA

The exploratory factor analysis (EFA) of the independent variable observations revealed that 24 observed variables were grouped into 4 groups. In the first analysis, the HFA5 observed variable had a factor loading less than 0.50. It was excluded. At the second analysis, the 23 observed variables are grouped into 4 groups of components, the factor loading of the observed variables is greater than 0.50, so the observed variables are important in the factors, they mean practical meaning. Each observed variable with factor loading is greater than 0.30, thus ensuring the distinction between the factors. The coefficient KMO = 0.856 should be EFA consistent with the data. The Chi-square statistic of Bartlett's test reached significance level (Sig. = 0.000). Thus, the observed variables are correlated in terms of overall. The cumulative error greater than 50% (reaching 55.010%) shows that the 4 groups of components explain 55.010% variance of the data; As a result, groups of extracting are accepted. The stop factor for extracting the fifth factor with the Eigenvalue = 1.722 is satisfactory.

Table 1. Factor rotation matrix for independent variables

Variables	Factors			
	"H" factor	Information generation	Knowledge dissemination	Openness
HFA6	0,738			
HFA2	0,684			
HFA4	0,679			
HFA3	0,675			
HFA8	0,658			
HFA1	0,640			
HFA7	0,595			
INF3		0,776		
INF1		0,725		
INF5		0,721		
INF2		0,708		
INF4		0,698		
INF6		0,570		
KNO2			0,729	
KNO1			0,698	
KNO3			0,693	
KNO6			0,673	
KNO4			0,649	
KNO5			0,579	
OPE4				0,824
OPE3				0,823
OPE5				0,799
OPE2				0,795

The EFA of the dependent observed variables with the factor loading for all observed variables is greater than 0.50, so the observed variables are important and significance. Each observed variable with factor loading is greater than 0.30, thus ensuring the distinction between factors. The coefficient KMO = 0.846 should be consistent with the EFA data. The Chi-square statistic of Bartlett's accreditation value (Sig.) is 0.000. Thus, the observed variables are correlated. The cumulative variance greater than 50% (reaching 58.847%) indicates that the extractable group explains 58,847% of the variance of the data. The group of extracting is acceptable. The

eigenvalue is 3,531. The results of the factor analysis with Varimax rotation are suitable.

4.3. Test the hypothesis of the research model

The results of the Pearson correlation test between the independent variables and between them and the dependent variable show that the factors are closely related. This proves that the independent weakness is highly explanatory to the dependency in the multiple regression model.

Table 2. Model Summary

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate	Durbin-Watson
1	0.759 ^a	0.576	0.567	0.35554	2.101

Based on the results of the multiple regression analysis, the model consists of four independent factors INF, KNO, OPE, and HFA that are best suited to the adjusted R² coefficient of 56.7% and independent factors fully consistent model with an explanatory factor of 56.7%.

Table 3. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std Error	Beta			Tolerance	VIF
	(Constant)	-0,110	0,247		-0,445	0,656		
	INF	0,337	0,052	0,350	6,435	0,000	0,762	1,312
	KNO	0,430	0,053	0,437	8,141	0,000	0,784	1,276
	OPE	0,099	0,043	0,110	2,295	0,023	0,984	1,016
	HFA	0,132	0,047	0,158	2,775	0,006	0,700	1,429

The findings of the hypothetical violations show that the assumptions in the multiple regression model are not violated and there is not multi-collinearity (VIF <2). Therefore, we can confirm that the model and the hypotheses of the study have been approved.

The results of the verification of the difference of variables calculated by sex, age, educational level and number of working year showed no significant difference. It is the limit of the study. In fact, the different groups of age have affected differently to BCB so that it is necessary to conduct survey more respondents and interview deeply young female and male staff.

5. Conclusions and implications

The research was conducted with the aim of identifying and measuring the influence of internal branding on BCB of office staff in Ho Chi Minh City and then to suggest the implications for enhancing the BCB of office staff in Ho Chi Minh City.

Through quantitative and qualitative research, this study examined four factors: knowledge dissemination, information generation, “H” factor, and openness that impact BCB. The results show that internal branding factors that influence BCB account for 56.7% of model meaning.

Derived from the results of multiple regression analysis and based on the mean and standard deviations of the observed observations, this study suggests some of the following management implications:

Brand knowledge dissemination

The results of data analysis show that knowledge dissemination is the most important factor that has the greatest impact on BCB with $\beta = 0.437$ (Beta). Some implications are as follows:

Firstly, the communication of brand promise is done well. All staff has to know clearly what brand promise means and they have to take a responsibility for transferring the brand promise to customers.

Secondly, the information of organization must be known and understood clearly by all staff. When organizations have a new regulations, policies and procedures, it is necessary to organize the widespread notification to each employee in a clear manner, avoid misleading and help the staff peace of mind, contribute to the overall development of the organization.

Thirdly, the organization must always help its employees become aware of their role in the organization's development mission. To do this, organizations need to motivate employees to understand the organization's mission, vision, core values as well as its programs of action and align its interests with the interests of the staff. This will help the employee to become aware of the relationship between his or her role in the overall role of the organization.

Fourthly, the organization must always have the policy to appreciate the importance of employees to work, to encourage people to develop self-study ability, encouraging regular staff to have initiatives, improve their own work, improve work productivity to achieve maximum work efficiency.

Fifthly, organizations must create conditions for employees to develop their own knowledge and skills and to plan to help them improve their professional skills, to meet the needs of the public and to attract qualified high human resources.

Sixthly, the direct management level should guide the staff to do the job well, implement appropriate work instructions for each group of employees to achieve the performance. For some staff, the management level should guide specific work, detail and often urge, monitor, check and timely corrections to achieve the results of work.

Information generation

The results of data analysis show that Information generation is the second most important factor to BCB, and this is also an important factor in helping to enhance BCB. Employees with a coefficient of $\beta = 0.350$ are relatively high. Some suggested implications are as follows:

First, the mission, vision, core values of the organization should be generated via the employee feedback. The draft of these documents is circulated through all staff for contributing ideas and it should be stated when most of staff agree.

Secondly, the brand identity system of the organization should be discussed from employees. All information feedback from employees on the brand identity system have to use for improving the brand.

Thirdly, managers often interact with employees for finding out what employees want, conducting staff appraisals. BCB is improved when the employees perceived that they contribute a lot for the organization. Employee satisfaction is always necessary for an organization, only when employees feel satisfied with their work, and satisfied with the organization, then they increase their engagement with the organization.

Human Factor

Firstly, it is necessary to develop solutions to create good cooperation between management and staff in the organization. Managers are highly qualified, have good management knowledge and willing to listen, understand the mind, aspirations of employees. In that way, the manager can evaluate the performance of the employee, assign a job that is relevant to the employee's ability, be able to understand the employee's desires and be able to evaluate the most exactly performance of the employee. At the same time, the employee will always trust and appreciate his manager, helping to build trust between staff and management in the workplace and in personal relationships.

Secondly, supply all favorable facilities and facilities. The spirit of helping employees accomplish their work. The office is spacious, airy, clean and helps to facilitate psychological comfort in the work.

Thirdly, set clear development goals for employees to achieve. The organization should develop a set of clear promotion criteria and be publicly available throughout the organization, once the staff has met the criteria for promotion training, the employee will make every effort to create the promotion. Equal competition in the pursuit of self-employment goals.

Openness

Firstly, the organization encourages employees to contribute their ideas, solutions for developing the organization, as well as participation in the organization's activities. This should also create an organizational culture that needs to be maintained and developed, where work-related activities require the participant to contribute. To get enthusiastic feedback on solutions, or to participate in activities, organizations must always create conditions, encourage employees to actively participate for achieving effective organizational policies.

Secondly, there is a system of recognition and timely reward individuals who make outstanding contributions on developing of the organization. When employees contribute, suggest solutions to their activities, they need recognition from the organization. Therefore, every year, the organization always organizes the vote for emulation and commendation to honor the individuals, collectives have good achievements in a year of the tireless labor of workers.

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Factors Affecting Customer Relationship of Vietnamese Textile Companies

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ABSTRACT

It can be seen that the sustainable relationship between selling organizations and buying organizations has an important contributor in creating as well as enhancing the competitive advantage for organization. Especially, in this stage, when the competitive intensity in each industry is more and more significant. The textiles industry is considered as one of the most important economic sector in Vietnam, which has biggest contribution to the economic development of Vietnam. However, the Vietnamese textile industry was facing to some difficulties such as low added value and instability of textiles products because the relationship between Vietnamese textile companies and their customers exists many limitations. Based on these reasons, this research will explore the factors which effect on this relation; thereby author will introduce a strategic direction to enhance this relationship as well as improve the competitive ability for Vietnamese textile companies. In this research, the author has the combination between qualitative research and quantitative research. The author believes that the result in the data analysis is an important basic to give the recommendation to improve the relationship between Vietnamese textile companies and their customers. Thereby, the competitive ability of Vietnamese textile companies will be enhanced. Also, the author hopes that this research will contribute a part of theoretical framework to customer relationship research in general and customer relationship in textile in particular.

Keywords: Customer relationship; textile

1. Introduction

Since an economic reform strategy, known as doi moi (renovation) was launched in 1986, Vietnam increased the trade with the rest of world (Tho 2013). Besides that, The United States granted Vietnam normal trading relation (NTR) and later Most- Favoured Nation (MFN) status, which helped Vietnamese enterprises to reduce in tariffs (Manyin 2002). Especially, Vietnam joined World Trade Organization (WTO) in 2007 which will bring many opportunities as well as challenges to Vietnamese enterprises in general and Vietnamese textile industry in particular (Ministry of industry and trade of Vietnam, 2014).

According to report of Embassy of Denmark in Vietnam (2010), Vietnam was known as traditional country with cutting and sewing. According to Report of Vietnam Textile and Apparel Association (VITAS) in 2013, The Vietnamese textile industry with more than 3800 companies had strong step. However, it was begun to invest in spinning and weaving in recent years. When Vietnam joined World Trade Organization (WTO), there will have some opportunities such as: Firstly, Vietnamese textile companies will have a chance to enlarge domestic textile and expand export market. Secondly, Vietnam will receive tax incentive, which will help Vietnamese textile companies get bigger profit as well as competing better by reducing price. Based on these opportunities and combining with comparative advantages such as abundant source of skilful, fast-learning and

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wage-competitive labor..., Vietnamese textile industry invested and changed equipment and technology to meet the market demand and to improve its competitiveness (Tuan 2012). As a result, Vietnamese textile industry gained worthy position in world textile industry. Vietnamese textiles companies penetrated many countries in the world and becoming one of three key export industries, which have biggest contribution to the economic development of Vietnam. However, the total number of exporting was increasing extremely, but the profit was not high and Vietnamese textile products have low competitive ability (Report of Embassy of Denmark in Vietnam, 2010). The author will give some reasons to explain for these results.

Firstly, The Vietnamese textile companies still depend heavily on imported materials and accessories; therefore, Vietnamese textile companies focus on two business methods as outsourcing and offshoring (Global Insight 2011). In addition, the weakness in designing products also effected on the quality of Vietnamese textile product; thus Vietnamese textile products had not satisfied the customer's requirements (Tuan 2012).

Secondly, the communication activities to advert for Vietnamese textile industry were not effective; Vietnamese textile companies only concentrated on exhibitions, events, and have not created good interaction between Vietnamese textile companies and their customers (Nadvi et al. 2010, Hoang 2012).

And the last, the customer service of Vietnamese textile companies is weaker than other competitors (Hoang 2012). These activities such as resolving customer's complaints, customer care are not good (Vietnamese Textile Industry 2013). As a result, the relationship between Vietnamese textile companies and their customer is not good and the competitive ability of Vietnamese textile companies is low in comparison to other competitors in the world (Hoang 2012).

In the next time, the key markets of Vietnamese textile companies are still markets, which have high purchasing power such as United State, EU, Canada, Japan, Korea, Australia, Hong Kong, Singapore, Sweden, and England. Besides that, according to (Goto, Natsuda and Thoburn 2011) Vietnam textile companies will be competing with many textile companies in the world; especially Chinese textile, which has strong competitiveness, available materials and accessories and ability to meet various types of goods ranks. Thus, Vietnamese textile companies will have to attempt more to meet customer's demands to compete with competitors. One of the first requirements in this time is that Vietnamese textile companies should maintain a good relationship with customers (Thomsen 2007)

2. Literature review

2.1. Customer relationship

According to Godson (2009), customer relationship has an important role and the suppliers need create a bond base on commitment, trust, and many other factors to satisfy demands of customers. In other words, companies should find the ways to create customer satisfaction, loyalty and customer retention in doing business (Godson 2009). Besides that, there are many researchers such as Kotler and Strong (2008); Cook (2012) ... also supported to theory of Godson (2009). They showed that customer satisfaction, customer retention and loyalty were keys of designing good customer relationship. In the other word, every organization wants to have a good customer relationship; they have to get customer satisfaction (Kotler and Strong 2008; The financial time 2013; Angelova 2011; Engkumaran and Navaratbaseelan 2014; Goncavles and Sampaio 2012; Banasiewicz 2002), customer retention or loyalty (Rizal Ahmad 2001; Butler 2004; Godson 2009; Virvilate 2009; Hennig-Thurau and Hansen 2000). Also, maintaining the customer relationship can bring three positive values to company. Firstly, customers who are satisfied by products or services of organizations will promote products and services of organization to many people by many ways such as word – of – mouth ... Secondly, customers who are interested with products or services of suppliers seem to be less price – sensitive. Lastly, customers will be willing to sympathy for suppliers if there is any problem, which is out of expectation of suppliers (Godson 2009).

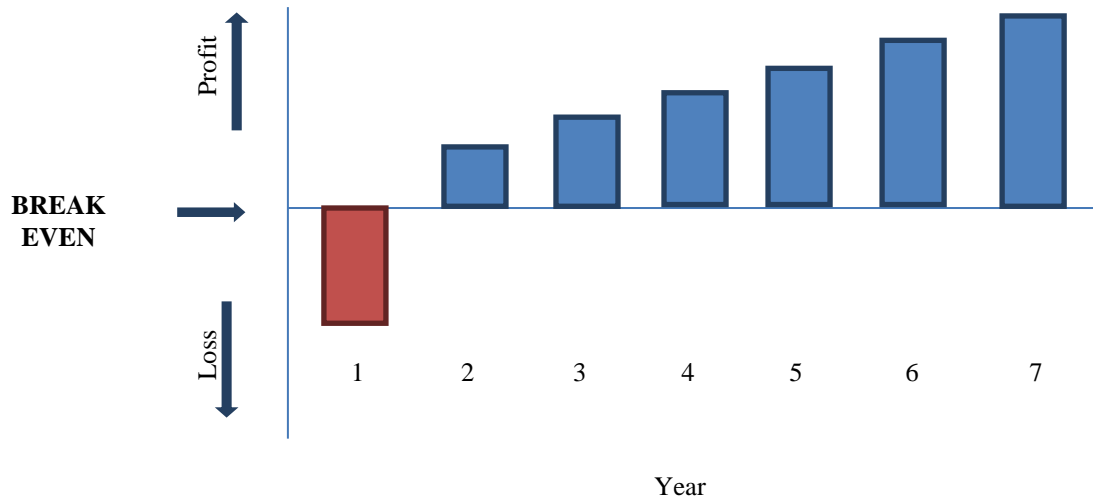


Fig. 4. The importance of keeping customers over time (Godson, 2009)

2.2 Competitive advantage and relationship between customer relationship and competitive advantage

2.2.1 Competitive advantage

According to Porter (1985), the term competitive advantage is the ability which organization will be gained through using resources to perform at a better level than other organizations in the same industry or market. It means that competitive advantage is key success for organization in order to be more profitable than its competitors. When organizations maintain their sustainable competitive advantage in the long term, they can boost the image, the valuation as well as the future potential of their company in the market. The researchers can approach competitive advantage by basing on resource (David 2013) or basing on knowledge (Nonaka 1995). With two approaches, organizations can create the competitive advantage. However, in this research, author will base on the view of David (2013) - competitive advantage based on resource. With this approach, author believes that the relationship between sources of competitive advantages and customer relationship will be clarified clearly. According Porter (1985), the competitive advantages of organization base on two sources such as low cost and differentiation. Hence, base on two sources, Porter (1985) also introduced competitive strategy matrix with three types of strategies which help organizations can achieve and maintain competitive advantage.

Based on the competitive strategy matrix, Porter (1985) emphasized that customer is the main target of any strategy to create competitive advantages. Organizations can satisfy the demands of customers by supplying better products; better services; better communication than competitors (Porter 1985). Besides that, organization can also satisfy the requirements of customers with lower prices than competitors. Therefore, building a good customer relationship is one of the best ways to create the competitive advantages (Virvilate 2009); (Hennig-Thurau and Hansen 2000).

Relationship between customer relationship and competitive advantage

Nowadays, many companies try to lead their core competence to satisfy the demands of customers; and these companies attempt to create products or services as well as expectation of customers Hennig-Thurau and Hansen (2000). In many antecedent researches, it can be seen that customer relationship is one of the most important assets of organizations and it has a crucial role in creating the competitive advantage (Godson, 2009).

According to Hennig-Thurau and Hansen (2000), any company can gain competitive advantage through customer satisfaction and customer loyalty; especially in current situation, when new market mechanisms are changing the key factors of success. And Hennig-Thurau and Hansen (2000) also emphasized the correlation between customer satisfaction and repurchase loyalty. In addition, Padvamathy et al (2012) also showed the relationship between customer relationship and competitive advantage through customer satisfaction and customer loyalty.

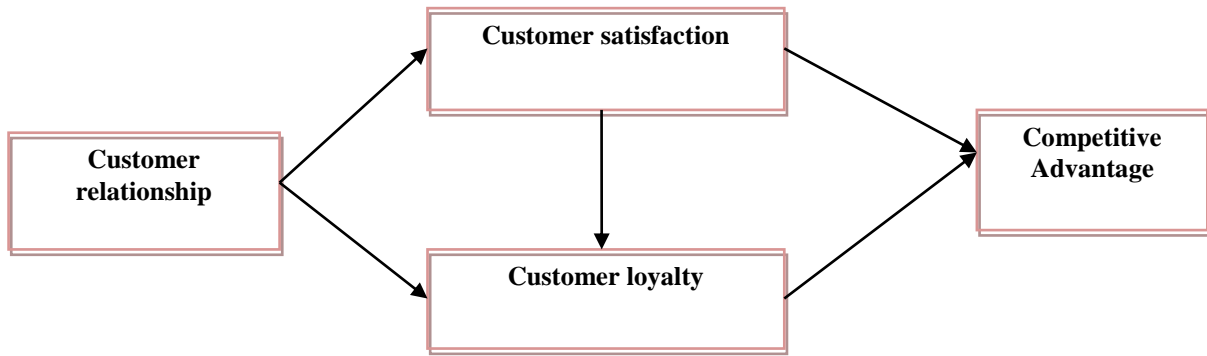


Fig. 5. Relationship between customer relationship and competitive advantage (Padvamathy et al, 2012)

Based on this figure, which was built by Padvamathy et al (2012), author believes that organization can gain the competitive advantage from customer relationship through customer satisfaction and customer loyalty. Therefore, customer satisfaction and customer loyalty will be the middle of relationship between customer relationship and competitive advantage. Therefore, author concerns that organizations should focus on the factors which effect on customer satisfaction and customer loyalty to improve the customer relationship as well as competitive advantage.

In addition, Sheth (2014) supported for theory of Padvamathy et al (2012) by presenting Six Competitive Advantage through customer satisfaction model. Through this model, each Sheth (2014) wanted to emphasize that if organization can gain customer satisfaction, organization can get 6 competitive advantages.

2.3. Factors effect to customer relationship

2.3.1. Trust

Trust can be defined as “the willingness to rely on an exchange partner in whom one has confidence” (Moorman, Deshpande and Zaltman 1993; Dirks and Ferrin 2001; M.Doney, M.Barry and Abratt 2007). In relationship marketing theory, trust is seen as main factor for successful customer relationship. If customer can trust a product or service, loyalty can be seen as the result which will effect on customer behaviour in the future (Godson 2009; Corsten and Kumar 2005)

2.3.2. Commitment

There are many researches about commitment which were conducted by many author such as Morgan and Hunt (1994); Hennig-Thurau and Hansen (2000); Fullerton (2003); Wulf and Odekerken - Schroder (2000); Godson (2009), etc. Both of them confirmed that commitment was seen as an important element in collaboration between customers and suppliers in B2B context (Hennig-Thurau and Hansen 2000; Fullerton 2003; Wulf and Odekerken - Schroder 2000). Commitment extremely effects on relationship between customers and suppliers; especially between customer as organization and supplier (Godson 2009).

2.3.3. Communication

Communication was seen as the bridge to connect suppliers and customers (Hennig-Thurau and Hansen 2000; Tai and Ho 2010) and this issue plays an important role in “business to business” as well as “business to customer” transaction (Mohr and Nevin 1990). According to Morgan and Hunt (1994), communication can be defined as "the formal as well as informal sharing of meaningful and timely information between firms". It means that communication is only carried out between at least two partners (Tai and Ho (2010); Al-Khaffaf and Abdellatif (2011); Dwayne Ball (2004)

2.3.4. Quality of product

According to Sebastianelli and Tamimi (2002) quality can be measured through five approaches such as

product – based, user – based, manufacturing – based and value – based. In term of this, product – based approach is based on the different elements of products to reflect quality of product (Dapkevicius and Melnikas 2009). User – based approach is based on the customer satisfaction about the quality of products (Juran 1974). In manufacturing – based approach, the level of products which satisfies the standard designation of manufactures will be used to evaluate the quality of product (Jakpar and Na 2012; Alfin et al. 2013). Lastly, based on the value – based approach, quality can be seen as products meet the demands and expectations of customers (Kotler 2000). The other research of Gronroos (1990) showed that there is a combination between technical quality and functional quality in products. The technical quality mentions to some factors such as colour, size, shape, etc. Functional quality mention to some features such as ordering, storage, etc. Dapkevicius and Melnikas (2009) Ying (2010) Llusar, Zornoza and Tena (2001), Shaharudin et al. (2011).

2.3.5. Price

According to Mahmud et al (2013), the price paid by the customer has close relationship with customer loyalty. If the price does not match the quality and service which customer get, it will lead to customer dissatisfaction. In marketing literature, price is seen as one of the most flexible marketing mix elements which can be quickly changed (Dovaliene and Virvilaitite, 2008). Most of customer, when they estimate the value of product or service, they always think about price (Cronin et al., 2000 and Virvilaite 2008; (Molina et al., 2007; Jamal, 2004 and Banyte, 2008; (Consuegra, Molina and Esteban 2007; Bolton et al., 2003

2.3.6. Service quality

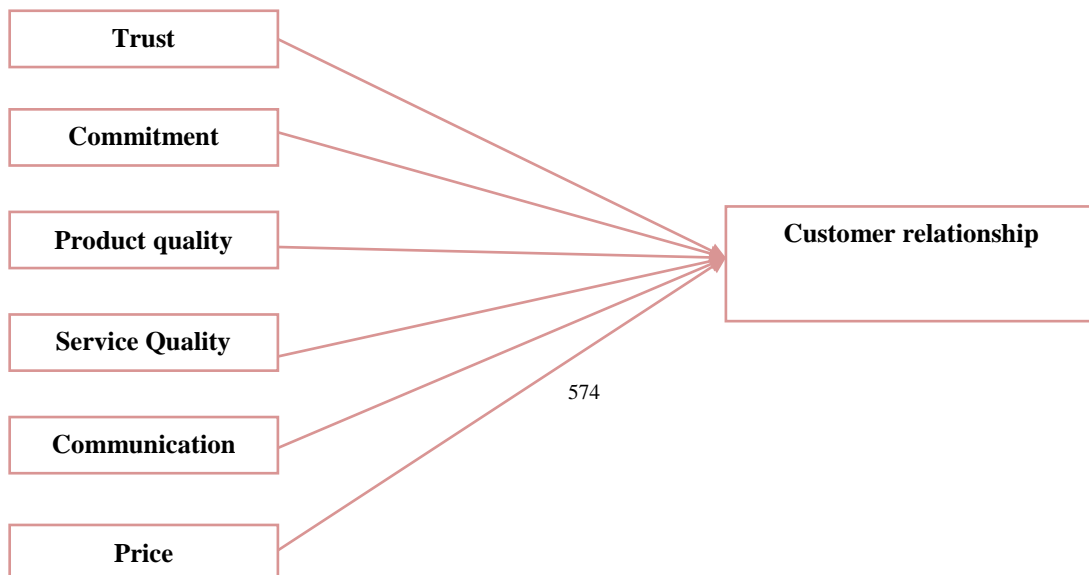
In the past research, there are many definitions about service quality such as Caruana (2002); Kheng et al. (2010). According to (Mahmud, Jusoff and Hadijah 2013), service quality was defined as “the overall evaluation of a specific service firm that results from comparing that firm’s performance with the customer’s general expectations of how firms in that industry should perform”. Service quality includes ten dimensions such as tangible, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding the customer and access (Mahmud, Jusoff and Hadijah 2013).

3. Research methodology

In this study, the author will explore factors, which effect on relationship between Vietnamese textile companies and their customers. In literature review, the author decided to choose six factors which effect on this relationship. Therefore, these factors including trust, commitment, the product quality, the service quality, communication and price were identified.

3.1 Research hypotheses

- H1: There is a positive correlation between trust and customer relationship
- H2: There is a positive correlation between commitment and customer relationship
- H3: There is a positive correlation between quality of product and customer relationship
- H4: There is a positive correlation between service quality and customer relationship
- H5: There is a positive correlation between communication and customer relationship
- H6: There is a positive correlation between price and customer relationship



3.2 Measuring scales development

There will have a combination between quantitative research and qualitative research. The quantitative research is very useful to carry out empirical investigation of factors which effect to customer relationship while the qualitative method is used to exploring determinants affecting customer relationship. By using the quantitative research method, the weight of each factor will be assessed in specific sample and the results will be simplified. Firstly, through qualitative research there are many factors which effect on customer relationship will be shown. However, these factors will be evaluated to choose the most appropriate variables for the research concept by using Cronbach's alpha and Exploratory Factor Analysis (EFA). The most important condition to carry out Exploratory Factor Analysis (EFA) is questionnaire. In this dissertation, questionnaire will be designed by basing the research model and these questions will be sent to members of VINATEX as well as their customers. The data will be collected and will be analyzed by using software SPSS (Statistical Product and Service Solution) - version 21.0. After that, Confirmatory Factor Analysis (CFA) will be used to have further test scale. Finally, the conceptual model and hypothesis will be tested by using software namely AMOS (Analysis of Moment Structures) version 21.0. To carry out qualitative research, the variable will be developed before conducting survey.

Trust (TRU)

Trust will be abbreviated to TRU. In this research, author will apply the theory of Kumar, Scheer and Steenkamp (1995), who explored the trust scale with ten observed variables. In their research, they use five variables to evaluate the level of partner's honesty and reliability; these other variables were used to calculate how their partners care about their benefits. However, in this research author will build 6 variables.

- (1) **TRU1:** The Vietnamese textile company is already to support to customers when they need.
- (2) **TRU2:** Vietnamese textile company always cares about benefits of customers when they make decision which relate to their textile products.
- (3) **TRU3:** Vietnamese textile company always listens and shares the difficulties with their customers when they have some difficulties which effect to the collaboration between two sides.
- (4) **TRU4:** Customers always care about the level influencing of decisions as well as actions which come from Vietnamese textile company.
- (5) **TRU5:** Vietnamese textile company always gives the right information for customers.
- (6) **TRU6:** Vietnamese textile company always keep their promise with customers

Commitment (CMM)

Commitment will be abbreviated to CMM. Commitment scale is evaluated through three variables, which clarify the nature and length of commitment (Kumar, Scheer and Steenkamp, 1995). Three variables will be described as:

- (7) **CMM 1:** Customers hope that the relationship between them and Vietnamese textile company will be lasted in long time.
- (8) **CMM 2:** Customers hope that the relationship between Vietnamese textile company and them will be closer in many operations.
- (9) **CMM 3:** Customers believe that they are already to invest and develop their business in the relationship with Vietnamese textile company.

The Product Quality (TPQ)

Product quality will be abbreviated to TPQ. It can be seen that product quality has an important role to business relationship. Quality of product effects to loyalty of customer and is one of competitive advantage sources. In this study, author will explore the influencing of product quality to customer relationship base on the research of Ulaga and Eggert (2006) which measured influencing of product quality with five variables:

- (10) **TPQ 1:** Vietnamese textile company usually supplies high quality products to customers
- (11) **TPQ 2:** Vietnamese textile company always affords requirements about quality of products from customers.
- (12) **TPQ 3:** Customers always trust the quality of products from Vietnamese textile company.
- (13) **TPQ 4:** Customers rarely reject products from Vietnamese textile company.
- (14) **TPQ 5:** The quality of products from Vietnamese textile company is always stable.

The Service Quality (TSQ)

Service quality will be abbreviated to TSQ. The quality of service is very important in improving relationship between customers and suppliers. This research will base on the research of Lages, Lages and Lages (2005), Kheng et al. (2010) and Navaratnaseelan and P.Elangkumaran (2014) to evaluate effect of Service quality to

customer relationship.

(15) **TSQ 1:** Vietnamese textile company supply the reliable quality service to customers

(16) **TSQ 2:** Customers always satisfy with responsiveness from Vietnamese textile company

(17) **TSQ 3:** Customer rarely complain about the quality of service of Vietnamese textile company because they have the empathy with Vietnamese textile company

(18) **TSQ 4:** Vietnamese textile company always gives the assurance to customers for unexpected case.

Communication (COM)

Communication will be abbreviated to COM. The communication scale evaluated the frequency of two partners communicate each other (Menon et al., 1999). Thus, it reflects nature and degree of communication in relationship between two parts. The effect's degree of communication on customer relationship was measured by Lages, Lages and Lages (2005). In this research, author will base on research of Lages, Lages and Lages (2005) to evaluate the influencing of communication to customer relationship with three variables.

(19) **COM1:** Vietnamese textile company always exchanges information with customers.

(20) **COM2:** Vietnamese textile company and customers always share their goals as well as their expectations.

(21) **COM3:** Vietnamese textile company and customers promise to share adequate and accurate information.

Price of Products (PP)

The price of product has big influencing to customers. One of the most important problems which customers care is the stability of price, the equitableness of price when suppliers commit to supply. Base on the research of (Virvilaite, Saladiene and Skindaras 2009), author will evaluate the effect of price to customer relationship.

(22) **PP 1:** Vietnamese textile company supplies its products to customers with appropriate price

(23) **PP 2:** Vietnamese textile company supplies a fair price with all customers

(24) **PP 3:** Customers recognize that the price from Vietnamese textile company is stable.

Relationship between Vietnamese textile company and customers (CR)

Relationship between Vietnamese textile company and customers will be abbreviated to CR. Customer relationship can be understood as relationship between Vietnamese textile company with its customers. In this research, author will base on the research of Lages, Lages and Lages (2005) to show these relationships are long or short with 6 variables.

(25) **CR1:** Customers believe that the relationship between them and Vietnamese textile company in long term will bring many benefits to them.

(26) **CR2:** Customers believe that the sustainable relationship between them and Vietnamese textile company is very important.

(27) **CR3:** Customers will concentrate on long - term target in this relationship.

(28) **CR4:** Customers are already to share some benefits to support Vietnamese textile company in long - term.

(29) **CR5:** Customers believe the relationship between them and Vietnamese textile company is their success.

(30) **CR6:** The results of collaborative relationship in short-term are good; therefore, they want to have collaboration in long-term.

3.3 Sampling

The empirical research focuses on the factor, which effect on customer relationship. Therefore, the respondents of the research survey are the Vietnamese textile companies and buying companies in Vietnam. The buyers in this case can be the processors, wholesalers/distributors, retailers and exporters of textile.

The sample size depends on the data analysis methodology. This study bases on Exploratory Factor Analysis (EFA) method to decide the sample size. According to Hatcher (1994), the sample size in EFA should be at least 5 times as many as the total number of variables, or can be a minimum of 100 respondents. Thus, the preliminary respondent sample of this study is 120.

4. Discussion and finding

Descriptive statistics can be seen as the most popular analysis in academic research. The descriptive statistics supplies the preliminary analysis for almost all comparative quantitative studies (Breiman 2003). In this study, descriptive statistics will be used to carry out preliminary analysis for all variables which will be used for deeper analysis. By this way, some issues such as the mean, maximum, minimum and standard deviation between

variables will be compared. Table 1 showed the output of descriptive statistics through SPSS version 21.

Table 5. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
TRU1	120	1	7	3.44	1.302
TRU2	120	2	6	3.74	1.300
TRU3	120	2	7	4.57	1.494
TRU4	120	2	7	4.18	1.743
TRU5	120	1	7	4.32	1.372
TRU6	120	2	6	3.65	.950
CMM1	120	1	7	4.93	1.336
CMM2	120	2	7	4.23	1.035
CMM3	120	1	7	4.48	1.378
TPQ1	120	1	7	3.95	1.242
TPQ2	120	1	7	4.22	1.154
TPQ3	120	2	7	4.93	1.295
TPQ4	120	1	7	4.75	1.023
TPQ5	120	1	7	4.62	1.217
TSQ1	120	1	7	3.45	1.401
TSQ2	120	1	7	3.47	1.334
TSQ3	120	1	7	3.18	1.664
TSQ4	120	1	7	4.23	1.293
COM1	120	1	7	4.41	1.387
COM2	120	1	7	3.47	1.130
COM3	120	1	7	4.10	1.184
PP1	120	1	7	4.04	1.480
PP2	120	1	6	4.62	1.197
PP3	120	1	7	4.99	1.580
CR1	120	3	7	4.96	1.536
CR2	120	1	7	4.60	1.258
CR3	120	1	7	4.57	1.340
CR4	120	1	6	3.48	1.838
CR5	120	2	7	4.83	1.798
CR6	120	1	7	4.81	1.521
Valid N (listwise)	120				

According to the table 1, it can be easily seen that there are 120 responses and the means of 30 variables of this research are greater than 3; therein, the greatest mean is CMM3 (4.99) and the smallest mean is TSQ3 (3.18). As a result, the author believed that all variables influence together and are appropriate for this research.

After that, from the last result of Cronbach Alpha and EFA, the author will carry out the further test for scales through Confirmatory Factor Analysis (CFA) by using software namely AMOS version 21.

In sum, the result of CFA showed that the research model satisfy the requirements such as reliability, unimensionality, convergent validity and discriminant validity. The result of SEM will be shown in Figure 3.

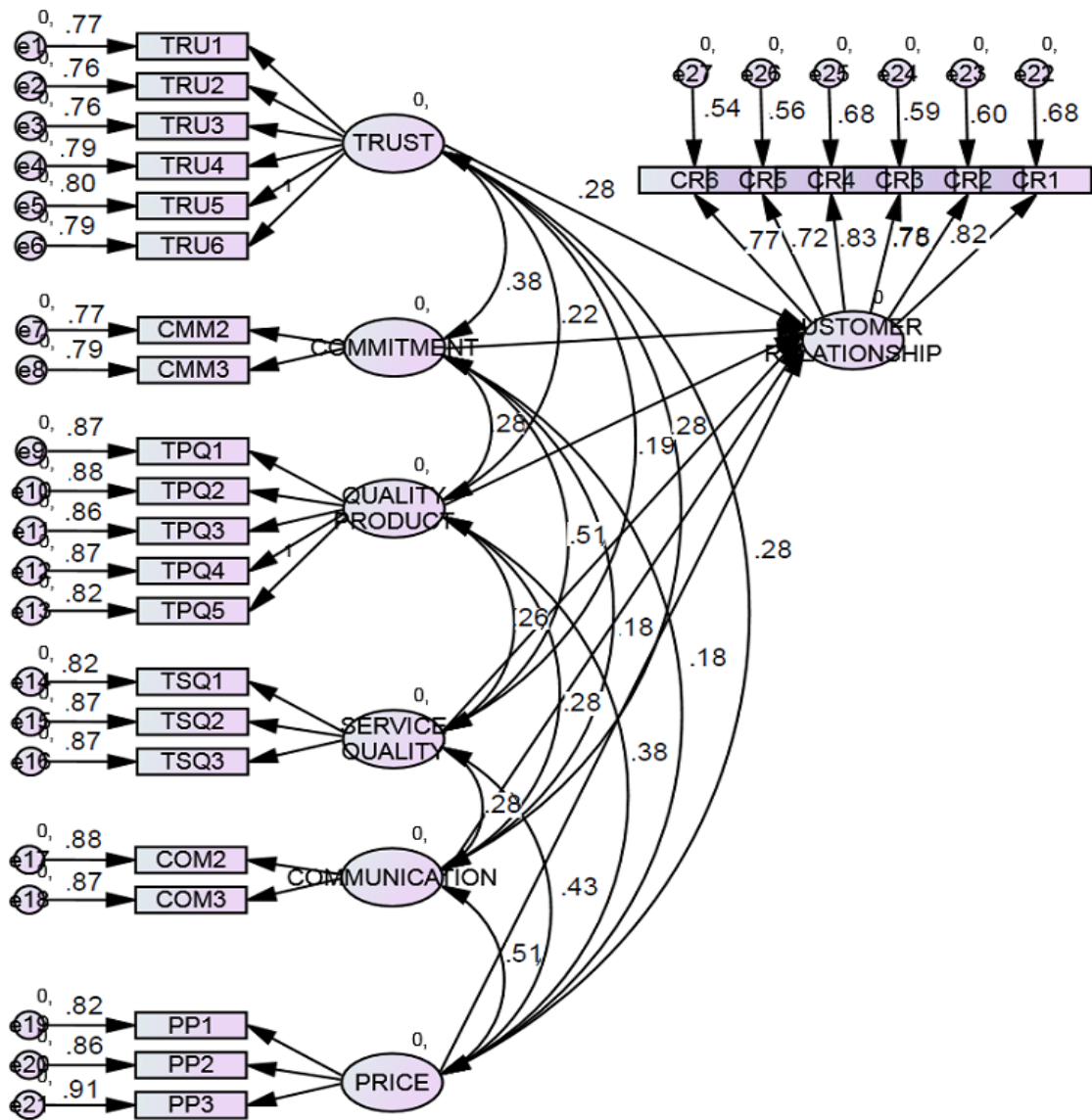


Fig. 6. SEM result with using AMOS 21.0

SEM is a linear structure model which is used to test the research model and hypotheses. In SEM, there are many statistic techniques such as **CFA**, **Path analysis**, Causal modeling with Latent variable, Analysis of Variance, **Multiple Linear Regression**. The standardized structural result of the research model is presented in figure3. Based on the values about p-value index; CMIN/df; GFI; CFI and TLI; RMSEA, it can be seen that p-value index = .000 satisfied the condition ($p < 0.5$). The CMIN/df = 1.672 satisfied the condition (< 2); The GFI (0.996), CFI (0.954), and TLI (0.937) are greater than the condition (> 0.9). Thus, this theoretical framework is very appropriate with market data.

Based on the table 2 about the unstandardized structural path in the model, it can be seen that all the relationship between TRU, CMM, TPQ, TWQ, COM, PP and CR in the research model have $p < 0.5$. As a result, both of these relationships are very important; these factors effect on the customer relationship. In other words, the hypotheses H1, H2, H3, H4, H5 and H6 are accepted in the research model.

Table 2. The unstandardized structural path in the model

	Estimate	S.E.	C.R.	P	Label
CR <--- TRU	.129	.045	4.411	***	
CR <--- CMM	.103	.033	2.873	.004	
CR <--- TPQ	.235	.067	4.659	***	
CR <--- TSQ	.084	.026	3.215	.002	
CR <--- COM	.389	.089	4.365	***	
CR <--- PP	.215	.054	4.559	***	

Table 3. The standardized regression weights of the model

Standardized Regression Weights

	Estimate
CR <--- TRU	.291
CR <--- CMM	.178
CR <--- TPQ	.358
CR <--- TSQ	.175
CR <--- COM	.369
CR <--- PP	.361

Based on Table 3 about the standardized regression weights of the model, it can be seen that there is a positive correlation between trust, commitment and customer relationship. It means that the hypothesis H1, H2 are accepted because hypothesis H1 has $\beta = 0.291$, $p < .001$ and hypothesis H2 has $\beta = 0.178$, $p < .001$. Also, the hypothesis H3 and H4 are also accepted because they got the support from the data of H3 with $\beta = 0.358$, $p < .001$ and data of H4 with $\beta = 0.175$, $p < .001$. Finally, hypothesis H5 and H6 also have the correlation with customer relationship. This is described by data (H5: $\beta = 0.369$, $p < .001$) and (H6: $\beta = 0.361$, $p < .001$). Therein, the relationship between trust (TRU), the product quality (TPQ), the communication (COM) and the price (PP) have highest β values.

In conclusion, through the results, which were described above, it can be believed that all hypotheses are accepted. As a result, there is an important conclusion as these factors such as trust, commitment, the product quality, the service quality, the communication and the price have a positive correlation with customer relationship. Especially, these factors such as trust, the product quality, the communication and the price have the most significant effects on customer relationship. These results are very important for Vietnamese textile companies to introduce solutions to maintain good relationship with customers.

5. Conclusion

In this study, with clear research objectives, the author was step by step to resolve these issues. For this research, the author will show the relationship between customer relationship of Vietnamese textile companies and competitive advantage; after that, exploring the factors effect on customer relationship of Vietnamese textile companies. Therefore, the solutions will be introduced to enhance the competitive advantage for Vietnamese

textile companies through improving this relationship between Vietnamese textile companies and their customers. The author introduced six recommendations, which help Vietnamese textile companies can improve the customer relationship in order to enhance the competitive advantage for Vietnamese textile companies. **For Trust**, the author concerned that it will motivate the relationship between Vietnamese textile companies and their customers better and longer. The trust cannot achieve in a short time or in one transaction; it requires the attempts of both sides in long time and in many transactions. Thus, to create the trust between both sides, Vietnamese textile companies and their customers should care about some issues such as: the benefit of each side, listen and share difficulties as well as right information together; especially, they have to respect promise of two sides. **For commitment**, both two sides should concentrate on the long – term value of their relationship. In addition, buying organizations and selling organizations should respect together as well as creating comfortable condition for each side. **For the Quality of Product**, Vietnamese textile companies should focus on the quality of products and the stability of products. When exporting textile products to hard markets, which have high requirements about the products, Vietnamese textile companies should care about the quality standard of products. Therefore, Vietnamese textile companies should invest to technology as well as training education to produce high quality products. Vietnamese textile companies should apply a standard product's process. **For the Quality of Service**, each companies should build a customer service center to resolve the requirements and complaints of customers. In this time, there are many customer service management frameworks in the world; Vietnamese textile companies should apply some appropriate frameworks to satisfy customers. **For Communication**, Vietnamese textile companies should give the appropriate communication channels which both sides can approach the right information on time and frequency. Besides the keeping contact through email, phone call; the website is one of the best choices to communicate by creating the forum where customer can share their feelings about the products or services. **For Price**, Vietnamese textile companies should build a specific price's list to introduce to their customers and the price list should be up – to - date. The price strategies such as discount when customers buy a large number of products should be public and fair with all customers. If there is any change in price, Vietnamese textile companies should give appropriate adjustments, which help customers to accept and to adapt. The author believes that this research is pioneer in Vietnamese textile field and these outcomes will bring new opportunities for Vietnamese textile companies to increase competitive advantage.

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A Study on the Factors Affecting the Quality Management Activities of Abode Brick Enterprises in Mekong Delta

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ABSTRACT

The purpose of this paper is to analyse the factors affecting quality management implementation in the adobe brick enterprises in Mekong Delta. To address quality problems and their associated costs, there are 151 branch managers were selected as viable, it was determined that sufficient information could be found in order to meet the research objectives. From the fundamental of this study, this will be key to the strategy for the forthcoming years. To accomplish these objectives, the data were calibrated by Cronbach's Alpha and EFA, combined with multiple linear regression. Analysis results showed that there are 4 factors affecting of quality management including: (1) Commitment to quality management activities; (2) Involvement of employee; (3) Quality Management; (4) Competitiveness. Also it showed that commitment to quality management activity is very important for implementing quality management in any company.

Keywords: Mekong Delta; adobe bricks; quality management

1. Introduction

Construction has an important role in the development of every country, it is vital for growth on industrialization, urbanization. Vietnam have never before developed in construction than now, and will be continuous growth up more in future. As we know construction is a worldwide activity with many special characteristics and it includes projects of dramatically different types, sizes and complexities. Following the developing of the build projects, material is input resources which most investors concentrated on, the material can from a lot of sources like cement, steel, brick, sand, etc. According to Ministry in construction (2015), Vietnam has been used 30 billion of bricks, and will keep going to spend 42 billion of bricks in 2020. The Prime Minister of the Socialist Republic of Vietnam has accepted the project "Increasing to manufacture and using adobe brick in Vietnam", the UNDP also have awarded this project with total construction investment amount is 38,880,000 USD, and it will be practicing in the next 5 years. Generally, this project will help not only in expanding the factory which make adobe brick small and medium enterprises, but it also increases its market share in construction. Although having a potential manufacture and develop adobe bricks in Vietnam, supply chain management still is the current lack in adobe brick enterprises in Mekong Delta. Therefore, the **study "A study on the factors affecting the quality management activities of abode brick enterprises in Mekong Delta"** is essential to analyzing and finding which factors can affect to companies' performance from its input to output. From the fundamental of this study, this will be key to strategy for the forthcoming years.

2. Research methodology

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2.1. Theoretical basis

2.1.1. Quality

To understanding the role of quality, we turn to the 1920s when a comprehensive quality movement is launched by Walter Shewhart Bell Laboratories, he also invent the SPC instrument for measuring the change quantity of products. Then, two of his students including W. Edwards Deming and Joseph Juran were developing the SPC tool in the US. Until 1951 the comprehensive quality control concept of W. Edwards Deming is completely accepted by American businesses and it is well received in Japan.

Up until the 1980s, quality issues are considered by businesses in the United States as it have made significant contribution to the success of the growth and dominance the economy. Joseph argues that quality is the product's ability to response to customers, and it also provides for satisfaction . Then, he is a men who has been inspired Bill Smith to invent a six-sigma quality process at Motorola - an improvement system and eliminated defects as well. This is considered an effective tool to measuring, analyzing and controlling the output of the production process to minimize defects and defective products.

In 1979, Crosby stated "Doing it right the first time". According to him, quality satisfy to requirements or quality is no defects [3]; Quality is the ability of a product or service response to anticipated functions, and without adverse effects. It can be said that the concepts of quality are emphasized to limit errors in the production process to create perfect products to satisfy customer demand. This topic is focus on the production process from raw materials to output to minimize defect products and more complete products.

2.1.2. Quality management

2.1.2.1. The concepts of quality management

Quality management is the application of methods, procedures and scientific and technical knowledge to ensure that products are or will be produced in accordance with design requirements or the economic contract to achieve the highest economic and technical efficiency. Quality management also is a unified system, the efficient of various parts in organization which have a responsible for implementing quality parameters, maintaining and enhancing quality levels, and satisfying the needs from consumers. Quality management means research, design, produce and maintain the quality of products that have to satisfy the consumers' demand. Quality management is a systematic means to ensuring the respect for all components in an operational plan, however, without emphasizing to consumer satisfaction [3].

2.1.2.2. Some quality management methods

In construction, TQM (Total Quality Management) concern projects which have been developed to improve and maintain the quality over a longer period of time. TQM prevents the occurrence of defects, quality problems from the beginning. Using statistical techniques and management skills to examine and monitor factors which can affect to occurrence of defects in production system from research stage, design, supply and other services which related to the process of quality formation. ISO (International Organization for Standardization) is a quality assurance system throughout the design, manufacture, installation, service standardization and thorough documentation. The ISO system helps businesses to improve their management to overcomes the differences in standards, cross-country business practices, avoids to repeat testing and reduces costs commerce.

GMP (Good Manufacturing Practice): there are some regulations, the activities will be complied with the quality and hygiene requirements. GHP (Good Hygiene Practice): There are the regulations, the activities to get the hygiene requirements. HACCP (H: Harzard; C: Control; P: Point): is a system analyzing hazard and critical control point. At all stages of production always analyze the hazards that may affect to the products, and control those hazards at critical / necessary points.

Just In Time Theory - JIT (1970): A system was designed to eliminate the wasting in an organization. Waste is anything that does not directly add value to product, especially time wasting, which will affect to quality and increase costs. JIT also raised the issue of improving quality, reducing inventory and providing maximum momentum to tackle the problem of production and consumption in time.

2.1.2.3. Some principles and models of quality management

The rapid growth of industry along with the 21st century technological advancement is an excellence development in creating the quality awareness which has gained significant acceptance in construction process.

As the report by [3] has outlined some key principles for a successful quality improvement programs, including: involving management, controlling quality management responsibility, cognitivng in staffs, education, reducing the costs of quality (cost of preventions, cost of failures), emphasizing on prevention rather than testing after having problems, solving problems in the first time and without mistakes. [9] argues that extending quality management beyond the product including after-sales service, quality management, quality of the individual and the company itself; He claimed that the success of a company is highly dependent on quality improvement, and this was a never-ending task.

Commitment to continuous improvement can ensure that people will never stop learning; He has advocated employee involvement as the key to the successful implementation of quality management totally, the quality circles is an important means of achieving it, and he also has emphasized the importance of education, and said that the quality would started and ended by itself. [6] has offered a holistic approach to quality management that involving the creation of a collaborative and learning organization system has facilitated the implementation of management processes, resulting to continuous improvement of processes, products and services, as well as the fulfillment of employees, both of it always have an important role for customer satisfaction and the survival of company. According to Abdullah and Tari (2012) have demonstrated that quality management is influenced by six factors: (1) Management commitment has a strong impact on quality management and this factor has been shown to influence quality management by other studies ([13]; [20]; [15]; [20]; [2]; [11]); (2) Customer focus has some cons in quality management, and this is also substantiated by other studies ([17]; [13]); (3) Employee involvement also has function on quality management and this has been demonstrated by several studies ([17]; [13]; [4]); (4) Training and education have made significant impact on quality management and it has been presented in some studies ([17]; [4]; [12]; [19]; [1]); (5) Reward and recognition have been demonstrated in [13]; (6) Supplier relationship has advantages on quality management and this has been demonstrated by some studies ([13]; [7]).

2.2 Conceptual Framework

In this study, dependent variable is Quality management while independent variables are the factors which can influence to quality management activities which are:

- (1) Management commitment;
- (2) Customer focus;
- (3) Employee participation;
- (4) Training and education;
- (5) Reward and recognition;
- (6) Relationship with the supplier

The variables and their relationship are as shown in Figure 1.

Independent Variables

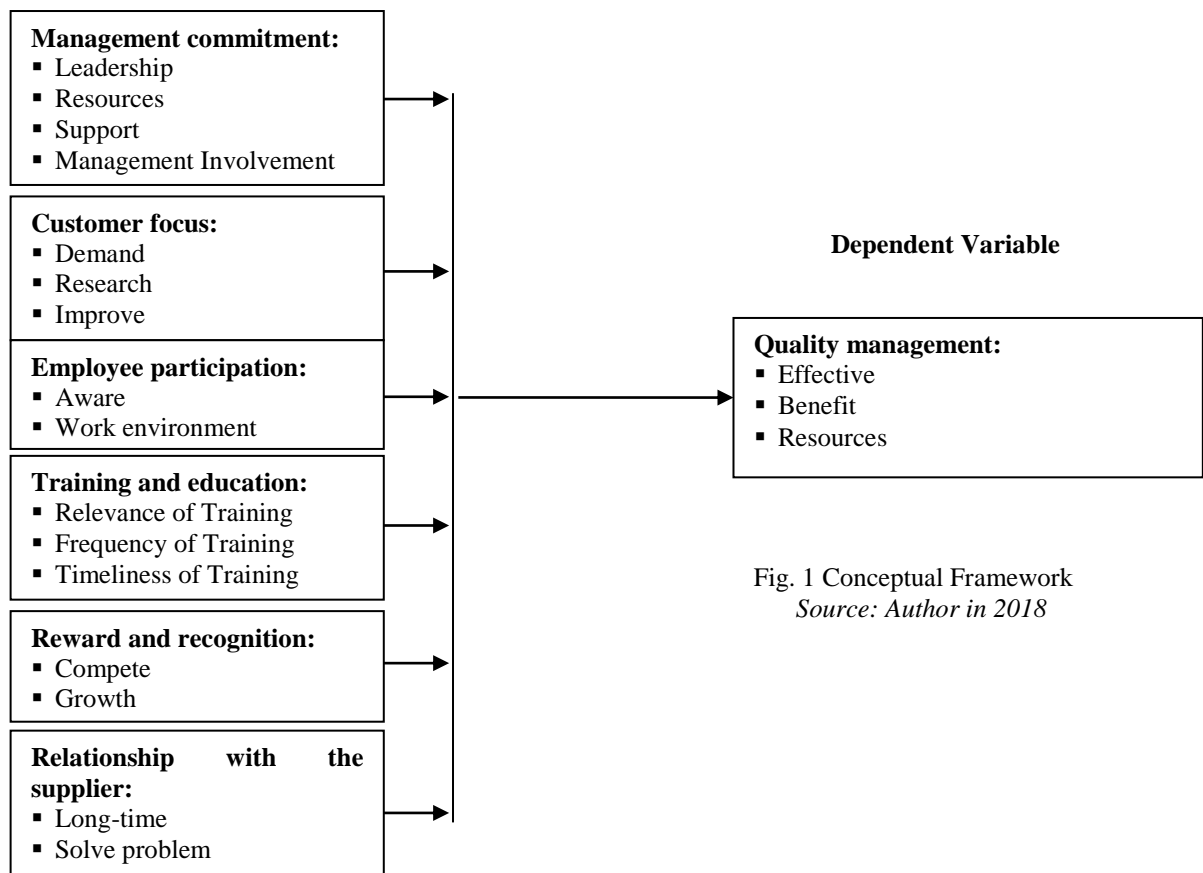


Fig. 1 Conceptual Framework
Source: Author in 2018

2.3. Method of data analysis

In this research, primary data was characterized through collecting questionnaire. Based on the research objectives, questionnaires were designed for Vietnam construction industry. Data was collected by (random selection) convenient sampling method between 10/2/2018 and 20/4/2018. [Answer: How we select companies?]

In this case of survey, the data collection was through self - completion schema by respondents who can be from different departments of adobe brick factories including director, deputy director and heads of department, etc. [Answer: Who are survey respondents?]

According to Hair (1987) if we wanted to use the Factor Analysis Model (EFA), the sample size should be at least 50, 100, and the observation rate on the measurement variable was 5:1. It means that a measurement variable needed at least 5 observable variables. Because the analysis model has 21 variables to measure the influence factors to quality management in adobe bricks, so the minimum sample size for observations is $21 \times 5 = 105$. However, to persure the highly representative for whole experiment, the author proposed to choose the sample size was 151 enterprises. [Answer: How many companies have been investigated?]

Secondary data on adobe brick was compiled from: the report from Department of construction, Annual abstracts of statistics, agencies, theses, documents, data on the Internet, newspapers, magazines, article papers in domestic and foreign country which related to this topic.

2.4. Analytical methods

Verification of factors affecting quality management in adobe bricks by Cronbach's Alpha coefficient; Analytical Factor Analysis (EFA) combined with multiple linear regression were the methods used for analysis in this study.

The scale was chosen in this study was the Likert scale for the score from 1= totally disagree, 2 = generally disagree, 3 = somewhat agree, 4 = generally agree, 5 = totally agree to measure the observed variables.

3. Result and discussion

Results of testing this model and identifying the factors affect to quality management in adobe brick enterprises as follows:

3.1. Testing reliability of Scale's Factors Affecting Quality Management in Adobe Brick enterprises in Mekong Delta

Cronbach's Alpha coefficients have used before the analysis of EFA to reject unsuitable variables, because if there were garbage variables, it would be create dummy factors [16]. According to the theoretical and empirical studies have shown that the Cronbach's Alpha coefficient have to be 0.6 or higher and the coefficient of variation have the value from 0.3 or more will be accepted in the model. For variables with a coefficient of correlation less than 0.3 would be eliminated.

Table 1: Result of testing Cronbach's Alpha in the first time

Variables	Mean	Variance	Correlation	Alpha
MC1. Enterprises commit to perform quality management effectively	73,15	157,557	0,730	0,929
MC2. The quality management activities are always pay attention.	73,16	161,721	0,569	0,932
MC3. Quality management of product is the most important thing in every company.	73,05	160,557	0,642	0,931
MC4. Commitment of leaders about quality management	73,14	156,027	0,741	0,929
MC5. Commitment to supporting activities for quality management	73,27	159,612	0,651	0,931
MC6. Commitment to quality management different resouces	73,01	162,280	0,652	0,931
CF1. Enterprises always have good response to customer demand by high quality product	73,13	155,409	0,746	0,929
CF2. Enterprises always study the demand of market, update information to improve quality	73,17	154,819	0,751	0,929
CF3. Customer is important factor to affecting the quality activities	73,32	156,338	0,716	0,930
EI1. Professional training activities.	73,16	164,988	0,366	0,936
EI2. Frequency for professional training activities.	73,40	166,694	0,356	0,936
EI3. Timing for professional training activities	73,35	165,229	0,350	0,936
TE1. Employees actively take part in enhancing quality activities	73,11	161,335	0,531	0,933
TE2. Awarness of employees when they work	72,94	156,056	0,708	0,930
TE3. Employees work in comfortable environment, increase new ideas	73,02	158,353	0,653	0,931
RR1. Enterprises perform some good quality activities, the quality organization would be accepted	73,00	159,360	0,575	0,932
RR2. The business would get the more rewards (enhanced competitiveness) when perform the good quality	72,98	163,206	0,615	0,932
RR3. Market will like the product when they have certificate about quality	72,95	158,191	0,677	0,930
SR1. Have good relationship to suppliers	73,25	159,096	0,658	0,931
SR2. Supplier is a long-time customer	73,44	157,461	0,731	0,929

SR3. Solve problem to suppliers.	73,16	159,321	0,551	0,933
Cronbach's Alpha = 0,934				

Source: Analysis results from directly survey data, 2018

The results of Table 1 show that Cronbach's alpha results have a coefficient of correlation greater than 0.3 and a total correlation coefficient is greater than 0.6 but there are three variables TE1 (The professional training activities), TE2 (Frequency of professional training activities), TE3 (Time of professional training activities) has a relatively low coefficient of correlation so that the authors will remove 3 variables to perform analysis Cronbach's Alpha in the second time as follows:

Table 2: Result of testing Cronbach's Alpha in the second time

Variables	Mean	Variance	Correlation	Alpha
MC1: Enterprises commit to perform quality management effectively	62,64	132,446	0,746	0,937
MC2: The quality management activities are always pay attention.	62,64	136,378	0,580	0,940
MC3: Quality management of product is the most important thing in every company.	62,54	134,930	0,673	0,939
MC4: Commitment of leaders about quality management	62,62	131,197	0,749	0,937
MC5: Commitment to supporting activities for quality management	62,75	134,426	0,662	0,939
MC6: Commitment to quality management different resouces	62,50	136,852	0,668	0,939
CF1: Enterprises always have good response to customer demand by high quality product	62,62	130,358	0,766	0,937
CF2: Enterprises always study the demand of market, update information to improve quality	62,65	129,989	0,763	0,937
CF3: Customer is important factor to affecting the quality activities	62,80	131,067	0,743	0,937
EI1: Employees actively take part in enhancing quality activities	62,59	136,044	0,540	0,941
EI2: Awarness of employees when they work	62,42	130,752	0,737	0,937
EI3: Employees work in comfortable environment, increase new ideas	62,50	133,012	0,676	0,939
RR1: Enterprises perform some good quality activities, the quality organization will accept	62,48	134,465	0,572	0,941
RR2: The business will get the more rewards (enhanced competitiveness) when perform the good quality	62,46	137,997	0,614	0,940
RR3: Market will like the product when they have certificate about quality	62,44	133,221	0,683	0,938
SR1: Have good relationship to suppliers	62,74	134,303	0,652	0,939
SR2: Supplier is long-time customer	62,92	132,700	0,730	0,938
SR3: Solve problem to suppliers.	62,64	135,378	0,509	0,942
Cronbach's Alpha = 0,942				

Source: Analysis results from directly survey data, 2018

The results of Table 2 indicate that Cronbach's alpha testing have a coefficient of correlation greater than 0.3 and the coefficient of variation is greater than 0.6, so the scale and variable components are significant to measure the factors that affect quality management in adobe brick enterprises. Data eligible to conduct EFA analysis.

3.2. Exploratory Factor Analysis (EFA)

3.2.1 Exploratory Factor Analysis (EFA): the factors affecting the quality management

Performing EFA analysis, the tests as follows: (1) The reliability of the observation variables (factor loading > 0.5); (2) Test the suitability of the model ($0.5 \leq KMO = 0.891 \leq 1$); (3) Bartlett's test for the correlation of observation variables Sig = 0.000 < 5% demonstrates that the variables are closely related; (4) Cumulative variance test = 75.276% showed that the independent variables in this model accounted for 75.276% of the factors affecting quality management in adobe brick enterprises (Hoang Trong and Chu Nguyen Mong Ngoc, 2008); The results in analysing the exploratory factor remain unchanged with 18 observations and there was a disturbance among the component variables. Hence, the author renamed the factors as follows:

The first factor include MC5, MC6, SR2, SR3, CF1, CF2, and CF3. Because the factor loading of MC5 variable have the largest value, so the author assigned this factor is the "Management Commitments".

The second factor is the observation variables like SR1, EI1, EI2, and EI3. And the factor loading in EI1, EI2, EI3 variables are the largest, so the author named these factors are "Employee Involvement".

The third component is named "Quality Management", which include observation variables: MC1, MC2, MC3 and MC4;

The fourth factor includes the observation variables RR1, RR2, and RR3 because of having largest value in the factor loading, hence RR2 variable is so-called "Competitiveness" (Table 3).

Table 3: Result of EFA analysing: the factors affecting the quality management

Variables	Factor			
	1	2	3	4
MC5: Commitment to support quality management activities.	0,819			
CF2: Enterprises study to market, update information to improve quality.	0,738			
SR2: Suppliers are long-time customers.	0,708			
SR3: Solve problem to suppliers.	0,690			
MC6: Commitment to quality management diferent resources.	0659			
CF3: Customer is important factor to affecting the quality activities	0,634			
CF1: Enterprises always have good response to demand of customers by high quality products.	0,619			
EI3: Employees work in comfortable environment, increase new ideas		0,834		
TE2: Awareness's worker on working.		0,822		
TE1: Employees actively take part in enhancing quality activities.		0,765		
SR1: Have good relationship to suppliers		0,752		
MC2: The quality management activities are always pay attention.			0,868	
MC1: Enterprises commit to perform quality management effectively.			0,814	
MC4: Commitment of leadership about quality management.			0,793	
MC3: Quality management of product is the most important thing in every company			0,710	
RR2: The business will get the more rewards (enhanced competitiveness) when perform the good quality				0,749

RR3: Market will like the product when they have certificate about quality				0,671
RR1: Enterprises perform some good quality activities, the quality organization will accept				0,624
KMO = 0,891 Cumulative Var = 75,276% Sig = 0,000				

Source: Analysis results from directly survey data, 2018

3.2.2 Exploratory Factor Analysis (EFA): quality management

Performing EFA analysis, the tests as follows: (1) Reliability of the observation variables (factor loading > 0.5); (2) Test a suitability of model ($0.5 \leq KMO = 0.649 \leq 1$); (3) Bartlett's test the correlation in observation variables $Sig = 0.000 < 5\%$ demonstrates that the variables are closely related; (4) Cumulative variance test = 64,045% showed that the dependent variable in this model accounted for 64,045% of the quality management in adobe brick enterprises (Hoang Trong and Chu Nguyen Mong Ngoc, 2008); The results in analyzing the exploratory factor are unchanged with 3 observations and there is a disturbance among the component variables, so the author suggested this factor is the "Quality management". [Answer: What is dependent variables? How we measure them?]

Table 4: Result of EFA analysing: quality management

Variables	Factor
	1
Quality management will be benefit to company	0,853
Quality management efficiency	0,798
Using resources effectively	0,746
KMO = 0,649 Cumulative Var = 64,045% Sig = 0,000	

Source: Analysis results from directly survey data, 2018

3.3. Analysis of factors affecting quality management activities of adobe brick enterprises in Mekong Delta

In order to examine the effect of independent variables on quality management in producing and trading adobe brick enterprises in Mekong Delta, the author uses a multiple linear regression to analysis, the results are shown in Table 4 as follows:

Table 5: Result of multiple linear regression [No VIF]

Factor	B	T	Sig.
Coefficient	1,588E-16	0,000	1,000
Commitment to quality management activities	0,569	18,119	0,000
Environment of employees	0,364	11,601	0,000
Quality management activities	0,336	10,698	0,000
Competitiveness	0,536	17,081	0,000
Sig = 0,000 R ² adjust = 0,852 Durbin - Watson = 1,927			

Source: Analysis results from directly survey data, 2018

Based on the analysis results in Table 5, the Sig. F coefficient of the model is 0.000 which is much smaller than 1%. Therefore, the multiple linear regression model is statistically significant, it consists with the data set up and can be used. It means that independent variables have affected to dependent variable Y (quality

management); the adjusted R^2 of the model is 85.2%, like the quality management variance are explained by the factors in this model is 85.2%.

The results in Table 4 also show that all factors in this model are significantly: "Commitment to quality management activities"; "Involvement of employees"; "Quality management activities"; "Competitiveness" is significant at 1% which affects to quality management in adobe brick enterprises. Thus, the regression coefficients have significant and the model was used well; The specific impact of each factor on quality management in adobe brick enterprises as follows:

The "commitment to quality management activities"

This factor is positively correlated highly with quality management of adobe brick enterprises, which will increase the quality management activities, the "Commitment to Quality Management" factor have beta value is 0.569, which means that when the elements of the "Commitment to quality management activities" increase to 1 unit, the impact on the quality management activities is also increased to 0.569. This is also the strongest factor in quality management activities of adobe brick enterprises in Mekong Delta.

The "Involvement of employees"

Quality management of adobe brick enterprises gain benefit from this factor, it have influence on the quality management, the " Involvement of employees" factor have Beta value is 0.536, it means when the "Involvement of employees" increase 1 value, the quality management activities will increase to 0.536 points.

"Quality Management activities"

This factor have made substantial contribution to quality management in adobe brick enterprises. For example, the "Quality management activities" factor has Beta value is 0.336, it means when the "quality management" growth up 1 unit, the quality management activities will have 0.336 value.

"Competitiveness"

This factor derive advantages from the process of quality management activities in adobe brick enterprises. When the "competitiveness" factor has a Beta value is 0.536, the "Competitiveness" factors will increase 1 unit.

4. Conclusion and recommendations

After knowing the framework, the paper discussed the methodology as well as how the survey was conducts. The results show that after addit and adjust the scale achieve a greate success in the reliability and allowable values. The study proved that within the context of 151 representatives were: Director, Deputy Director and Head of department of adobe brick enterprises in Mekong Delta, the success of quality management in adobe brick enterprises obviously benefit enormously from four factors: (1) Commitment to quality management activities; (2) Involvement of employees; (3) quality management activities; (4) Competitiveness.

This study will narrow the gap between the management of these factors and they should consider when applying quality management. Based on the results of the analysis of factors affect to quality management, as well as the practices of enterprises, the authors propose some recommendations to improve quality management of adobe brick enterprises in Mekong Delta as follows:

"Commitment to quality management activities"

The enterprises should promote the commitment to customers on the effective quality management of goods by leader should pay more attention to the operation of quality management;

"Involvement of the employees"

The enterprises should encourage the employees to actively participate in quality management activities and raise the awareness of the employees by creating the working environment comfort, increased creativity;

"Competitiveness"

The enterprises should continue to step up their learning and develop new quality standards to satisfy the needs of enterprises nowadays, then raising their competitiveness on the market;

"Quality management activities"

The enterprises should strengthen relationships with input and output suppliers in order to ensure the supply and demand of enterprises to ensure quality and quantity. Always research the market requirements, update market information to create quality products that ensure the commitment of the business effectively. At the same time, enterprises need to strengthen the support activities in quality management, especially the input and output stage of the product as this is the most powerful impact on the quality management of enterprises.

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Cork Institute of Technology (CIT), formerly the Regional Technical College, Cork, is an Institute of Technology in Ireland, located in Cork, Ireland opened in 1973. The institute has 17,000 students (both part-time and full-time) in art, business, engineering, music, drama and science disciplines. Cork Institute of Technology comprises two constituent Faculties and three constituent Colleges. The constituent Faculties are Engineering and Science, and Business and Humanities. The constituent colleges are the CIT Crawford College of Art and Design, the CIT Cork School of Music and the National Maritime College of Ireland. The institute has been named as Institute of Technology of the Year in The Sunday Times University Guide for Ireland on numerous occasions. The Rubicon Centre is a business incubation centre and is located on campus at CIT. Home to over 40 knowledge-based start-up companies, the Centre is jointly financed by CIT & Enterprise Ireland. Clients based at the Rubicon are at different stages of development, from concept stage to completing their first customer orders and many are already trading on the International Market.



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National Economics University (NEU), one of the oldest and most prestigious universities in Vietnam. Established in 1956, NEU has obtained enormous achievement in providing talented and high quality human resources to the economy and thus made great contributions to the Vietnam economy. NEU is now offering a wide range of majors and disciplines in Economics, Business and Management. NEU is also a prestigious research and consultant center with its extended academic publication and consulting works to the Government of Vietnam on policy making, and to the business community on business development.

NEU is chairing a network of more than 40 universities in Vietnam in Economics and Business Administration and has become an important hub for academic exchange domestically and internationally. For nearly 60 years, NEU has been dedicated to its mission to nurture scholars and students who will contribute to society by advancing knowledge. Staff, students and supporters take pride in having contributed to NEU's reputation as Vietnam's flagship, research-led university, known for the excellence of its teaching, its research and its service to national and international communities.



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In the new period, the University determines to develop towards the goal of building UFM into a multi-disciplinary, multi-level educational institution, assuring its quality to meet the needs of the society. The University also aims to build itself into a center of scientific research for economic and financial issues; thereby building competitiveness in the context of Vietnam's international integration.

DANANG YOUNG ENTREPRENEURS ASSOCIATION



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Da Nang Young Entrepreneurs Association now has more than 500 business members who together have created jobs for over 40,000 people. Throughout last year, the Association's members were actively involved in creating close links with each other for mutual benefit, and they organised numerous thematic seminars and training courses to boost their production activities. They also jointly implemented numerous local welfare programmes and charitable activities.

Over the last 7 years, the Association has focused on enhancing the capacity of entrepreneurs, exploiting the strengths of business members, boosting their global integration, and getting active involvement in promoting the Danang City's socio-economic development.



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AUSTRALIAN & NEW ZEALAND MARKETING ACADEMY

Australasian Marketing Journal

CALL FOR PAPERS

Special Issue

Outsourcing and Offshoring Services

Full-length paper submission deadline: 28 February 2019

Anticipated publication date: Issue 3, 2019

Guest Editors:

Gary Gregory, Senior Lecturer and Director of Education, School of Marketing
UNSW Sydney (g.gregory@unsw.edu.au)

Shawn Thelen, Professor of Marketing and International Business, Hofstra University
(Shawn.T.Thelen@hofstra.edu)

Themes:

In recent years, competition has driven multinational firms to increasingly 'outsource' or 'offshore' services to foreign locations to cut costs and improve performance both in domestic and international markets (Contractor, Kumar, Kundu, & Pedersen, 2010). Despite the benefits of service outsourcing/offshoring, i.e., cost reduction, performance improvement, financial returns, etc. (Kakabadse and Kakabadse, 2000), it is still unclear how moving service outsourcing/offshoring could affect firm's competitive advantages (branding) in dynamic and intensely competitive environments. On the one hand, studies demonstrate short-term impacts on cost saving, service efficiency, and/or productivity improvement (Amiti and Wei, 2009); conversely, research questions the long-term impact on focal firms' intangible assets, such as brands and employees (Grappi, Romani and Bagozzi, 2013). As service outsourcing/offshoring involves customer interaction with the offshore service providers, increasingly customer's direct and/or indirect experiences with the offshore service providers affect their service and brand experiences. The strategic decision to outsource/offshore services should be carefully examined to consider its impacts both on operational performance and market performance. The synergy between marketing strategies/tactics and the decision of service outsourcing/offshoring should be fully explored. To understand the states of service outsourcing/offshoring, we invite conceptual and empirical contributions on the following topics:

1. The impact of service outsourcing/offshoring on short-term operational performance versus long-term market performance.
2. The impact of service outsourcing/offshoring on firm values, value creations, brand values/equity of the focal firms.
3. The impact of service outsourcing/offshoring on consumers and their responses, customer life-time values, customer loyalty.
4. The impact of service outsourcing/offshoring on employees and the role of internal marketing.
5. The short-term and long-term impact of service outsourcing/offshoring.
6. The impact from different types of services being outsourced/offshored.
7. Factors that affect the firms' operational performance (versus market performance) in service outsourcing/offshoring.
8. The choice of the offshore location and its impact.
9. The choice of offshore firms/partnerships and its impact.
10. The impact of other marketing tactics/strategies/orientations on offshored/outsourced services.
11. The impact of marketing strategy (e.g. communications, pricing, etc.) on offshored/outsourced services performance.
12. Service outsourcing/offshoring of focal firms in developing and/or emerging economies.
13. Market dynamics and environment and its impact on service outsourcing/offshoring.

14. The role of competitors in service outsourcing/offshoring decision-making and forms of outsourcing/offshoring.
15. The differential impact between service outsourcing/offshoring and artificial intelligence (AI)-based services.
16. The use of technology on service outsourcing/offshoring.

How to submit your manuscript:

- Full-length journal papers for the Special Issue are to be submitted through the AMJ submission system and will undergo a similar review process as regularly submitted papers. Submission for the Special Issue begin 15 July 2018, with the final deadline for submission being 28 February 2019. Questions pertaining to the Special Issue should be sent to the Guest Editors. Papers must be formatted in accordance with the *Australasian Marketing Journal* style sheet.
- All papers will be double-blind refereed. Post-refereeing, the Guest Editors will propose a list of publishable papers for consideration by the Editors-in-Chief of the *Australasian Marketing Journal* – their agreement will be required prior to notifying Authors of final acceptance. The anticipated publication date is Issue 3, 2019.

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CALL FOR PAPERS

Special Issue

Leveraging the Power of the Sharing Economy

Full-length paper submission deadline: 31 March 2019

Anticipated publication date: Issue 4, 2019

Guest Editors:

Dr Gavin Northey (g.northey@auckland.ac.nz)
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Professor Roderick Brodie (r.brodie@auckland.ac.nz)
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Dr Julia Fehrer (j.fehrer@auckland.ac.nz)
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Themes:

The proliferation of the sharing economy has brought big opportunities and tensions across the globe, both conceptually and in practice. The sharing economy has generated consumer demand by offering new services (Zervas et al., 2017). Because of this, recent attempts have been made to investigate the sharing economy's business models (Fehrer et al., 2018), nature, and impacts (Cheng, 2016) and the role of engagement platforms (Breidbach and Brodie, 2017). In the sharing economy traditional dyadic firm-to-customer interactions are replaced by triadic interactions between a platform provider, a peer service provider and a customer (Benoit et al., 2017). However, little is known about the interrelationships among these versatile actors and about the open, emerging network structure and institutions these actors are embedded in. The sharing economy is still in its nascent stage (Acquier et al., 2017), meaning research on the sharing economy is modest and lacks conceptual refinement, theoretical grounding and empirical findings. To develop a better understanding for the processes, mechanisms and business models, that leverage the power of the sharing economy, we invite both conceptual and empirical papers that could include – but are not limited to – the following research questions:

- How does the sharing economy impact customer behavior?
- How is customer / peer engagement and customer / peer empowerment conceptualized in the sharing economy?
- How can customer / peer engagement be facilitated by platform providers in the sharing economy?
- How do collaborative consumption practices develop in the sharing economy? How can they be facilitated?
- How can (incumbent) businesses react to / leverage the increasing trend of collaborative consumption?
- How does customer acquisition and retention change in the context of the sharing economy?
- What is the nature of branding in the sharing economy? How do different actors co-create shared brand meaning?
- How can incumbent companies develop their business models to compete / co-exist with business models in the sharing economy?
- What is the nature of peer-to-peer interactions in the sharing economy and what are the implications for business, public policy makers and the society in general?

- How is value captured, created and delivered in the sharing economy? How is value co-created in the interaction of versatile actors in the sharing economy?
- What are the roles of the “working customers” in the sharing economy?
- What is the role of institutions in the sharing economy? How are institutions maintained, changed and disrupted based on developments in the sharing economy?
- When does market concentration in the sharing economy result in negative effects for actors?
- How can actors, once excluded from the sharing economy recover and re-integrate in the system?
- How does new technology – for example artificial intelligence, machine learning, augmented and virtual reality, blockchains – affect the development of sharing economy?
- How will work arrangements change with the development of the sharing economy?
- What are the effects of collaborative consumption on sustainability?

How to submit your manuscript:

- Full-length journal papers for the Special Issue are to be submitted through the AMJ submission system and will undergo a similar review process as regularly submitted papers. Submission for the Special Issue begin July 31, 2018, with the final deadline for submission being March 31, 2019. Questions pertaining to the Special Issue should be sent to the Guest Editors. Papers must be formatted in accordance with the *Australasian Marketing Journal* style sheet.
- All papers will be double-blind refereed. Post-refereeing, the Guest Editors will propose a list of publishable papers for consideration by the Editors-in-Chief of the *Australasian Marketing Journal* – their agreement will be required prior to notifying Authors of final acceptance.
- The anticipated publication date is Issue 4, 2019.

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