Customer Electronic Loyalty towards Online Business: The role of Online Trust, Perceived Mental Benefits and Hedonic Value

Minh Ha NGUYEN*, Bui Thanh KHOA**

Abstract

Purpose: The success of electronic commerce businesses is the ability to retain the customers and inspire their loyalty in online shopping. The purpose of this study is to develop a model to study the effect of perceived mental benefits, online trust, and hedonic value on the elements of electronic loyalty. **Research design, data and methodology**: Mixed research method was applied in this study with qualitative and quantitative research method. Qualitative data was collected through focus group discussion with electronic commerce experts. Quantitative data was collected through a survey of 917 customers, in which conducted in four cities and one province in Vietnam. SmartPLS software is used for processing quantitative data. **Results**: The study points out that four constructs of the mental benefit concept, although not entirely, have an impact on online trust and hedonic value. At the same time, two antecedents of electronic loyalty's three elements are online trust and hedonic value. **Conclusions**: Through the positive influence between the elements in the conceptual model, the study has shown that the perceived mental benefits, online trust, and hedonic value are important factors to shape the electronic loyalty in developing countries, such as Vietnam. This study proposed some scientific and managerial implications.

Keywords: Perceived Mental Benefits, Online Trust, Hedonic Value, Electronic Loyalty, Electronic Commerce

JEL Classification Code: M31, L81, L86

1. Introduction

In the context of online commerce, when competitors are just a click away, customer loyalty is a valuable asset (Oliver, 1999; Reichheld & Schefter, 2000). In the Internet Era, customers can connect with an endless amount of information about a company and other competitors. With the amount of information at hand, the customer can evaluate, recognize, and choose which company is capable of delivering the best customer experience. When the customer feels enthusiastically supported by the company, they tend to return more. Many studies show that the cost to convert a new customer successfully is higher many times more than retaining existing customers (Kotler & Keller, 2016). Also, whether or not the company is superior to competitors depends on the number of loyal customers. However, the task of creating loyal customers in e-commerce is not simple, especially in emerging markets in Asian countries like Vietnam.

The statistics at the Vietnam E-Commerce White Paper 2019 also show that, with a turnover of 8.06 billion USD, Vietnam's e-commerce retail - B2C has had the highest growth rate in 3 years. Back here, up to 30%. The growth of Vietnam's e-commerce in 2016 and 2017 were 23% and 24%, respectively. Along with the growth in total revenue, in 2018, Vietnam's e-commerce market also recorded an increase in the number of people involved in online shopping, the value of online shopping of a person as well as the proportion of sales. Revenue from B2C e-commerce compared to total retail sales of goods and consumer services nationwide. Specifically, the number of people

---

1 First Author, Associate Professor, Business and Economics Research Group, Ho Chi Minh City Open University, Viet Nam. E-mail: ha.nm@ou.edu.vn

2 Corresponding Author, Ph.D. Candidate, Graduate School, Ho Chi Minh City Open University, Vietnam. [Postal Address: 20 Street 8, Quarter 2, Hiep Binh Chanh Ward, Thu Duc District, Ho Chi Minh City, 700000, Vietnam] Tel: +84.908091402. Email: khoabt.15ab@ou.edu.vn, khoadhcn@gmail.com.

participating in online shopping in 2018 was 39.9 million people, an increase of 6.3 million people compared to 2017. The value of online shopping per person is estimated at 202 USD, an increase of 16 USD compared to 2017. B2C Vietnam's e-commerce revenue in 2018 accounted for about 4.2% of the total retail sales of consumer goods and services nationwide (Vietnam eCommerce and Digital Economy Agency, 2019).

Verma, Sharma, and Sheth (2016) proposed a model of Relationship marketing in online retailing. Electronic loyalty is considered as one of the consequences; the three antecedents are focused customer antecedents, seller focused antecedents, dyadic antecedents; also, trust and relationship satisfaction are the mediators. This study proposed a research model that is aggregated from many sources and based on relational marketing research (Palmatier, Dant, Grewal, & Evans, 2006).

The online consumers usually return to an e-commerce site by the evaluation process, as well as the benefits that the site generated for the first time shopping. Consumers in the developing economy are aware of five types of benefits, such as cost savings, convenience, comfort, entertainment, and choice in online shopping (Sinha & Singh, 2016). Benefit from buyer relationship as well as investment in seller relationship contributes to building perceived benefits for customers when shopping online. Sheth (1983) presented personal determinants of procurement that can be widely understood as being influenced by functional and non-functional motives. In particular, as the lives of the buyer in developing countries have improved in quality, non-functional engines have become more critical to the consumer. Gardner and Rook (1988) mentioned the mental benefits that can be generated through the shopping procurement process. Many customers recall that they often have less sadness when shopping, compared to before shopping (Faber & Christenson, 1996). After a shopping, many customers report achieving positive emotions, which are spurs driven by a desire to change their current mood (Atalay & Meloy, 2011). However, studies in the field of psychology in shopping in general and online shopping, in particular, are still quite limited (Rick, Pereira, & Burson, 2014). Previous studies mainly used relatively general psychological scales to measure only positive and negative emotions, instead of studying specific mental states (Atalay & Meloy, 2011); or just ask customers to give a general answer about the feeling when shopping, without specifying the form of shopping or product (Faber & Christenson, 1996). It is essential to pay attention to the perceived mental benefits that customers have after making

a first purchase, which is vital in building customer loyalty when buying online.

The mediating role of trust in relationship marketing has been asserted in previous research (Palmatier et al., 2006; Verma et al., 2016). However, the role of satisfaction in the relationship between benefits and customer behavior is still receiving much attention. Kotler and Keller (2016) define customer satisfaction as a comparison between what is expected and received after using a customer's product/service. Thus, the premise of satisfaction is expectation and outcome. Meanwhile, in relationship marketing, the premise mentioned by Verma et al. (2016) is relationship benefit. A study of Eggert and Ulaga (2002) also looked at value's replacement for B2B transaction satisfaction. Therefore, this study proposes to study hedonic value and online trust as the mediators in the relationship between benefits and electronic loyalty.

2. Literature Review

2.1. Electronic Loyalty

Electronic loyalty is a positive attitude, behavior, and commitment of customers towards the website, resulting in re-purchase behavior and not transfer to other websites. Electronic loyalty plays a vital role in the success of the company and is a critical goal in the strategic marketing plan. Loyal customers will tend to re-purchase, positive word-of-mouth about the website, and encourage others to buy together on the website (Pratminingsih, Lipuringtyas, & Rimenta, 2013). From understanding the factors that affect loyalty when shopping online and the influence of each factor, businesses that provide online shopping services can increase customer loyalty. In an e-commerce context, a loyalty customer can show preference, interaction, and personal information disclosure.

Preference is the customer's decision to choose, acquiring, and maintaining a relationship with a specific website instead of other websites (Srivastava & Rai, 2018). In the traditional market, the preference when buying from a company is a sign of loyalty (Zeithaml, Berry, & Parasuraman, 1996). Rai and Medha (2013) also suggested that the preference of the customer is the intention to buy back and overcome obstacles to shop on a website. Moreover, a loyal customer will remember the brand first when in demand or recommend it to others when asked (Floh & Treiblmaier, 2006; Srinivasan, Anderson, & Ponnavolu, 2002). Positive word-of-mouth is the

widespread interaction to share the website with the other customers when customers satisfy in business transactions (Nguyen, Huynh, & Tran, 2019).

Interaction with a website after purchasing from that website is a dimension of electronic loyalty. Interaction presents for the patronage, which is the strength of the customer and seller in a customer's willingness to get actively connected with the website (Srivastava & Rai, 2018). Butcher, Sparks, and O'Callaghan (2001) suggest the recommendation as to loyalty. In the online context, it is easy for the customer to interact with a sellers' website via social networking or online tools via online behavior like the news, share the post, comment in the post.

The last dimension of electronic customer loyalty is personal information disclosure, which is related to the identification of premium in the research of Srivastava and Rai (2018). Personal information disclosure is a dangerous and harmful behavior, therefore, many customers will protect their information (Khoa, 2017). If the customer wishes to receive additional offers from the seller, such as birthday gifts, recommended products tailored to personal preferences, or membership discounts form loyalty program, customers need to provide personal information excluding ordinary information for shopping (Culnan & Bies, 2003). This personal information can be their interest, birthday, even allow the site to access the phone contact or the list of friends on social networking sites. This dimension can be considered as a "secondary exchange" with non-monetary (Culnan, 1993).

2.2. Perceived Mental Benefits

The perceived benefit is the predictive benefit of the action, which is a mental representation of the positive or reinforcing consequence of a behavior. The benefits of performance behavior can be internal or external. The obvious benefits of shopping behavior can be highly motivating, where the inherent benefits may be stronger in promoting further shopping behavior (Sheth, 1983). Mental benefits include psychological, social, and emotional aspects when customers shop online.

Firstly, enjoyment is one of the non-functional motives for shopping. The pleasure and comfort measure perceived shopping enjoyment via the result of online shopping behavior as new experiences, decrease the stress in life (Forsythe, Liu, Shannon, & Gardner, 2006; Venkatesh & Davis, 2000). Hence, the perceived shopping enjoyment is an essential dimension of the mental benefit in e-commerce.

It can affect the customer attitude and behavior of intentions directly to return the website.

Secondly, many customers get the benefit from the relationship established in the transactions. Thus, perceive social interaction is a vital part of the perceived mental benefit. Maslow (1943) pointed out the social needs in the Hierarchy of Needs. This need is expressed through communication such as finding, making friends, joining a community. Although Maslow ranks this need after safety needs and security needs, he emphasized that if this need is not met, it can cause severe mental and neurological diseases. The contribution in the shopping process and getting the feedback from the others is the benefit in mind with the online customers (Butler, Sproull, Kiesler, & Kraut, 2002). Through the purchasing on the website, the customer can learn and improve the knowledge. Social interaction in the online market is the non-market benefit because the price does not affect buying behavior (Scheinkman, 2008).

Thirdly, the perceived discreet shopping is a foremost benefit, which makes the anonymous for customers when they buy products or services. In the context of Vietnam in particular and countries familiar with traditional shopping, discreet shopping is a real benefit in shopping. Consumers are often afraid to ask for items that they have not finished buying or others who know they have purchased a discount. Customers like to shop privately, meaning they shop and others do not know what they bought (Gupta, Bansal, & Bansal, 2013); especially, for sensitive products related to health, gender, sex (Wood, 2017).

Lastly, Nguyen and Khoa (2019a) mentioned the perceived control as the mental benefit, which is perceived by the customer. Customization and personalization are two characters of perceived control (Godek & Yates, 2005). The perceived control based on the self-efficacy (Bandura, 1997), and perceived behavioral control (Ajzen, 1985). The ability to personalize helps customers choose the right products they need, have reasonable recommendations, and match customer needs. Hence, it reduces the time customers have to search and increases perceived value.

2.3. Hedonic value

The hedonic value is the appreciation of the role of pleasure, related to the enjoyment (Gillian & Davashish, 1999), the surprise and the strong emotions users have through experience with the product (Hirschman & Holbrook, 1982) (Hirschman & Holbrook, 1982). If consumers have a vibrant and exciting life and promote the enjoyment of life, they often feel better about fashion

(Michon, Yu, Smith, & Chebat, 2007). Consumers are drawn to the product because it gives them satisfaction about their values, or emotional and psychological needs (O'Cass, 2004). In this study, the hedonic value of online shopping is fun, happiness, enjoyable search, and the ability to reduce or overcome stress (Lee & Wu, 2017).

Perceived value is seen as an instrumental value, while brand loyalty is considered to be the terminal value in an online transaction (Sirdeshmukh, Singh, & Sabol, 2002). In particular, the upper target is likely to adjust the subordinate target, so the perceived value of customers adjusts the loyalty to an online seller, as long as the exchange of benefit. On the other hand, the hedonic value in group-buying has a positive effect on engagement with electronic commerce sites (Chiu, Chen, Du, & Hsu, 2018). The customer will prefer what website is more valuable than others. The recent researches have pointed out the relationship between value and brand preference (Grewal, Monroe, & Krishnan, 1998) Therefore, the hypotheses in the positive relationship, the hedonic value, and electronic loyalty are proposed:

H1: The hedonic value has a positive impact on the customer's preference to an e-commerce site

H2: The hedonic value has a positive impact on the customer's interaction with an e-commerce site

H3: The hedonic value has a positive impact on the customer's personal information disclosure to an e-commerce site.

On the other hand, the mental benefits of shopping are seen as motive and stimuli in the SOR model. Customers are aware of the perceived value by knowing they receive benefits in a transaction, i.e., as a benefit when providing a location in Global Position System Services (Xu, Luo, Carroll, & Rosson, 2011). Customers can feel the hedonic value if they evaluate that the benefits of the people outweigh the costs (Kotler & Keller, 2016). From there, the higher the perceived benefits are, the higher the perceived hedonic value is, and vice versa. The self-determination theory focused on the intrinsic motives in the behavior (Deci & Ryan, 1985). This theory stated three kinds of internal motives, including competence, relatedness, autonomy. Autonomy is the capability to do something independently, and competence related to control ability in the outcome. In online shopping, the customers are afraid of the others to know what they buy or choice; therefore, a website can satisfy the discreet and controllable ability will be valuable with customers. Accordingly, this research proposes that:

H7: Perceived shopping enjoyment has a positive impact on the hedonic value in e-commerce

H8: Perceived social interaction has a positive impact on the hedonic value in e-commerce

H9: Perceived discreet shopping has a positive impact on the hedonic value in e-commerce

H10: Perceived control has a positive impact on the hedonic value in e-commerce

2.4. Online Trust

The concept of consumer trust attracts much interest and is studied in many different perspectives on technology, society, behavior, and psychology. Accordingly, trust is a person's belief that a partner in a social transaction will behave appropriately (Pavlou, 2003). More specifically, trust is seen as the willingness to take risks and depend on the partner's behavior (McKnight, Choudhury, & Kacmar, 2002; Nguyen & Khoa, 2019a). In online shopping, trust is the subjective belief of consumers that an online seller will fulfill their obligations in transactions (Kim, Ferrin, & Rao, 2008). The trust in the website helps consumers feel comfortable and build a successful relationship between buyers and sellers in the online market (Khoa & Khanh, 2019).

Repurchase intention is a critical outcome of trust (Hennig-Thurau, Gwinner, & Gremler, 2002). Bart, Shankar, Sultan, and Urban (2005) have affirmed a strong relationship between online consumer trust and their behaviors, including readiness to engage in activities as interacting with the seller, visiting the store, and continuing to buy from this seller. On the other hand, Grewal, Iyer, and Levy (2004) suggest that consumers are satisfied but lacking in trust, but it is a barrier to their continued purchase of products from sellers. Also, many researchers have shown a direct effect between trust in consumers' intent to purchase products (McKnight, Cummings, & Chervany, 1998). Therefore, online trust has a positive effect on loyalty. Hence, the research proposes the following research hypotheses:

H4: The online trust has a positive impact on the customer's preference to an e-commerce site

H5: The online trust has a positive impact on the customer's interaction to an e-commerce site

H6: The online trust has a positive impact on the customer's personal information disclosure to an e-commerce site.

With the fundamental characteristic of online shopping being anonymous (Bhattacherjee, 2001), consumers make transactions entirely through sales websites and technical tools without direct interaction between buyer and seller. Consumers can also get the necessary information through friends, relatives, or other consumers who have dealt with the seller. These word of mouth information can be exchanged from direct or indirect communication through forums, product reviews on the website of the seller. The social interactions will bring trust toward the customer. Briggs, Simpson, and De Angeli (2004) stated that good recommendation or personalization would form an online trust. A website can understand what the customer needs, which is trusted. The confidence of a customer depends on the system's benefits when they make a payment on a mobile device (Park, Amendah, Lee, & Hyun, 2019). Autonomy and competence need to have a good relationship to trust (Rupp, 2016). Hence, the study proposes the hypotheses in the positive relationship between the perceived mental benefits and online trust

H11: Perceived shopping enjoyment has a positive impact on online trust in e-commerce

H12: Perceived social interaction has a positive impact on online trust in e-commerce

H13: Perceived discreet shopping has a positive impact on online trust in e-commerce

H14: Perceived control has a positive impact on online trust in e-commerce

3. Data and Research Methodology

3.1. Data

E-commerce in Vietnam has achieved remarkable development in recent years. In particular, the revenue growth rate in the B2C field reached 35% in 2017 (Datarepotal, 2019). The online shopping has become popular with Vietnamese consumers.

In addition, the Vietnam E-commerce Association's 2018 e-commerce index report shows that Ho Chi Minh City, Ha Noi City, Hai Phong City, Da Nang City, and Binh Duong Province are the regions that continue to have an active development in e-commerce. Ho Chi Minh City is also the leading city in the country in terms of the B2C trading component index in 2017 (Vietnam eCommerce and Digital Economy Agency, 2019) (Table 1).

Table 1: Demographic profile

	Character	N	%
Gender	Male	458	49.9
	Female	459	50.1
Age level	< 20	139	15.2
	20 – 24	156	17.0
	25 – 29	254	27.7
	30 – 34	193	21.0
	>= 35	175	19.1
Occupation	Student	139	15.2
	Lecturer	107	11.7
	Office worker	246	26.8
	Housewife	99	10.8
	Business Owner	145	15.8
	Civil servant	152	16.6
	Worker	29	3.20
Education level	High school	197	21.5
	College	306	33.4
	Bachelor	218	23.8
	Master/PhD	196	21.4

3.2. Research Model

There are many concepts of relationship marketing. Relationship marketing is a form of building, developing, and maintaining high-value, cost-effective relationships with customers, suppliers, employees, and partners for the long-term interests of both parties. With the above concept, it can be seen that relationship marketing aims to build long-term relationships with stakeholders, including customers. In other words, one of the crucial goals that relationship marketing aims to create and maintain customer loyalty. In the context of online shopping, Verma et al. (2016) have proposed three antecedents of relationships, including Customer Focused, Seller Focused, and Dyadic. The relationship is always formed from the positive attitude or behavior of two sides in the transaction, including buyers (relationship benefits and dependence in sellers), sellers (investing in the relationship, and seller expertise), finally Dyatic (communication, and same). These premises will have an impact on the outcome variables, including an expectation of continued online shopping, word of mouth, and customer loyalty. In that relationship, commitment, trust, relationship satisfaction, and relationship quality are viewed as positive mediators. However, Verma et al. (2016) proposed that these frameworks help researchers develop better models through empirical investigation and management to increase their customer base and improve their return on investment in their continued efforts for relationship marketing.

Benefits are considered as a premise in the transactions between customers and businesses. In a hazardous

environment like online commerce, creating clear benefits for customers after the first transaction will stimulate them to come back, word of mouth, and enhance transactions on the e-commerce website. Maslow (1943) has addressed shopping needs as a motive, which customers must strive to satisfy. If a consumer is in a state of lack of self-control, the desire to achieve more benefits and is motivated by the opportunity to solve the problem. Therefore, the benefits give them a sense of competence and a sense of psychological control over their situation, although the purchase may not be directly related to the demanding situations which they encountered. In a recent study, Nguyen and Khoa (2019b) mentioned a type of benefit appropriate to the current context, which is perceived as a mental benefit. In particular, these benefits include perceived shopping enjoyment, perceived social interaction, perceived discreet shopping, and perceived control.

Besides the trust, perceived value is also viewed as a mediator in the relationship between perceived benefit and loyalty. Suggested perceived value includes utilitarian and hedonic value. The hedonic value and online trust are the mediators in a relationship model. Another critical aspect of the relationship marketing model is the outputs, in which loyalty is most concerned both in practice and in theory. Srivastava and Rai (2018) has shown that three aspects of loyalty pointed out that the author has defined three characters of customer loyalty are preference, patronage, and premium. In which, the preference has the equation including repurchase intentions, switching resistance, and expensive purchase; the patronage includes strong preference, willingness to recommend, and altruism; finally, the premium may be measured by price insensitivity, exclusivity, and identification. In e-commerce transactions, the patronage can manifest through regular interaction with the site such as like, share, comment, or recommendation. Moreover, identification by personal information such as interest, the personal opinion also represents the premium, which is a part of electronic customer loyalty. Therefore, electronic loyalty can be considered in three dimensions, including preference, interaction, and personal information disclosure. From Relational Mediator Meta-Analytic Framework of Palmatier et al. (2006), the model of relationship marketing in online retailing of Verma et al. (2016), and the studies related to self-determination of Deci and Ryan (1985); this study proposes the conceptual model as Figure 1.
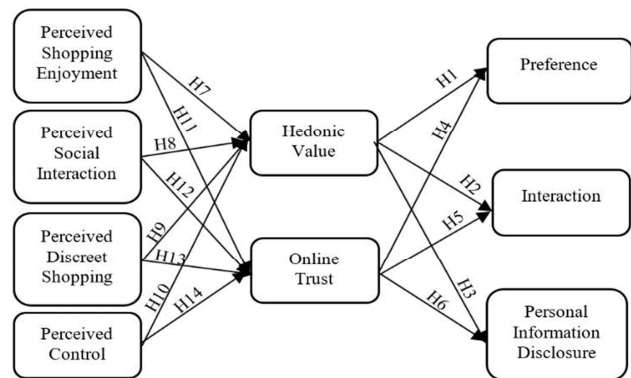

Figure 1: The conceptual model

3.3. Research method

This study applied a mixed-method, combining qualitative research and quantitative research (Creswell & Creswell, 2017). In particular, qualitative research is conducted by a focus group discussion technique with nine experts, who are the managers in the e-commerce company. The objective of this step is to ensure that the measurement statements for the research elements are clear and easy to understand. In this study, the author uses the scales that have been tested in relevant studies. The results of the qualitative research step help to complete the measurement statements and official scales of 39 items. Data in quantitative research is collected through a Self-Administered survey questionnaire with the 917 participants in four cities and one province, which are familiar with online shopping. This sample is the suitable sample for this research selected with the convenient sampling method.

3.4. Research Scale

The scale of all research constructs in the study adapted to the previous studies and focus group discussion. The 5 points Likert scale with 1: Completely disagree to 5: Completely agree is used to survey. Perceived mental benefits are taken as a concept with four constructs, namely perceived shopping enjoyment, perceived social interaction, perceived discreet shopping, and perceived control. They are measured by nineteen items from Nguyen and Khoa (2019c).

Table 2: The items of scale in this study

Item	Code
Perceived Enjoyment (PEB)	
--- live in your world	PEB1
--- feel better in a depressed mood,	PEB2
--- satisfy yourself	PEB3
--- is an adventure	PEB4
--- is one way to reduce stress	PEB5
--- is exciting	PEB6
Perceived Social Interaction (PSB)	
--- feel connected with others when shopping online	PSB1
--- feel there is an exchange of information about products/services when sharing shopping experience with other consumers	PSB2
--- is a great way to develop friendships with other customers.	PSB3
--- interact with the reviews of other customers about products/services intended to buy	PSB4
Perceived Control (PCB)	
--- allows controlling the online shopping process	PCB1
--- express myself when shopping online	PCB2
--- participate in the entire consumer experience by collaborating, posting ideas, and participating in part of product creation.	PCB3
--- design everything, give ideas, connect, and choose different shopping options in the wishes.	PCB4
Perceived Discreet (PDB)	
--- ensures the privacy of the purchase process	PDB1
--- do not feel shy if not buy anything after requesting product information on the e-commerce site.	PDB2
--- do not feel embarrassed if shopping for sensitive goods/services.	PDB3
--- feel free when searching for product/service information when shopping online that no one can know.	PDB4
--- do not feel embarrassed when buying discounted products/services on e-commerce sites.	PDB5
Online Trust (OT)	
--- is honest.	OT1
--- is very interested in meeting the customers' need and desire	OT2
--- keep their promises and commitments	OT3
--- is reliable	OT4
--- is capable of fulfilling the customers' need and desire	OT5
Hedonic Value (HV)	
--- is a pleasure.	HV1
--- not only buy products but also feel happy.	HV2
--- make the customer feel that product search is entertaining.	HV3
--- allow the customer to forget all my troubles and discomfort	HV4
Personal Information Disclosure (PID)	
--- willing to submit personal information not related to delivery requests (i.e., gender, age)	PID1
--- reveal my interest in e-commerce	PID2
--- share personal opinion for e-commerce site	PID3
--- ready for e-commerce access to phone contacts or friends list on social networking	PID4
Interaction (INT)	
--- press the "like" button when like an e-commerce post.	INT1
--- participate in sharing some content on the e-commerce site	INT2
--- accept the time it takes to make comments, even though the e-commerce site does not pay any compensation.	INT3
--- evaluate and rank articles on e-commerce sites	INT4
Preference (TOM)	
--- use the e-commerce site whenever there is purchase a need	TOM1
--- is the first choice in a purchase.	TOM2
--- mentions this e-commerce site when friends and relatives need advice on online shopping	TOM3

Online trust is measured with five items from Liu and Tang (2018). The hedonic value is measured with four items from Lee and Wu (2017). Electronic loyalty is a concept with three constructs including three items of the preference from Floh and Treiblmaier (2006); Srinivasan et al. (2002), four items of the interaction from focus group discussion, and personal information disclosure is measured with three items from Campbell (2019) and focus group discussion (Table 2).

4. Results

This quantitative data is the basis for analyzing and testing models and research hypotheses by the Smart-PLS software. Specifically, the quantitative analysis steps based on the criteria and analysis process of Hair, Hult, Ringle, and Sarstedt (2016). This process includes (1) assessing the reliability and validity of the scales by Cronbach's Alpha coefficient and Outer loading, Confirmatory Factor Analysis (CFA), The heterotrait-monotrait ratio of correlations (HTMT value) (2) Assessing the Colinearity by Variance Inflation Factor (VIF), (3) Analyzing the Partial Least Squares Structural Equation Modeling (PLS-SEM), and (4) Assessing indicators of R^2, f^2, Q^2 for the model fit.

4.1. Reliability and Validity Assessment

The steps verify the reliability and validity of the scale in this study. These steps include reliability test, convergent validity, and discriminant validity.

The results show that the scales achieve reliability. All the Cronbach's alpha (CA) values are more significant than 0.7, and the composite reliability (CR) of the scales is more significant than 0.7. At the same time, the outer loading of all items is above 0.708, and Average Variance Extracted (AVE) is more significant than 0.5. Therefore, the convergent validity of all constructs is achieved. (Table 3)

Table 3: The reliability and convergent validity

	CA	CR	AVE	Outer loadings
HV	0.890	0.924	0.752	[0.839-0.913]
INT	0.791	0.864	0.614	[0.768-0.794]
OT	0.871	0.907	0.662	[0.760-0.871]
PCB	0.869	0.91	0.717	[0.837-0.855]
PDB	0.937	0.952	0.799	[0.854-0.923]
PEB	0.869	0.902	0.605	[0.752-0.792]
PID	0.844	0.895	0.682	[0.769-0.865]
PSB	0.871	0.912	0.723	[0.790-0.918]
TOM	0.751	0.857	0.667	[0.801-0.835]

Note: CA: Cronbach's Alpha; CR: Composite Reliability; AVE: Average Variance Extracted

Hair et al. (2016) suggested that HTMT can use for assessing discriminant validity. HTMT describes the relationship between two constructs in the research. Table 4 pointed out that the maximum value of HTMT is 0.72, which is lower than the threshold of 0.85. Hence, all constructs get discriminant validity.

Table 4: Result of discriminant validity.

	HV	INT	OT	PCB	PDB	PEB	PID	PSB	TOM
HV									
INT	0.72								
OT	0.64	0.69							
PCB	0.50	0.45	0.43						
PDB	0.48	0.38	0.49	0.50					
PEB	0.47	0.51	0.67	0.49	0.44				
PID	0.54	0.45	0.48	0.35	0.34	0.43			
PSB	0.42	0.53	0.65	0.39	0.41	0.58	0.39		
TOM	0.60	0.61	0.57	0.31	0.33	0.45	0.32	0.42	

4.2. Colinearity Assessment

The independent variables do not have an exact linear relationship. If this assumption is violated, there will be a multi-collinear phenomenon, which is the phenomenon of endogenous variables in the model of interdependence and expressed as a function. The VIF coefficient of the conceptual structures are all less than 3, showing that the collinearity phenomenon between the endogenous variables does not affect the testing of research hypotheses (Table 5)

Table 5: Result of the VIF coefficient

	HV	INT	OT	PID	TOM
HV		1.476		1.476	1.476
OT		1.476		1.476	1.476
PCB	1.397		1.397		
PDB	1.392		1.392		
PEB	1.538		1.538		
PSB	1.426		1.426		

4.3. Assessment of PLS-SEM

The research uses the Bootstrapping procedure proposed by Hair et al. (2016), with 5000 random subsamples. Except, the relationship between Perceived control and online trust is not significant, it means the hypothesis H14 is rejected. The rest path coefficients related to the impact of the constructs in the conceptual model are significant, with a 99% confidence level (Table 6). Therefore, it can be concluded that the assumptions from H1 to H13 are supported on data.

4.4. R^2, f^2, Q^2 assessment

According to Hair et al. (2016), PLS-SEM does not have a suitable measure for the whole model. Instead, the quality of the model is assessed through R^2, f^2, and Q^2 (Stone-Geisser Indicator). R^2, f^2, and Q^2 refer to explanatory and predictive evaluations of endogenous structures. Results of R^2 and Q^2 are presented in Table 7, and the result of f^2 is presented in Table 8. Results R^2, f^2, and Q^2 show that the structural model is fit.

Firstly, the study examines the R^2 values of the endogenous latent variables. In behavior research, the R^2 value of 0.2 is considered high. All R^2 values are more significant than the standard 0.2 (the minimum of R^2 value is 0.256), in which R^2 values of INT and OT are close to the relatively high value of 0.5. Secondly, Q^2 indicates the explanatory power and predictability of the endogenous latent variable. All values of Q^2 are higher than 0; the model has predictive relevance.

Table 6: Result of PLS-SEM

Relation	β	P Values	Hypothesis	Result
HV -> TOM	0.332	0.000	H1	Accepted
HV -> INT	0.423	0.000	H2	Accepted
HV -> PID	0.356	0.000	H3	Accepted
OT -> TOM	0.281	0.000	H4	Accepted
OT -> INT	0.335	0.000	H5	Accepted
OT -> PID	0.210	0.000	H6	Accepted
PEB -> HV	0.164	0.000	H7	Accepted
PSB -> HV	0.129	0.000	H8	Accepted
PDB -> HV	0.219	0.000	H9	Accepted
PCB -> HV	0.235	0.000	H10	Accepted
PEB -> OT	0.339	0.000	H11	Accepted
PSB -> OT	0.313	0.000	H12	Accepted
PDB -> OT	0.174	0.000	H13	Accepted
PCB -> OT	0.048	0.163	H14	Rejected

Lastly, f^2 is the effect size of independent variables on the dependent variable. f^2 values are 0.02, 0.15, and 0.35, respectively, represent small, medium, and significant levels. If the f^2 value is less than 0.02, there is no effect of independent variables on the dependent variable. In table 8, the f^2 value of perceived control and online trust is 0.003, as well as the f^2 value of perceived social interaction and hedonic value is 0.017. Both of them are lower than 0.02. Thus, PCB and PSB do not impact on the OT and HV. The rest of the f^2 value is higher than 0.02.

Table 7: Result of R^2 and Q^2

	R^2	Q^2
HV	0.318	0.219
INT	0.453	0.257
OT	0.472	0.284
PID	0.256	0.161
TOM	0.295	0.183

Table 8: Result of f^2

	HV	INT	OT	PID	TOM
HV		0.222		0.116	0.106
OT		0.139		0.040	0.076
PCB	0.058		0.003		
PDB	0.050		0.041		
PEB	0.026		0.141		
PSB	0.017		0.130		

5. Discussion

The stimulus – organism - response (SOR) model, proposed by Mehrabian and Russell (1974), has shown that the stimuli will affect the organism's evaluation and create a response from the organism. In comparison, the perceived mental benefit, the hedonic value, and electronic loyalty can consider as, respectively, the stimulus, organism, and response. If customers receive the mental benefits when trading, it will be the best impact so they can feel the hedonic value, which in turn, will appear electronic loyalty (Chang, Eckman, & Yan, 2011; Kawaf & Tagg, 2012). Therefore, the overall research result is consistent with the theoretical background and previous studies in the online context.

Hypotheses H1, H2, and H3 are supported, which means that hedonic value has a positive effect on electronic loyalty with the level of confidence of 99%, namely the preference ($\beta = 0.332$, p-value = 0.000), interaction ($\beta = 0.423$, p-value = 0.000), and personal information disclosure ($\beta = 0.356$, p-value = 0.000). In particular, when customers feel that online transactions make them valuable, they will actively interact with the website, fan page of the seller to create co-creation (Hajli, Shanmugam, Papagiannidis, Zahay, & Richard, 2017). The co-creation is an advantage of businesses compared to other businesses in the new era because co-creative behavior will increase customer loyalty with the website easily lead to behaviors or attitude loyalty.

Electronic loyalty is also influenced by online trust, and hedonic value. This result is consistent with the meta-research of relationship marketing in both online and traditional context (Palmatier et al., 2006; Verma et al., 2016). Interaction continues to be the biggest factor influenced by online trust ($\beta = 0.335$, p-value = 0.000), followed by preference ($\beta = 0.281$, p-value = 0.000), and finally to personal information disclosure ($\beta = 0.210$, p-value = 0.000). Hence, the hypotheses H4, H5, H6 are accepted with and 99% confidence level. Thus, online trust is also an important aspect to promote customer loyalty.

Shaping a trust for customers is important to the business (Nguyen & Khoa, 2019d).

Four dimensions of perceived mental benefits are the perceived enjoyment shopping, perceived social interaction, perceived discreet shopping, and perceived control, which are the stimulus in the SOR model. The perceived mental benefit aspects, excluding the perceived social interaction, have positive impacts on the hedonic value. On the other hand, the perceived mental benefit dimensions, excluding the perceived control, have a positive effect on online trust. Hence, the hypotheses H7, H9, H10, H11, H12, H13 are supported by the quantitative data; the hypothesis H8 is rejected by f^2 value. Although H8 is supported by p-value but f^2 value is less than 0.02; and hypothesis H14 is rejected through the p-value is more than 0.1. This empirical result is considered consistent with both the theory and the context of online commerce in Vietnam, a country that is moving from traditional commerce to e-commerce. Most of the perceived mental benefits have a significant impact on the hedonic value and online trust. This result is met the marketing theory presented by Kotler and Keller (2016). The business should have a marketing program based customer-driven, which creates the function and mental benefits. These benefits will build a superior value for the customer. From that, the business will capture the other value from the customer, which can be loyalty or word-of-mouth. However, the Vietnamese customer does not care about after-sale behavior as a comment about the product quality or the attitude of the seller. The principal value of a customer in online shopping is to get the product/service for satisfying their needs. Therefore, perceived social interaction does not impact on the hedonic value. At the same time, the anxiety of customers still exists when providing much personal information, although this information helps the business to formulate proposals and solutions for its customers. The benefit of perceived control sometimes reduces or does not make sense for online trust, especially when customers fear privacy risks (Featherman & Pavlou, 2003).

6. Conclusions

The study tested the relationship between the four elements of perceived mental benefits (the perceived enjoyment shopping, perceived social interaction, perceived discreet shopping, and perceived control), online trust, hedonic value, and three factors that demonstrate electronic loyalty (preference, interaction, and personal information disclosure) in online shopping in Vietnam. Results of

qualitative research through focus group discussion and quantitative research through a survey of 917 participants to test research hypotheses and research models. Except, the perceived social interaction does not affect the hedonic value ($f^2 < 0.02$), nor does the perceived control affect online trust (p-value > 0.1); other relationships in the model are supported. In particular, online trust and hedonic value have a significant influence on electronic loyalty, of which the most is customer interaction with the website.

Although many efforts have been made, this study has its limitations. Firstly, the study only focused on examining the relationship between benefit and value, though perceived value as the comparison of benefit and cost (Sweeney & Soutar, 2001). Therefore, further research can add negative emotions in the context of Vietnamese e-commerce. Although the study has contributed contextually, the research in the future can assess in other countries, which has a different culture from Vietnam to achieve contextual comprehensiveness for the research. In addition, development and validation the electronic loyalty scale in the developing countries based on the new context, i.e., social commerce, mobile commerce, is a great idea for further research.

References

Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behavior. In J. Kuhl & J. Beckmann (eds) *Action Control. SSSP Springer Series in Social Psychology*. Berlin, Germany: Springer. doi: https://doi.org/10.1007/978-3-642-69746-3_2

Atalay, A. S., & Meloy, M. G. (2011). Retail therapy: A strategic effort to improve mood. *Psychology & Marketing, 28*(6), 638-659.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: W.H. Freeman and Company.

Bart, Y., Shankar, V., Sultan, F., & Urban, G. L. (2005). Are the drivers and role of online trust the same for all web sites and consumers? A large-scale exploratory empirical study. *Journal of Marketing, 69*(4), 133-152.

Bhattacherjee, A. (2001). Understanding information systems continuance: an expectation-confirmation model. *MIS quarterly*, 351-370.

Briggs, P., Simpson, B., & De Angeli, A. (2004). *Personalisation and trust: a reciprocal relationship?* : Springer. doi: https://doi.org/10.1007/1-4020-2148-8_4

Butcher, K., Sparks, B., & O'Callaghan, F. (2001). Evaluative and relational influences on service loyalty. *International Journal of Service Industry Management, 12*(4), 310-327.

Butler, B., Sproull, L., Kiesler, S., & Kraut, R. (2002). Community effort in online groups: Who does the work and why. *Leadership at a distance: Research in technologically supported work, 1*, 171-194.

Campbell, D. E. (2019). A Relational Build-up Model of Consumer Intention to Self-disclose Personal Information in E-commerce B2C Relationships. *AIS Transactions on Human-Computer Interaction, 11*(1), 33-53. DOI: https://doi.org/10.17705/1thci.00112

Chang, H.-J., Eckman, M., & Yan, R.-N. (2011). Application of the Stimulus-Organism-Response model to the retail environment: the role of hedonic motivation in impulse buying behavior. *The International Review of Retail, Distribution and Consumer Research, 21*(3), 233-249.

Chiu, Y.-L., Chen, L.-J., Du, J., & Hsu, Y.-T. (2018). Studying the relationship between the perceived value of online group-buying websites and customer loyalty: the moderating role of referral rewards. *Journal of Business & industrial marketing, 33*(5), 665-679.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage publications.

Culnan, M. J. (1993). " How Did They Get My Name?": An Exploratory Investigation of Consumer Attitudes toward Secondary Information Use. *MIS quarterly*, 341-363.

Culnan, M. J., & Bies, R. J. (2003). Consumer privacy: Balancing economic and justice considerations. *Journal of social Issues, 59*(2), 323-342.

Datarepotal. (2019). *Digital 2019: Vietnam*. Retrieved July 30, 2019 from https://datareportal.com/reports/digital-2019-vietnam

Deci, E., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum Press. DOI: https://doi.org/10.1007/978-1-4899-2271-7

Eggert, A., & Ulaga, W. (2002). Customer perceived value: a substitute for satisfaction in business markets? *Journal of Business & industrial marketing, 17*(2/3), 107-118.

Faber, R. J., & Christenson, G. A. (1996). In the mood to buy: Differences in the mood states experienced by compulsive buyers and other consumers. *Psychology & Marketing, 13*(8), 803-819.

Featherman, M. S., & Pavlou, P. A. (2003). Predicting e-services adoption: a perceived risk facets perspective. *International journal of human-computer studies, 59*(4), 451-474. doi: https://doi.org/10.1016/s1071-5819(03)00111-3

Floh, A., & Treiblmaier, H. (2006). What keeps the e-banking customer loyal? A multigroup analysis of the moderating role of consumer characteristics on e-loyalty in the financial service industry. *Journal of electronic commerce research*, 7(2), 97 - 110.

Forsythe, S., Liu, C., Shannon, D., & Gardner, L. C. (2006). Development of a scale to measure the perceived benefits and risks of online shopping. *Journal of Interactive Marketing, 20*(2), 55-75. DOI: https://doi.org/10.1002/dir.20061

Gardner, M. P., & Rook, D. W. (1988). Effects of impulse purchases on consumers' affective states. *Advances in Consumer Research, 15*(1), 127 - 130.

Gillian, C. H., & Davashish, P. (1999). A factor analytic study of the sources of meaning in hedonic consumption. *European Journal of Marketing, 33*(3/4), 273-294.

Godek, J., & Yates, J. F. (2005). Marketing to individual consumers online: The influence of perceived control In C. P. Haugtvedt, K. A. Machleit, & R. Yalch (Eds.), *Online consumer psychology: Understanding and influencing consumer behavior in the virtual world* (pp. 225-244). London, United Kingdom: Psychology Press.

Grewal, D., Monroe, K. B., & Krishnan, R. (1998). The effects of price-comparison advertising on buyers' perceptions of acquisition value, transaction value, and behavioral intentions. *Journal of Marketing, 62*(2), 46-59. https://doi.org/10.2307/1252160

Grewal, D., Iyer, G. R., & Levy, M. (2004). Internet retailing: enablers, limiters and market consequences. *Journal of Business research, 57*(7), 703-713.

Gupta, A., Bansal, R., & Bansal, A. (2013). Online shopping: A shining future. *International Journal of Techno-Management Research, 1*(1), 1-10.

Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Thousand Oaks, CA: Sage.

Hajli, N., Shanmugam, M., Papagiannidis, S., Zahay, D., & Richard, M.-O. (2017). Branding co-creation with members of online brand communities. *Journal of Business research, 70*, 136-144.

Hennig-Thurau, T., Gwinner, K. P., & Gremler, D. D. (2002). Understanding relationship marketing outcomes: an integration of relational benefits and relationship quality. *Journal of service research, 4*(3), 230-247.

Hirschman, E. C., & Holbrook, M. B. (1982). Hedonic consumption: emerging concepts, methods and propositions. *Journal of Marketing, 46*(3), 92-101. doi: https://doi.org/10.2307/1251707

Kawaf, F., & Tagg, S. (2012). Online shopping environments in fashion shopping: An SOR based review. *The marketing review, 12*(2), 161-180.

Khoa, B. T. (2017). A study on the online customer perception of privacy information protection in Hochiminh City. *Journal of Science and Technology, 26*(2), 66-76.

Khoa, B.T., & Khanh, T. (2019). Studying factors affecting online trust of the Vietnamese customers: Social commerce case. *Vietnam Trade and Industry Review, 5*(4), 298-204.

Kim, D. J., Ferrin, D. L., & Rao, H. R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision support systems, 44*(2), 544-564.

Kotler, P., & Keller, K. L. (2016). *Marketing management* (Vol. 15e). Harlow, United Kingdom: Pearson.

Lee, C.-H., & Wu, J. J. (2017). Consumer online flow experience: The relationship between utilitarian and hedonic value, satisfaction and unplanned purchase. *Industrial Management & Data Systems, 117*(10), 2452-2467.

Liu, Y., & Tang, X. (2018). The effects of online trust-building mechanisms on trust and repurchase intentions: An empirical study on eBay. *Information Technology & People, 31*(3), 666-687.

Maslow, A. H. (1943). A theory of human motivation. *Psychological review, 50*(4), 370.

McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). The impact of initial consumer trust on intentions to transact with a web site: a trust building model. *The Journal of strategic information systems, 11*(3/4), 297-323.

McKnight, D. H., Cummings, L. L., & Chervany, N. L. (1998). Initial trust formation in new organizational relationships. *Academy of management review, 23*(3), 473-490.

Mehrabian, A., & Russell, J. A. (1974). *An approach to environmental psychology*. Cambridge, MA: The M.I.T Press.

Michon, R., Yu, H., Smith, D., & Chebat, J.-C. (2007). The shopping experience of female fashion leaders. *International Journal of Retail & Distribution Management, 35*(6), 488-501.

Nguyen, M.H., Huynh, L.T., & Tran, B.T. (2019). Relation Between Employees and Customers Affects to the Positive Word of Mouth Through Customer Satisfaction. *Journal of Distribution Science, 17*(6), 65–75. doi: http://10.15722/jds.17.6.201906.65

Nguyen, M. H., & Khoa, B. T. (2019a). The Relationship between the Perceived Mental Benefits, Online Trust, and Personal Information Disclosure in Online Shopping. *Journal of Asian Finance, Economics and Business, 6*(4), 261-270. https://10.13106/jafeb.2019.vol6.no4.261

Nguyen, M. H., & Khoa, B. T. (2019b). Perceived mental benefits of online shopping. *Journal of Science, 14*(1), 3-17.

Nguyen, H. M., & Khoa, B. T. (2019c). Perceived Mental Benefit in Electronic Commerce: Development and Validation. *Sustainability, 11*(23), 6587-6608. DOI:https://10.3390/su11236587

Nguyen, M. H., & Khoa, B. T. (2019d). A Study on the Chain of Cost-Values-Online Trust: Applications in Mobile Commerce in Vietnam. *Journal of Applied Economic Sciences, 14*(1), 269-280.

O'Cass, A. (2004). Fashion clothing consumption: antecedents and consequences of fashion clothing involvement. *European Journal of Marketing, 38*(7), 869-882.

Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing*, *63*(Special Issue 1999), 33-44.

Palmatier, R. W., Dant, R. P., Grewal, D., & Evans, K. R. (2006). Factors influencing the effectiveness of relationship marketing: a meta-analysis. *Journal of Marketing, 70*(4), 136-153. doi: https://doi.org/10.1509/jmkg.70.4.136

Park, J., Amendah, E., Lee, Y., & Hyun, H. (2019). M payment service: Interplay of perceived risk, benefit, and trust in service adoption. *Human Factors and Ergonomics in Manufacturing & Service Industries, 29*(1), 31-43. https://doi.org/10.1002/hfm.20750

Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International journal of electronic commerce, 7*(3), 101-134.

Pratminingsih, S. A., Lipuringtyas, C., & Rimenta, T. (2013). Factors influencing customer loyalty toward online shopping. *International Journal of Trade, Economics and Finance, 4*(3), 104-110.

Rai, A. K., & Medha, S. (2013). The antecedents of customer loyalty: An empirical investigation in life insurance context. *Journal of Competitiveness, 5*(2), 139-163.

Reichheld, F. F., & Schefter, P. (2000). E-loyalty: your secret weapon on the web. *Harvard Business Review, 78*(4), 105-113.

Rick, S. I., Pereira, B., & Burson, K. A. (2014). The benefits of retail therapy: Making purchase decisions reduces residual sadness. *Journal of consumer Psychology, 24*(3), 373-380.

Rupp, M. A., Michaelis, J. R., McConnell, D. S., & Smither, J. A. (2016). The impact of technological trust and self-determined motivation on intentions to use wearable fitness technology. *Proceedings of the human factors and ergonomics society annual meeting* (pp. 1434-1438). Los Angeles, CA: SAGE Publications.

Scheinkman, J. A. (2008) The new palgrave dictionary of economics (2nd ed.). New York, NY: Palgrave Macmillan.

Sheth, J. N. (1983). An integrative theory of patronage preference and behaviour. In W. R. Darden & R. F. Lusch (Eds.), *Patronage Behaviour and Retail Management* (pp. 9-28). New York, NY: Elsevier Science Publishing Co, Inc.

Sinha, P., & Singh, S. (2016). E-retailing in developing economy - A study on consumers'perceptions. *Academy of Marketing Studies Journal, 20*(3), 62-72.

Sirdeshmukh, D., Singh, J., & Sabol, B. (2002). Consumer trust, value, and loyalty in relational exchanges. *Journal of Marketing, 66*(1), 15-37. doi: https://doi.org/10.1509/jmkg.66.1.15.18449

Srinivasan, S. S., Anderson, R., & Ponnavolu, K. (2002). Customer loyalty in e-commerce: An exploration of its antecedents and consequences. *Journal of Retailing, 78*(1), 41-50.

Srivastava, M., & Rai, A. K. (2018). Mechanics of engendering customer loyalty: A conceptual framework. *IIMB management review, 30*(3), 207-218.

Sweeney, J., & Soutar, G. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of Retailing, 77*(2), 203-220.

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science, 46*(2), 186-204. doi: https://doi.org/10.1287/mnsc.46.2.186.11926

Verma, V., Sharma, D., & Sheth, J. (2016). Does relationship marketing matter in online retailing? A meta-analytic approach. *Journal of the Academy of marketing Science, 44*(2), 206-217. DOI: https://doi.org/10.1007/s11747-015-0429-6

Vietnam eCommerce and Digital Economy Agency (2019). *Vietnam E-Commerce White Paper 2019*. Retrieved July 30, 2019 from http://www.idea.gov.vn/file/ef6314a6-709e-4d42-a2fa-b60457a66179

Wood, R. (2017). *Consumer Sexualities: Women and Sex Shopping*. London, England: Routledge.

Xu, H., Luo, X. R., Carroll, J. M., & Rosson, M. B. (2011). The personalization privacy paradox: An exploratory study of decision making process for location-aware marketing. *Decision support systems, 51*(1), 42-52. doi: https://doi.org/10.1016/j.dss.2010.11.017

Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, *60*(2), 31-46.