

Online Shopping in an Emerging Market: The Critical Factors Affecting Customer Purchase Intention in Vietnam

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Abstract

The emerging market is currently witnessing the active development of online shopping. This study was conducted to analyze the key factors affecting the intention of customers to purchase in Vietnam. This study is conducted by two methods, including "secondary research method" and "quantitative method" for research. Firstly, the author uses the "secondary research method" to refer to previous academic sources for this research. Secondly, the author collected a sample of 349 volunteers in Vietnam who have an understanding and interest in e-commerce. Perceived Usefulness, Perceived Ease of Use, Perceived Transaction Security are reported to have a positive relationship with online purchase intention. They are significant factors affecting the purchase intention of Vietnamese online customers. Other demographic factors can affect online shopping intention, such as age and income, so research cannot represent all customers. Businesses can use the findings to further understand about emerging markets. This trend is the basis for business managers to develop customer attraction strategies and improve the quality of online shopping services. The potential for online shopping is becoming more attractive, especially in emerging markets. This study is in line with the trend of the online shopping industry. The results of this study can help marketers understand more about customers' intentions, thereby building long-term relationships between businesses and customers.

Keywords: consumer intention, online shopping, emerging markets, internet shopping intention, b2c online shopping

1. Introduction

During the period of the 90s to 2016, online shopping or e-commerce has grown sharply. Forbes reports the value of the e-commerce industry over \$ 2 trillion in 2017 (IBM, 2018). This figure is expected to continue to increase to \$ 4.47 billion by 2021 and account for 16.1% of global retail sales (eMarketer, 2018a). This market research shows that the potential of this industry is becoming strong, comparable in size to traditional industries.

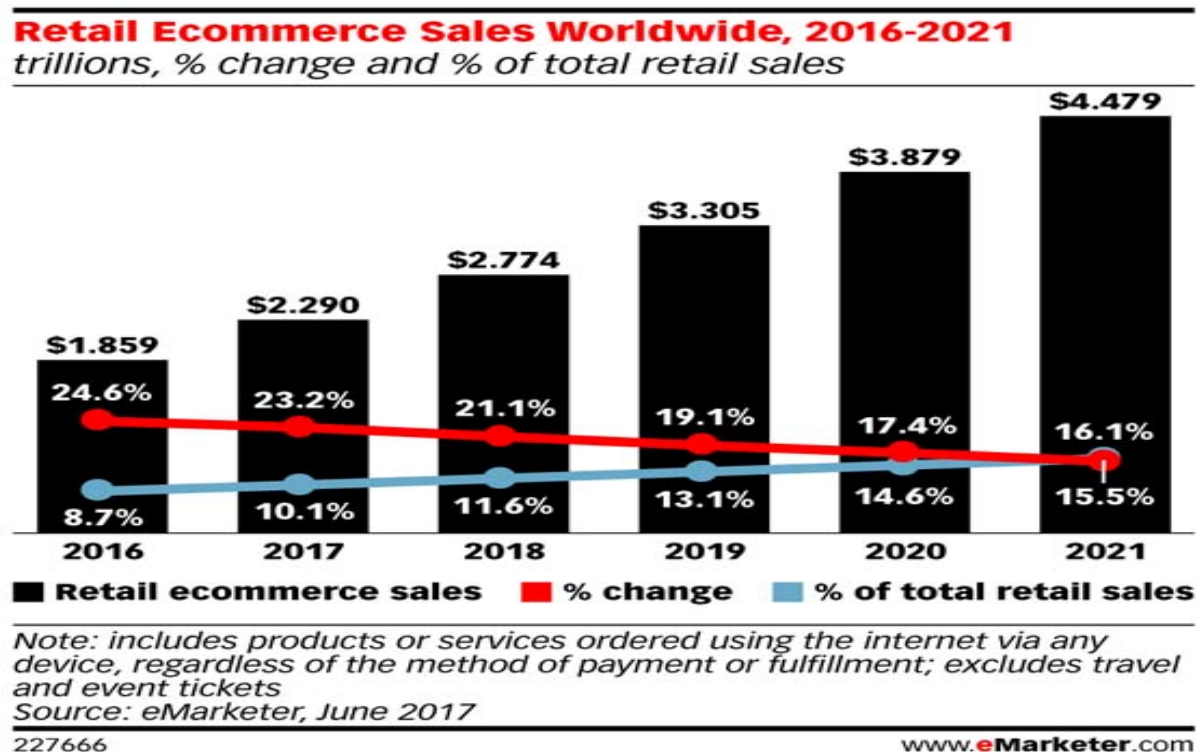


Figure 1. Retail E-commerce Sales Worldwide, 2016-2021(eMarketer, 2018a).

The explosion of online shopping is in the US, about 71% of customers use the online shopping platform to find their favorite products (eMarketer, 2018b). The advantage of online shopping compared to traditional shopping is that customers have many good choices. According to a US Census Bureau report, 7.5% of retail sales came from online shopping platforms in 2015, and the growth rate was only 0.5%. This number has grown from 2015 to 2017, the growth rate is ten times, and it is expected to continue to grow strongly until 2020.

Table 1. Estimated Quarterly U.S. Retail Sales: Total and E-commerce (Source: IBM.com, 2018)

Quarter	Retail Sales (millions of dollars)		E-commerce as a Percent of Total	Percent Change From Prior Quarter		Percent Change From Same Quarter A Year Ago	
	Total	E-commerce		Total	E-commerce	Total	E-commerce
Adjusted²							
4th quarter 2015(p)	1,184,753	89,078	7.5	0.0	2.1	1.3	14.7
3rd quarter 2015(r)	1,184,473	87,225	7.4	1.1	3.8	1.6	14.7
2nd quarter 2015	1,171,458	84,019	7.2	1.5	4.4	1.0	14.3
1st quarter 2015	1,153,584	80,451	7.0	-1.4	3.6	1.8	14.8
4th quarter 2014(r)	1,170,098	77,659	6.6	0.4	2.1	3.9	14.2
Not Adjusted							
4th quarter 2015(p)	1,245,370	107,057	8.6	4.9	32.2	1.6	14.5
3rd quarter 2015(r)	1,186,970	80,973	6.8	0.0	2.8	1.6	15.1
2nd quarter 2015	1,187,208	78,779	6.6	10.2	5.2	0.9	14.4
1st quarter 2015	1,077,586	74,920	7.0	-12.1	-19.9	1.5	14.4
4th quarter 2014	1,225,969	93,530	7.6	4.9	32.9	3.9	13.9

The steady development of online shopping is currently having a significant influence on many countries around the world. As predicted by many economists, Southeast Asia is the destination of many leading corporations in the e-commerce industry. In Southeast Asia, Alibaba - a Chinese online retail group has achieved outstanding achievements to become rival of Amazon in Southeast Asia. Alibaba has acquired Lazada to improve its

competitiveness in this potential market. Southeast Asia's online shopping market is expected to become more competitive and attractive to customers (eMarketer, 2018a).

2. Literature Review

2.1 Overview of the Emerging Market

The explosion of online shopping in Southeast Asia has a positive impact on Vietnam's e-commerce development. According to eMarketer (2016), Vietnam is witnessing a steady growth of the e-commerce industry, Vietnam's retail sales have increased by 20% on average, and there has been no sign of slowing down. Vietnam is evaluated by experts to become a leading country using e-commerce in Southeast Asia, during the period 2012-2022 the average income increased sharply from 12 to 33 million (EVBN, 2018). The study of Vietnam Q & Me shows that the online shopping platform helps Vietnamese people access all products related to fashion, technology, and entertainment (Figure 2).

Product/Service Categories Purchased Digitally by Digital Buyers in Urban Vietnam*, by Demographic, July 2016
 % of respondents in each group

	Gender		Age		Total
	Female	Male	18-29	30-39	
Fashion	53%	41%	41%	54%	46%
IT/mobile phones	22%	54%	41%	37%	39%
Kitchen/home appliances	38%	32%	32%	39%	35%
Food and beverages	26%	19%	20%	26%	22%
Books/stationary	23%	17%	22%	16%	20%
Cosmetics	34%	7%	21%	17%	20%
Sporting goods	7%	18%	15%	10%	13%
Tickets	9%	9%	6%	12%	9%
Spa/beauty services	14%	1%	7%	7%	7%
Supplements/functional foods	6%	7%	5%	9%	6%
Music/video (Blu-ray, DVD)	4%	6%	7%	2%	5%
Flowers/plants	3%	3%	2%	4%	3%
Other	4%	2%	2%	5%	3%

Note: *Hanoi and Ho Chi Minh City
 Source: Q&Me, "Vietnam Ecommerce Market Survey," July 19, 2016
 214696 www.eMarketer.com

Figure 2. Product/Service Categories Purchased Digitally by Digital Buyers in Urban Vietnam, by Demographic (eMarketer, 2016)

Vietnam's e-commerce development opportunity is represented by 42 million mobile devices accessing the internet, and it is expected to increase to 55 million devices by 2022 (Statista, 2017a). Moreover, Vietnam's GDP is witnessing rapid growth in 2017 and is expected to continue to rise to 2022 (Statista, 2017b). The potential of the online shopping market in Vietnam is attracting many investors, but businesses are still facing obstacles when persuading customers to use their services. Some reports show that consumers feel unsafe when using online services and the revenue of online transactions is still below 50% (eMarketer, 2016). Also, according to the Ministry of Industry and Trade and the Vietnam Competition Administration Department, 73% of complaints are related to poor quality products (VECITA, 2014). These are obstacles that need to be learned and soon overcome to improve the competitiveness of businesses in the online shopping sector. In summary, identifying key factors affecting consumers' intention to purchase online in emerging markets like Vietnam will be the primary goal of this study. The author uses this research as a basis for analyzing the intention of customers in the field of e-commerce in Vietnam. Businesses participating in the Vietnamese market can use this data source to have a more specific view of the online shopping market in Vietnam. From there they can develop effective marketing strategies to attract customers.

2.2 Factors Influencing Consumers' Online Shopping

Traditional online shopping and shopping have the same process, including steps such as identifying needs, finding products, evaluating options, paying and final rating after completing the transaction (Darley et al., 2010; Yörük et al., 2011). Besides the similarities, they also have differences when bringing values to customers. Traditional shopping requires buyers to come to the point of sale to make transactions (Nguyen Thanh Do and Ha Ngoc Thang, 2014). Meanwhile, online shopping helps buyers choose products through internet-connected devices (Abbad et al., 2011). According to Alba et al. (1997), the internet helps businesses access to potential customers through websites and updated data. Traditional shopping brings peace of mind to customers. Customers' benefits when shopping at traditional stores are guaranteed because they receive advice and product quality assurance when

making payments (Lester et al., 2005). In contrast, when customers shop online, they can only learn products based on descriptions in words and images (Lohse and Spiller, 1998). Customers cannot be guaranteed their rights with quality issues, true origin, reasonable prices. Customers always need to consider online shopping information such as firm size, product value, and reliability to reduce the risk of online shopping (Lohse and Spiller, 1998). Technology is the foundation of online shopping to form and develop. There are many doctrines of behavioral research and customer intent when using technology like Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM). However, the Technology Acceptance Model (TAM) is the most popular model for analyzing behavior when shopping online by consumers. According to Davis et al. (1989), TAM is the best and most suitable model to study perceptions when purchasing customers in the age of technology. Useful awareness and ease of use awareness play an active role, and they help customers realize the potential and benefits they can get when using online shopping services (Guritno and Siringoringo, 2013). Besides, the existence of risk awareness is the biggest obstacle to the intention of customers when choosing online shopping to replace traditional shopping (Bauer, 1960). Moreover, the author examines past research related to online shopping intent to build a solid research paper. The author chooses the Technology Acceptance Model (TAM) to carry out this study because the factors related to security, usefulness, and ease of use are the main factors that influence the customer's online shopping intention.

2.3 Research Model and Hypothesis Development

There are many types of research about consumers' intention to access online shopping services around the world. However, these studies only have a few done in Vietnam; some of them are outdated. This trend is why the author decided to carry out this research for the Vietnamese market in the context that Vietnam's e-commerce market is becoming more competitive and attractive. Figure 3 is the author model used as a basis for this study, which is based on the Technology Acceptance Model (TAM) which includes the following three main factors.

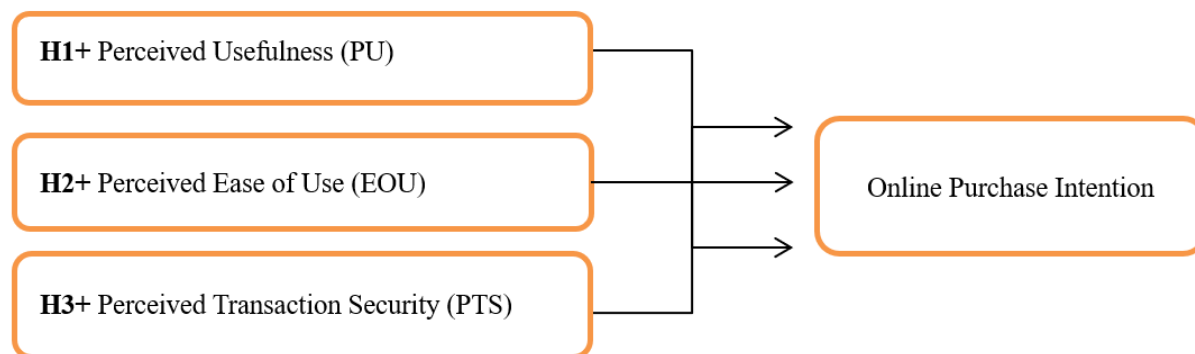


Figure 3. Proposed research model

Perceived Usefulness (PU)

PU is a factor that shows the benefits of online shopping platform affecting customer intent. PU includes benefits such as reasonable prices, available information, natural search and comparison (Broekhuizen & Huizingh, 2009). When businesses focus on developing customer benefits, their shopping performance will be improved (Davis, 1989). It can be said that PU in e-commerce helps customers have more choices, and customers can save time compared to traditional shopping (Eri et al., 2011). The higher the level of benefits that online shopping services bring to customers, the more likely it is that customers will be attracted to the service (Teck, 2002). The development of the Internet and technology are potential bases for businesses around the world to expand their distribution channels to reach more customers (Ramayah, 2008). Hence, the first hypothesis is written as *H1: Perceived Usefulness is positively related to online purchase behavior intention.*

Perceived Ease of Use (EOU)

EOU is the degree to which consumers can adapt to new technologies (Gitau & Nzuki, 2014). Potential consumers who can use technology without much difficulty will quickly decide to implement online shopping behavior (Juniwati, 2014). In other words, when technology gives customers a sense of comfort when used, it is likely that customers will accept the technology (Davis, 1989). According to Yoon (2015), new user-friendly technology

could make it easier for customers to choose it to replace the old technology. The intention and attitude of customers are assessed to be indirectly affected by EOU (Chau, 1996). Businesses providing online shopping services need to improve customer experience continually. In a study by Jiang & Yang (2013), the benefits associated with convenience when shopping online are the primary motivations for consumer intent and shopping behavior. For instance, a new e-commerce website can make customers feel confused when approaching, but after reaching customers, it feels comfortable to use (Davis, 1989). Therefore, the second hypothesis is stated as *H2: Perceived Ease to Use is positively related to online purchase behavior intention.*

Perceived Transaction Security (PTS)

PTS is evaluated as the most critical factor affecting customers' online shopping intent (Grandinetti, 1996). According to Zorkadis and Karras (2000), security is one of the most significant barriers affecting e-commerce because of the free development of integrated tools on websites. Possible problems involve fake information, illegal transactions, eavesdropping and theft of sensitive information. Security studies also show a significant influence on online banking (Lee and Eastwood, 2003; Awamleh and Fernandez, 2006). When doing online shopping activities, consumers are willing to accept some of their particular risks or expectations for the e-commerce platform, trust based on commitments. Provided (Gitau and Nzuki 2014). Therefore, the third hypothesis is stated as *H3: Perceived Transaction Security is positively related to online purchase behavior intention.*

3. Methodology

The author uses two research methods to analyze the main factors affecting consumers' online shopping intent. Methods include secondary research method and quantitative method. First, the author uses the secondary method to refer to essential studies to use them as a building platform for the study of customer intent when using online shopping services in Vietnam. The resources such as publications, prestigious articles, academic books can help researchers expand knowledge and build new ideas. Secondly, the author proceeded to collect the data needed to study the topic. Two types of data collection are quantitative and qualitative (Saunders, 2003). By using quantitative methods, the author can collect critical data to analyze the variables of the study (Bryman and Bell, 2007). This study uses quantitative research, in which three factors need to be explored, and regression analyzed to test the data. The questions in the survey table use Likert 5 as a scale to assess the levels of participants responding to surveys. The responses came from 349 volunteers in leading technology forums in Vietnam such as Tinhte.vn, Vietnam Marcom, Q&A Online Shopping Vietnam. Questionnaires are used by the Google Form tool; volunteers can reply directly on integrated forms at websites or access links sent directly to their e-mail. The two phrases that the author frequently mentioned in this study are "e-commerce" and "online shopping" all have the same meaning.

Operationalization of variables

Specific conventions in Likert 5 point scale:

1: Strongly disagree 2: Disagree 3: Neutral 4: Agree 5: Strongly Agree

Table 2. Descriptive Statistics of questions

	N	Minimum (Strongly disagree)	Maximum (Strongly Agree)	Std. Deviation	Mean
<i>Perceived Usefulness</i>					
Online shopping helps you improve performance when use shopping activities.	300	1	5	.949	3.57
You agree that the shopping process becomes easier when using shopping online.	300	1	5	.978	4.03
Online shopping can save more time than offline shopping	300	1	5	.999	4.11
Online shopping improves the quality of your shopping experience.	300	1	5	1.018	3.17
You feel that online shopping is cheaper than other forms.	300	1	5	1.115	3.27

Online shopping websites are useful for shopping activities.	300	1	5	.922	3.72
<i>Perceived Ease of Use</i>					
The interaction between you and the online store clear and easy to understand.	300	1	5	.944	3.23
You agree that online shopping does not require much of a mental effort.	300	1	5	.949	3.16
You feel that it easy to use online stores as well as online sites.	300	1	5	.936	3.29
You easily interact with the online store.	300	1	5	.983	3.24
You trust in online stores.	300	1	5	.916	3.14
The quality of service provided by online stores is good.	300	1	5	.909	3.08
<i>Transaction Security</i>					
You think that online shopping sites are reliable.	300	1	5	1.137	3.47
Shopping sites keep their promises and commitments.	300	1	5	1.139	3.44
Customer information is securely held in the transaction.	300	1	5	1.146	3.38
Ecommerce sites ensure the payment process is safe and secure.	300	1	5	1.117	3.49
<i>Online Purchase Behavior Intention</i>					
You intend to shop online in the future.	300	1	5	1.020	4.02
You think online shopping is a reasonable intention for yourself.	300	1	5	1.060	3.77
You realize that the intention of online shopping will be useful to your family.	300	1	5	1.031	3.78

Based on the above data, it is possible to see the question "Online shopping is more time Highest value for offline coal shopping" 4.11. Customers value online shopping more conveniently than traditional shopping because it saves them time. The next two high-value questions are "You agree that shopping is going to be easier when using online shopping" and "You intend to shop online in the future" reach 4.03 and 4.02 respectively. Conversely, the question "The quality of service provided by online stores is good" is the question with the lowest value with an average of 3.08. This fact shows that the quality of products that customers receive when shopping online is not appreciated. The following factors are underestimated at 3.14 and 3.26, respectively, in the "You trust in online stores" questions and the "You agree that online shopping question" does not require much of a mental effort.

Perceived Usefulness (H1+)

There are six questions focused on the benefits that online shopping brings to customers. According to Juniwati (2014), Perceived Usefulness has a positive effect on online shopping intent, but the impact depends on other factors. Businesses should value the benefits of customers because the shopping performance of customers depends on the benefits (Davis, 1989). One of the useful features that customers appreciate online shopping is the competitive price compared to traditional stores (Foley and Sutton, 1998).

Perceived Ease of Use (H2+)

There are six questions described when customers use the online shopping platform. Perceived Ease of Use is considered a significant factor to promote the intention of using customers' online shopping service (Gong et al., 2013). According to the results of Seiders, Berry, and Greswal (2002), factors related to searchability, quick access, and smooth transactions are advantages to attract consumers. Customers also appreciate the fast and efficient operational capabilities of online services (Jiang & Yang, 2013).

Perceived Transaction Security (H3+)

Four questions focus on issues such as information security, security of online transactions, product quality. Security is the most critical factor that has a direct impact on consumers' online shopping intent Grabner Krauter and Faullant (2008). In online transactions, most consumers place their trust and expectations on supplier commitments (Gitau and Nzuki 2014).

Table 3. Correlations between three independent factors and one dependent factor

		Online Purchase Behavior Intention	Perceived Usefulness	Perceived Ease to Use	Perceived Transaction Security
Online Purchase Behavior Intention	Pearson Correlation	1	.676**	.468**	.599**
	Sig. (2-tailed)		.000	.000	.000
	N	300	300	300	300
Perceived Usefulness	Pearson Correlation	.676**	1	.323**	.437**
	Sig. (2-tailed)	.000		.000	.000
	N	300	300	300	300
Perceived Ease to Use	Pearson Correlation	.468**	.323**	1	.287**
	Sig. (2-tailed)	.000	.000		.000
	N	300	300	300	300
Perceived Transaction Security	Pearson Correlation	.599**	.437**	.287**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	300	300	300	300

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

Based on the results of Table 3: Correlations between three independent factors and one dependent factor, it was found that the relationship between Online purchase Behavior Intention and Perceived Usefulness was statistically strong and positive (Pearson Correlation = 0.676, sig = 0.000). There is a significant positive relationship between online purchase behavior and transaction security (Pearson Correlation = 0.599, sig = 0.000). Similarly, there is a positive relationship between online purchase behavior and perceived ease of use (Pearson Correlation = 0.468, sig = 0.000). Besides, the results from Appendix 4 show that Perceived Usefulness, Perceived Ease of Use and Transaction Security are significant contributors to explain the online purchase behavior ($R = 0.614$, $F = 157.044$, sig = 0.000). The results conclude that these three independent variables have a positive impact on customers' online shopping intent. It can be said that the intention of online shopping is the result when customers receive the values including safety for online transactions, the benefits that online shopping brings, the ease of use online shopping.

4. Discussion and Managerial Implications

Table 4. Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics		
	B	Std. Error	Beta			Tolerance	VIF	
1	(Constant)	-.329	.176		-1.866	.063		
	Perceived Usefulness	.504	.045	.457	11.090	.000	.767	1.304
	Perceived Ease of Use	.291	.050	.224	5.788	.000	.870	1.150
	Perceived Transaction Security	.361	.044	.335	8.219	.000	.786	1.273

a. Dependent Variable: Online Purchase Behavior Intention

The author performs regression analysis to explore the relationship of the Online Purchase Behavior Intention with Perceived Usefulness, Perceived Ease of Use and Transaction Security. This equation is used by the authors to conclude three hypotheses in the research model: **Online Purchase Intention** = $-0.329 + 0.504$ (**Perceived Usefulness**) + 0.291 (**Perceived Ease of Use**) + 0.361 (**Perceived Transaction Security**).

The coefficient or β of perceived usefulness is 0.504, so hypothesis H1 is supported. In other words, the β value of Perceived Usefulness is 0.504 after multiple regression analysis, indicating that Perceived Usefulness positively impacts on the online purchase behavior intention. Also, perceived usefulness was the highest value independent variable in the study model of $\beta = 0.504$. The results are similar to previous studies (Triandis, 1980; Foley and Sutton, 1998; Aineah, 2016). In the field of online education, studies also show that Perceived Usefulness has a significant influence on the acceptance and promotion of the intention to use the service and ultimately the conduct (Ramayah, 2008). Overall, customers will use technology-related services when they find it useful (Shang, Chen and Shen, 2004).

The coefficient or β of the Perceived Ease of Use is 0.291, so hypothesis H2 is supported. Specifically, the value of β of Perceived Ease of Use indicates that the PEOU has a positive effect on the online purchase behavior intention. This is in line with Venkatesh and Davis (2000), who argues that when consumers perceive technology as easy to use, their attitude toward technology is positive and is similar to online shopping. Jiang and Yang (2013) and Gresham (2000) agrees that the facets of retail shopping, including access, search, transaction, and ownership, are more comfortable, the intention of shopping online is higher.

The coefficient or β of Transaction Security is 0.361, so it confirms the third hypothesis. Besides, Transaction Security for technology increases, it means that the intention of online purchase behavior also increases. Determine the value of β of the transaction has been determined, has the right to result on the event using the definition. This finding is the same result as Dauda, Santhapparaj, Asirvatham, and Raman (2007), they said that trust, Internet experience, and transaction demand are considered important factors for online shopping. Some consumers feel dissatisfied when the product quality is weaker than the advertisement, besides customer information security (Yu and Abdulai, 2000). In the field of banking, a study on internet banking in Malaysia shows that security has a significant impact on the intention to use internet banking services (Yong, Boon, Gowrie, Chin, Nasreen and Tze, 2013). In summary, security is the most critical factor in intent and behavior of using online services (Bhimani, 1996).

5. Limitations and Further Research

The participants in the survey all live in the Vietnamese territory and have an interest in e-commerce. However, research does not analyze Consumer Characteristics in online shopping intent, which means the templates do not represent the Vietnamese people completely. According to Stafford et al. (2004), young customers can adopt online shopping services easily. Meanwhile, older customers often have a negative attitude when shopping online like young customers (Donthu and Garcia, 1999). Besides, different income levels will make the intention of buying customers different (Susskind, 2004). The Vietnamese e-commerce market in recent years has always received the attention and appreciation of experts and large enterprises. According to EVBN (2018), up to 13.510 e-commerce websites are operating in Vietnam, much higher than the number of 9.429 in 2016. Enterprises and strategists should use this research to understand better the factors affecting customer intent in the online shopping market. They also need to develop online shopping benefits to build long-term relationships with customers. Security weaknesses should be fixed soon by cooperating with the Government and partners providing security services. Also, businesses need to ensure customers' rights when situations related to product quality occur. Ensuring the above problems are overcome, businesses will operate effectively and increase the competitiveness in the e-commerce market in Vietnam.

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References

- Abbad, M., Abbad, R., & Saleh, M. (2011). Limitations of e-commerce in developing countries: Jordan case. *Education, Business and Society: Contemporary Middle Eastern Issues*, 4(4), 280-291. <https://doi.org/10.1108/17537981111190060>
- Aineah, B. N. (2016). *Factors Influencing Online Purchasing Intention among College Students in Nairobi City*

- (Doctoral dissertation, United States International University-Africa).
- Alba, J., Lynch, J., Weitz, B., Janiszewski, C., Lutz, R., Sawyer, A., & Wood, S. (1997). Interactive home shopping: consumer, retailer, and manufacturer incentives to participate in electronic marketplaces. *Journal of Marketing*, 61(3), 38-53. <https://doi.org/10.2307/1251788>
- Bauer, R. A. (1960). *Consumer Behavior as Risk Taking*. Conference of the American Marketing Association, 389-398.
- Bell, E., & Bryman, A. (2007). The ethics of management research: an exploratory content analysis. *British Journal of Management*, 18(1), 63-77. <https://doi.org/10.1111/j.1467-8551.2006.00487.x>
- Berry, L. L., Seiders, K., & Grewal, D. (2002). Understanding Service Convenience. *Journal of Marketing*, 66(3), 1-17. <https://doi.org/10.1509/jmkg.66.3.1.18505>
- Bhimani, A. (1996). *Management accounting: European Perspective*, Oxford. Oxford University Press.
- Broekhuizen, T., & Huizingh, E. K. (2009). Online purchase determinants: Is their effect moderated by direct experience? *Management Research News*, 32(5), 440-457. <https://doi.org/10.1108/01409170910952949>
- Chau, P. Y. (1996). An Empirical Assessment of a Modified Technology Acceptance Model. *Journal of Management Information Systems*, 13(2), 185-204. <https://doi.org/10.1080/07421222.1996.11518128>
- Darley, W. K., Blankson, C., & Luethge, D. J. (2010). Toward an integrated framework for online consumer behavior and decision making process: A review. *Psychology & Marketing*, 27(2), 94-116. <https://doi.org/10.1002/mar.20322>
- Dauda, Y., Santhapparaj, A. S., Asirvatham, D., & Raman, M. (2007). The Impact of E-Commerce Security, and National Environment on Consumer adoption of Internet Banking in Malaysia and Singapore. *Journal of Internet Banking & Commerce*, 12(2).
- Davis, F. (1989). Perceived Usefulness, Perceived Ease of Use & User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319-340. <https://doi.org/10.2307/249008>
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Manager Science*, 35(8), 982-1003. <https://doi.org/10.1287/mnsc.35.8.982>
- Donthu, N., & Garcia, A. (1999). The internet shopper. *Journal of Advertising Research*, 39(3), 52-58.
- eMarketer (2016). Product/Service Categories Purchased Digitally by Digital Buyers in Urban Vietnam. Retrieved December 29, 2018, from <https://www.emarketer.com/Chart/ProductService-Categories-Purchased-Digitally-by-Digital-Buyers-Urban-Vietnam-by-Demographic-July-2016-of-respondents-each-group/195770>
- eMarketer. (2018a). A Brief Overview of the Global Ecommerce Market. Retrieved December 29, 2018, from <https://retail.emarketer.com/article/brief-overview-of-global-ecommerce-market/59690010ebd40005284d5cc5>
- eMarketer. (2018b). *How Do Vietnam's Consumers Shop Online?* eMarketer. Retrieved December 29, 2018, from <https://www.emarketer.com/Article/How-Do-Vietnams-Consumers-Shop-Online/1014391>
- Eri, Y., Islam, M. A., & Daud, K. A. K. (2011). Factors that Influence Customers' Buying Intention on Shopping Online. *International Journal of Marketing Studies*, 3(1), 128. <https://doi.org/10.5539/ijms.v3n1p128>
- EVBN. (2018). E-COMMERCE INDUSTRY IN VIETNAM REPORT, EDITION 2018. Retrieved January 1, 2018, from <https://evbn.org/e-commerce-industry-in-vietnam-report-edition-2018/>
- Fernandes, C., & Awamleh, R. (2006). Impact of organisational justice in an expatriate work environment. *Management Research News*, 29(11), 701-712. <https://doi.org/10.1108/01409170610716016>
- Foley, P., & Sutton, D., (1998). Boom time for electronic commerce-rhetoric or reality? *Business Horizons*, 41(5), 21-31. [https://doi.org/10.1016/S0007-6813\(98\)90074-X](https://doi.org/10.1016/S0007-6813(98)90074-X)
- Gong, W., Stump, R. L., & Maddox, L.M. (2013). Factors influencing consumers' online shopping in China. *Journal of Asia Business Studies*, 7(3), 214-230. <https://doi.org/10.1108/JABS-02-2013-0006>
- Grabner-Kräuter, S., & Faullant, R. (2008). Consumer acceptance of internet banking: the influence of internet trust. *International Journal of bank marketing*, 26(7), 483-504. <https://doi.org/10.1108/02652320810913855>
- Grandinetti, M. (1996). Establishing and maintaining security on the Internet. *Sacramento Business Journal*, 13(25), 22.

- Gresham, L. G. (2000). Attention, retailers! How convenient is your convenience strategy? *MIT Sloan Management Review*, 41(3), 79.
- Guritno, S., & Siringoringo, H. (2013). Perceived Usefulness, Ease of Use, and Attitude Towards Online Shopping Usefulness Towards Online Airlines Ticket Purchase. *Procedia-Social and Behavioral Sciences*, 81, 212-216. <https://doi.org/10.1016/j.sbspro.2013.06.415>
- Gitau, L., & Nzuki, D. (2014). Analysis of Determinants of M-Commerce Adoption by Online Consumers. *International Journal of Business, Humanities and Technology*, 4(3), 88-94.
- Ibm.com. (2018). E-commerce Statistics & Technology Trendsetters for 2017 - Ecommerce CRM Software Blog- Ecommerce CRM Software. Retrieved December 26, 2018, from https://www.ibm.com/developerworks/community/blogs/d27b1c65-986e-4a4f-a491-5e8eb23980be/entry/Ecommerce_Statistics_Technology_Trendsetters_for_2017?lang=en
- Jiang, L., & Yang, Z. (2013). Measuring consumer perceptions of online shopping convenience. *Journal of Service Management*, 24(2), 191-214. <https://doi.org/10.1108/09564231311323962>
- Juniwati, J. (2014). Influence of Perceived Usefulness, Ease of Use, Risk on Attitude and Intention to Shop Online. *European Journal of Business and Management*, 6(27), 218-229.
- Lee, E. J., Lee, J., & Eastwood, D. (2003). A two-step estimation of consumer adoption of technology-based service innovations. *Journal of Consumer Affairs*, 37(2), 256-282. <https://doi.org/10.1111/j.1745-6606.2003.tb00453.x>
- Lester, D. H., Forman, A. M., & Loyd, D. (2005). Internet shopping and buying behavior of college students. *Services Marketing Quarterly*, 27(2), 123-138. https://doi.org/10.1300/J396v27n02_08
- Lohse, G. L., & Spiller, P. (1998). Electronic shopping. *Communications of ACM*, 41(7), 81-87. <https://doi.org/10.1145/278476.278491>
- Nguyen, T. D., & Thang, H. N. (2014). Những cơ hội và thách thức của mua sắm trực tuyến ở Việt Nam. *Science magazine – Hong Duc University*, 20, 136-144.
- Ramayah, T. (2008). Impact of Perceived usefulness, Perceived ease of use and Perceived Enjoyment on Intention to shop online. *ICFAI Journal of Systems Management (IJSM)*, 3(3), 36-51.
- Satista (2017a). *Number of mobile phone internet users in Vietnam from 2015 to 2022* (in millions). Retrieved December 26, 2018, from <https://www.statista.com/statistics/558889/number-of-mobile-internet-user-in-vietnam/>
- Satista (2017b). *Gross domestic product (GDP) per capita in current prices from 2012 to 2022** (in U.S. dollars). Retrieved December 26, 2018, from <https://www.statista.com/statistics/444743/gross-domestic-product-gdp-per-capita-in-vietnam/>
- Saunders, P. (2003). *Social theory and the urban question*. Routledge.
- Shang, J. F., Shen, H. X., & Chen, J. C. (2004). The σ pole in $J/\psi \rightarrow \omega\pi^+\pi^-$. *Physics Letters B*, 598(3-4), 149-158. [https://doi.org/10.1016/S0370-2693\(04\)01138-4](https://doi.org/10.1016/S0370-2693(04)01138-4)
- Stafford, T. F., Turan, A., & Raisinghani, M. S. (2004). International and Cross- Cultural Influences on Online Shopping Behavior. *Journal of Global Information Management*, 7(2), 70-87. <https://doi.org/10.1080/1097198X.2004.10856373>
- Susskind, A. (2004). Electronic commerce and world wide web apprehensiveness: An examination of consumers' perceptions of the world wide web. *Journal of Computer-Mediated Communication*, 9(3). <https://doi.org/10.1111/j.1083-6101.2004.tb00287.x>
- Teck, T. K. (2002). *The Impact of Perceived Web Security. Perceived Privacy Loss, Perceived Usefulness and Perceived Ease of Use on the Web-Based Online Transaction Intent*, MBA Thesis, School Of Management.
- Triandis, H. C. (1980). Reflections on trends in cross-cultural research. *Journal of cross-cultural psychology*, 11(1), 35-58. <https://doi.org/10.1177/0022022180111003>
- VECITA. (2014). VIETNAM MOBILE E-COMMERCE REPORT 2014. Retrieved December 30, 2018, from <http://www.moit.gov.vn/documents/20182/1577125/1508897514331-f7c2601c-17e9-4f2f-b640-1bbfa1c5bcece.pdf?download=true>
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, 46(2), 186-204.

<https://doi.org/10.1287/mnsc.46.2.186.11926>

- Yoon, C. C. (2015). Exploring Factors That Affect Usefulness, Ease Of Use, Trust, And Purchase Intention In The Online Environment. *International Journal of Management & Information Systems (Online)*, 19(1), pp.21.
- Yörük, D., DüNDAR, S., Moga, L. M., & Neculita, M. (2011). Drivers and Attitudes towards Online Shopping: Comparison of Turkey with Romania. *Communications of the IBIMA*, 2011, 1-12. <https://doi.org/10.5171/2011.575361>
- Yu, C. M., & Abdulai, D. N. (2000). *E-commerce and the new economy: The Proceedings of International Conference On Electronic Commerce*, Emerging Trends in E-Commerce, Kuala Lumpur, Malaysia, November, Multi Media University.
- Zorkadis, V., & Karras, D. A. (2000). Security modeling of electronic commerce infrastructures. In *EUROCOMM 2000. Information Systems for Enhanced Public Safety and Security. IEEE/AFCEA*, pp. 340-344. <https://doi.org/10.1109/EURCOM.2000.874829>

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