

Factors Affecting The Behavior Of E-Commerce Using: A Case Study In Vietnam

Nguyen Thi Thanh Thu

PhD. Candidate University of Economics and Business Vietnam National University, Hanoi

Abstract

E-commerce activity in Vietnam is currently in a boom period with very high annual growth. In addition to websites and e-commerce trading floors, trading activities, buying and selling goods and services through social networks are also attracting many individuals and businesses. The trend of using social networks as a marketing and distribution channel has recently been increasing. Research shows that activities with e-commerce elements on social networks are pretty unique and are not entirely similar to any other form of e-commerce, including e-commerce platforms. One of the striking differences between social networks and e-commerce platforms is that social networks have not had the function of ordering online. Buyers and sellers still have to contact each other directly to complete a commercial transaction. Meanwhile, e-commerce platforms can have an online ordering function and allow e-commerce transactions to be completed on the network, from ordering to shipping and delivery. Some social networks have additional parts to support activities with e-commerce elements (such as Facebook's Marketplace or Zalo's Shop). Still, this function only stops at the stage of introducing products and providing information; there is no online ordering function yet. This practice requires that the law on e-commerce also needs appropriate regulations to manage and facilitate e-commerce activities' development effectively.

Keywords: Behavior, Retail industry, E-commerce.

I. INTRODUCTION

In recent years, the global business model has changed significantly with the advent and robust development of e-commerce. This business model has dramatically contributed to economic growth because the world is entering the 4.0 revolution. According to GlobalData's E-Commerce Analytics, Vietnam is considered one of the fastest-growing e-commerce markets in Southeast Asia, with an average annual growth rate of about 18%, and it is forecast. The market size is likely to reach \$26 billion by 2024. The explosive growth of e-commerce has made Vietnam one of the most potential markets in the ASEAN region. This is an inevitable development step, in line with the trend of the world. However, besides those great

opportunities and potentials, e-commerce in our country also faces many challenges and difficulties. On May 15, 2020, Prime Minister Nguyen Xuan Phuc issued Decision 645/QĐ-TTg approving the National E-commerce Development Master Plan for the 2021 - 2025 period. The Government set The goal of developing the scale of the e-commerce market by 2025 as follows: 55% of the population participates in online shopping, with the average value of online goods and services reaching 600 USD/person/ year. B2C e-commerce sales (for online consumer goods and services) increased by 25% per year, reaching \$35 billion, accounting for 10% of the total retail sales of consumer goods and services. To contribute to the successful implementation of the National E-commerce

Development Master Plan for the 2021-2025 period, one of the necessary solutions is to expand and diversify e-commerce channels. Since 2016, social networks have become a new and effective low-cost e-commerce support channel, which is of particular interest to small businesses and individual business households. Activities with elements of e-commerce through social networks are becoming increasingly popular; even large enterprises also need to expand distribution channels of products and services via social networks. According to a survey by the Vietnam E-commerce Association (VECOM), in 2019, 39% of businesses said their sales used social networks as a support tool. This rate is slightly lower than 42% of businesses companies own websites but significantly higher than 17% of companies selling on e-commerce exchanges. In addition, the percentage of businesses selling through social networking tools is increasing (up 3% compared to 2018), while the rate of companies dealing on their website tends to decrease (down 2% compared to 2018). This practice requires regulatory agencies to have appropriate policies for effective management and promote and facilitate the development of activities with e-commerce elements through the public domain social networking tool. The result of this e-commerce channel will not only contribute to the development of business activities of small and medium enterprises and individual business households but also the development of the e-commerce market in Vietnamese death.

With the appearance of a series of domestic and cross-border e-commerce websites and applications such as Shopee, Lazada, Zalora, or JD... Customers can easily shop for everything from groceries and electronics to education services and one-click hotel bookings or simple taps on a smart mobile device and, importantly, at a very affordable price. It can be seen that the e-commerce industry is increasingly providing more impetus for the economic recovery that the

Covid-19 pandemic has severely impacted. According to a report released recently by Lazada - the leading e-commerce platform in Southeast Asia, up to 52% of sellers in Indonesia, the Philippines, Thailand, Vietnam, Malaysia, and Singapore have grown. Revenue is high in the first half of 2021, while 70% expect revenue growth to continue to be raised by 10% in the third quarter of 2021.

The internet is helping businesses achieve global marketing capabilities at a meager cost, while accounting and financial management software help improve management capabilities, reducing relatively high prices. They are related to business management. In addition, businesses can create virtual "warehouses" to directly link manufacturers and end customers.

2. LITERATURE REVIEW

2.1. Overview of Vietnam's e-commerce

Electronic commerce (e-commerce) encompasses various online business activities for products and services. It is "any business transaction in which the parties exchange electronic exchanges rather than physical or direct contact. E-commerce generally means buying and selling over the Internet or conducting any transaction involving the transfer of ownership or right to use goods or services over a computer network. Although universal, this definition is not entirely sufficient to capture recent developments in this new and revolutionary business phenomenon. A complete description is as follows: E-commerce uses electronic media and digital information processing technologies in business transactions to create, convey and redefine relationships to value creation between organizations and between organizations and individuals.

As the internet became more commercialized and users began to engage worldwide in the early 1990s, Electronic Commerce (EC) was coined,

and EC applications expanded rapidly (Turban et al., 2002). Although various electronic instruments and devices are widely used in EC, such as electronic money transfer (EFT) and electronic data exchange (EDI), most EC is currently done over the internet. In the past, large enterprises used many intranets to implement EC. Still, high cost is a barrier to accessing EC for small and medium enterprises. However, the Internet has changed this by making all transactions more accessible and cheaper.

EC definitions are many and varied. The World Trade Organization (WTO) defines EC as the process by which businesses produce, distribute, market, sell or deliver goods and services electronically (Baker and McKenzie, 2001). Another definition, provided by the E-commerce Group of the European Union, exclusively limits the EC's activity on the internet and is known: e-commerce is a unique means of buying and selling products. Products or services over the Internet (Schulze and Baumgartner, 2001).

Since there is no uniform definition, the authors have applied the description provided by Globerman et al. (2001) to define internet-based commerce as, through the electronic media of the Internet, people buyer and seller perform any economic transaction that constitutes a contractual agreement regarding the pricing and distribution of goods and services, and complete the transaction through the provision of payments or benefits contract service.

Since EC can include many sub-fields, the general activities of EC can be classified into the following three cases: (1) a company's association with its front and back channels (e.g., retailers, distributors, and suppliers), known as business-to-business (B2B) EC; (2) commercial activities between the business and the end customer (B2C); (3) management within the enterprise, focusing on supporting business activities and the integration of departmental activities (Shaw et al., 1997).

2.3. Related studies

In their paper, Chiang & Dholakia (2003) examines consumers' intention to shop online through the acquisition phase. The study combines three critical variables that can influence consumer intentions, including a) Facilitation characteristics of the shopping channel, b) Product type characteristics, and product price perception.

Vijasarathy (2003) examined the relationship between shopping orientation, product type, and consumer intention in using the Internet for shopping. The regression analysis results show that product type has a significant independent influence on online shopping intention. However, the study did not test the relationship between orientation before, during, and after shopping.

Monsuwe, Dellaert, and Ruyter (2004) proposed a framework to understand consumers' attitudes toward online shopping and their intentions toward internet stores. The framework uses the Technology acceptance model (TAM) constructs as a basis. The author proposes that consumers' attitudes towards shopping on the internet first depend on the direct effects of online-related shopping features. Online shopping features can be consumers' perception of functionality and utility dimensions such as ease of use and convenience or their perception of emotion and experience or enjoyment.

Kim and Lee (2004) focused on many emotional factors of online search intention, which significantly predictor online purchase intent. They conclude the practical value of internet search, the acoustic value of internet information search, the perceived benefit of internet shopping, the perceived risk of internet shopping, and the shopping experience. The internet is predicted to be good online search intent.

Schimmel (2005) conducted a consumer survey to examine which media are messaging methods

influence consumers' online shopping. Word of mouth and public relations are the most important drivers, while online communication leads the way.

Rajaamma and Neeley (2005) examined the influence of customers' social orientation. Research proves that online shoppers are more likely to be physical shoppers and derive more enjoyment from shopping. Shoppers' social orientation did not influence their online shopping preferences. Also, men prefer to shop online more than women.

Jajawardhena et al. (2007) examined the buying intentions of online retail consumers, segmented by their purchasing direction. The authors concluded that consumer buying orientation did not significantly influence their propensity to shop online. There is a relationship between purchase intention and gender.

Prasad and Aryasree (2009) explored the determinants of shopper behavior, such as convenience, customer service, trust, web store environment, and web shopping enjoyment. The scientists concluded that comfort, online stores, online shopping, and customer service, rather than faith, significantly impacted the willingness to buy from an online retail store. Expect customer service and confidence; all other factors make sense concerning the patronage of online retail stores.

Rao and Mehdi (2010) explored internet users' behavior in the study. They conclude that security is the most crucial factor for online buyers, followed by reliability.

Bannergy, Dutta, and Das Gupta (2010) studied customer attitudes toward online shopping. Studies show that out of 202 respondents who have purchased online, 89.1% are slightly satisfied, and 96.1% of satisfied customers also intend to shop online in the future. The researcher also revealed a significant association between

online shopping and monthly household income, frequency of internet usage, and duration of each Internet session.

Pallavi Kumari (2012) shows that the Indian market is influenced by celebrities, online shopping, promotions, and the popularity of eco-friendly products. Retailers must stay informed with citizens because they are more proactive, have better access to information, and create new standards over time.

3. METHODOLOGY

Research is carried out through two steps preliminary research and formal research. Primary research is carried out by collecting information from previous qualitative studies to discover, adjust and supplement the scale of components that affect e-commerce. Legal analysis is carried out quantitatively, using a survey method to collect information through questionnaires. With the convenience sampling method selected for an official investigation, the research team built a questionnaire and conducted it with consumers using e-commerce services, with data collected by interview form. The number of questionnaires distributed was 379. After collecting the questionnaires, they were reviewed, and unsatisfactory ones were removed. The study used data analysis software SPSS 23.0: Descriptive reliability statistics (Cronbach's Alpha), exploratory factor analysis (EFA), and multiple regression analysis.

4. RESULTS

The official study was selected according to the convenience sampling method, with 379 questionnaires distributed for face-to-face interviews. After 12 weeks of interviewing consumers in Hanoi, 379 responses were collected. After data cleaning, A sample size of 379 was included in the analysis and processing.

Before going into the exploratory factor analysis, the author tests the scale's reliability using

Cronbach alpha. The reliability of the scale is assessed by the reliability coefficient Cronbach Alpha (Nguyen Dinh Tho, 2011).

After conducting the Cronbach Alpha reliability test, the obtained results are all satisfied and suitable for conducting exploratory factor analysis for each group of variables.

Exploratory factor analysis (EFA) tests the scale's convergent and discriminant validity. The selected extraction method is the Principal Component with Varimax rotation for factor analysis. In this topic, the author conducts EFA analysis for independent variables simultaneously. Only the dependent variable (overview of brand value) is analyzed separately. The satisfactory scale in exploratory factor analysis needs to meet the following criteria: KMO from 0.5 to 1; Bartlett's test is significant with $\text{sig} < 0.05$; Eigenvalue criteria > 1 ; Total variance extracted $\geq 50\%$; Factor loading ≥ 0.3 .

The results of factor analysis (EFA) show that the independent and dependent variables in the model after grouping all have convergent values and acceptable discriminant values. Therefore, EFA analysis is appropriate for the study data.

After testing the reliability and evaluating the value of the scales in the proposed model, the study continues to push the significance level in the theoretical model through regression analysis to know the specifics. The weight of each component affects Consumer Behavior in EC usage.

After coding the measurement variables and analyzing the correlation between the variables, the author conducts regression analysis with the Enter method. According to this method, 07 independent variables (Convenience, Trust, Experience, Web Design, Time Saving, Security, and Bargaining) and one dependent variable (Behavior) will be included in the model together. For a while and gives the following result:

Table 1. Cronbach alpha results

Variable names	Number of variables	Cronbach alpha
Convenience (TT)	5	0.962
Faith (NT)	5	0.888
Experience (KN)	5	0.968
Web Design (TK)	5	0.899
Time-Saving (TG)	3	0.940
Security (BM)	5	0.981
Bargaining (MC)	5	0.953

Table 2. Regression model

Model	R	R square	R squared corrected	Estimated standard error	Durbin-Watson
1	.924	.979	.770	.40309	1.979

The multiple linear regression results show that the model has a coefficient of determination R²

(coefficient of determination) of 0.979 and an adjusted R² (adjusted R square) of 0.770.

The F test (table 2) has a significance level $p = 0.000 < 0.05$. Thus, this regression model is suitable for the data set (Hoang Trong and Chu Nguyen Mong Ngoc, 2008). In other words, seven components of the research model explain

67% of the variance of EC use behavior. This percentage is quite high, but there are still some that have not been mentioned outside the model that impacts Consumer Behavior with EC.

Table 3. ANOVA results

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Between Groups	67.085	7	19.118	79.027	0
	Within Groups	37.672		11123,09		
	Total	93.634				

Table 4. Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics		
	B	Std. Error	Beta			Tolerance	VIF	
1	Constant	-.963	.123		-5.220	.000		
	TT	.211	.029	.166	4.024	.000	.834	1.456
	NT	.235	.033	.179	4.909	.000	.889	1.325
	KN	.456	.026	.497	10.931	.000	.721	1.751
	TK	.296	.026	.375	7.033	.000	.852	1.482
	TG	.218	.066	.242	2.892	.003	.653	1.856
	BM	.288	.054	.326	5.333	.000	.748	1.652
	MC	-.145	.036	-.098	-2.561	.026	.859	1.448
Biến phụ thuộc: HV								

All variables have variance exaggeration factor $VIF < 2$, which proves that the model has no multicollinearity.

The weighted table above shows that the components TT, NT, KN, TK, TG, and BM positively impact the dependent variable HV. However, the covariance variable (MC) hurts the

behavior of people's consumption. Because the regression weights of these seven components are statistically significant ($p < 0.05$). In particular, the MC factor has the opposite effect. It can be seen that bargaining on the internet is a factor that hurts EC user behavior.

From the regression analysis results in Table 3, we have the regression equation based on the Beta coefficient as follows:

$$HV = 0.166*TT + 0.179*NT + 0.497*KN + 0.375*TK + 0.242*TG + 0.326*BM - 0.098*MC$$

Regression weights of the variables Convenience, Trust, Experience, Web Design, Time Saving, and Security (sig. < 0.05) have positive values, and Bargain variables (sig. < 0.05) have a positive value negative treatment.

5. CONCLUSION

The survey results of Vietnam Report Joint Stock Company (Vietnam Report) for businesses in the retail industry showed that nearly 42% of companies were seriously affected by the Covid-19 pandemic; 50% of enterprises rated the impact as moderately severe, and more than 8% of enterprises had little or no significant effect. The reduction in spending of most workers when they have to leave work due to the disease outbreak, leading to a decrease in income, is the main cause affecting the retail industry.

In addition, each enterprise has internal difficulties, such as a lack of business capital and supply chain disruption when most of the goods and raw materials for production sources are from China, causing many retail businesses to fall into a difficult situation. Activities with e-commerce elements on social networks are unique and are not entirely similar to other e-commerce activities, including e-commerce platforms. The most significant difference between activities with e-commerce elements on social networks and e-commerce platforms is that social networks do not have an online ordering function but merely a connection tool between buyers and sellers. Currently, two forms of activities with e-commerce elements exist on social networks, including ordinary social networks without e-commerce support functions and with commercial support functions electronic (such as

recommending products, providing pricing information, etc.). For both forms, the buyer and seller still have to communicate directly for the purchase and sale transaction. Meanwhile, e-commerce platforms have the function of online ordering; the purchase and sale transaction is entirely performed from ordering to shipping and delivery. It is also possible that there are e-commerce platforms that do not have an online ordering function. In this case, the parts of this type of e-commerce platform are similar to that of a social network with commerce support functions electronic. In the future, if there are social networks with online ordering functions, the operation of these social networks will be similar to those of e-commerce platforms with online ordering functions.

The first is the trend of promoting multi-channel sales, closely integrating from online to in-person. According to the results of a survey of consumer behavior also conducted by Vietnam Report, in the context of the Covid-19 epidemic, people have to limit travel and gathering to prevent the outbreak, and consumers have switched shopping channels. With the group of products of essential and non-essential needs.

For necessities, before the pandemic, people would choose to go to the market in the order of priority: traditional markets, commercial centers and supermarkets, and then convenience stores; now, they will select online stores, convenience stores, malls, and supermarkets first. Meanwhile, the group of non-essential products recorded a sudden growth through online sales channels through several e-commerce platforms such as Shopee, Tiki, Chotot... or even ordering. On the phone, via the hotline.

Because of capturing this consumer behavior, retailers in Vietnam focus on deeply exploiting online channels and sales utilities (apps) while taking advantage of delivery channels and promoting integration. Multi-channel integration in e-commerce. Located in an area considered the

most dynamic development of e-commerce, Vietnam also has many benefits and challenges. The development trends of Vietnam's e-commerce in the coming time will not be outside the general direction of the world, specifically: Typical technologies of the Industrial Revolution 4.0 (big data, internet of things...) will initiate new forms of e-commerce applications shortly; The sharing economy models thrive; Multi-channel sales method is widely applied in enterprises; Cross-border e-commerce, fast development; Mobile e-commerce and mobile payments become ubiquitous. Therefore, in the future, it is necessary to pay attention to the following issues:

Firstly, it is necessary to be transparent in information and selling prices to avoid bargaining on e-commerce channels. According to research, haggling hurts buying behavior on e-commerce channels.

Secondly, it is necessary to build an e-commerce site infrastructure to ensure consumer security and convenience. Consumers, when shopping online, are very concerned about information security and comparing e-commerce sites with each other in terms of comfort and saving time and money. Therefore, businesses need to focus on network infrastructure for their e-commerce site.

Third, in the context of the spreading Covid-19 epidemic, the increased application of Directives 15, 16, and 16 in the provinces and cities causes many difficulties for the freight team, leading to a loss of integrity—customer convenience and time. To avoid supply chain disruptions, businesses must monitor developments and policies in provinces and cities to prepare a transport team with total QR codes and green channels. In addition, vaccination for the transportation team also needs to be accelerated and comprehensive to help employees feel secure in working for e-commerce sites using internal delivery teams.

REFERENCES

1. Banerjee, N., Dutta, A., & Dasgupta, T., (2010). A Study on Customers' Attitude Towards Online Shopping - An Indian Perspective. *Indian Journal of Marketing*, 40 (11), 43- 52.
2. Chiang, K. - P., & Dholakia, R. R. (2003). Factors Driving Consumer Intention to Shop Online: An Empirical Investigation. *Journal of Consumer Psychology*, 13 (1-2), 177-183.
3. Jayawardhena, C., Wright, L.T., & Dennis, C. (2007). Consumers Online: Intentions, Orientations, and Segmentation. *International Journal of Retail & Distribution Management*, 35 (6), 515-526.
4. Kim, J.I., Lee, H. C., & Kim, H. J., (2004). Factors Affecting Online Search Intention and Online Purchase Intention. *Seoul Journal of Business*, 10 (2), 28-29.
5. Monsuwe, T.P.Y, Dellaert, B.G.C., & Ruyter, K.D., (2004). What Drives Consumers to Shop Online? A Literature Review. *International Journal of Service Industry Management*, 15 (1), 102-121.
6. Prasad, J.S., & Aryasri, A.R., (2009). Determinants of Shopper Behavior in E-Tailing: An Empirical Analysis. *Paradigm*, 13(1), 73.
7. Rajamma, R.K., & Neeley, C.R., (2005). Antecedents to Shopping Online: A Shopping Preference Perspective. *Journal of Internet Commerce*, 4 (1), 63-78.
8. Rao, S.A., & Mehdi, M. M., (2010). Online User Behavior in Delhi A Factor Analysis. *Indian Journal of Marketing*, 40 (7), 21-29.
9. Schimmel, K., (2005). Media Mix Elements that Motivate online shopping. *Journal of Website Promotion*, 1 (1), 53-63.
10. Sin, L., & Tse, A. (2002). Profiling Internet Shoppers in Hong Kong. *Journal of International Consumer Marketing*, 15 (1), 7-15.

11. Vijayasathy, L.R. (2003). Shopping Orientations, Product Types, and Internet Shopping Intentions. *Electronics Markets*, 13 (1), 67-79.
12. Ashok Kumar Chandra & Devendra Kumar Sinha (2013). Factors Affecting The Online Shopping Behavior: A Study concerning Bhilai Durg. *International Journal of Advanced Research in Management and Social Sciences*, 2(5), 160-177.
13. Ankur Kumar Rastogi (2010). A Study of Indian Online Consumers & Their Buying Behavior. *International Research Journal*, 1(10), 80 – 82
14. Namita Bhandari & Preethi Kaushal (2013). Online Consumer Behavior: An Exploratory Study. *Global Journal Of Commerce & Management Perspective*, 2(4), 98-107.
15. Shalini .S., & Kamalaveni .D., (2013). Online Buying Behavior of Netizens, A Study concerning Coimbatore, Tamil Nadu. *Indian Journal of Marketing*, 10(3),35 – 45.
16. Mrs. Pallavi kumara (2012). Changing Purchase Behavior Of Indian Customers. *A Journal of economics and management*, 1(8), 69-73.
17. Vietnam E-Commerce Association (2021). *Vietnam E-commerce Index Report 2021*.
18. National Center for Socio-Economic Information and Forecast (2020). *E-commerce in Vietnam and some operating solutions*.
19. Justice (2017). *E-commerce in Vietnam: Potentials and challenges*. Newspaper Business Forum.