



On the factors affecting the development of e-commerce in Vietnam: Case study of Lazada, Shopee, and Tiki



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ABSTRACT

Vietnam is one of the countries that is adopting and bringing e-commerce into an important element, changing the behavior of users in Vietnam, bringing a new era in which people can use electronic device features to simplify shopping activities. The potential of e-commerce in Vietnam is undeniable. However, experts point out the fact that there is an inequity in cross-border online transactions between import and export with individual customers. Three e-commerce portals in Vietnam: Lazada, Shopee, and Tiki have been successful in the past few years, and they become the cases for this paper. The author applied some statistical test and concluded the results which indicate that in Vietnam market, e-commerce is playing a very good role in satisfying customer with its nature of advantages: making customer feel convenient, providing a better price, helping customers save time and so on. These advantages are what people in the era of technology and in the world that people have to work hard and have less time to go shopping looking for, making the benefit of e-commerce is undeniable. E-enterprises in the future should put emphasis on the factors of quality and benefit, provide customers with more quality products and services, enhance the promotion that would make customers want to pay money for that. In addition, Trust and Loyalty also contribute to the development of an e-commerce channel.

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1. Introduction

Nowadays, along with the superior development of the Internet and Internet technology, there is a tendency to develop commercial activities through the Internet in the world market (Wirtz et al., 2010). E-commerce development promises new potentials in the way people make transaction and exchange goods (Gunasekaran et al., 2002). Vietnam is one of the countries that is adopting and bringing e-commerce into an important element, changing the behavior of users in Vietnam, bringing a new era in which people can use electronic device features to simplify shopping activities (Nguyen and Tran, 2017). In addition, businesses in Vietnam are also trying to take advantage of this new development to create more profit, contribute to the development of the country's economy.

Although still in the early stages of development, E-commerce market in Vietnam has achieved many impressive numbers; for instance, the increase in users reaches 50.5% in 2017, which is expected to reach 58% in 2020. According to research Organization Euro-monitor, total e-commerce sales reached \$ 1 billion (equivalent to 900 million euros) in 2016, e-commerce consumption is expected to reach double annual growth rate of about 23% by 2020.

According to Nielsen (2015), the survey results indicated the average number of money that every Internet user spent on e-commerce in Vietnam is \$ 160 per year. This lead to the annual growth rate of Vietnam's E-commerce market has reached 22% and the e-commerce access rate is up to 28%. Moreover, represented by the report of Vietnam E-commerce Association (VECOM), 32% of enterprises in Vietnam have set up business relations with foreign partners through online channels since 2016) Meanwhile, 11% of businesses decide to take part in in e-commerce and website operations (Nguyen et al., 2015).

For the strong growth of the E-commerce sector in Vietnam, Tran Trong Tuyen - general secretary of the Vietnam E-commerce Association, said that the growth rate of e-commerce would increase sharply,

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up to 50% per year. According to Tran Trong Tuyen, the size of Vietnam's e-commerce market could reach \$ 10 billion in the next five years (Nguyen and Tran, 2017).

Among them, there are three e-commerce channels that are considered outstanding in the market and have very good strategies, achieving the highest turnover in recent years:

Lazada: Lazada Vietnam is an e-commerce platform, offering products in a variety of industries such as furniture, fashion and accessories, tablet phones, health care products, sports equipment, and beauty goods. Lazada Vietnam is currently being a part of Lazada Group, a multinational e-commerce corporation and has subsidiaries in Indonesia, Philippines, Singapore, Thailand and Malaysia. Lazada Group is owned by Alibaba Group. Lazada officially marked the 5-year-milestone in the Vietnamese market with the leading position (about 36% of market share) leaving quite far away from other competitors. On this occasion, the e-market of Vietnam announced the achievement of 5 years by interesting numbers: each 2s have 1 order was successfully placed on Lazada.vn. After 5 years, Lazada Vietnam has been growing rapidly. Website attracts 30 million monthly visitors to find information on more than 1,000,000 products in 16 categories from 5,000 partners. To meet the growing demand of consumers, the system of clothing facilities Lazada's logistics is also invested with three large warehouses in Ho Chi Minh City, Da Nang, Hanoi with a total area of 22,000 m². The transportation system is also invested with a network of 34 distribution centers throughout the country.

Shopee: Shopee is currently the leading buying application in seven countries: Singapore, Malaysia, Thailand, Indonesia, Vietnam, Philippines and Taiwan. Shopee has come to Vietnam from 2015 and officially launched on 8/8/2016. Born after many other e-commerce websites but Shopee quickly gained the advantages and influences by identifying the segment of customers, focusing on online shoppers and young customers. In addition, the easy-to-use website interface and fast order processing, smart product filters are also an advantage of Shopee. By the time of its official launch, Shopee had 1.8 million app downloads and topped the shopping list in Vietnam with over 3 million products sold.

Tiki: Tiki.vn was introduced and officially operated in Vietnam from 3/2010 but has hastily dominated in the market. In 2012, Tiki.vn was selected as the e-commerce market leader in the "Typical E-business Applications" program organized by the Department of Industry and Trade and Department of Information and Communication. In addition, Tiki.vn was awarded the title of "E-commerce Website 2014" by consumers. Tiki is Vietnam's leading online shopping mall with over 800,000 customers and offers 120,000 products in 10 different categories such as Books, Beauty - Health, Home - Lifestyle, Phones - Machines Digital -

Digital Accessories, Home Appliances, Stationery, Mother and Baby, Toys - Collectibles, Sports - Outdoors with sales growth three times a year. The development of Lazada, Shopee and Tiki is the driving force for the overall development of e-commerce. Over the past five years, Vietnam has witnessed the emergence of payment gateways and associated services: many new delivery companies are launching to serve increasing demand in e-commerce, not to mention the long-distance delivery companies are also reforming to meet the market demand; thousands of small and medium enterprises are trained online business, consumers switch to online shopping behaviors.

The potential of e-commerce in Vietnam is undeniable. However, experts point out the fact that there is an inequity in cross-border online transactions between import and export with individual customers (Nguyen and Tran, 2018).

According to E-Commerce Association, in Vietnam, young generation of consumers now would like to buy products from e-commerce websites such as Amazon and eBay. The reason for this is because foreign goods are diversity and suitable for consumers, especially young urban people. In addition, global online merchants have a high reputation (Nguyen and Tran, 2018).

In terms of credibility, online retailers in the country are also "drowned out" than many global online sales. Besides, another factor is that many times the quality and design of domestic products are far less than similar products of other countries. One issue that is also a challenge for Vietnamese online vendors is technology infrastructure (Wang et al., 2015).

In the past 2017, although E-commerce has made great strides with the significant growth of online shopping channels such as Lazada, Tiki, Adayroi and etc., the issues mentioned above are still great challenges need to be researched and analyzed. In order to be able to develop E-commerce in the most comprehensive and correct manner, enterprises in Vietnam must understand the key factors that make the success of online sales channels then apply and bring positive results for E-commerce market in Vietnam (Thao and Swierczek, 2008).

As mentioned in the previous section, three e-commerce portals in Vietnam: Lazada, Shopee and Tiki have been successful in the past few years. These are very encouraging signs for the E-commerce industry in Vietnam; enabling Vietnam's e-commerce industry evolves further as well as overcome difficulties and challenges in the market.

In the past, a research that is conducted in 2015 has identified elements that play significant roles in the application and development of e-commerce in developing countries. Be aware of the potentials and issues that e-commerce industry in Vietnam is facing, this study will focus on exploring and analyzing the factors that shape the success of these online shopping channels from the reviews of shoppers (Trusov et al., 2009). The results of this study are expected to give insights to online

businesses in Vietnam and create conditions for the e-commerce industry to develop further in the years to come, as the era of electronics has been growing very strong and influencing many aspects of our lives.

This paper is to determine the factors that influence on the development of 3 big of online shopping channels in Vietnam including Lazada, Shopee and Tiki; to determine the significance of each factors in comparison with each other; and to give insights about factors affect the development of these online shopping channels for enterprises by answering three research questions, which are:

- What are the factors that influence the development of 3 big of online shopping channels in Vietnam including Lazada, Shopee and Tiki?
- What is the effect of each factor?
- What are the more significant factors in all the factors presented?

2. Literature review

There are many researches have been conducted about e-commerce before. Udo (2001) aimed to explore the privacy and security concerns of online IT users and find out a consensus about them. The results indicated the majority of IT users have serious concern of their privacy and security while shopping online, also they provided the statistical evidence that 70 percent or respondent confirmed that just in case privacy and security were assured on the web would they shop online. The message conveyed is very simple: if an e-commerce enterprise wants to survive and strive, they need to assure its customers that their privacy and security is protected. Besides, according to Gefen, 2000, the data given from the research proved that both trust and familiarity have influence on e-commerce, especially strong on people's intention to purchase.

Kabango and Asa (2015) conducted the investigation the factors that play a key role in the acquisition and development of e-commerce, thereby developing strategies for conceptualizing the influential elements that it formed as enablers and disablers of E-Commerce. In these studies, they also provided some answers to the current state of the E-commerce in developing countries after thinking about the prospects that it could provide benefits based on this new mode of trade. The development of e-commerce in this study was evaluated and measured in four aspects (Ndou, 2004). Through these papers, researchers uncovered the common views and perceptions that people have on the personal, technology and transactions level. The linkage and influence of these attitudes towards e-commerce is paramount for the development of e-commerce. The aspects surrounding this study include: Accessibility and Awareness, Security and privacy, Trust and Loyalty, and Quality and Benefits.

The study explored areas that help or hinder the development of e-commerce. The author pointed out that consumers have encountered many problems

related to security and privacy. Moreover, when online shopping directly take advantage of credit card payments, problems arise. By making the payment with credit cards, customers are revealing bank information that could be exploited by hackers. The study also indicated that the huge number of respondents evaluated shopping on the Internet was dangerous for the similar reason. Among the perceived risks are finance-related risks, performance of product, social loss, psychological loss and time loss. Unlike the risk of losing credit card information, there are also uncertainty when the product is delivered. The required time to transport can be extended, so things could happen during the delivery process. Online vendors may deny to take the responsible for the incident and leave the customer to deal with the consequences. The greater the awareness of the risks, the more likely the relationship between intention of purchase and the act of buying will be weakened.

The author suggested ways to deploy e-commerce solutions effectively in developing countries through key steps including: Developing strategy - Setting specific goals, Assessing readiness - before experiencing the complexities and risks that may be encountered, the organization should carefully inspect the operation system, Design the project, Integrate the solution and Measuring effectiveness.

The research highlighted and clarified important factors that need to be taken into account to support the development and the diffusion of the e-commerce in the developing countries. The results of the research can contribute to market stakeholders to understand the needs of their potential clients and current interests.

In conclusion, the author also recommended that future research should concentrate on the change of e-commerce and model research. The potential aspects of this study include the surveys in many cities as well as in the countryside, which may provide more accurate, complete and comprehensive analytical results. In addition, research that could used to compare the results from different parts of the world would produce more complete findings. The results of the study can be use as the data for comparing in different developed countries with the same conditions to see whether there are important differences or not.

About the current study, being applied the model research of previous research to the e-commerce market in Vietnam, this study aim to test the factors that having influences on the development of 3 big e-commerce channels in Vietnam which are Lazada, Shopee and Tiki.

2.1. Hypothesis

H1: Accessibility and Awareness have the impacts on the development of Lazada, Shopee and Tiki

H2: Trust and Loyalty have the impacts on the development of Lazada, Shopee and Tiki

H3: Security and Privacy have the impacts on the development of Lazada, Shopee and Tiki
H4: Quality and Benefit have the impacts on the development of Lazada, Shopee and Tiki

Kabango and Asa (2015) gave the definitions of factors influencing ecommerce in their research as Table 1 and Fig. 1.

Table 1: Definition independent variable

Accessibility and Awareness	The perception of the quality of the interface and the level of awareness of information about the products and services delivered from the execution of the transaction from any places and at any time via the e-commerce portal.
Trust and Loyalty	the readiness to trust and readiness to regularly make use of e-commerce portals to conduct transactions rely on a sense of confidence and security
Security and Privacy	the evaluation the e-commerce portal as a secure platform with the assurance of reliability and no negative consequences occur after the implementation of e-commerce transactions, and the capacity to recognize the time and the kind of information is used to interact with others for maintaining confidentially.
Quality and Benefits	The perception of the quality of the products and services provided by the e-commerce portal and benefits arising from the conduct of those transactions.

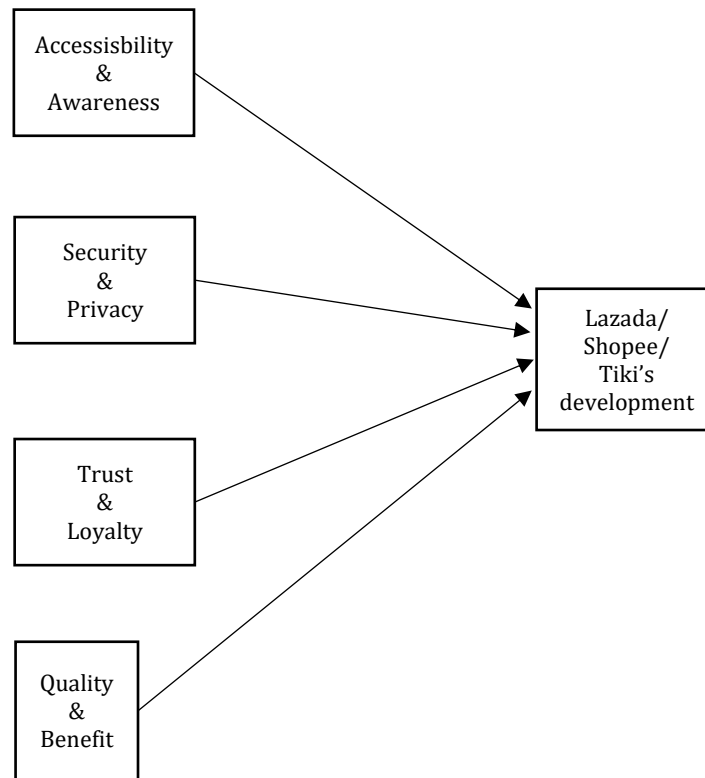


Fig. 1: Research model

3. Methodology

Descriptive research is used in this research.

The questionnaire is designed to have 4 factors: Accessibility and Awareness, Trust and Loyalty, Security and privacy Quality and benefits. Questions in this survey designed in Vietnamese and is used five-step Likert scale:

- 1 = "strongly disagreed"
- 2 = "disagreed"
- 3 = "neutral"
- 4 = "agreed"
- 5 = "strongly agreed".

In this study, quantitative method is the main method used to find out the result. Quantitative methods emphasize objective measurements and analysis of statistics, mathematics or data collected through surveys, questionnaires or by manipulating preceded statistical data by using computational techniques. Quantitative research focuses on the

collection of numerical data and generalizing it to groups of people or to explain a particular phenomenon (Babbie, 2015).

In order to examine factors affecting the development of Lazada/ Shopee/ Tiki, survey would be distributed among the people who are meet all these following criteria:

- People who lives in Ho Chi Minh City
- Both genders
- People with age from 15 to above
- Have conducted transaction through at least one of 3 sites: Lazada/ Shopee/ Tiki

Sampling Method: Nonprobability sampling method is used to conduct the survey based on the specific criteria (purposive sampling).

According to Hair (1998), to conduct exploratory factor analysis (EFA), it should be collected 4 samples for each item which means that $N=4 \times x$ (N: sample size, x: number of items). Besides, according to MacCallum, the evaluation of sample size might be

conducted very carefully on the four scale: 50-very poor, 100-poor, 200-fair and 300-good. The acceptable sample size for this research is 200. However, in order to avoid some invalid survey, 250 surveys should be spread out. The questionnaire includes two parts:

- Part 1: Respondents' demographics: The general information that gathers the demographic information includes platform, gender, age, income, shopping time.
- Part 2: The evaluation and dimensions influencing e-commerce development. The purpose of this part is to collect information relating to the evaluation of customers and figure out the relationship of factors toward the development of e-commerce channels such as Lazada, Shopee and Tiki. From this information, we can learn more about the factors affecting to E-commerce development in Vietnam.

A pilot study, pilot project, or pilot experiment is a small scale preliminary study conducted in order to evaluate feasibility, time, cost, adverse events, and improve upon the study design prior to performance of a full-scale research project (Hulley, 2007). An experiment / pilot study is often used to test the design of a comprehensive test that can then be adjusted. It is an insight that has potential value and anything be lacking in pilot studies then can be added to a more comprehensive (and expensive) test to enhance the opportunities of a clear result.

The test had been conducted directly with 10 respondents of the relevant population: 6 students, 3 officers, 1 business owners. The feedback about the survey contained some comments about the questions and the answers of section 1 that hard to understandable and some sentences that create confusion when reading. Then, the questionnaire was edited after obtaining the feedback and review from respondents.

4. Findings and discussion

The study with topic "E-Commerce Development in Viet Nam: Factors Influencing the Development of Lazada, Tiki and Shopee" was conduct to analyze factors influencing the development of Lazada, Tiki and Shopee, and then can have the basic view about the E-commerce industry in Vietnam. Through all the study, the objectives have been successfully obtained.

Based on the study of "Factors influencing e-commerce development: Implications for the developing countries", which was publish on International Journal of Innovation and Economic Development by Kabango and Asa (2015), this research aim to test factors affecting the development of Lazada, Tiki And Shopee including Awareness and Accessibility, Trust and Loyalty, Security and Privacy, Quality and Benefit.

After studying the relevant information, the framework is set up and hypotheses are forms to achieve the objectives of this paper.

The surveys with 25 measurements were conducted online 100% and there were 252 valid ones that used to conduct the analysis. Five tests were put on in these studies which are Descriptive statistics, Reliability test, Exploratory Factor Analysis, Pearson's correlations, and Regression Analysis.

According to the descriptive test, Lazada and Tiki share almost the same percentage of respondents with 36.1% and 39.3% respectively, while there are 24.6% of consumers choose to buy products at Shopee. The percentage of respondent who are male is 43.7% which is lower than 56.3% of female. The majority is people from 15 to 22 years old, accounting for 64.3%, followed by respondents from 23 to 29 years old.

Most of respondents were student with 57.1%, followed by Officer, Housewife and Business Owner. About the monthly income, the highest number belongs to monthly income under 2 million VND at 40.5%, which can be explained as the major number respondents are student. Regarding to shopping time, respondent having shopping time less than 2 times/month accounted for the largest proportion at 68.3%. Since the value of Cronbach's Alpha are 0.702, 0.819 and 0.764, the data of Accessibility and Awareness, Trust and Loyalty, Quality and Benefit are reliable.

According to the Multiple Regression Analysis test, R square = 0.454, there are only 3 independent variables (Accessibility and Awareness, Trust and Loyalty, Quality and Benefit) have significant relationship with dependent variable (the Development of Lazada, Shopee and Tiki). Quality and Benefit has strongest influence on the Development of Lazada, Shopee and Tiki since the value of Coefficients B equal 0.408. Following are the Trust and Loyalty and Accessibility and Awareness with the value of Coefficient B equal 0.152 and 0.127, respectively (Table 2 and Fig. 2).

Table 2: Hypothesis testing result

	Hypothesis	Result
H1	Accessibility and Awareness have the impacts on the development of Lazada/ Shopee/ Tiki	Support
H2	Trust and Loyalty have the impacts on the development of Lazada/ Shopee/ Tiki	Support
H3	Security and Privacy have the impacts on the development of Lazada/ Shopee/ Tiki	Not Support
H4	Quality and Benefit have the impacts on the development of Lazada/ Shopee/ Tiki	Support

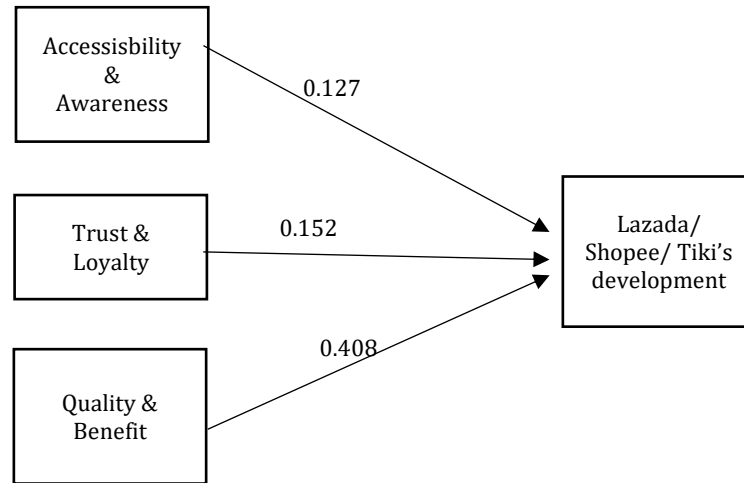


Fig. 2: Hypothesis testing result

5. Conclusion

As the objectives of this study are: Determine the factors that influence on the development of 3 big of online shopping channels in Vietnam including Lazada, Shopee and Tiki, determine the significance of each factors in comparison with each other, give insights about factors affect the development of these online shopping channels for enterprises, based on the given results, it can be concluded that from 4 factors Accessisbility and Awareness, Trust and Loyalty, Security and Privacy, Quality and Benefit, there are only three factors that have significant impact on the development of Lazada, Shopee and Tiki which are Accessisbility and Awareness, Trust and Loyalty, Quality and Benefit. Factor Quality and Benefit has the strongest influence with the the value of Coefficients B equal 0.408, following are Trust and Loyalty with 0.152 and Accessisbility and Awareness with 0.127.

The results indicating that in Vietnam market, e-commerce is playing a very good role of satisfy customer with it nature of advantages: making customer feel convenient, providing better price, helping customers save time and so on. These advantages are what people in the era of technology and in the world that people have to work hard and have less time to go shopping looking for, making the benefit of e-commerce is undeniable. E-enterprises in the future should put emphasis on the factors of quality and benefit, provide customers with more quality products and services, enhance the promotion that would make customers want to pay money for that. In addition, Trust and Loyaty also contributes to the development of an e-commerce channel. Creating trust in customers' mind is a rough process that require enterprises to invest and put effort into, but the results after would be worth the effort as they become loyal customers and bring many benefits not only in terms of money but also image and popularity for that e-commerce channel. Finally, for Accessisbility and Awareness, e-commerce channels should focus on buiding a effective and ease to used platform as customers mainly interact through it. Besides, e-commerce enterprises should

try to expand the awareness of the brand and optimize way customers can approach the websites as well as products.

6. Recommendations and benchmarking

The study provides the statistical evidence that the development of ecommerce channels such as Lazada, Shopee and Tiki was influenced by Accessisbility and Awareness, Trust and Loyalty, Quality and Benefit. After analyzing data and figuring out research results, researcher gives some recommendations for e-commerce channels/ enterprises tending to do business through internet in Vietnam commercial market.

6.1. Quality and benefit

Based on information of the research, the coefficient between Quality and Benefit and the Development of Lazada, Shopee and Tiki has the highest value (0.408). Four measurements of Quality and Benefit are "Buying things from Lazada/ Shopee/ Tiki is easy and convenient", "It would be better price buying product from Lazada/ Shopee/ Tiki", "I feel comfortable buying things from Lazada/ Shopee/ Tiki than going directly to physical store", "Purchasing products via Lazada/ Shopee/ Tiki saves my time."

Convenience is strength of e-commerce when this form of shopping allows consumers to interact and conduct shopping quickly. Targeting the consumer psychological elements which are convenience, comfort and time saving, e-commerce channels can adjust and develop the number of products, payment methods, delivery methods and return policy as quickly and conveniently as possible.

At present, Tiki has successfully started the delivery program for 2 hours, this has led to the rapid development of the delivery program within 2 hours at several other e-commerce channels. Free ship is also an attractive element that E-commerce channels can take advantage of to attract customers. In addition, the fact that e-commerce channels

usually support price is one of the key factors that impact consumers' buying intentions when they can save money by conducting transaction through internet. Online shopping channels such as Lazada, Shopee and Tiki, along with other channels, may continue to hit the price as an attractive offer, trying to let consumers know that the price of that channel is the best. Companies can consider the profit that can be obtained by lowering prices against competitors so that they can offer attractive pricing strategies, or attractive promotions. Currently, three great online shopping channels like Lazada, Shopee or Tiki famous for big promotions that gaining huge attraction from many customers, other e-commerce channels can learn and being sensitive to the programs launched on the market to have good strategies.

6.2. Trust and loyalty

Based on information of the research, Trust and loyalty have a certain influence on the development of e-commerce channels such as Lazada / Shopee or Tiki which Coefficient B equal 0.152. Three measurements of Trust and loyalty are "I trust the product information that Lazada / Shopee / Tiki posted on their web", "I trust the quality of the products from Lazada / Shopee / Tiki", "E-commerce channel like Lazada / Shopee / Tiki is trustworthy".

So, e-commerce channels should be transparent in their contact information as well as be clearly in the way customer can purchase the product when presenting information on their website. Providing accurate product information is also important, as it affects the reputation of the trade channel. The product information as well as the quality should match the product quality that customers receive. Moreover, if there are conflicting situations with customers about the quality of products, services, transportation... the online shopping channels should actively resolve quickly, reasonably and can publicize it to create good image in the eyes of the customer, making them see their needs and opinions are heard, thereby strengthening the trust and loyalty of consumers. When customers trust the quality of an e-commerce channel or a company, the big percentage is that they will tend to come back in the next transaction. This is what entrepreneurs are always aiming for: retaining customers, creating loyalty because paying for marketing costs as the cost of getting a new customer is always higher than for an old customer.

6.3. Awareness and accessibility

According to the research, Awareness and Accessibility has a certain influence on the development of e-commerce channels such as Lazada, Shopee and Tiki (Coefficient B equal 0.127). "One of the reasons why I want to buy something from Lazada / Shopee / Tiki is because I easily access its website /page", "Ease in interacting directly (texting, calling, ...) with the salesman from

Lazada / Shopee / Tiki has a positive impact on my purchase decision" and "Ease in payment and receipt of goods from Lazada / Shopee / Tiki is one of the reasons I purchase here"

As an online sales channel, customers interact primarily through websites / app, therefore, optimizing the accessibility and layout of the site layout is important for e-commerce channels; companies should invest in it carefully. In addition, providing clear contact information is also necessary to help consumers feel more comfortable when they decide to learn more about a product.

Currently, ship cod is a very popular form of shipping for e-commerce, which makes consumers feel secure about their ability to receive a product and reduces the potential loss can occur if they have to pay in advance. At the moment, stimulating methods to persuade consumers to pay in forms such as bank transfer and using the bank card are being invested; discount programs are applied in many online channels. In the future, when the use of online accounts has become popular, besides ship cod, e-commerce channels can develop other forms of payment suitable for the market. Free ship and the optimal solution for transit time are also plus points that Ecommerce channels should consider to create competitive advantage in the market and make it easier for customers to approach the products.

Compliance with ethical standards

Conflict of interest

The authors declare that they have no conflict of interest.

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