Original Research

Volume 15, No. 1, 2022 OPEN Access

A Study on the Reuse Intention of E-Commerce Platform Applications: Security, Privacy, Perceived Value, and Trust

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Abstract

Objective: Security, privacy, perceived value, and trust are essential elements in reusing intention in an e-commerce application. The lower the security, privacy, perceived value, and trust of a consumer will reduce the reuse intention of an e-commerce application because consumers have many choices. This study aims to analyze the relationship between security, privacy, perceived value, and trust in the intention to reuse e-commerce applications.

Design/Methods/Approach: The objects of this study are consumers who have made transactions through the Tokopedia application at least once using the purposive sampling technique. The collection method distributes questionnaires online via google form and analyzes them using the Partial Least Square (PLS) method with the SmartPLS 3.3 application. The total number of respondents was 242 people.

Findings: The results show that security and privacy had a significant positive effect on perceived value and trust, then perceived value had a significant positive impact on reuse intention. In contrast, the impact of faith on reuse intention was positive but not significant.

Originality: This research topic is very important considering the lack of data at Tokopedia beginning of May 2020 was allegedly causing a decline in the number of Tokopedia users. It will become an important reference for many e-commerce in Indonesia, especially e-commerce companies. E-Commerce makes consumers return to use their services, or in this case, it is called the intention to reuse.

Keywords: Security, Privacy, Perceived Value, Trust, Reuse Intention

JEL Classification: D4, M39, O33



I. Introduction

The internet development in the world has influenced various sectors from education, entertainment, and business. According to Das et al. (2016), there are 360 million internet users in Southeast Asia. 50% of them use the Internet as the Internet Economy. Indonesia is a country experiencing growth in internet economy best, with a compounded annual growth rate (CAGR) of 49% in 2019. It is predicted to continue to evolve again to 32% in 2025. Having studied more detail, the sector that experienced the highest CAGR growth in Indonesia is e-commerce. The rate of change in 2019 reached 88% since 2015 and is predicted to grow to 48% by 2025. Karya & Saputri (2020) also mention that technology makes people do many things online as quickly obtain information and more efficient. By offering all forms of convenience and profit by methods online as discounts were given by free, free of charges shipping, ease of transactions online with the various platforms of payment digital, or the goods was up in the hands of buyers with fast without making shoppers go to the physical store. The new businesses can lead the people getting used to using online methods. In 2009, Indonesia finally had a firm start-up e-commerce, namely Tokopedia. Tokopedia then grew and got an injection of funds from Alibaba in 2017. Tokopedia has become one of the Unicorn companies then. Recorded by iPrice in the third quarter of 2019, Tokopedia occupies the first rank on visitors monthly. However, in quarter four of 2019, the ranking changed. Tokopedia was defeated by Shopee, which previously occupied the second position (https://iprice.co.id/insights/mapofecommerce/en/).

At the beginning of May 2020, Tokopedia reportedly experienced leakage of data users as much as 91 million data. With the widespread use of social media at this time, the news spread so quickly to all Tokopedia customers. According to Anshori (2013) in his research, social media can be a very effective medium to deploy information on a broad network. It then allegedly made some visits Tokopedia declined more than I million visits to the website from the quarter before. Consumers' trust in Tokopedia decreases. They feel hesitant to reuse Tokopedia's services for fear that essential data will be spread easily. With the development of business in Indonesia, especially through e-commerce that continues to grow, Tokopedia, which is not the sole player in this industry, must pay close attention to the factors affecting its sales figures. Similar competitors make it easier for consumers to compare and choose which e-commerce they will use. This makes e-commerce owners and developers carry out various strategies and provide the best service to attract consumers' interest. One of these efforts is to ensure the safety and privacy of consumers.

Research by Bavarsad et al. (2013) noted that many potential buyers in e-shopping feel anxious if their personal information is compromised. There have been many options for consumers to shop online due to very cheap switching costs. Potential buyers can evaluate more options they have before they finally decide to shop online. This is also supported by Jiang, Jun, and Yang (2016), which explain that consumers will feel anxious if important data about themselves are not stored safely, so the e-commerce platform must maintain security because it will also be one of the important components that consumers will use and be taken into consideration when using services. How small and simple data security and privacy of prospective buyers can change a prospective buyer's decision to switch stores and pay through elsewhere.

When the security and privacy of potential customers are guaranteed, a feeling of trust in the platform is built. As mentioned in the research of Morgan and Hunt (1994), they conceptualize the trust that would occur if one party was, without a doubt, willing to trade what he had for the integrity and reliability of the other. Furthermore, research by Koufaris & Hampton-Sosa (2004) mentioned that e-commerce must present a safe side. When users feel safe, they will trust the company. A study conducted by Girsang et al. (2020) states that the data of a consumer must be protected by the company so that it will not endanger the finances and productivity of the company. This study also stated that trust is crucial for both sellers and buyers to make online transactions.

Another component that is no less important than trust is perceived value. On Ravald and Grönroos in Moliner et al. (2007), perceived value is a complete consumer assessment of the benefits of a product or service, service quality, price, emotional and social value based on the perceptions received and given back by consumers. Perceived value is also an actual result of marketing activities and is the first element in relationship marketing. When consumers' perceived value is positive, the positive impression will be remembered by consumers. Therefore, e-commerce companies are competing to encourage positive value from their consumers to continue to repurchase on their e-commerce. Liu et al. (2020) stated that only certain parts of dimensions of customer-perceived value impact customer loyalty, and the degree of the impact differs substantially. The stay-at-home appeal could increase the use of online applications to carry out activities (Patma et al., 2021).

This research discusses how consumers' privacy and sense of security will affect perceived value and trust, then whether perceived value and trust will affect the interest in reusing the Tokopedia e-commerce application. The topic of this research is considered very important given the lack of data on Tokopedia in early May 2020, which allegedly caused the decline in the number of Tokopedia users, which of course, will be an essential reference for many e-commerce in Indonesia, so that they can maintain their existence in the world of e-commerce. Commerce also helps consumers get security guarantees, and their privacy is maintained when carrying out transactions on e-commerce. To grow to 48% by the year 2025. (https://iprice.co.id/insights/mapofecommerce/en/).

2. Literature Review and Hypotheses Development

Consumers hope that all data is stored safely on the e-commerce platform. Storing this data will lead to a different perception or assessment from consumers of the e-commerce platform. Consumers often worry about the insecurity of the data provided to e-commerce parties. Consumers will feel anxious if essential data about themselves are not stored safely. The e-commerce platform must maintain security because it will also be one of the critical components that consumers will evaluate and consider using the same service again. The higher the protection offered by an e-commerce platform, the higher the perceived value felt by consumers. According to Marianus & Ali (2021), security validates the dimensions of perceived security that cover confidentiality, integrity, availability, non-repudiation, privacy, and authentication. At the same time, perceived value results from the preference and evaluation that a customer does of a product that has been paid (Salehzadeh & Pool, 2017).

H₁: Security has a significant positive effect on Perceived Value.

Whitman, Michael, and Mattord (2011) explained that information security is vital and must be protected. Information security must be maintained and guaranteed by a company, so that information leakage and system failure do not occur. Trust helps consumers take the perceived risk regarding financial transactions in online business and plays a critical role in consumers' sharing sensitive information and adopting new technology for a business transaction (Martin, 2018). If these two things happen, it will endanger the company's finances and productivity itself. This is occur because consumers feel that they have been disadvantaged because their important data goes to those they do not want and uses it for things they do not want either. The leak of data can lead to many losses owned by a consumer, for example, just a simple e-mail address. Suppose a consumer's e-mail address is leaked intentionally or not by a company platform to another party. In that case, the other party may send advertisements to the consumer's e-mail address. Consumers feel uncomfortable because they feel spammed. This situation will make consumer lose confidence in the company, where it shares important data and is not protected by security. Then the consumer will cut off his relationship with the company. If this happens to many consumers, the company will be financially disturbed. Besides, its productivity will decrease due to the loss of many consumers. This example shows that the higher the level of security assurance provided by a company, the higher the level of trust that consumers will give to the company. (Jiang et al., 2016)

H₂: Security has a significant positive effect on Trust.

When using e-commerce, a customer will be asked to fill out a form containing their data. This data is privacy that not just anyone or party is authorized by a consumer to own. It could be that a consumer often considers providing this data to other parties, which is an e-commerce platform. After providing this information, a consumer will assess or evaluate what e-commerce is doing with the data. Research conducted by Malhotra, Kim, and Agarwal (2004) identifies that customers' confidence to provide their privacy is critical for developing e-commerce in the future. Based on this, a consumer's assessment of the privacy it offers to an e-commerce platform is very important.

H₃: Privacy has a significant positive effect on Perceived Value.

Shah, Okeke, and Ahmed (2013) said that many studies state that the biggest challenge for online businesses is consumer data privacy. It is hoped that consumer privacy shared with e-commerce platforms will not fall on other parties and be misused in the future. When consumers provide this data, consumers automatically trust the e-commerce platform to carry out different transaction processes.

H4: Privacy has a significant positive effect on Trust.

The evaluation stage carried out by a consumer who has previously used an e-commerce application will be remarkably intact and complex because the consumer experiences a long and complete process. The results

of a consumer's evaluation or what is called the next perceived value will automatically determine whether a consumer wants to reuse the application or not. Customers will evaluate their purchasing experience in detail and determine whether the customer will repeat the same purchase. If the evaluation result is terrible, he will not want to repeat it. Conversely, suppose the impression generated from the evaluation process is impressive. In that case, consumers will not hesitate to buy again on the same website and repeat their first experience of shopping comfortably. The higher the perceived value obtained, the higher the level of intention to reuse consumers. The lower the perceived value received, the lower the level of intention to reuse consumers.

H₅: Perceived Value has a significant positive effect on Reuse Intention.

Trust is an essential element in the business world. Not infrequently, consumers who have given confidence in a company no longer care about other things and will continue to reuse the application. As has been written in the research of Culnan & Armstrong (1999) in Zhou, Lu, and Wang (2009) that, trust is one of the main factors determining a consumer's propensity to shop online.

In the research of Zhou, Lu, and Wang (2009), it is also stated that a consumer's trust in online shopping is more complex than the traditional way. This can be considered reasonable because consumers have to provide their data. They also guess the security in an application about whether their data is stored safely or not. However, when the product/service they order arrives and meets expectations, consumers feel their data is safe, so they will trust the application and repeatedly reuse the same application. The higher the trust obtained, the higher the level of intention to reuse the consumer. The lower the trust got, the lower the level of intention to reuse the consumer.

H₆: Trust has a significant positive effect on Reuse Intention.



Figure I. Research Model

3. Method

This study involved 252 respondents, but 10 of them did not meet the criteria, so the total number of respondents in this study was 242 using the purposive sampling technique. They are 76 males and 166 females around 17-46 years old. The results of this study were obtained through a questionnaire distributed online to Tokopedia consumers throughout Indonesia. The questioner distribution using the promotion technique by doing "mention confession," in which the sender threw the questioner to the number of followers in the base named @collegemenfess. To get some respondents, the author also appreciates the ten selected respondents. There is an e-money given to them, and the amount is 50.000 rupiahs for each selected respondent.

The data collection technique in this study was a survey method using a questionnaire instrument filled out by respondents online via a Google Form. This questionnaire is distributed through the WhatsApp group and uploaded via the author's Instagram status once in 2 days. The following way is to spread it through Twitter by using the base @collegemenfess account at certain hours to see the traffic of busy Twitter users, such as 9 am, 12 pm, and 5 pm every day for two days.

Variable	Operational Definition	Measurement	Source
Security	In this study, the security variable is Tokopedia's e- commerce consumer's assessment of the security system provided by Tokopedia.	ensure user information is secure. 2. Display a good focus and attention on the	I. Turner, Zavod, and Yurcik, 2001 2. Flavián and Guinalíu, 2006
Privacy	In this study, the privacy variable is Tokopedia's e- commerce consumer's assessment of the protection of consumer privacy.	 Flavián and Guinalíu (2006) mention four privacy indicators, these indicators include: Consumers feel safe when sharing their personal information with providers of goods/services. Product/service providers comply with personal data protection laws. The product/service provider only asks for data related to transaction activities. Product/service providers do not send e-mails containing advertisements without consumer consent. 	. Flavián and Guinalíu, 2006

Table I. Operational Definition of The Variables

Perceived Value	In this study, the Perceived Value variable is the values evaluated by Tokopedia e- commerce consumers who have used the Tokopedia application to make transactions.	 Sweeny and Geoffrey, 2001 state that Perceived Value has several dimensions which then have indicators in it, including: Emotion Value This product/service provider makes consumers feel comforTable This product/service provider makes consumers want to use their platform Value Function (Price/Value for Money) This product/service provider provides reasonable prices This product/service provider provides good goods at a commensurate price Functional Value (Usability/Quality) This product/service provider has consistent quality This product/service provider is well made 	I. 2.	Pham and Nguyen, 2019 Sweeny and Geoffrey, 2001
Trust	In this study, the Trust variable is the trust possessed by Tokopedia e- commerce consumers who have used the Tokopedia application to make transactions.	 Oliveira et al., 2017 stated that Trust has several dimensions which then there are indicators in it, including: I. Competence a. Consumers trust that this product/service provider can handle online transactions b. Consumers believe that this product/service provider is reliable in doing business online 2. Integrity a. Consumers believe that these product/service providers will not ask for more money to make online transactions with consumers b. Consumers believe that these product/service providers are honest with their consumers c. Consumers believe that the provider of this product/service is serious in making agreements with consumers d. Consumers trust that this product/service provider keeps its commitments e. Consumers trust that the provider of this product/service is genuine 3. Kindness a. Consumers believe that this product/service provider will provide the best for the interests of their consumer 	l. 2.	Liang and Chen, 2009 Oliveira et al., 2017
Reuse Intention	In this study, the variable of intention to reuse is the desire to reuse the Tokopedia e- commerce application.	 Malhotra, Kim, and Agarwal (2004) In their research, three indicators exist on the intention to reuse, including: Desire to use the same platform that consumers currently use Consumers will not look for alternative platforms to make future purchases In the next few months, a consumer will not reduce his spending on the platform 	l. 2.	Ladkoom and Thanasopon, 2020 Malhotra, Kim, and Agarwal, 2004

4. Result and Discussion

Table 2 shows that most of the respondents are aged 17-26 because most of them are millennials who are very familiar with internet access and social media. In comparison, 68,60% of respondents are female since most people who like shopping are female.

		Frequency	Percentage
	17-26	215	88,84%
	27-36	20	8,26%
Age	37-46	4	1,65%
	>46	3	1,24%
	Total	242	100%
	Male	76	31,40%
Gender	Female	166	68,60%
	Total	242	100%

Table 2. Characteristics of Respondents

4.1. Result

The research framework is as follows:



Figure 2. Conceptual Framework

The correlation value of cross-loading of other latent variables must be smaller than the value of the latent variable being measured or can see the AVE value, which can be declared valid if the value is above 0.5 (Wiyono, 2020). The following is a Table of the results of the cross-loading factor calculation, showing that all variables are valid. It means it is a good result.

Table	3.	Cross	Loading

	Security	Privacy	Perceived Value	Trust	Reuse Intention
KAI	0,880	0,657	0,504	0,520	0,394
KA2	0,864	0,684	0,577	0,570	0,393
KA3	0,852	0,640	0,452	0,420	0,370
KA4	0,862	0,673	0,551	0,525	0,468
PRI	0,678	0,742	0,465	0,409	0,422
PR2	0,695	0,835	0,464	0,488	0,309
PR3	0,556	0,797	0,569	0,609	0,232
PR4	0,354	0,607	0,383	0,304	0,162
PVI	0,426	0,495	0,740	0,531	0,445
PV2	0,492	0,443	0,757	0,531	0,678
PV3	0,445	0,435	0,767	0,631	0,433
PV4	0,550	0,570	0,852	0,721	0,548
PV5	0,488	0,539	0,794	0,620	0,447
PV6	0,446	0,513	0,800	0,734	0,433
KPI	0,484	0,572	0,720	0,873	0,403
KP2	0,454	0,503	0,654	0,849	0,439
KP3	0,530	0,538	0,652	0,879	0,462
KP4	0,552	0,518	0,696	0,816	0,547
NKI	0,462	0,401	0,678	0,585	0,865
NK2	0,357	0,277	0,498	0,308	0,772
NK3	0,307	0,194	0,423	0,379	0,818

A reliability test is intended to determine whether the research data is reliable or not. In this test, the composite reliability value is used. If the value obtained is more than 0.7, it can be declared good (Wiyono, 2020). The following is a Table of composite reliability test results in this study. It shows that all variables are reliable.

Table 4. Composite Reliability

	Composite Reliability
Security	0,922
Reuse Intention	0,859
Trust	0,915
Perceived Value	0,906
Privacy	0,835

Hypothesis testing in this study looks at p values which will prove positive if the value is below 0.05. The following are the results of testing the inner model in this study. The result tabulated in Table 5 shows that the relationship between Security and trust, security and perceived value, privacy and trust, privacy and perceived value are supported. Only trust and reuse intention are not supported:

Table 5. P-Values

	P-Values	Description
Security →Trust	0,001	Significant
Security \rightarrow Perceived Value	0,000	Significant
Trust \rightarrow Reuse Intention	0,319	Not Significant
Perceived Value → Reuse Intention	0,000	Significant
$Privacy \to Trust$	0,000	Significant
$Privacy \rightarrow Perceived Value$	0,000	Significant

4.2. Discussion

E-commerce consumers will be asked for data about themselves when making transactions, such as name, address, telephone number, and so on. Every consumer provides this data hope that its security is maintained. When data is provided, consumers will automatically evaluate e-commerce applications where they provide important data, whether the data is safe or not. Through this research, we can conclude that if an e-commerce application can maintain the security of its consumer data, then consumers will also provide good evaluation results.

As for Tokopedia's efforts to get good perceived value from consumers through security enhancements, they have made in the application, including asking consumers to keep the OTP (One Time Password) code or pin used on the Tokopedia account secret. These two things are crucial because they are used to access the Tokopedia account. Tokopedia asks consumers to transfer funds according to the nominal transaction determined on the Tokopedia application and only distribute them to the official Tokopedia account. Tokopedia asks consumers not to share personal information with sellers directly, such as proof of payment to any party. Ask consumers to change their account passwords regularly. The password consists of eight characters that can contain symbols or characters. This password is embedded so as not to use a personal name or an account name. Consumers are asked to rate the reputation of the seller and the reviews of the previous buyers to know the dire possibilities that could occur during the transaction. These steps were taken by Tokopedia so that consumers pay more attention to the security of their accounts, which can be started from the consumers themselves so that unwanted things do not occur, such as data leaks which can also lead to fraud.

Research conducted by Whitman, Michael, and Mattord (2011) states that a consumer's data must be protected by the company so that it does not endanger the finances and productivity of a company. Leaked data will make consumers disappointed. When the customers are disappointed, they can reduce or lose their trust in the company. When a company loses its consumer's trust, it will harm the company's revenue and performance.

The steps taken by Tokopedia to increase consumer confidence include ensuring that user accounts and transactions are safe by enforcing a one-way encryption system that allows data not to be read carelessly. Tokopedia has also collaborated with the Government, in this case, the Ministry of Communication and Information and the National Cyber and Crypto Agency, to ensure the safety of Tokopedia consumers.

A consumer who wants to make transactions on e-commerce is asked to fill out a form used for shipping purposes. This data is the consumer's privacy and is not easily given to other parties. When consumers decide to give up their privacy, consumers will evaluate whether the company can respect their privacy by not giving it to other parties they do not want. Based on this, a consumer's assessment of the privacy given to an e-commerce platform is critical and closely related.

The consumer data provided to Tokopedia is only used for limited purposes such as transactions and providing features. These activities include processing all forms of requests, activities, and transactions carried out by consumers,

including the interests of product delivery until it reaches the hands of consumers. Provide features on the Tokopedia application such as Top Ads, product recommendations, insurance, and so on. It is helping users when communicating with Tokopedia officially in dealing with user complaints. Monitoring transactions that are considered suspicious can harm any party. Tokopedia may use a consumer's data for law enforcement purposes in certain cases. Facilitate joint transactions, consolidation, sale of company assets, and similar matters involving Tokopedia.

The details of these activities have been explained by Tokopedia when consumers register and create accounts on the Tokopedia application. Consumers are also asked to agree to these things to make transactions on the Tokopedia application so that consumers understand what Tokopedia will carry out activities to protect consumer privacy.

Shah, Okeke, and Ahmed (2013) mentioned many studies that state that the biggest challenge for online businesses is consumer data privacy. When consumers provide personal data, consumers have trusted the e-commerce platform and expect the e-commerce party to respect the privacy he has shared.

The procedures for using consumer privacy that have been described previously are Tokopedia's efforts to build consumer confidence in Tokopedia. Monitoring transactions that are considered suspicious and can harm any party is Tokopedia's way of preventing inconvenience to other users, so these steps are taken.

A perceived value resulting from a consumer's evaluation of an e-commerce application will automatically determine whether consumers want to reuse the same application to make a transaction. Karya (2020), in his research, states that if consumer expectations are met, consumers will reuse services owned by a company. Previous transaction experiences will be a consideration for whether consumers will use the same application in the future or not because if the application creates a good impression, consumers will not hesitate to use the application again in the future and vice versa if the image given by an e-commerce application is terrible, then he will not repeat the use of the e-commerce application.

Tokopedia has made all efforts to maintain consumer safety and privacy, so Tokopedia hopes that the perceived value obtained is also high. This is none other because Tokopedia wants consumers to use its application continuously in the future. Based on these results, it can be concluded that the perceived value of the Tokopedia application consumer has a significant positive effect on the intention to reuse the Tokopedia application, so the better the evaluation results that a consumer has of the Tokopedia application, the greater the consumer's desire to reuse the Tokopedia application and vice versa.

The test results show that the effect of security on trust is positive but not significant, which means that H6 in this study is rejected. This result is different from the research conducted by J. Choi, Lee, and Kim (2011) and Tun (2020), which states that trust significantly affects the intention to reuse. This study shows that all the average values on the trust variable get a very agreeable category, which means that consumers of the Tokopedia application trust the application. However, when we look at the mean value in the intention to reuse the variable, we can see that two statement items get the category of disagreeing, namely the second and third items. The statements are "I do not want to find other similar applications to shop at a later date" and "In the next few months, I will not reduce product purchases on Tokopedia."

The second statement item means that consumers of the Tokopedia application still want to find alternative applications to make transactions. Other factors allow this to occur. For example, as mentioned in the study by Loiacono, Chen, and Goodhue (2002), there is another reason, namely, the price comparisons presented by the traders in the Tokopedia application are still competing with other similar applications so that consumers still tend to compare and choose the lowest price with the same product.

The third statement indicates that consumers are not sure that they will purchase products with the same frequency as today. This is understandable given the weakening economy of the Indonesian people caused by the Covid-19 pandemic. According to Badan Kebijakan Fiskal (2020), Indonesia's economic growth before the Covid-19 pandemic was projected at 5.3% in 2020. However, due to the Covid-19 pandemic, Indonesia's economic growth is projected to touch 1% to -0.4%. This data shows that people's purchasing power will, of course, also decrease. Hence, it is only natural that respondents in this study also reduce the frequency of their transactions on the Tokopedia application.

The results of this study are in line with the research conducted by Loiacono, Chen, and Goodhue (2002). This study explained that a consumer tends to reuse an online shopping platform due to other factors besides trust, such as usability, responsiveness, or the extent to which the platform's display entertains users. Usability is often related to the functions or features in the application, whether these features make it easier for consumers to make transactions on the e-commerce application or not. While responsiveness describes how quickly the application responds to consumer requests, everyone currently wants something instant and fast. The application is expected to have high responsiveness.

Furthermore, the latter is an application display that can distract consumers when loading data and a good application display, which can show the professionalism of the e-commerce company in handling transactions. Research conducted by Karya (2020) also states that customer satisfaction is one of the essential components of purchasing, which means the reuse of e-commerce applications. Excellent customer service will result in greater customer retention, which means greater profitability (Y. Anshori and Langner 2007). It shows that the privacy and security of the customers will create trust in the company. When the customers' trust, they will reuse the platform more often. When they often reuse platforms, it means customers retention. When customer retention increases, it means the company profit will increase.

5. Conclusion

Privacy and security are critical in the e-commerce platform (Tokopedia). It can build the customer's trust to reuse the platform. Tokopedia has to regularly improve and upgrade its security system while maintaining its user-friendly system. Moreover, Tokopedia should provide a simple warning system to its customers whenever they do transactions on the platform so that customers are always alert and aware of their security transactions. Updating passwords periodically is needed either via mobile phone or e-mail. Understanding the customers' need and want in the future (Market Orientation) will help Tokopedia update its platform to keep its customers and attract new customers. Technology development provides big support to understanding the market orientation. The company will have a competitive advantage when it can transform big data into market orientation and implementation across the department in the company.

To avoid web phishing (a fraudulent technique where the goal is to steal user data or accounts) which often sends website addresses that are made similar to the official website, it is hoped that e-commerce will create and socialize a service that allows consumers to check whether the website address is official or not. Educate the public about SMS OTP (One Time Password), which irresponsible people often use to tap consumer accounts. Although currently, the SMS OTP (One Time Password) has been advised not to give to anyone, including e-commerce parties, it should be written in more detail on the reasons why consumers are not encouraged to share the code, such as "giving this code to other parties can cause data leakage, misuse of your balance" and consumers are even more careful. So far, most e-commerce consumers are asked to change their passwords periodically to protect their accounts from data leakage. However, consumers are reluctant to do this because they have to remember their passwords repeatedly. It is recommended for e-commerce to create new passwords for their customers regularly and inform their new passwords via e-mail or consumer phone numbers.

Future research can add other variables that might influence the intention to use the application, such as the price. Price is one of the important options owned by consumers. The usefulness of the application measures the extent to which the application is effective for use by consumers. Consumer satisfaction also plays an important role to be researched. The intensity of application reuse and the convenience of using applications are no less important choices. If consumers are not comfortable using the application, it will reduce their desire to use it again. In addition, this analysis can also be carried out on other companies such as Shopee, Lazada, and so on. Future researchers can also add affective and cognitive variables to their research. Affective variables form feelings for customers when accessing applications such as color, brightness, design harmony, comfort, attractiveness, and others. In comparison, cognitive variables build the functional value of an application, such as interactivity, error prevention, content relevance, consistency of information content, and so on.

Respondents in future research are also expected to be larger in number and more varied so that the research results become stronger. The data collection technique used can be more in-depth by using random interview techniques with several respondents to discuss the research results deeper. The next suggestion is to conduct research by determining more specific respondents, for example, in the productive age range, more specific income, respondents with certain jobs, or in smaller areas in scope such as the cities of Surabaya, Jakarta Banjarmasin, and so on.

This study only uses the google form to obtain data from the respondents, so it cannot control the respondents' answers. The results of this study need to be re-examined, considering that many other factors can affect the intention to reuse the Tokopedia application

Acknowledgment

The authors would like to thank the anonymous referees for their useful comments, which allowed to increase the value of this article

Financial Disclosure

This article is not funded or related to any funding agency.

Conflict of Interest

The authors declare that the research was conducted without any commercial or financial relationships that could be construed as a potential conflict of interest.

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