

What Drives Consumer Purchase Intention on Products Offered by E-Commerce During the Covid-19 Pandemic? An Empirical Study at Tokopedia

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Abstract

The main purpose of this research is to test a model to prove whether perceived usefulness, perceived ease of use, cost saving and time saving affect purchase intention directly or indirectly through perceived customer value. The research model was tested in e-commerce contexts at Tokopedia during the Covid-19 pandemic. Primary data were collected by distributing questionnaires to 313 people who had visited Tokopedia website or application but have never made a purchase. The purposive sampling technique is used in this research. Data analyzed using the partial least square method with SmartPLS. The findings indicated that perceived ease of use affects purchase intention, whereas perceived usefulness, cost saving, and time saving do not affect purchase intention. The results of the indirect effect prove perceived customer value mediates the effect of cost saving and time saving on purchase intention, while perceived customer value does not mediate the effect of perceived usefulness and perceived ease of use on purchase intention. The research findings also show that cost saving and time saving affect perceived customer value, whereas perceived usefulness and perceived ease of use do not affect perceived customer value, and perceived customer value affects purchase intention.

Keywords— perceived usefulness; perceived ease of use; cost saving; time saving; perceived customer value; purchase intention.

Abstrak

Tujuan utama dari penelitian ini adalah menguji sebuah model untuk membuktikan apakah *perceived usefulness*, *perceived ease of use*, *cost saving*, dan *time saving* mempengaruhi *purchase intention* secara langsung atau tidak langsung melalui mediasi *perceived customer value*. Model penelitian diujikan pada konteks *e-commerce* Tokopedia. Data primer dikumpulkan oleh peneliti melalui pendistribusian kuesioner kepada 313 orang yang pernah mengunjungi *website* atau aplikasi Tokopedia namun belum pernah melakukan pembelian. Sampel penelitian diambil menggunakan teknik *purposive sampling*. Data yang terkumpul selanjutnya dianalisis menggunakan *partial least square* dengan *software* statistik SmartPLS. Hasil uji pengaruh langsung membuktikan bahwa *perceived ease of use* mempengaruhi *purchase intention*, sedangkan *perceived usefulness*, *cost saving*, dan *time saving* tidak mempengaruhi *purchase intention*. Hasil uji pengaruh tidak langsung melalui mediasi membuktikan bahwa di satu sisi *perceived customer value* memediasi pengaruh *cost saving* dan *time saving* terhadap *purchase intention*, sedangkan disisi lain *perceived customer value* tidak memediasi pengaruh *perceived usefulness* dan *perceived ease of use* terhadap *purchase intention*. Temuan penelitian juga menunjukkan bahwa *cost saving* dan *time saving* mempengaruhi *perceived customer value*, *perceived usefulness* dan *perceived ease of use* tidak mempengaruhi *perceived customer value*, dan *perceived customer value* mempengaruhi *purchase intention*.

Kata kunci— perceived usefulness; perceived ease of use; cost saving; time saving; perceived customer value; purchase intention.

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I. INTRODUCTION

Technology that is increasingly developing in this era of globalization makes it easier for people to live their life. One of the things that makes their life more convenient is the availability of online services to meet their needs. For a company, internet marketing or online marketing is an important approach to develop marketing mix for the purpose of building relationships with customers, increase sales of products, or services offered, communicate information about the company and the products or services offered, and deliver products or services to customers more effectively and efficiently (Setiyaningrum et al., 2015).

E-commerce is one of the business sectors that experienced the highest growth during the Covid-19 pandemic and is predicted to continue growing rapidly even though the pandemic ends (Prayoga, 2020). In Indonesia, the number of e-commerce users continues to increase steadily. The number of e-commerce users, which was initially only 139 million users in 2017, increased in 2020 to 181.5 million, and this number is predicted to continue to increase to reach 212.2 million in 2023 (Jayani, 2019b). The Covid-19 pandemic that hit many countries, including Indonesia, has changed consumer behavior patterns in shopping. The existence of large-scale social restrictions imposed by the government has changed the behavior of consumers who are initially more comfortable shopping offline by visiting shops and then switching to online shopping. This condition has an impact on increasing online sales during the pandemic. Data from Indonesian Central Bureau of Statistics noted that online sales via e-commerce in Indonesia during the pandemic increased by 480% from last year before the pandemic (Pink, 2020).

The phenomenon of increasing internet uses in Indonesia has triggered an increase in e-commerce uses, which leads to fierce competition in the e-commerce industry. In Indonesia there are several e-commerce companies that grow rapidly and dominate the industry, one of which is Tokopedia. Tokopedia has successfully led the e-commerce industry in Indonesia with the highest number of visitors, reaching 66 million visitors and then followed by competitors, including Shopee with 56 million, Bukalapak with 42.9 million, Lazada with 28 million, and Blibli with 21.4 million visitors in the third quarter of 2019 (Jayani, 2019a). Due to the intense competition with competitors, Tokopedia's position has been shifted by Shopee. The number of visitors to Tokopedia has decreased since the fourth quarter of 2019. According to the IPrice data for 2020, the average number of visitors of Tokopedia is 86.1 million visitors per month, and this number is below the average number of Shopee visitors which reached 93.4 million visitors per month (Pusparisa, 2020). The decrease in the number of visitors has decreased consumers' purchase intention to shop online in Tokopedia. The issue of leakage of user account data on Tokopedia that occurred in mid-2020 made many users no longer interested in buying products on Tokopedia and then switched to other e-commerce. Visitors prefer to buy products from other e-commerce sites that have a good reputation and offer them more value such as lower prices, better quality, and free shipping. This phenomenon is interesting to be studied further to find out factors that determine consumers' purchase intention on e-commerce sites, particularly Tokopedia.

A number of previous empirical research have shown that purchase intention on e-commerce sites was determined by many factors. A research conducted by Chu and Lu (2007) found that perceived usefulness, perceived playfulness, perceived prices, have positive effects on perceived customer value, but perceived ease of use has no effect on perceived customer value, and perceived customer value has positive effects on purchase intention on e-commerce. Sin et al. (2012) indicated that perceived ease of use, perceived usefulness and subjective norms have effects on purchase intention of products offered through social media. Anderson et al. (2014) prove that experiential shopping has effects on loyalty but has no effect on purchase intention, bargain perception has no effect on purchase intention and loyalty, and information access, time saving, and loyalty have effects on purchase intention. Rodriguez and Fernandez (2016) found that fashion innovativeness, trust and perceived value have positive effects on online purchase intention, while electronic innovativeness has no effect on online purchase intention. Chen et al. (2018) proved that perceived value, flow, perceived risk, and social awareness affect purchase intention. A research by Phongsatha and Jirawoottirote (2018) found that perceived usefulness, perceived ease of use and perceived risk have effects on purchase intention. Hossain et al. (2018) found that security, personal hobbies, payment methods, appropriate pricing, privacy, and social media as well as reference groups affect consumers' online purchase intention, whereas time saving, convenience, product quality, web knowledge, and the web design does not affect consumers online purchase intention. A recent study conducted by Kim (2020) proved that cost saving, time saving, and perceived ease of use have effects on purchase intention. Kim (2020) also found that platform-related issues, namely privacy and security issues, and seller-related issues, such as business integrity, moderate the effect of cost saving, time saving, and perceived ease of use on purchase intention. These research prove that perceived usefulness, perceived ease of use, cost saving, and time saving affect purchase intention on e-commerce.

On the other hand, there are a number of researches that have found different results. Septiani et al. (2017) indicated that perceived usefulness has no effect on purchase intention in online transactions. Nasution et al. (2019) found that perceived usefulness has negative effects on purchase intention in online shopping. Dachyar and Banjarnahor (2017) proved that perceived usefulness and perceived ease of use have negative effects on purchase intention in e-commerce. Pamela et al. (2009) and Hossain et al. (2018) found that time saving had no effect on online purchases and was considered ineffective because it could not save time.

This research is intended to close the research gap regarding differences in the findings of previous research in connection with effects of perceived usefulness, perceived ease of use, cost saving, and time saving on purchase intention in e-commerce contexts. In addition, previous research still has limitations because they have not tested perceived customer value as a mediation of the effect of perceived usefulness, perceived ease of use, cost saving, and time saving on purchase intention. The novelty of this research lies in the mediation test of perceived customer value in e-commerce contexts at Tokopedia during the Covid-19 pandemic. Then, the main purpose of this research is to test a model to prove whether perceived usefulness, perceived ease of use, cost saving, and time saving affect purchase intention directly or indirectly through perceived customer value.

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

A. *Perceived Usefulness*

Perceived usefulness is a perception of the level of benefits that can be obtained (Faradila & Soesanto, 2016). Perceived usefulness describes the extent to which a person believes that using a certain technology will be able to improve his job performance (Jogiyanto, 2008). If someone considers that an information medium is useful for himself, it will be used. On the contrary, if someone thinks that the information medium is not useful, it will not be used. Cho (2015) concludes that perceived usefulness is related to individual perceptions that their performance will increase when using a new technology. Rehman et al. (2019) also emphasize that perceived usefulness reflects the level at which a person believes that a certain technology can improve job performance. Perceived ease of use is the level where customers believe that the available system makes it easier to find a product (Permatasari et al., 2019). In the context of e-commerce, perceived usefulness refers to consumer perceptions of how much benefit is obtained from using an e-commerce website to shop online.

B. *Perceived Ease of Use*

Perceived ease of use reflects the extent to which users perceive that certain technologies, websites, internet functions, and web interfaces are easy to use Moslehpour et al. (2018). Rehman et al. (2019) suggest that perceived ease of use refers to the degree to which consumers believe that websites used to buy goods help find a lot of information with less consumer efforts. Perceived ease of use describes the degree to which a person can believe that using a system will not be difficult (Faradila & Soesanto, 2016). Jogiyanto (2008) defines perceived ease of use as the extent to which someone is sure that using a technology will be free from efforts. If someone judges that an information medium is easy to use, then it will be used. On the contrary, if someone thinks that the information medium is not easy to use, then it will not be used. In the context of e-commerce, perceived ease of use refers to consumer perceptions of how easily an e-commerce website can be understood, studied, and used for online shopping activities.

C. *Cost Saving*

Cost saving can be interpreted as a reduction in the cost of buying a certain product (Kim, 2020). Cost saving is the main attraction for consumers who shop online because the prices of products sold online are cheaper than the prices of products sold offline in conventional stores (Ambarwati & Isnugroho, 2018; Brynjolfsson & Smith, 2000; Reibstein, 2002). Therefore, consumers more often make online shopping transactions for the benefit of cost saving and adjustment of needs. Consumers also feel the maximum benefit from the costs incurred and the time saving obtained from ordering online because it is fast, precise, and economical. E-commerce can reduce costs associated with processing the information required to carry out the company's business processes. Cost saving can be achieved by using internet-based catalogs and automatic credit card authorizations to minimize human error. In addition, e-commerce can reduce inventory costs and reduce intermediate levels, which in turn reduces distribution costs. Wei et al. (2018) found that cost saving is one of the key factors that motivates consumers to shop online. Cheaper product prices can encourage consumers to change their shopping spots from physical stores (offline) to online stores and generate consumer perceptions of saving money. In the context of e-

commerce, cost saving refers to consumers' perceptions of how much money can be saved to get a product from online shopping made through e-commerce.

D. Time Saving

Time saving can be defined as a reduction in the cost of finding information on a particular product that will be purchased by consumers. Time saving is a consumer's perception of how much time is used starting from looking for product information to consumers getting the product (Kim, 2020). One of the advantages of the information system functioning as an intermediary between buyers and sellers in online markets is cost reduction in terms of finding information to buy a product or service that consumers wants (Haubl & Trifts, 2000). In the economic network, the role of marketing has changed, and now marketers can act as agents of both consumers and producers. Therefore, marketers can provide appropriate and timely information. In the context of e-commerce, time saving refers to consumer perception of how much time can be saved looking for information about products until consumers get these products through e-commerce.

E. Perceived Customer Value

Kotler and Keller (2018) suggest that perceived customer value describes a customer's evaluation of the differences between all benefits and all costs of a company's marketing offering. Perceived customer value can be seen from the perspective of money and benefits. Perceived customer value from a money perspective refers to how consumers evaluate a product relative to its price (Kakkos et al., 2015). This means that consumers will choose to buy products that offer greater benefits when faced with several choices of product offerings at relatively the same price. Perceived customer value according to the benefit perspective reflects all the sacrifices that consumers make besides sacrifices in the form of money, for example sacrifices for purchase time, purchase transaction costs, and product search costs to receive product benefits (Kakkos et al., 2015). In other words, product evaluation takes into account the differences between all the benefits obtained from product attributes and the total costs incurred by consumers (Kakkos et al., 2015). Perceived customer value in online contexts is defined as an overall assessment of the benefits received and costs incurred by consumers when purchasing products online (Ponte et al., 2015). In the context of e-commerce, perceived customer value refers to consumer's evaluations regarding the comparison between the benefits obtained and the sacrifices given to getting a product through online shopping activities through e-commerce.

F. Purchase Intention

Purchase intention describes the possibility that consumers will plan or be willing to buy certain products or services in the future (Chen et al., 2018). Purchase intention is a very complex problem, but it must remain a marketer's concern. Purchase intention may arise because of the stimulus offered by a company. The stimulus is designed to produce a consumer purchase behavior (Schiffman & Wisenblit, 2019). Purchase intention is considered the most important indicator to predict the actual behavior of consumers in the future. In e-commerce contexts, it refers to the extent of possibility or tendency that consumers will buy a product online offered by e-commerce.

G. Perceived Usefulness and Purchase Intention

Perceived usefulness refers to the degree to which a person believes that certain technologies used can improve job performance (Davis, 1989; Liao et al., 2013). Perceived usefulness can also be interpreted as the extent to which online users feel that a certain website can increase the benefits and values for themselves when buying goods online (Hu et al., 2009; Lai & Wang, 2012). The greater the benefits that consumers get from using an e-commerce to shop online, the more consumers will increase the purchase intention of the products offered by e-commerce. Previous research on the effects of perceived usefulness on purchase intention show different results. A research conducted by Sin et al. (2012) found that perceived usefulness affects purchase intention. Phongsatha and Jirawoottirote (2018) confirm the finding that perceived usefulness has positive effects on purchase intention. Rehman et al. (2019) also found that perceived usefulness is proven to increase consumer intention to buy a product using the internet. Wilson (2019) found that perceived usefulness is one determinant of consumer repurchase intention in Indonesian e-commerce industry. However, a research by Septiani et al. (2017) shows that perceived usefulness has no effect on purchase intention in online transactions. Thus, to confirm the differences in the research findings, the researchers tested the following hypothesis:

H1 : Perceived usefulness has direct effects on purchase intention.

H. Perceived Ease of Use and Purchase Intention

According to Chiu et al. (2005), perceived ease of use refers to the extent to which consumers believe that websites that are used to purchase goods help find a lot of information with less consumer efforts. Consumers will like and visit only websites that have a simple user interface and can be accessed easily to buy the desired products (Chiu et al., 2005). Perceived ease of use can lead to customer satisfaction, which ultimately increases the intention to shop online (Lee & Lin, 2005). Consumer purchase interest in the products offered by e-commerce will increase when e-commerce has a user-friendly interface, which is easy to learn, easy to understand, and easy to use for online shopping activities. The previous research by Sin et al. (2012) found that perceived usefulness was the factor that had the greatest influence on online purchase intention among young consumers. Wilson (2019) found that perceived ease of use positively affects consumer repurchase intention in Indonesian e-commerce industry. Recent researches conducted by Phongsatha and Jirawoottirote (2018) and Kim (2020) also proved that perceived ease of use has positive effects on purchase intention. Therefore, the hypothesis tested in this research is as follows:

H2 : Perceived ease of use has direct effects on purchase intention.

I. Cost Saving and Purchase Intention

Cost saving is the main attraction for consumers who make online purchases (Reibstein, 2002). Consumers tend to prefer to make online shopping transactions for cost saving reasons because the prices of products sold online are relatively cheaper than the prices of products sold offline in conventional stores. In addition, consumers can also easily and quickly compare the prices of products available in e-commerce. Therefore, when accessing e-commerce, consumers tend to be interested in buying products in e-commerce that offer cheaper prices. Rodriguez and Fernandez (2016) found that cost saving has positive effects on purchase intention. Kim (2020) also confirms that cost saving is a determining factor for purchase intention in e-commerce. Therefore, the hypothesis tested in this research is as follows:

H3 : Cost saving has direct effects on purchase intention.

J. Time Saving and Purchase Intention

Consumers think of buying goods online because they want to save time while shopping (Guritno & Siringoringo, 2013). Today's consumers prefer shopping online because shopping for products online takes shorter time when compared to shopping offline at conventional stores. Any information about products ranging from features, prices, promotions, to stores where consumers can get these products are all available and can be accessed quickly through e-commerce so that it takes lesser time compared to shopping offline. However, previous research on the effect of time saving on purchase intention still find conflicting results. On the one hand, Rodriguez and Fernandez (2016) found that time saving has positive effects on purchase intention. The latest research conducted by Kim (2020) also shows that time saving is proven to affect purchase intention in the context of online purchases through e-commerce. On the other hand, a research by Hossain et al. (2018) found that time saving does not affect purchase intention. Thus, to confirm the differences in these findings, this study tested the following hypothesis:

H4 : Time saving has direct effects on purchase intention.

K. Perceived Usefulness and Perceived Customer Value

Perceived usefulness refers to the extent to which consumers judge that a technology provides benefits or uses for themselves (Chen et al., 2018). The greater the benefits offered by a technology, the higher the perceived customer value will be. Consumers will experience greater value when using technology that provides greater benefits. In e-commerce contexts, perceived customer value will increase when e-commerce provides greater benefits to consumers in shopping online. The benefits provided by e-commerce can be in the form of economic benefits such as reducing the cost of searching for product information or non-economic benefits such as ease and practicality of use. The previous research conducted by Chu and Lu (2007) found that perceived usefulness has positive effects on perceived customer value. Chen et al. (2018) also supports the finding that perceived usefulness is an important factor affecting perceived customer value. Therefore, the hypothesis tested in this research is as follows:

H5 : Perceived usefulness affects perceived customer value.

L. Perceived Usefulness and Perceived Customer Value

Perceived ease of use describes consumers' perceptions of how easy a technology is to learn, understand, and use (Kim, 2020). Consumers will feel a greater value when using technology that is easy to learn, understand, and apply. In e-commerce, the value perceived by customers will be greater when customers can easily learn, understand, and use the features available in e-commerce because it can reduce the efforts, time, and costs. However, previous researches found controversial results related to the effect of perceived ease of use on perceived customer value. Van der Heijden (2004) found that perceived ease of use affects perceived customer value, while Chu and Lu (2007) indicated that perceived ease of use has no effect on perceived customer value. In order to confirm the controversy of previous research findings, the researchers tested the following hypothesis:

H6 : Perceived ease of use affects perceived customer value.

M. Cost Saving and Perceived Customer Value

Cost saving reflects the extent to which consumers get cost saving for buying a product (Kim, 2020). The greater the cost saving, the higher the value felt by customers. Regarding e-commerce, consumers will feel much higher customer value when e-commerce offers more cost savings for consumers to get a product, for example in the form of discounts, special prices, free shipping, and other sales incentives. A previous research conducted by Rodriguez and Fernandez (2016) indicated that cost saving has a positive effect on perceived customer value. Therefore, the hypothesis tested in this research is as follows:

H7 : Cost saving affects perceived customer value.

N. Time Saving and Perceived Customer Value

Time saving refers to how much time is saved by consumers, starting from looking for product information to getting the product (Kim, 2020). The longer the time saving obtained, the higher the value felt by customers. In e-commerce, consumers will feel greater customer value when it facilitates consumer activities in the purchase decision process by providing information about products quickly to consumers. E-commerce really helps consumers to be able to get complete information about products in a much faster time, so that consumers get benefits in terms of saving shopping time. A previous research conducted by Rodriguez and Fernandez (2016) found that time saving affects perceived customer value. Therefore, the hypothesis tested in this research is as follows:

H8 : Time saving affects perceived customer value.

O. Perceived Customer Value and Purchase Intention

Perceived customer value describes the perception of the comparison of benefits obtained with what consumers sacrifice to get a product (Chen et al., 2018). The greater the value perceived by the customer, the higher the consumer's purchase intention in the product. Consumers will be more interested in buying products when e-commerce offers a greater perceived customer value. A number of previous researches conducted by Chu and Lu (2007), Rodriguez and Fernandez (2016), and Chen et al. (2018) indicated that perceived customer value has positive effects on purchase intention in e-commerce. Therefore, the hypothesis tested in this research is as follows:

H9 : Perceived customer value affects purchase intention.

P. The Mediating Role of Perceived Customer Value on the effect of Perceived Usefulness toward Purchase Intention

A number of researches prove that perceived usefulness affects purchase intention in the context of e-commerce (Phongsatha & Jirawoottirote, 2018; Rehman et al., 2019; Sin et al., 2012). This shows that consumers have a high interest in buying products offered by e-commerce when they perceive that e-commerce provides more benefits for shopping online. The benefits provided by e-commerce to consumers will lead to a perception of increasing customer value on customers' minds which in turn will increase consumer purchase intention in the products offered in e-commerce. In other words, consumers will be increasingly interested in buying products in e-commerce if they feel its benefits and great customer value. Previous researches by Chu and Lu (2007) as well as Chen et al. (2018) indicated that perceived customer value mediates the effect of perceived usefulness on purchase intention. Therefore, the hypothesis tested in this research is as follows:

H10 : Perceived customer value mediates the effect of perceived usefulness on purchase intention.

Q. The Mediating Role of Perceived Customer Value on the effect of Perceived Ease of Use toward Purchase Intention

Perceived ease of use is identified as one of the determinants of consumer purchase intention for products offered in e-commerce. Previous researches have confirmed that perceived ease of use affects purchase intention (Kim, 2020; Phongsatha & Jirawoottirote, 2018; Sin et al., 2012). These findings indicated that consumers are interested in buying products offered by e-commerce when they perceive that e-commerce is easy to learn and use in online shopping activities. The ease of use of e-commerce for online shopping will create a greater perception of customer value and ultimately be able to encourage higher consumer purchase intention in the products offered in e-commerce. The ease of use of e-commerce for online shopping will create a greater perception of customer value and ultimately be able to encourage higher consumer purchase interest in the products offered in e-commerce. Previous researches conducted by Chu and Lu (2007) proved that perceived customer value mediates the effect of perceived ease of use on purchase intention. Therefore, the hypothesis tested in this research is as follows:

H11 : Perceived customer value mediates the effect of perceived ease of use on purchase intention.

R. The Mediating Role of Perceived Customer Value on the effect of Cost Saving toward Purchase Intention

One of the main reasons why consumers are more interested in buying products online is the cost savings that consumers get in the product purchase decision process. Consumers are interested in buying products offered by e-commerce when they perceive that it offers great cost savings. Consumers can easily compare product offerings and prices on e-commerce to get the best deals that provide higher customer value. The cost savings when shopping online through e-commerce will create a perception of higher customer value which in turn can increase purchase intention in the products offered in e-commerce. In other words, consumers will be increasingly interested in buying products of e-commerce if they feel great cost savings and achieve high customer value when shopping online on e-commerce. Rodriguez and Fernandez (2016) proved that perceived customer value mediates the effect of cost saving on purchase intention. Therefore, the hypothesis tested in this research is as follows:

H12 : Perceived customer value mediates the effect of cost saving on purchase intention.

S. The Mediating Role of Perceived Customer Value on the effect of Time Saving toward Purchase Intention

In addition to cost saving, consumer interest in buying products online is also affected by time saving. Consumers have a high interest in buying products of e-commerce when they perceive that it provides time savings that consumers need in the purchasing decision process. E-commerce facilitates consumers to be able to find information about products quickly without having to physically visit the store. The time savings when shopping online through e-commerce will create a perception of higher customer value which in turn can increase purchase intention in the products offered in e-commerce. This means that consumers will increasingly have a great desire to buy products of e-commerce if they feel that there are time savings and there is a higher customer value when shopping online through e-commerce. Previous researches conducted by Rodriguez and Fernandez (2016) found that perceived customer value mediates the effect of time saving on purchase intention. Therefore, the hypothesis tested in this research is as follows:

H13 : Perceived customer value mediates the effect of time saving on purchase intention.

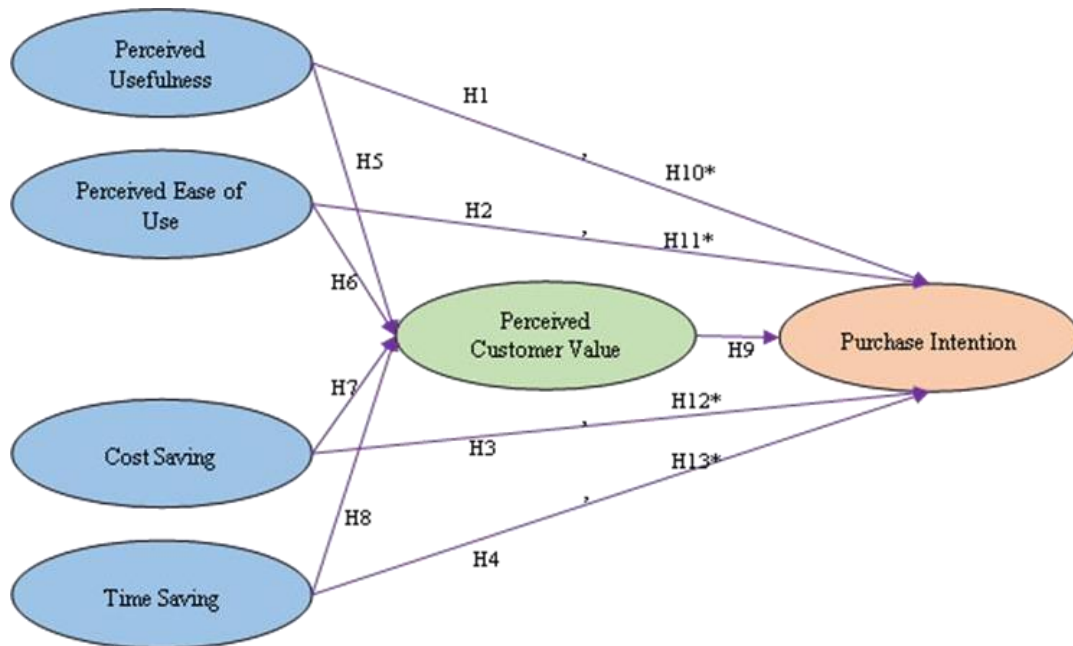


Figure 1. Research Model

III. RESEARCH METHODOLOGY

A. Research Design

This is quantitative research using primary data. Primary data were collected by researchers through a survey by distributing questionnaires directly to respondents. The research data were collected from July to September 2020. The questionnaires were distributed online through a google form given the fact that this research was conducted during the Covid-19 pandemic. Therefore, it is not possible to physically distribute the questionnaires in the field.

B. Population and Sample

The population of this research is all people who have visited or accessed Tokopedia e-commerce website either through the website or application but have never made a purchase. The sampling method used was nonprobability sampling with purposive sampling technique. The research samples taken are people who have visited or accessed Tokopedia e-commerce website either through the website or application but have never made a purchase, who are domiciled in the Jabodetabek area. The number of samples used in this study is 313 respondents, and this number meets the minimum number of samples recommended by Hair et al. (2010) and Hair et al. (2017) for SEM modeling using PLS.

C. Research Instruments and Measurement

This research uses four exogenous variables, namely perceived usefulness, perceived ease of use, cost saving, and time saving. The mediating variable is perceived customer value, and the endogenous variable is purchase intention. The research instruments used to measure perceived usefulness and purchase intention variables was adapted from research by Chen et al. (2018), and the perceived ease of use variable was adapted from the research of Chu and Lu (2007). The cost saving, time saving, and perceived customer value variables were adapted from the research of Rodriguez and Fernandez (2016). The measurement scale used is a 5-point Likert scale that shows statements ranging from strongly disagrees to strongly agree.

D. Data Analysis

The research data were processed and analyzed using Partial Least Square (PLS). The statistical software used to test the research model is SmartPLS.

IV. RESULT AND DISCUSSION

A. *Pretest Results*

The pretests that include the validity test and the reliability test of the research instrument was conducted on 30 respondents. Results of the validity test using the Pearson bivariate correlation indicate that all the research instruments are valid because they have a significance value below 0.05 and a Pearson correlation value above 0.361. Results of the reliability test using the Cronbach alpha value indicate that all the research instruments are reliable because they produce a Cronbach alpha value above 0.7. Table 1 presents the instruments used in this research and the results of the validity and reliability tests of a small sample.

Table 1. Research Instrument Pretest Results (n = 30)

Variables	Indicators	Correlation Value	p-value	Cronbach Alpha
Perceived Usefulness (PU)	PU1: I can quickly find what I want to buy at Tokopedia website/application.	0.843	0.000	0.787
	PU2: It's easy for me to buy goods at Tokopedia website/application	0.865	0.000	
	PU3: The information provided by Tokopedia website/application can improve my shopping efficiency	0.813	0.000	
	PU4: Tokopedia website/application is useful for comparing the price of the product I want to buy	0.384	0.000	
	PU5: Tokopedia website/application can save my time in buying and selling products	0.789	0.000	
Perceived Ease of Use (PEOU)	PEOU1: My interactions with Tokopedia website/application are easy to understand	0.758	0.000	0.886
	PEOU2: Learning how to use Tokopedia website/application is easy for me	0.818	0.000	
	PEOU3: It is easy for me to become proficient in using Tokopedia website/application	0.872	0.000	
	PEOU4: In general, I find Tokopedia website/application is easy to use	0.891	0.000	
	PEOU5: It is easy for me to use the facilities available at Tokopedia website/application	0.818	0.000	
Cost Saving (CS)	CS1: Finding information about products at Tokopedia website/application helps me save money	0.901	0.000	0.896
	CS2: Finding information about products at Tokopedia website/application allows me to get valuable products when buying similar items	0.851	0.000	
	CS3: Purchasing products via Tokopedia website/application is very useful to get cheaper prices	0.787	0.000	
	CS4: Finding information about products at Tokopedia website/application allows me to get lower prices when buying similar items	0.871	0.000	

Variables	Indicators	Correlation Value	p-value	Cronbach Alpha
Time Saving (TS)	CS5: Purchasing products at Tokopedia website/application really allows me to get a discount	0.789	0.000	0.736
	TS1: Information about products is immediately available when shopping online at Tokopedia website/application	0.638	0.000	
	TS2: Finding information about products at Tokopedia website/application is very efficient	0.581	0.000	
	TS3: Results from online shopping at Tokopedia website/application is worth the time I put in	0.701	0.000	
	TS4: I can buy several products at once at Tokopedia website/application	0.780	0.000	
	TS5: I can buy the product that suits me as soon as possible at Tokopedia website/application	0.775	0.000	
Perceived Customer Value (PCV)	PCV1: Online shopping at Tokopedia website/application makes it easier for me to get complete information about products	0.786	0.000	0.840
	PCV2: Using an online shopping platform at Tokopedia website/application increases my chances of finding products that suit my needs	0.824	0.000	
	PCV3: The efforts I do are worth the benefits I get from shopping online at Tokopedia website/application	0.816	0.000	
	PCV4: The product I bought at Tokopedia website/application is of good quality as promised	0.841	0.000	
	PCV5: Tokopedia website/application offers all kinds of products with well-known brands	0.680	0.000	
Purchase Intention (PI)	PI1: When I need to shop, I prefer to shop online at Tokopedia website/application.	0.873	0.000	0.916
	PI2: I want to buy a new product/service at Tokopedia website/application.	0.873	0.000	
	PI3: I want to continue shopping online at Tokopedia website/application in the future.	0.913	0.000	
	PI4: Overall, I really want to shop at Tokopedia website/application.	0.922	0.000	
	PI5: I plan to continue shopping online at Tokopedia website/application in the future	0.796	0.000	

B. Respondents Profile

The total number of respondents in this research is 313. In terms of domicile, there are 50.5% of respondents domiciled in Bekasi; 21.4% of the respondents are in DKI Jakarta; 20.1% in Tangerang; 5.8% in Bogor; and the remaining 2.2% of the respondents are domiciled in Depok. In terms of gender, there are 61.3% female and 38.7%

male respondents. In terms of age, there are 77.3% of respondents aged 17-34 years and 22.7% of them aged 35-52 years. With respect to recent education, 26.2% of the respondents have a high school education; 7% have a Diploma; 62.3% have a Bachelor's degree; 2.3% of have Masters; and 0.3% of them have Doctors (S3). By their work, there are 25.9% of respondents who are secondary school students and university students; 41.9% work as private employees; 16.3% of are entrepreneurs; 3.5% of them work as civil servants; and the remaining 12.5% of respondents have other professions.

Products that are sought after by respondents when opening Tokopedia website or application are fashion products (43.1%), beauty products (10.9%), household appliances (10.5%), electronic products (8%), sports products, (5.1%), smartphone products (3.5%), and other products (18.9%). The advantages of Tokopedia website or application compared to other e-commerce websites according to respondents are as follows: it is easy to use (30%), it has affordable product prices (21.4%), it is reliable (15%), it has quality goods (9.9%), it has complete goods (9.9%), it offers many promos (9.6%), and none (4.2%). The disadvantages of Tokopedia website or application compared to other e-commerce providers according to respondents are the following: lack of features and services (16%), no promos (14.4%), delivery problems (12.5%), the pictures are not real pictures (8.3%), it is difficult to use (8%), unaffordable prices (7.3%), and none (33.5%).

C. Data Analysis Results using Partial Least Square (PLS)

Two models that must be used when analyzing data with PLS are measurement model (outer model) and structural model (inner model). The SmartPLS software is used to process research data.

1) Outer Model Analysis Results

The outer model analysis includes validity testing using convergent validity and discriminant validity, reliability testing using composite reliability, and multicollinearity testing. Table 2 presents the results of the convergent validity test and Table 3 presents the results of the discriminant validity test of this research.

Table 2. Results of Convergent Validity Test (n = 313)

Variables	Indicators	Outer Loading Value	AVE	Description
Perceived Usefulness (PU)	PU1	0.789	0.626	Valid
	PU2	0.840		Valid
	PU3	0.838		Valid
	PU4	0.724		Valid
	PU5	0.760		Valid
Perceived Ease of Use (PEOU)	PEOU1	0.804	0.685	Valid
	PEOU2	0.785		Valid
	PEOU3	0.852		Valid
	PEOU4	0.859		Valid
	PEOU5	0.836		Valid
Cost Saving (CS)	CS1	0.761	0.671	Valid
	CS2	0.854		Valid
	CS3	0.841		Valid
	CS4	0.838		Valid
	CS5	0.798		Valid
Time Saving (TS)	TS1	0.811	0.680	Valid
	TS2	0.842		Valid
	TS3	0.825		Valid
	TS4	0.788		Valid
	TS5	0.856		Valid
Perceived Customer Value (PCV)	PCV1	0.810	0.658	Valid
	PCV2	0.806		Valid
	PCV3	0.860		Valid
	PCV4	0.826		Valid
	PCV5	0.749		Valid

Variables	Indicators	Outer Loading Value	AVE	Description
Purchase Intention (PI)	PI1	0.844	0.754	Valid
	PI2	0.886		Valid
	PI3	0.905		Valid
	PI4	0.887		Valid
	PI5	0.816		Valid

The results of the convergent validity test in Table 2 show that all of the research instruments are valid because they have an outer loading value above 0.70 and an AVE value above 0.50 according to the value recommended by Ghozali and Latan (2015).

Table 3. Results of Discriminant Validity Test (n=313)

	CS	PCV	PEOU	PI	PU	TS
CS1	0.761	0.632	0.591	0.548	0.561	0.660
CS2	0.854	0.696	0.659	0.641	0.579	0.678
CS3	0.841	0.640	0.606	0.549	0.583	0.674
CS4	0.838	0.603	0.555	0.510	0.568	0.657
CS5	0.798	0.648	0.599	0.520	0.530	0.689
PCV1	0.626	0.810	0.550	0.613	0.516	0.699
PCV2	0.662	0.806	0.614	0.640	0.520	0.702
PCV3	0.691	0.860	0.647	0.679	0.592	0.708
PCV4	0.617	0.826	0.571	0.665	0.524	0.635
PCV5	0.595	0.749	0.523	0.591	0.553	0.607
PEOU1	0.615	0.607	0.804	0.573	0.611	0.664
PEOU2	0.559	0.546	0.785	0.511	0.596	0.574
PEOU3	0.587	0.611	0.852	0.576	0.569	0.566
PEOU4	0.627	0.576	0.859	0.583	0.652	0.636
PEOU5	0.658	0.626	0.836	0.604	0.627	0.676
PI1	0.599	0.706	0.607	0.844	0.551	0.640
PI2	0.642	0.695	0.621	0.886	0.553	0.637
PI3	0.590	0.693	0.599	0.905	0.564	0.634
PI4	0.579	0.682	0.594	0.887	0.569	0.608
PI5	0.533	0.637	0.570	0.816	0.507	0.574
PU1	0.514	0.468	0.556	0.455	0.789	0.513
PU2	0.536	0.538	0.606	0.499	0.840	0.545
PU3	0.572	0.584	0.622	0.596	0.838	0.589
PU4	0.524	0.462	0.543	0.408	0.724	0.517
PU5	0.577	0.566	0.588	0.519	0.760	0.650
TS1	0.671	0.680	0.648	0.550	0.570	0.811
TS2	0.706	0.691	0.669	0.611	0.583	0.842
TS3	0.662	0.655	0.566	0.591	0.575	0.825
TS4	0.647	0.623	0.567	0.522	0.604	0.788
TS5	0.695	0.754	0.654	0.656	0.617	0.856

The results of discriminant validity test in Table 3 show that all of the research instruments are valid because they have a cross loading value above 0.70 according to the value recommended by Ghozali and Latan (2015). The results of reliability test using composite reliability indicate that all of the research instruments are reliable because they have a composite reliability value above 0.7 according to the value recommended by Ghozali and Latan (2015). The composite reliability value for the perceived usefulness variable is 0.893; the perceived ease of use variable is 0.916; the cost saving variable is 0.911; the time saving variable is 0.914; the perceived customer value variable is 0.906; and the purchase intention variable is 0.939.

The results of multicollinearity test for this research are shown in Table 4. Based on Table 4, all variable indicators have a Variance Inflation Factor (VIF) value below 0.5, so it can be concluded that there is no multicollinearity in this research model.

Table 4. Results of Multicollinearity Test

Variables	Indicators	VIF
Perceived Usefulness (PU)	PU1	1.970
	PU2	2.298
	PU3	2.012
	PU4	1.552
	PU5	1.581
Perceived Ease of Use (PEOU)	PEOU1	1.918
	PEOU2	1.954
	PEOU3	2.452
	PEOU4	2.660
	PEOU5	2.317
Cost Saving (CS)	CS1	1.761
	CS2	2.323
	CS3	2.429
	CS4	2.424
	CS5	1.914
Time Saving (TS)	TS1	2.067
	TS2	2.445
	TS3	2.176
	TS4	2.060
	TS5	2.421
Perceived Customer Value (PCV)	PCV1	2.001
	PCV2	2.005
	PCV3	2.413
	PCV4	2.182
	PCV5	1.740
Purchase Intention (PI)	PI1	2.452
	PI2	3.035
	PI3	3.641
	PI4	3.166
	PI5	2.192

2) Inner Model Analysis Results

The inner model analysis includes the coefficient of determination test, the F test and the t test. The coefficient of determination test in this research resulted in the R-square value for the endogenous variable of perceived customer value of 0.729 that indicates that 72.9% of the variable of perceived customer value can be affected by the variables of perceived usefulness, perceived ease of use, cost saving, and time saving, while the rest 27.1% is affected by other variables beyond the research scope. The resulting R-square value for the endogenous variable of purchase intention is 0.656, which indicates that 65.6% of purchase intention can be affected by variables of perceived usefulness, perceived ease of use, cost saving, time saving, and perceived customer value, while the rest 34.4. % is affected by other variables beyond the research scope.

The results of the F test in this research resulted in the F square value of the variables of cost saving, perceived ease of use, and perceived usefulness on perceived customer value is higher than 0.02, which means that the three variables have a weak effect. Meanwhile, F square value of time saving on perceived customer value results is higher than 0.15, which means it has a moderate effect. The F square value of the cost saving variable on purchase intention is less than 0.02. This indicates that this variable has no effect. The F square value of time saving,

perceived usefulness, and perceived ease of use variables is higher than 0.2, which indicates a weak effect on purchase intention. The perceived customer value variable has an F square value that is higher than 0.15, which means it has a moderate effect on purchase intention.

The results of the t test in this research are shown in Table 5. Based on the results of the t test, of the 13 hypotheses tested in this research, 6 hypotheses were accepted, and 7 hypotheses were rejected. The accepted hypotheses are H2, H7, H8, H9, H12, and H13, while the rejected hypotheses are H1, H3, H4, H5, H6, H10, and H11.

Table 5. Results of the t-value Output

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	t statistics (O/STDEV)	p values
PU --> PI	0.089	0.095	0.056	1.574	0.116
PEOU -> PI	0.189	0.186	0.079	2.386	0.017
CS -> PI	0.009	0.011	0.086	0.106	0.916
TS -> PI	0.052	0.054	0.081	0.636	0.525
PU -> PCV	0.048	0.051	0.065	0.735	0.463
PEOU -> PCV	0.120	0.120	0.065	1.843	0.066
CS -> PCV	0.275	0.274	0.067	4.098	0.000
TS -> PCV	0.477	0.475	0.070	6.827	0.000
PCV -> PI	0.542	0.536	0.073	7.396	0.000
PU -> PCV -> PI	0.026	0.027	0.035	0.739	0.460
PEOU -> PCV -> PI	0.065	0.064	0.037	1.771	0.077
CS -> PCV -> PI	0.149	0.146	0.039	3.805	0.000
TS -> PCV -> PI	0.259	0.255	0.054	4.781	0.000

Based on Table 5, the direct effect test results show that perceived ease of use and perceived customer value are found to have direct effects on purchase intention, while perceived usefulness, cost saving, and time saving are found to have no effect on purchase intention. The results also show that cost saving, and time saving are found to affect perceived customer value, while perceived usefulness and perceived ease of use do not affect perceived customer value. Based on the results of the indirect effect test, this research proves that on the one hand, perceived customer value mediates the effect of cost saving on purchase intention and mediates the effect of time saving on purchase intention, while on the other hand this research shows that perceived customer value does not mediate the effect of perceived usefulness on purchase intention and does not mediate the effect of perceived ease of use on purchase intention.

D. Discussion

This research shows several findings on the determinants of purchase intention at Tokopedia e-commerce website. **First**, hypothesis 1 which states that perceived usefulness has direct effects on purchase intention is rejected. The results of this research do not confirm the research of Sin et al. (2012) as well as Phongsatha and Jirawoottirote (2018) which found that perceived usefulness has direct effects on purchase intention. The absence of direct effect of perceived usefulness on purchase intention of visitors of Tokopedia e-commerce website could be because in pandemic situation, consumers' perception that the benefits of online shopping include speed in finding what to buy, ease of buying goods, as well as the information provided at Tokopedia website or application are all things that consumers should get because other e-commerce websites also provide the same things. Thus, the perceived usefulness factor is not something that Tokopedia consumers really expect when they decide to shop online at Tokopedia. **Second**, this study accepted hypothesis 2 which states that perceived ease of use has direct effects on purchase intention. This finding is in line with the research of Sin et al. (2012), Phongsatha and Jirawoottirote (2018), and Kim (2020) who indicated that perceived ease of use is the most dominant factor affecting young consumers' online purchase intention through social media followed by perceived ease of use and subjective norms. These results urge Tokopedia management to be more responsive and creative in making e-commerce applications easy to understand and use, such as by providing the application with an online question and answer feature that is always ready and able to quickly answer every consumer's question. In addition,

applications that are practical and do not require a long process in purchase transactions are also very necessary because in general, consumers making online purchases are driven by factors of fastness, easiness, and practicality, so they do not waste a lot of time especially in the pandemic condition.

Third, hypothesis 3 which states that cost saving has direct effects on purchase intention is rejected in this study. The results of this research do not support study conducted by Kim (2020) which found that cost saving has direct effects on purchase intention. These results explain that the perception of Tokopedia e-commerce consumers for the cost saving factor is not a determining factor when shopping online on the website because in the case of pandemic, consumers think that the prices of products sold at Tokopedia is almost the same as those of products sold on other e-commerce websites such as Shopee, Lazada, Bukalapak, and others. Therefore, cost savings do not affect purchase intention for Tokopedia e-commerce consumers. **Fourth**, this study rejected hypothesis 4 which states that time saving has direct effects on purchase intention. The results of this research do not confirm the researches of Anderson et al. (2014), Hossain et al. (2018), and Kim (2020) who indicated that time saving has direct effects on purchase intention. These results explain that online transactions of Tokopedia consumers are not affected by time saving. The results show that the transaction processes from searching for products at Tokopedia website to goods being received by consumers still takes quite a long time, so consumers have not felt the time saving when shopping online at Tokopedia. Thus, Tokopedia management in developing market share needs to pay attention to the expectations and needs of consumers today because time efficiency is an absolute must for consumers to transact online, and competitors also provide the same things. Therefore, more substantial factors such as completeness of products offered and product variations are important to note.

Fifth, hypothesis 5 which states that perceived usefulness affects perceived customer value is rejected. The results of this research are not in line with researches by Chu and Lu (2007) as well as Chen et al. (2018) which proved that perceived usefulness affects perceived customer value. The absence of direct effects of perceived usefulness on perceived customer value of visitors of Tokopedia e-commerce website could be because of their perceptions that the benefits of online shopping include speed in finding what to buy, ease of buying goods, as well as the information provided at Tokopedia website or application are all things that consumers should get because other e-commerce websites also provide the same things, particularly in the pandemic era. **Sixth**, this study rejected hypothesis 6 which states that perceived ease of use affects perceived customer value. The results of this research support the research of Chu and Lu (2007) who also found that perceived ease of use had no effect on perceived customer value. These results explain that during the pandemic, consumers who shop at Tokopedia think that the website has not maximally provided a display and navigation that makes it easier for consumers to shop online. **Seventh**, hypothesis 7 which states that cost saving has effects on perceived customer value is accepted. The results of this study confirm the research of Rodriguez and Fernandez (2016) which also prove that cost saving affects perceived customer value. These findings explain that individuals perceive Tokopedia e-commerce website can make them more efficient or save money when looking for products. In this case, individuals feel that they get a valuable product when buying similar items and get cheaper prices when shopping at Tokopedia website or application. In addition, there is also an opportunity to get a discount when shopping at Tokopedia website or application especially during the pandemic, so that it can create a positive perception of the benefits and high value for the consumers.

Eighth, hypothesis 8 which states that time saving has effects on perceived customer value is accepted in this study. This finding confirms the research of Rodriguez and Fernandez (2016) who also found that time saving has effects on perceived customer value. The finding proves that when individuals perceive Tokopedia e-commerce website can make them more time-saving due to the convenience of getting immediate information about the products they are looking for, they can buy several products at once in a short time and can buy products that suit their wishes as soon as possible on the website or application during the pandemic situation. This perceived time saving can create a positive perception of the benefits and high value for consumers using Tokopedia e-commerce. **Ninth**, hypothesis 9 which states that perceived customer value has effects on purchase intention is accepted in this study. The results of this research are in line with studies conducted by Chu and Lu (2007), Rodriguez and Fernandez (2016), and Chen et al. (2018) which also show that perceived customer value has effects on purchase intention. These results prove that the benefits or values obtained when using Tokopedia e-commerce encourage consumers' interest in buying products during Covid-19 pandemic. Consumers feel that the efforts made to find products are worth the benefits found when shopping online at Tokopedia, and this has led to the desire to buy products at Tokopedia.

Tenth, regarding the mediating effect, this study rejected hypothesis 10 which states that perceived customer value mediates the effect of perceived usefulness on purchase intention. The results of this research do not confirm

the studies of Chu and Lu (2007) as well as Chen et al. (2018) who found that perceived customer value mediates the effect of perceived usefulness on purchase intention. This finding proves that in pandemic era, consumers' perceptions that the benefits of online shopping such as speed in finding what to buy, ease of buying goods, and information provided at Tokopedia website or application are things that should be properly obtained by consumers because other e-commerce websites also provide the same things. Therefore, consumers do not feel any additional values obtained from the aspect of benefits offered when shopping online at Tokopedia. Thus, in the end they do not increase the desire to buy products on the e-commerce website. **Eleventh**, hypothesis 11 which states that perceived customer value mediates the effect of perceived ease of use on purchase intention is rejected in this study. The result of this research is consistent with research by Chu and Lu (2007) who found that perceived customer value mediates the effect of perceived ease of use on purchase intention. This finding proves that in case of pandemic era, consumers consider that Tokopedia has not maximally provided a display and navigation that makes it easier for consumers to shop online both on websites and applications, so that the ease of online transactions at Tokopedia is considered to be of no benefit. Therefore, consumers do not feel the added value obtained from the convenience aspect when shopping online at Tokopedia and in the end do not generate high purchase intention in the products.

Twelfth, this study accepted hypothesis 12 that states that perceived customer value mediates the effect of cost saving on purchase intention. The finding of this research is consistent with the study of Rodriguez and Fernandez (2016) who found the same result, namely perceived customer value mediates the effect of cost saving on purchase intention. This result proves that Tokopedia consumers feel they get values or benefits when they feel that they save more money when shopping online at Tokopedia, for example getting cheaper promo prices or getting free shipping. Saving from the aspect of money spent by consumers to get products can certainly add higher values and in the end increase consumers' desire to immediately buy products at Tokopedia particularly in pandemic situation. **Thirteenth**, hypothesis 13 that states that perceived customer value mediates the effect of time saving on purchase intention is accepted in this study. The finding of this research is in line with the research of Rodriguez and Fernandez (2016) which indicated that perceived customer value mediates the effect of time saving on purchase intention. This finding shows that consumers perceived Tokopedia can save time for them because of the speed in finding the products needed when shopping online on the website, for example, the speed in terms of product packaging and delivery. Consumers can choose a fast product delivery at Tokopedia by using the same day service and then the product will be received by them on the same day as that when they make a purchase. This is very important in pandemic condition. The saving from the aspect of time spent by consumers on obtaining products can increase values, which in turn encourage consumers to buy products at Tokopedia.

V. CONCLUSION AND RECOMMENDATION

Based on the results of the research conducted at Tokopedia e-commerce website during the Covid-19 pandemic, this research draws several conclusions. First, this research found that purchase intention is directly affected by perceived ease of use and perceived customer value, while perceived usefulness, cost saving, and time saving are not proven to directly affect purchase intention. Second, this research proves that perceived customer value is affected by cost saving and time saving, while perceived usefulness and perceived ease of use are not proven to affect perceived customer value. Third, the results of indirect effect test show that perceived customer value is proven to mediate the effect of cost saving and time saving on purchase intention, but the perceived customer value is not proven to mediate the effect of perceived usefulness and perceived ease of use on purchase intention.

Perceived ease of use is an important factor that greatly determines consumer purchase intention at Tokopedia in this research. This implies that Tokopedia needs to create a user-friendly interface to make it easier for customers to access the website or application especially during the pandemic due to a change in shopping patterns from offline to online shopping. In addition, the findings of this research indicate that in a pandemic situation, cost saving and time saving are important factors that shape perceived customer value. The implication is that Tokopedia management should focus more on these two factors. With respect to cost saving, Tokopedia can implement strategies to display more diverse and valuable products, set more competitive product prices, and provide discounted prices regularly. In relation to time saving, Tokopedia can implement strategies to make it easier for customers to get immediate information about products, facilitate customers to buy several products at once in a short time, and build exclusive cooperation with shipping companies to speed up product delivery to consumers.

This research still has several limitations, and therefore researchers recommend some suggestions for further research based on research findings. First, related to the limitations of the model being tested, further research can test a more comprehensive model by adding other variables that have not been studied in this research such as perceived risk or customer trust. Second, about the limitations of the objects under study, further research can also test the model in other e-commerce contexts besides Tokopedia as the research object. Third, in relation to research subjects, it is suggested that future research use respondents beyond Jabodetabek area to increase the generalizability of the research findings. Fourth, regarding the products under study, further researchers are advised to examine more specific products because differences in product characteristics and consumer involvement in products can affect consumer purchase intention on e-commerce. Fifth, due to the limitations of the data analysis tools used, it is suggested that further research use SEM data analysis tools with Lisrel or AMOS software.

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