

Revolutionizing Shopping Experience: The Impact of Mobile Apps on Customer Loyalty in Indonesian E-Commerce Market

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Abstract

The aim of this research is to assess the impact of perceived ease of use and perceived usefulness on customer satisfaction to build on the continuance intention of mobile shopping in Indonesia. The sample used in this study was 255 respondents from people living in Jakarta City who used a mobile shopping application. The approach used for data analysis in this research is based on Structural Equation Modeling (SEM) with version 3.0 of the SmartPLS. The results showed that perceived ease of use and perceived usefulness had a major impact on customer satisfaction, and that customer satisfaction had a positive impact on continuance intention. Based on the empirical results, it can be concluded that the perceived ease of use and perceived usefulness of the application platform is an influence on customer satisfaction to construct on sustainable consumption

Keyword: Perceived Usefulness, Continuance Intention, Perceived Ease of Use

INTRODUCTION



The development of sophisticated communication technology now offers a very different communication media that brings changes in the lives of Indonesian people at the beginning of its development, communication media comprising radio, television, and magazines. The development of more advanced age causes the human needs of information is increasing. The event is felt exist the Internet, so the Internet is required to meet the demand for information. With information and communication technologies today, the world no longer knows borders, distance and time.

With the internet, modern society accustomed to using the Internet as a tool to meet everyday needs, one activity of buying and selling goods or services online. Online shopping more accessible for consumers to get the products they want to have. Besides offering various facilities, Kenneth C. et al. (2016) showed that shopping through the online platform is being more cost-effective, time, and energy, without the need to go to the store and the shopping center. The society has a habit of always shopping online to use mobile shopping application. (Febriyantoro & Arisandi (2018) stated that with the internet, besides providing various facilities, users can save the advertising cost of goods. Besides, the seller or the buyer only needs a quota for shopping through a mobile shopping application, so no need to get to the shopping center.

However, ten years later, internet penetration increased from 25 million in 2008 towards 143.26 million in 2017, out of a total Indonesian population of 262 millions. The rise in the amount of Internet users in Indonesia has led to various developments in the online shop. We know one change that is emerging today as electronic commerce or e-commerce. Thus, the opportunity to pioneer e-commerce business will be even higher (Febriyantoro, 2018).

E-commerce stands for Electronic Commerce, a marketing system with the Internet, the worldwide Web (www), a mobile application and a browser connected to the mobile device for conducting business transactions (Kenneth C. et al., 2016). *E-commerce has great potential in Indonesia and with changes in the industry since 2016 and 2017. Some online application in Indonesia to carry out the concept of e-commerce or online shopping among other Shopee, Lazada, and Tokopedia. These applications provide a wide range of information products that are marketed through a virtual marketplace to transact online through mobile apps.*

Supply Chain Indonesia and CNN Indonesia (2017) stated one challenge in the e-commerce business was intense competition and logistics. Often a logistical problem in the business world of e-commerce, on special occasions such as promotion, where the



volume of online shopping is at its peak, fulfilling customer orders, and a challenge that must be addressed to the perpetrators of consumer shopping experience. Logistics is more than the delivery of goods to consumers. Problems in the logistics side ranging from how to make sure products conform to the wishes of consumers with promptly minimized to eliminate the possibility of product defects and provide reverse logistics. Reverse logistics needed when consumers ask for a refund for defective products or if they want to make the switch size and color of the product.

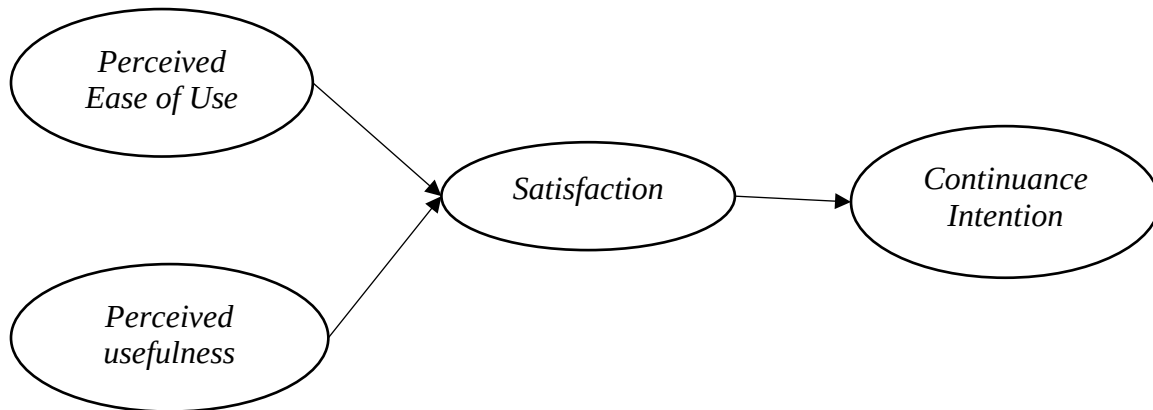
In Indonesia, Shopee is the most popular e-commerce and most often used by consumers. Snapcart (2018) Research conducted using the online survey method through a January 2018 application requiring 6,123 respondents. Research by Snapcart has shown that 37 percent of people used Shopee the most frequently to shop online in Indonesia. The next rankings are Tokopedia (25%) and Lazada (20%). They are the top three online shopping providers in Indonesia. Shopee, Lazada and Tokopedia are the most remembered brands of the respondents. Research by Snapcart has shown that routine e-commerce shoppers are dominated by 65 percent of female shoppers and 35 percent of males. The categories most frequently recognized by the respondents were clothing, accessories, bags, shoes, and health and equipment.

Shopee is e-commerce with the largest amount of shopping relative to other e-commerce in terms of the shop size. 29 percent of respondents (at least once a week) shop at Shopee. Other e-commerce platforms, such as Tokopedia, are ranked second with 22 percent of respondents, led by Lazada at 10 percent.. Snapcart's research states that Shopee has success as the highest e-commerce awareness service provider, the highest purchase frequency, and the most often-used by Indonesian consumers. This study shows the progress of Shopee in communicating with online shoppers in Indonesia.

With the statement by Snapcart's research, it can be concluded that using the Shopee application is considered more cost-effective, time, and energy, without having to go to the store or shopping center. So this Shopee application can make it easier for consumers to shop and not search much for a product. The existence of Shopee causes the needs of consumers to be fulfilled, and consumers satisfied with the Shopee application services. Hence, an intention to reuse the Shopee application. This research is a model that has been carried out by Shang & Wu, (2017). From forming hypotheses,



as for the research model adopted from the research model, Shang & Wu (2017) can be seen in Figure 1:



Picture 1. Research Model

Source: Developed for this study, 2022

The hypothesis in this study are:

H1: Perceived Ease of Use Significantly influences customer satisfaction.

H2: Perceived Usefulness has a significant positive effect on customer satisfaction.

H3: Customer satisfaction has a significant effect on Continuance Intention.

I.

METHOD

The approach used in research is quantitative. It bases the method used in conducting this research on a questionnaire, a data collection technique carried out by giving a set of questions or written statements to respondents to be answered directly or online sent via the internet (Sugiyono, 2012). Based on data from 255 respondents through questionnaires distributed, it can be seen the characteristics of respondents about age, sex, occupation, income, and characteristics of respondents based on the frequency of using Shopee applications in one week. It carries classification out to respondents in this study aims to find out and describe respondents as the object of this study.

We conducted this research in Jakarta. The population in this study is the people who use mobile shopping application Shopee in Jakarta. The population in this study is not limited and uses the concept of structural equation modeling (SEM) with Smart-PLS software. Hair et al. (2014), which states the ideal number is least of 100 respondents for a research model comprising four variables or fewer. Things that will be tested in Smart-PLS are validity test, reliability test, descriptive statistical analysis, and inferential statistical analysis. The operational definition and measurement indicator variables of this study are:

Table 1. Definition of Variable Operations.

Variable	Operational Definition
<i>Perceived Ease of Use (PEOU)</i>	A state of the user believes that by using an application, the system is not needed any effort (free of effort), easy to understand and easy to use (F. Davis 1989)
<i>Perceived Usefulness (PU)</i>	A state of the user believes that by using an information technology system can improve the performance and work performance of people who use it (F. Davis 1989)
<i>Customer Satisfaction (CS)</i>	Feeling satisfied or upset by someone who compares the expected product output or the outcomes of their expectations . (Kotler P, Armstrong 2012)
<i>Continuance intention (CI)</i>	The intention of users to continue to use mobile shopping applications sustainably (Atcharyachanvanich et al., 2008).

RESULTS AND DISCUSSION

An Overview of Research Object

This research uses a questionnaire for the data collection process. Of the 255 surveys reported, the characteristics of the respondents are based on the gender, age, occupation, income and characteristics of the respondents based on the frequency of the one-week usage of the Shopee application. Characteristics of the age of 18-25 years

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were 91.2 percent of respondents, for the social scope of researchers between 18-25 years of age, women who completed the questionnaire were 67.3 percent higher, while men were 32.7 percent higher. This research reveals that the mobile shopping application Shopee users in the city of Jakarta are women than men in this survey.

The following work as a student of 74.1%. It is linked, in the age range of 18-25 years on average were students. Followed by income, <3 million is 54.5%, and 3 million - 5 million is 33.9%. Of the 255 respondents, an average of 78.9% Shopee applications usage frequency in one week is less than five times.

Validity and Reliability Test

Ghozali (2013) stated that it conducted the validity Check to test the validity of a survey questionnaire. The survey could be considered valid if the analysis may reveal something that is being calculated. The statement said it was true if it had a loading factor above 0.6.

There are three requirements for using SmartPLS data analysis techniques to test the outer model, Convergent Validity, Discriminant Validity and Composite Reliability. Convergence of the measurement model with a reflexive indicator was evaluated on the basis of the correlation between the score of the component and the score of the element calculated by PLS Software. Individual reflexive measures are said to be high if they are more than 0.70 correlated with the construction measured. According to Chin, 1998 (Ghozali, 2006), for the first stages of research, developing a measurement scale loading values 0.5 to 0.6 is enough. This study will limit the loading factor of 0.60.

Table 2.Result Outer Loadings

	PEOU	PU	CS	CI
CI1				0.849
CI2				0.842
CI3				0.724
CS1			0.821	
CS2			0.668	
CS3			0.762	
PEOU1	0.836			
PEOU2	0.861			



PEOU3	0.806			
PU1		0.743		
PU2		0.784		
PU3		0.836		

Source: processed primary data, 2022

Discriminant Validity

It shall implement discriminant validity to ensure that each definition of each latent variable varies from the other variables. The model has strong differential validity if each loading value of each predictor of a latent variable has the highest loading value with another loading value of another latent variable. Considers an indicator acceptable if it has a loading factor above 0.5 for the proposed construct (Fornell & Larcker, 1981). SmartPLS output for loading factor provides the following results:

Table 3. Result For Cross Loadings

	PEOU	PU	CS	CI
CI1	0.409	0.395	0.489	0.849
CI2	0.325	0.406	0.429	0.842
CI3	0.291	0.325	0.476	0.724
CS1	0.454	0.430	0.821	0.486
CS2	0.243	0.367	0.668	0.350
CS3	0.255	0.428	0.762	0.460
PEOU1	0.836	0.433	0.376	0.373
PEOU2	0.861	0.505	0.402	0.363
PEOU3	0.806	0.324	0.285	0.328
PU1	0.478	0.7434	0.436	0.406
PU2	0.325	0.784	0.373	0.318
PU3	0.404	0.836	0.467	0.371

Source: processed primary data, 2022

Table 3 shows that the loading factor gives a value above the suggested value is above 0.8 and 0.7. The smallest value is 0.668 for the CS2 indicator. We can conclude it that the indicators used in this study are valid because it has met the convergent validity.



An indicator declared invalid if it has the highest loading factor to construct the intended loading factor compared to other constructs.

We can see another method to see discriminant validity through the value of the average variance extracted (AVE). The suggested value is above 0.5 (Fornell & Larcker, 1981). The SmartPLS output shows the AVE value:

Table 4. Result Of Average Variance Extracted (AVE)

	AVE	$\sqrt{AVE}$
PEOU	0.697393	0.835
PU	0.622869	0.789
CS	0.567659	0.753
CI	0.652070	0.807

Source: processed primary data, 2022

Output AVE in Table 4 shows values above 0.50 for constructs in the research model. PEOU variable with the AVE output value of 0.697, PU with the value of 0.622, CI with AVE value of 0.652, and CS with the lowest value of AVE of 0.567. Table 4 shows that the four variables have a value AVE roots larger than the correlation between variables.

Reliability Test

Reliability testing is done by looking at the value of the composite reliability block indicator that tests the design. The results will show that the composite reliability value is satisfactory if it is above 0.6.(Ghozali, 2013). Here are the composite reliability values on the SmartPLS output:

Table 5. Result of Composite Reliability

	<i>Composite Reliability</i>
PEOU	0.873
PU	0.831
CS	0.796
CI	0.848

Source: processed primary data, 2022



The above table indicates that the composite reliability value for the constructions is above 0.7, showing that the constructions in the model are expected to follow the discriminant validity criteria. The lowest composite reliability value in the Customer Satisfaction (CS) specification is 0.796.

Cronbach Alpha can strengthen the reliability test results. The SmartPLS 2.0 output follow results:

Table 6. Cronbach Alpha

PEOU	0.785
PU	0.697
CS	0.618
CI	0.729

Source: processed primary data, 2022

The recommended value is above 0.6, and table 6 shows that the Cronbach's Alpha value for constructs is above 0.6. PEOU variable a value of 0.785455, PU a value of 0.697044, CI with 0.729782, and the lowest value of 0.618313 in the CS construct.

Testing the Inner Model (Structural Model)

After the estimated model meets the Outer Model criteria, the Inner Model (Structural Model) is tested next. Here are the values of R-Square on the construct:

Table 7. R Square

	<i>R Square</i>
PEOU	
PU	
CS	0.326
CI	0.336

Source: processed primary data, 2022



The table above gives a value of 0.326 for the CS constructs, so PU and PEOU can explain the CS variance of 32,6%. R-value found in CI influenced by CS that is equal to 0.3362. Hypothesis testing is:

Table 8 Path Coefficients (Mean, STDEV, T-Values)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics (O/STERR)
CS -> CI	0.579	0.588	0.075	0.075	7.663
PEOU -> CS	0.206	0.212	0.089	0.089	2.301
PU -> CS	0.437	0.444	0.104	0.104	4.167

Source: processed primary data, 2022

The table above demonstrates significant relationship between PEOU and CS, with a T-statistic of 2.301 (> 1.96). The value of the original sample estimate is positive, namely the 0.206, which indicates positive relationship between PEOU and CS. The above table indicates an significant relationship between PU and CS, with the T-statistic 4.167 (> 1.96). The value of the initial sample estimate is positive, equal to 0.437, which indicates positive relationship between PU and CS. The table above indicates an significant relationship between CS and CI, with a T-statistic of 7.663 (> 1.96). The value of the original sample estimate is positive, which is 0.579, which indicates positive relationship between CS and CI.

The results of the study indicated a significant relationship between perceived ease of use and perceived usefulness of an application platform, and customer satisfaction. The findings suggest that customers are more likely to be satisfied with the platform when they find it easy to use and when they perceive it to be useful. Furthermore, the results revealed that customer satisfaction has a positive effect on continuance intention, meaning that customers who are satisfied with the platform are more likely to continue using it in the future (Belanche et al., 2017).

The perceived ease of use and perceived usefulness of an application platform plays a crucial role in shaping customer satisfaction and ultimately impacting continuance intention. Therefore, it is important for businesses to focus on ensuring that their platform



is both user-friendly and offers useful features in order to increase customer satisfaction and foster sustainable consumption (Shang & Wu, 2017).

CONCLUSION

We can conclude the results that the Perceived Ease of Use has a significant effect on Customer Satisfaction. Perceived Usefulness has a significant effect on Customer Satisfaction, and Customer Satisfaction has a significant effect on Continuance Intention. This research reflects that consumer satisfaction influences the intention of sustainable use of Shopee's mobile shopping application. It does not meet if satisfaction, then there will be no possibility of consumer intention to use an application system sustainably (Febriyantoro, 2016).

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