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## **BEHAVIORAL ANALYSIS OF SHOPEE APPLICATION USERS AT STMIK BORNEO INTERNATIONAL USING THE TECHNOLOGY ACCEPTANCE MODEL (TAM) METHOD**

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### **ABSTRACT**

#### **KEYWORDS**

*Behavior Analysis,  
Shopee Application,  
Technology  
Acceptance Model*

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The development of information technology today has a very rapid growth. Businesses began to enter the virtual world market called e-commerce. Shopee is one of the developing e-commerce. Therefore, it is necessary to know how the acceptance of an application technology by the public is used. In this research, the Shopee application is used, which is an online shopping platform that focuses on mobile, making it easier for users to shop and sell using gadgets. The method in this study uses the Technology Acceptance Model (TAM) research method. The results of this study note that Perceived Ease of Use does not have a significant positive effect on Attitude Toward Using Perceived Usefulness has a significant positive effect on Attitude Toward Using with the level of relationship. It can be concluded that the Perceived Usefulness, Attitude Toward Using, and Intention to use factors have a significant effect on the use of the Shopee application. Meanwhile, the perceived ease of use has no effect on the Shopee application, so it is recommended to improve the quality of the ease of use of the Shopee application.

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### **INTRODUCTION**

The development of information technology today has a very rapid growth. People's lifestyles are increasingly instantaneous because the majority of people have high mobility in their daily activities (Aulia, 2021; Tse et al., 1989). So that people are looking for something practical and instantaneous in meeting their needs (Miles, 1998). As one of the internet users, consumers prefer internet media for shopping because they do not need to meet face to face with service providers

In Indonesia, there are many online stores that can be used for promotion and ease of use. One of the online store applications is *Shopee*. The increasing growth of e-commerce in Indonesia has made Shopee to enliven the industry (Purbasari et al., 2020). E-commerce is a business alternative in the modern era which is in line with increasingly dynamic market conditions and competitive competition resulting in changes in consumer behavior (Salamun et al., 2021). *Shopee* is the first consumer-to-consumer (C2C) mobile marketplace application that is safe, easy, fun, and practical in buying and selling (Devita et al., 2021). *Shopee* as one of the online buying and selling sites that has made changes to attract customers to make more

transactions (Arief, 2021; Wahyuni, 2022). If e-commerce shopee is able to provide the right service and in accordance with consumer expectations, shopee will have a good perception for its users (Melani, 2021; Wafiyah et al., 2021).

Therefore, TAM is the basis for knowing and understanding behavior in receiving and using an information system (Marangunić & Granić, 2015; Surendran, 2012). So TAM is used to study consumer behavior in processing information (Holden & Karsh, 2010). Using the TAM method will help predict a person's attitude and behavior towards technology and can provide the basic information needed about the factors that drive the individual's attitude. This model has a factor of each user behavior with four variables, namely usefulness, ease of use, behavioral intention of use, and attitude toward using (King & He, 2006; Lee et al., 2003). For students, the use of buying and selling media in conducting online transactions is in great demand because the benefits that are so practical and easy to use are considered an advantage in conducting online transactions.

Berapa sering anda menggunakan aplikasi e-commerce?

70 jawaban

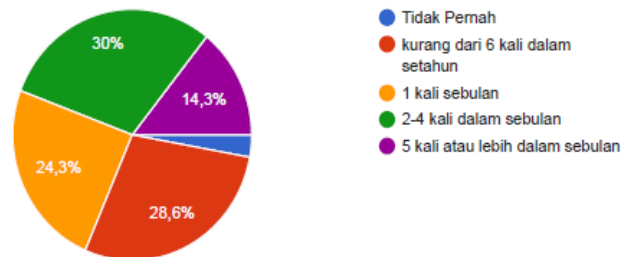


Figure 1. Graph of Shopee e-commerce Application Usage  
Source: LPPM STMIK Borneo International

Seberapa puas anda dengan software aplikasi e-commerce / marketplace yang anda gunakan?

70 jawaban

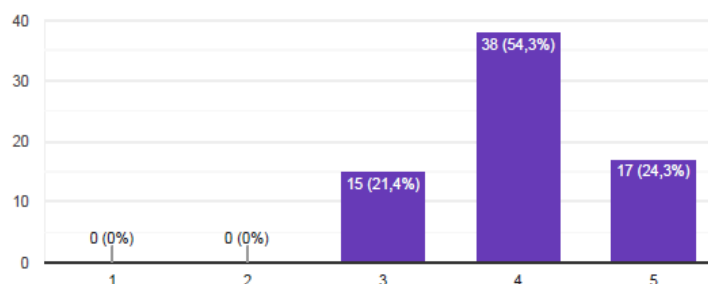


Figure 2 Graph of Shopee E-Commerce Application User Satisfaction  
Source: LPPM STMIK Borneo Internasional

The purpose of this evaluation is to understand whether the shopee application has an influence on the relationship between perceptions of perceived ease of use (perceived ease of use), perceptions of usefulness (perceived usefulness), behavioral intentions (behavioral intention to use), attitudes of use (Attitude Toward Using) for users, especially students at STMIK Borneo International Balikpapan. Then a study entitled "Analysis of the Behavior of

the *Shopee* Application Users at STMIK Borneo Internasional was conducted using the Technology Acceptance Model (TAM) method".

## RESEARCH METHOD

The data collection method was used to obtain the data needed during the study. This research was conducted by testing hypotheses by relating several sample members from the population whose data collection was carried out using a questionnaire to test the relationship between perceptions of perceived ease of use, perceptions of usefulness (Perceived Usefulness), Behavioral Intention (Behavioral Intention to use), attitude towards application (Attitude Towards Using). Literature study is used to collect secondary data from companies, theoretical basis and information related to this research by means of documentation. The study was conducted, among others, by collecting data sourced from the literature.

## RESULTS AND DISCUSSION

### 1. Validity Test

The validity test with SPSS was carried out by using a bivariate correlation between each indicator score and the total variable score. If  $r$  count is greater than  $r$  table and the value is positive, then the item or question or indicator is declared valid. The instrument is said to be valid if the significance value of the instrument item score ( $R_{count} > 0.05$ ). On the other hand, if the significance value is obtained ( $R_{count} < 0.05$ ) then it can be said that the instrument is invalid).

Table 1 Ease of Use Variables

No	Variable Ease of Use (Perceived Ease of Use)	R-table	R-count	Description
1	I can access shopee easily, anytime and anywhere.	0.5140	0.842	Valid
2	The shopee application display is clear and easy to understand	0.5140	0,717	Valid
3	I don't have to spend a long time thinking about how to use shopee.	0.5140	0,697	Valid
4	Shopee application connection 24 hours	0.5140	0,763	Valid

Based on the results of the calculation of the validity of the user behavior variable in table 1 it is known and obtained all items that are declared valid. With a significant value less than 0.05 so that all items of the Perceived Ease of Use question are able to reveal something that is measured on the questionnaire.

Table 2 Variables of Information Use

No	Variable of Information Usefulness (Perceived Usefulness)	R-table	R-count	Description
1	In my opinion, the shopee application allows faster shopping and transactions.	0.5140	0,777	Valid
2	In my opinion, placing information on the shopee application makes it easier for me to shop and transact.	0.5140	0,697	Valid

3	The shopee application can save the costs I have to spend in shopping and transacting.	0.5140	0,864	Valid
4	In my opinion, the information presented on the Shopee application is timely	0.5140	0,735	Valid

Based on the results of the calculation of the validity of the user behavior variable in table 2, it is known and obtained all items that are declared valid. With a significant value less than 0.05 so that all Perceived Usefulness question items are able to reveal something that is measured on the questionnaire.

Table 3 Variables on Application

No	Variables Against Application (Attitude Toward Using)	R-table	R-count	Description
1	I like the shopee app because it helps shopping and transactions	0.5140	0,775	Valid
2	I believe the shopee application is clear and easy to understand	0.5140	0,528	Valid

Based on the results of the calculation of the validity of the user behavior variable in table 3 it is known and obtained all items that are declared valid. With a significant value less than 0.05 so that all of the Attitude Toward Using question items reveal something that is measured on the questionnaire.

Table 4 User Behavior Variables

No	User Behavior Variable (Behavioral Intention to Use)	R-table	R-count	Description
1	I am interested in using the shopee application as my main choice in shopping and transacting.	0.5140	0,749	Valid
2	The use of the shopee application is easy to facilitate shopping and transactions.	0.5140	0,854	Valid
3	I would recommend the Shopee app for shopping and transactions to other people who have never used it.	0.5140	0,677	Valid

Based on the results of the calculation of the validity of the user behavior variable in table 4 it is known and obtained all items that are declared valid. With a significant value less than 0.05 so that all the Behavioral Intention to Use question items reveal something that is measured on the questionnaire. Based on the results of the calculation of the validity of the user behavior variable above, all items were declared valid. The validity test was carried out by taking 15 samples of respondents, from the table above it can be concluded that all questionnaires are declared valid because Rcount > from Rtable with (df = 15-2) is 0.5140 So that all question items can be continued for further research.

## 2. Reliability Test

Reliability test is a tool to measure a questionnaire which is an indicator of a variable or construct. The reliability test in this study used the help of the IBM SPSS Statistic 21 program with Cronbach Alpha ( $\alpha$ ) statistical test analysis. Recap the reliability test results in the table as follows:

Table 5 Reliability Test Results for Variable X

<i>Cronbach's Alpha</i>	<i>N of Items</i>
,828	10

Table 6 Reliability Test Results for Variable Y

<i>Cronbach's Alpha</i>	<i>N of Items</i>
,786	3

Based on the results of the reliability test of the research instrument, the Cronbach's Alpha value for the X variable is 0.828, the X variable can be concluded that the statement in this questionnaire is reliable because it has Cronbach's Alpha more than 0.06, the same as the Y variable, the Cronchbach Alpha is 0.786, the same as the X variable, it can be concluded that variable Y has Cronbach's Alpha more than 0.06. This shows that each statement item used

Model		<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,191	1,318		,903	,369
	EASE OF USE (X1)	-,004	,111	-,003	-,036	,972
	USES OF INFORMATION (X2)	,298	,106	,338	2,823	,006
	ON APPLICATION (X3)	,704	,191	,429	3,691	,000

a. Dependent Variable: USER BEHAVIOR (Y)

will be able to obtain consistent data, which means that if the question is asked again, an answer that is relatively the same as the previous answer will be obtained.

### 3. T-test

Table 7 T-test

Based on the table above, the regression equation is obtained as follows:

$$Y = 1.191 + -0.004X1 + 0.298X2 + 0.704X3$$

Based on the results of the calculation, the calculated number t Variable (X1) or Perceived Ease Of use is -0.036, the significance is 0.972 > 0.05 and Tcount is -0.036 < T table 1.99254 so that H01 is accepted and Ha1 is rejected, meaning that Variable (X1) or Perceived Ease Of use cannot be the effect on the variable Attitude Toward Using (y) shopee application and the effect is -0.005 or 0.5%. In the table of the Perceived Usefulness variable or variable (X2), it is obtained that the arithmetic value is 0.006 < 0.05 and T count is 2.823 > T table 1.99254. So H02 is rejected and Ha2 is accepted, meaning that the Perceived Usefulness variable or variable (X2) has an effect on Attitude Toward Using (y) the shopee application and has an effect of 0.298 or 29.8%.

Based on the explanation above, it can be concluded that the results of the T test are as follows:

1. In the ease of use variable (X1) there is no effect on the user behavior variable (y) partially because the significance value is  $0.972 > 0.05$  and  $T_{count} -0.036 < T_{table} 1, 1.99254$ .
2. In the information usefulness variable (X2) there is a partial effect on the user behavior variable (Y) because the significance value is  $0.006 < 0.05$  and  $T\text{-count}$  is  $2.823 > T_{table} 1, 1.99254$ .
3. In the variable on the application (X3), there is an effect on the user behavior variable (Y) partially because the significance value is  $0.000 < 0.05$  and  $T\text{-count}$  is  $3.691 > T_{table} 1, 1.99254$ .

#### 4. F-Test

Table 8 F-test

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	118,252	3	39,417	23,859	,000 <sup>b</sup>
	Residual	120,605	73	1,652		
	Total	238,857	76			

a. Dependent Variable: USER BEHAVIOR (Y)

b. Predictors: (Constant), ON APPLICATION (X3), EASE OF USE (X1), USEFULNESS INFORMATION (X2)

To test the significance of the research results, it was done by comparing the magnitude of the research significance level (sig) with a significance level of 0.05 or 5%. Based on the results of calculations using SPSS, the results obtained significance values or in other words Perceived Ease Of use, Perceived Useful, Behavioral Intention, and Attitude Toward Using (Y) users affect the use of the Shopee application, it can also be seen that the probability of sig (Sig) is  $0.000 < 0.05$  means the model is accepted or it can be concluded that the form of a linear equation. Based on the table above on the ease of use variable (X1), the usefulness of information (X2), on the application (X3), there is an influence on the user behavior variable simultaneously because the significance value is  $0.000 < 0.05$  and  $f_{count} 23.859 > f_{table} 2.74$ .

H1. Influence (perceived Ease of Use) or perceived ease of use (Attitude Towards Using) or attitudes towards the application of the shopee application. Based on table 4.8 Perceived Ease Of use has a t value smaller than table t, namely  $0.036 < 1.99254$ , for the Attitude Toward Using (Y) variable. This means that H1 is accepted and A1 is rejected, so it can be concluded that the Perceived Ease Of use variable is partially not affect the Attitude Toward Using variable.

H2. Influence (Perceived usefulness) or perceived usefulness (Attitude Towards Using) or attitudes towards the application on the shopee application. Based on table 4.8, the perceived usefulness variable has a t-count value that is greater than the t-table, namely  $2.823 > 1.99254$ , for the Attitude Toward Using (Y) variable.

Where Perceived Ease Of Use, Perceived Useful, Behavioral Intention, and is the dominant variable on Attitude Toward Using seen from the Unstandardized Coefficients model with a B value of 0.298 and a significant level less than 0.05 ( $0.004 < 0.05$ ).

Influence (Behavioral Intention to Use) or interest in user behavior towards (Attitude Towards Using) or attitudes towards the application of the shopee application. Based on table 4.8 the Behavioral Intention to use variable has a value greater than table t, namely  $3.691 >$



1.99254. on the Attitude Toward Using (Y) variable, this means that Ha3 is accepted and H03 is rejected, so it can be concluded that the Behavioral Intention to use variable partially affects Attitude Toward Using.

Judging from the Unstandardized Coefficients model with a B value of 0.704 and a significant level less than 0.05 ( $0.000 < 0.05$ ). In the F test, the significance level used is 0.05 (5%) and the F table is 2.74. The F table value is obtained by calculating using the F table formula. It is known that the significance value for the influence of the independent variables (X1, X2, and X3) simultaneously affects the dependent variable (Y) of  $0.000 < 0.05$  or  $23.859 > 2.74$ . In the calculation, the result is that the F test aims to determine whether the independent variables simultaneously have an influence on the dependent variable. From the calculation results, the value of the F test is 23,859 with  $\text{sig} < 0.05$ , so it can be concluded that the variables together play a role in the use of the Shopee application. The results of testing the effect of the independent variables together on the dependent variable show Variables (X1, X2, and X3)  $23.859 > t$  table 2.74 shows that the results obtained get the results that the X variable simultaneously affects the Y variable.

## CONCLUSION

The test results on the proposed model show good results. Based on the research that has been done on STMIK students, regarding the behavior of shopee application users, the following conclusions can be drawn: The variable Perceived Ease of Use has no significant effect H01 is accepted on the Attitude Toward Using variable, it is concluded that the Perceived Ease Of Use variable partially has no effect on the variable Attitude Toward Using. The Perceived Usefulness variable has a significant positive effect on the Attitude Toward Using variable because it has a good value and has a positive relationship. The Behavioral Intention to Use variable has a significant positive effect on the Attitude Toward Using variable because it has a good value and has a positive relationship. Variables Perceived Ease of Use, Perceived Usefulness and Behavioral Intention to Use (X1, X2, and X3) have a significant positive effect on the Attitude Toward Using variable because their values are equally good and have a positive relationship.

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