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Factors That Determine Behavioral Intentions in Using E-Commerce with the Most Visitors in Indonesia

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Abstract

This study aims to find out what factors influence behavioral intentions in using an e-commerce with the most visitors in Indonesia. The model used in this study is a combination of variables from several previous models related to the problem and variables relevant to this study such as Perceived Ease of Use, Perceived Usefulness, Effort Expectancy, Social Influence, Subjective Norm, and Behavioral Intention. Data collection in this study was to distribute questionnaires online. The questionnaire distributed produced 100 respondents and was processed with SPSS. From the results of processing with the T Test and Double Linear Regression, there are two hypotheses accepted and three hypotheses rejected, which states that the perceived ease of use and effort expectancy variables have a positive significant influence on behavioral intention, while perceived usefulness, social influence and subjective norm do not have a significant influence on behavioral intention.

Keywords
behavioral intention; e-commerce; technology of acceptance; unified theory of acceptance; use of technology; theory of planned behavior

I. Introduction

Almost every human action is now done online in the digital age, making the use of the internet a daily necessity for most individuals (Widagdo & Rofik, 2019). Based on data that has been analyzed by the Indonesian Internet Service Provision Association (APJII) in 2018, Indonesian internet users reached 171.7 million people from 264.26 million Indonesians, of which 64.8% of the entire Indonesian population has used the Internet. this number of figures continues to increase to 10% when compared to 2017 (Pranoto, 2019)

Technology plays an important role in people's lives, especially in Indonesia. Things that are very prominent in the development of existing technology and people's creativity, especially in the field of online business, such as the use of internet media as a promotional medium, it is not uncommon for the use of this media to become a marketing, sales and purchase medium using E-commerce platforms. Marketing is a process of planning and execution, starting from the conception stage, pricing, promotion, to the distribution of goods, ideas and services, to make exchanges that satisfy the individual and his institutions (Dianto in Asmuni et al, 2020). According to Tjiptono in Marlizar (2020) marketing performance is a function that has the greatest contact with the external environment, even though the company only has limited control over the company's environment. In the world of marketing, consumers are assets that must be maintained and maintained their existence in order to remain consistent with the products we produce (Romdonny and Rosmadi, 2019).

E-commerce is a new platform or invention in commerce that uses the internet to give permission to sell goods and services carried out online; in this approach it is carried

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out online between sellers and sellers in different locations and does not become a major obstacle in making transactions (Hong, 2019). In the first quarter of 2020, Shopee e-commerce had the most monthly site visitors in Indonesia, according to iPrice statistics. According to iPrice statistics, this market had 71.5 million visitors in the first quarter of 2020. This research shows that Shopee E-commerce is the type of e-commerce that customers are most interested in (Jayani, 2020).

Along with the development of e-commerce in Indonesia which is quite large and makes Indonesia the highest in 2019 with a figure of 78%. On the other hand, the existence of e-commerce brings convenience and benefits provided, because everyone can make sales or purchase transactions anytime and anywhere without being limited by time and space. But behind the convenience and benefits provided, it turns out that there are internet users who state that they have never transacted in e-commerce, as many as 56%, besides that 12.2% of internet users stated that they did not want to shop online because they could not use the application, and 18.8% preferred to shop directly because they could get the goods directly (Annur, 2019). This shows that the level of e-commerce users is already quite high, but behind the high use there are shortcomings why there are still people who have never used e-commerce and prefer conventional shopping activities.

Based on the problems that occur, it is necessary to know what factors can affect behavioral intentions in using e-commerce, Shopee which is the most popular e-commerce site in the DKI Jakarta area. The factors to be studied use variables contained in several theories such as the Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT) and variables contained in the Theory of Planned Behaviour Model (TPB).

II. Review of Literature

2.1 E-Commerce

Electronic commerce (E-commerce) is defined as the activity of buying and selling goods digitally by consumers and from industry to industry using technology such as processors as an intermediary tool for commercial transactions) (Martínez-Navarro et al., 2019). E-commerce is an expression that has emerged in today's technological era. E-commerce is the advertising and sale of products and services through the internet, as well as the process of buying and selling transactions carried out through the internet using a website as a place to do so (Radcliffe, 2019).

2.2 Behavioral Intention

Behavioral Intention is one of the factors behind a desire, plan, goal, or belief aimed at various purposes (Permana & Dewi, 2019). Based on (Namkung dan Jang, 2007) in (Purwianti & Tio, 2017) Behavioral Intention refers to the behavior of customers who are so committed to the company that they want to suggest it to others because they have gotten a good service from it. One of the beneficial behavioural intentions is the existence of a positive attitude about a product or service provider. This positive attitude can be a positive word of mouth.

2.3 Perceived Ease of Use

Perceived ease of use, also known as perceived ease of use, is a state in which a person believes that using a particular system does not need them to exert any effort (Free Effort) (Davis, 1989). This is similar to the ease of making a difference, which is free from

making heavy efforts. (Davis, 1989) argues that business is a limited source that a person allocates to an activity as a form of responsibility. Perceived Ease of Use is the degreeto which computer technology looks simple enough to understand and use is mentioned in journals (Rukmiyati & Budiartha, 2016).

2.4 Perceived Usefulness

The term percieved usefulness proposed by Davis (1989) refers to the meaning of a subjective probability for a potential user that using a certain application system can improve the quality of his work in the context of an organization (Davis, 1989b). According to (Jogiyanto, 2007) in (Dewi & Warmika, 2016), beliefs about the decision-making process are considered utility. Meanwhile, according to (Siahaan & Prihandoko, 2019), the perception of usability is the belief that a user of technology can contribute to the advantages of its use.

2.5 Effort Expectancy

According to (Vankatesh et al., 2003) in (Putri & Mahendra, 2017) Effort Expectancy is the use of a system that has been linked to a degree of ease. In addition, according to (Permana & Dewi, 2019) defined as the degree of ease associated with the use of a system.

2.6 Social Influence

According to (Kotler & Armstrong, 2012) Influence sosial (Social Influence) is an effort that has been made oleh a person or more in changing the attitudes, beliefs, perceptions, or behaviors of others. (Kelman, 1985) has analyzed that there are three broad varieties of social factors such as compliance, identification, and internalization. In addition, the extentthat a person recognizes the interests that others feel will affect him when utilizing the new system is referred to as social influence (Permana & Dewi, 2019).

2.7 Subjective Norm

When the individual thinks that most of the people who are important to him or her do not have to perform certain behaviors. It is the view of an individual towards their beliefs that will influence them in carrying out intentions or behaviors (Jogiyanto, 2007). The individual's impression of the expectations of individuals who have an effect in their lives (significant others) regarding whether or not certain actions are performed is referred to as subjective norms (Ramdhani, 2011).

III. Research Method

The research model has been depicted in figure 1 below which combines variables from several previous research models as in the TAM model, the variables adapted are perceived ease of use and perceived usefulness; UTAUT model, the adapted variables are effort expectancy, social influence, and behavioral intention; TPB model, the adapted variable is subjective norm.

This research was conducted in DKI Jakarta with the subject of the study, namely users of E-commerce Applications in DKI Jakarta. Based on the calculation of the slovin formula with the population of the people of DKI Jakarta, a minimum sample of 100 was obtained. The data for this study was collected through the dissemination of online surveys using Google Forms. This study will be analyzed using SPSS. The following research models and hypotheses have been compiled

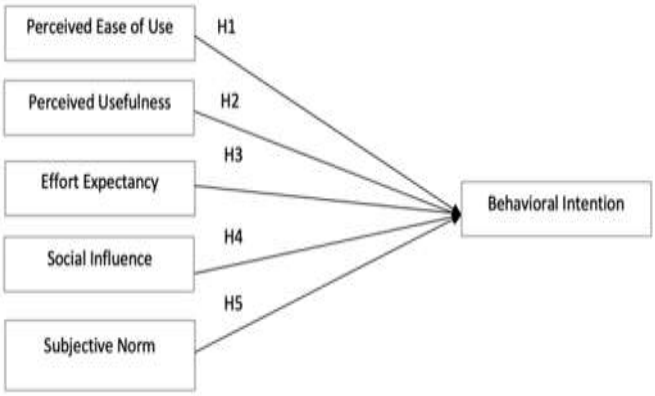

Figure 1. *Research Model*

From the model shown in figure 1, the following hypothesis can be compiled as below

H1: Perceived Ease of Use has a significant effect on Behavior Intention
H2: Perceived Usefulness has a significant effect on Behavioral Intention
H3: Effort Expectancy berpengaruh has a significant effect on Behavior Intention
H4: Social Influence berpengaruh has a significant effect on Behavior Intention
H5: Subjective Norm berpengaruh has a significant effect on Behavior Intention

IV. Result and Discussion

The questionnaire distributed has produced 100 respondents. There are validity tests carried out to ensure that the questionnaire elements used can be used in this study. The calculation compares r count with r table. All assertions are declared valid and can be used in this study if the correlation coefficient is greater than 0.195 and the calculated r is greater than the table r.

The results of validity testing consisting of 15 (fifteen) items of overall variable statements using the SPSS 20 program as a tool to produce a sample of 100 respondents are as follows:

Table 1. Variable Validity Test Results

Constructs	Questionnaire	^{R}Count	^{R}Table	Description
PU	PU1	0.972	0.195	Valid
	PU2	0.961	0.195	Valid
	PU3	0.950	0.195	Valid
PEOU	PEU1	0.907	0.195	Valid
	PEU2	0.923	0.195	Valid
	PEU3	0.874	0.195	Valid
EE	EE1	0.840	0.195	Valid
	EE2	0.538	0.195	Valid
SI	SI1	0.927	0.195	Valid
	SI2	0.948	0.195	Valid
	SI3	0.930	0.195	Valid
SN	SN1	0.967	0.195	Valid

	SN2	0.960	0.195	Valid
BI	BI1	0.763	0.195	Valid
	BI2	0.757	0.195	Valid

Table 1 shows that all given Questionnaires have a Total Corrected Item Correlation value of more than 0.195 in the 100th sample N, indicating that r calculate the whole > r of the table. The maximum coefficient value of the entire instrument is found in the PU1 statement of 0.972, while the smallest value is found in the EE2 statement, which is 0.538. It is considered valid based on the total output of the suggested validity test using SPSS 20 software to calculate the entire variable, so that all statement items of the entire variable can be used for the next step.

After conducting a validity test, there is a reliability test. Reliability tests assess whether the measurements are reliable in the future and the accuracy of the measuring instruments. Cronbach's Alpha formula is used to perform reliability analysis after a validity test is confirmed to be valid. When an instrument seems to have a reliability coefficient or alpha greater than 0.6, it is said to be reliable. The results of the reliability test are shown in table 2:

Table 2. Reliability Test Results

No	Variable	Reliability	Alpha	Description
1.	PU	0.957	0.6	Reliable
2.	PEOU	0.880	0.6	Reliable
3.	EE	0.815	0.6	Reliable
4.	SI	0.889	0.6	Reliable
5.	SN	0.812	0.6	Reliable
6.	BI	0.685	0.6	Reliable

Based on the results of data processing using the SPSS 20 program as a calculation tool, all questionnaire items from each variable are Perceived Usefulness (X1), Perceived Ease of Use (X2), Effort Expectancy (X3), Social Influence (X4), Subjective Norm (X5), and Behavioral Intention (Y) in this study reliably, indicated by the value of Cronbach's alpha which is above 0.6. As a result, all the variable values of this study are considered outstanding and acceptable, as well shown by the Cronbach alpha values all variables can be above excellent levels, which is indicated by reliable statistical output.

Only One Illustration of the Normality Test, commonly known as the Kolmogorov-Smirnov test, is used to test whether the population distribution corresponds to a theoretical distribution (normal, Poisson, or uniform). This test checks whether the regression model variables are distributed regularly. The distribution of data is said to be normal if the significance level is more than 0.05; otherwise, it is called abnormal. Table 3 displays the normality test results of this study:

Table 3. One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		100
Normal Parameters[a,b]	*Mean*	.0521277
	Std. Deviation	2.12551713

Most Extreme Differences	*Absolute*	.081
	Positive	.047
	Negative	-.081
Test Statistic		.81
Asymp. Sig. (2-tailed)		.106[c]

According to Table 3, the value of Asymp (2-tail) is 0.106. Based on the significance value of > = 0.05, in the regression model in this study the dependent variables and independent variables have a normal sample distribution. Thus, at the level of significance = 0.05, the distribution of Behavioral Intention derived from Perceived Usefulness, Perceived Ease of Use, Effort Expectancy, Social Influence, and Subjective Norm is normally distributed.

Multiple linear regression is a kind of study that looks at how a free variable (X) affects a bound variable (Y). The free variables are Perceived Usefulness (X1), Perceived Ease of Use (X2), Effort Expectancy (X3), Social Influence (X4), and Subjective Norm (X5), while the dependent variables are Behavioral Intention (Y). In this study, the regression coefficient was calculated using SPSS 20 software. The output results listed above are shown in Tabel 4:

Table 4. Multiple Linear Regression

Coefficients[a]						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	4.362	.419		10.408	.000
	PU	-.119	.086	-.172	-1.388	.169
	PEU	.544	.087	.742	6.245	.000
	EE	.372	.177	.344	2.098	.039
	SI	.012	.022	.023	.530	.597
	SN	-.006	.066	-.005	-.095	.924

Based on Table 4, it is known that the known multiple linear equations in the Standard Coefficient column are as follows:

$$Y = -0{,}172X1 + 0.742X2 + 0.344X3 + 0.23X4 – 0.05X$$

Description:
Y = Behavioural Intention
X1 = Perceived Usefulness
X2 = Perceived Ease of Use
X3 = Effort Expectancy
X4 = Social Influence
X5 = Subjective Norm

Based on the findings of the regression equation, the Perceived Usefulness (X1) regression coefficient contributed -0.172 to the Behavioral Intention (Y) variable. If the Perceived Usefulness variable goes up, then the Behavioral Intention variable goes down by 0.172. The Perceived Ease of Use (X2) regression coefficient contributed 0.742 to the

Behavioral Intention (Y) variable. If the Perceived Ease of Use variable increases, then the Behavioral Intention variable will increase by 0.742. The Effort Expectancy regression coefficient (X3) contributed 0.344 to the Behavioral Intention (Y) variable. If the Effort Expectancy variable increases, then the Behavioral Intention variable will increase by 0.344. The Social Influence regression coefficient (X4) has a contribution of 0.23 to the Behavioral Intention (Y) variable. If the Social Influence variable increases, the Behavioral Intention variable will increase by 0.23. The subjective norm regression coefficient (X5) has a contribution of -0.05 to the Behavioral Intention (Y) variable. If the Subjective Norm variable increases, then the Behavioral Intention variable will decrease by 0.05.

With the T test, hypothesis testing is carried out. This test is designed to assess the significance of the partial or individual influence of independent variables on dependent variables. The T-table is 1.98552, and this impact can be assessed using the significant values and t-counts obtained. To see if the Perceived Usefulness (X1), Perceived Ease of Use (X2), Effort Expectancy (X3), Social Influence (X4), and Subjective Norm (X5) factors have an influence on Behavioral Intention (Y).

Tabel 5. T-Test

Coefficients[a]						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	4.362	.419		10.408	.000
	PU	-.119	.086	-.172	-1.388	.169
	PEU	.544	.087	.742	6.245	.000
	EE	.372	.177	.344	2.098	.039
	SI	.012	.022	.023	.530	.597
	SN	-.006	.066	-.005	-.095	.924

Based on Table 5, it can be concluded that there are several independent variables (X) that have significant values above 0.05 or above 5%, which means that these variables do not have a significant influence on the dependent variable (Y).

The results of this study prove that Perceived Usefulness has a significance value greater than 5%, which means that Perceived Usefulness does not have a significant effect on Behavioral Intention. Perceived Ease of Use has a significance value smaller than 5% which is 0.000 which means that Perceived Ease of Use has a significant effect on Behavioral Intention, but this is not in line with previous research conducted by (Agudo-Peregrina et al., 2014) which mentioned that in his research Perceived Ease of Use had no significant effect on Behavioral Intention. EffortExpectancy y has a significance value smaller than 5% which is 0.039 where Effort Expectancy has a significant effect on Behavioral Intention, this is in line with previous research conducted by (Purwanto & Nofiantoro, 2016) proving that there is indeed a significant influence between Effort Expectancyy and Behavioral Intention. However, it can be seen that the Social Influence and Subjective Norm have a significance value greater than 5%, namely 0.597 and 0.924 which means that the Social Influence and Subjective Norm do not have a significant influence on Behavioral Intention.

Based on the calculation results in Table 5, T is -1,388 with a significance value of 0.169 (0.169 > 0.05) and T table with df = nkl (100-5-1 = 94) a significant level of 0.05 is 1.98552, Ho is accepted, and Ha is rejected, this shows that there is a negative and insignificant influence between Perceived Usefulness (X1) and Behavioral Intention (Y).

The calculated value of the Perceived Ease of Use (X2) variable is 6245 and the significance value of 0.000 (0.000 0.05), while the table t value with df = nkl (100-5-1 = 94) at a significant level of 0.05 obtained the number 1.98552, then Ho is rejected, and Ha is accepted which means that there is a positive and significant influence between Perceived of Ease Use (X2) and (Y). The calculated value on the Business Expectation variable (X3) is 2.098 with a significance value of 0.039 (0.039 0.05), while the table t value with df = nkl (100-5-1=94) with a significant level of 0.05, the figure shows that Effort Expectancy (X3) has a positive and significant effect on Behavioral Intention (Y). The calculated value on the Social Influence variable (X4) is 0.530 and the significance value is 0.597 (0.597 > 0.05), but the table t value with df = nkl (100-5-1=94) with a significant level of 0.05 is 1.98552. Then Ho was accepted, and Ha was rejected, this shows that Social Influence (X4) has a negative and minor effect on Behavioral Intention (Y). Testing the Subjective Norm hypothesis (X5) in Behavioral Intention (Y) that the calculated value on the Subjective Norm variable (X5) is -0.95 and the significance value of 0.924 (0.924 > 0.05), while the table t value with df = nkl (100-5-1=94) of a significant level of 0.05 is obtained 1.98552 then Ho is accepted and Ha is rejected which means there is a negative and insignificant influence between the Subjective Norm (X5) on the Intention of Behaving (Y).

V. Conclusion

From the results of research that has been carried out, there are several factors that have a significant influence on Behavioral Intention on the use of e-commerce in Indonesia. With the processing and analysis of data carried out, it can be said that perceived ease of use, effort expectancy, and social influence have a positive influence on behavioral intention in the use of e-commerce in Indonesia, besides that it can be found that two dimensions of variables, namely perceived usefulness, and subjective norm, have a negative influence on behavioral intention in e-commerce in Indonesia.

Based on these conclusions, suggestions can be given that researchers can then use other variables that affect Behavioral Intention. Advice for e-commerce parties in Indonesia to continue to improve services and services so that the delivery of information can be forwarded and distributed quickly and practically, so that e-commerce application users in Indonesia are able to see morein-ovative steps.

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