



Analysis Of Factors Affecting The Acceptance And Use Of E-Commerce In The World Of Business In Small Medium Micro Enterprises With Unified Theory Of Acceptance And Use Of Technology Methods

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ABSTRACT: With the existence of e-commerce, MSMEs can continue to exist in marketing their products and online sales transactions. Researchers want to apply the UTAUT method to e-commerce applications in MSMEs based on Android. Also the factors that influence the behavior and attitudes of using Android-based e-commerce applications. This study examines the factors that influence MSMEs in adopting e-commerce. With this research, we can find out what will be done to accept e-commerce as a transaction in doing business. Data analysis method using SEM. The results of this study state that P.E. (Performance Expectancy) has a significant effect on B.I. (Behavioural Intentions) with a coefficient value of 0.307 and a C.R. 2,236. E.E. (Effort Expectancy) has a considerable impact on B.I. (Behavioural Intentions) with a coefficient value of 0.295 and a C.R. 2,781. S.I. (Social Influence) has a significant effect on B.I. (Behavioural Intentions) with a coefficient value of 0.228 and a C.R. 2,563. F.C. (Facilitating Conditions) is substantial to B.I. (Behavioural Intentions) with a coefficient value of 0.318 and a C.R. 3,050. The path of Facilitating Conditions (F.C.) coefficient value to Behavioral Intention (B.I.) has the most significant coefficient value of 0.318 compared to other coefficient values paths. It can be interpreted that the user prioritizes the facility factor.

KEYWORDS: System Acceptance Rate, UTAUT, e-commerce

Received 10 Jan, 2022; Revised 23 Jan, 2022; Accepted 25 Jan, 2022 © The author(s) 2022.

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I. INTRODUCTION

Micro, Small and Medium Enterprises (MSMEs) in Jember Regency have a very large role in contributing to the income of Jember Regency. It is necessary to support all things that promote MSMEs in Jember Regency. Empowerment of MSMEs to increase knowledge is very necessary, as well as in improving information technology. The higher the technology used by SMEs, the higher their competitiveness. The information technology used by MSMEs is e-commerce. With the increasingly widespread use of e-commerce, MSMEs have more opportunities to develop their businesses. Because consumers from all over can access all the products produced. The benefits of e-commerce for MSMEs expand product marketing throughout the world. For the exchange of goods and services between providers and consumers around the world using e-commerce.

E-commerce applications increase speed, and reduce the cost of relationships between companies and partners, suppliers, distributors, consumers. E-commerce can change the company's perspective in carrying out its business activities. Using e-commerce can shorten shopping time. With the existence of e-commerce in business transactions, it causes a reaction in the user, namely acceptance or rejection. For this reason, a study was made using the UTAUT method. The success of

e-commerce implementation is highly dependent on user approval as e-commerce users. The level of user acceptance of a system is called UTAUT theory. Venkatesh et al developed the UTAUT Model in 2003. Various factors that influence individual acceptance of information technology are described in the UTAUT method. The UTAUT model has four main elements: effort expectations, social influences, performance expectations and facilitation conditions that affect the level of user acceptance of a system.

UNIFIED THEORY OF ACCEPTANCE AND USE OF TECHNOLOGY (UTAUT)

To determine the level of user acceptance of an information system using the UTAUT theory. Various factors that influence individual acceptance of information technology are described in the UTAUT model.

The following is the definition of each variable in the UTAUT method (Venkatesh, 2003):

- a. Performance Expectancy: the level of expectation that each individual has that the use of the system can improve performance at work.
- b. Effort Expectancy: the level of ease associated with using a system.
- c. Social Influence: the degree to which others influence an individual using a system.
- d. Facilitating Condition: the extent to which a person believes that the technical and organizational infrastructure is in place to support the system.
- e. Use Behavior: states the level of individual acceptance of a system.

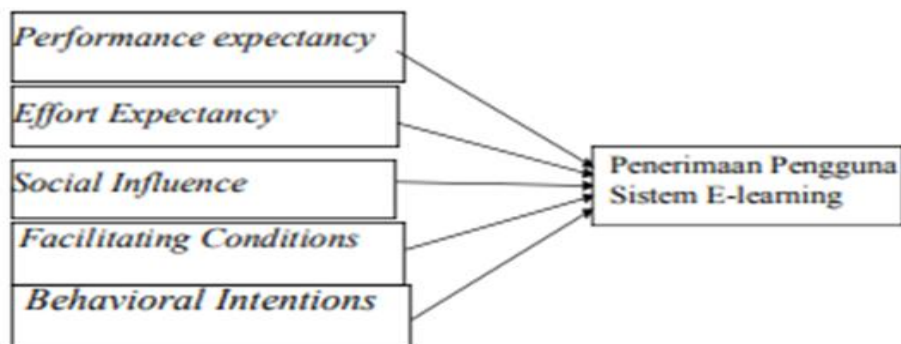


Figure 1: UTAUT research framework

II. RESEARCH METHODS

In carrying out this research, several stages are needed from start to finish. The following is a flow chart in carrying out this research:

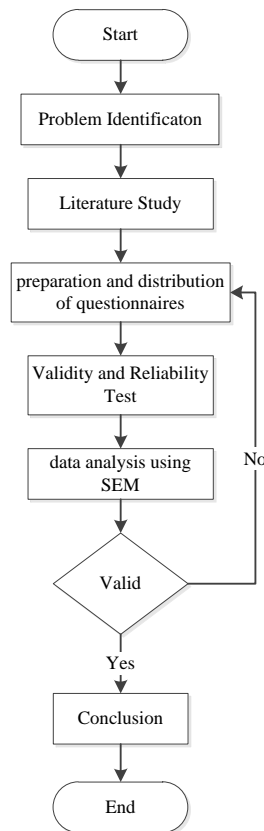


Figure 2: Research Stages Flowchart

4.3 Preparation and Distribution of Questionnaires

This questionnaire is compiled based on what factors influence user acceptance of the e-commerce application used based on the Unified Theory of Acceptance and Use of Technology (UTAUT) method. 2 types of data can be collected to complete this research. The first is primary data in the form of respondents' assessment data through questionnaires, and the second is secondary data, which includes information sourced from sampling.

4.4 Research Respondents

The population in this study is MSMEs in the Jember district that use E-commerce. The type of sampling used in this study is probability sampling with a random sampling technique; namely, the sampling technique is carried out randomly so that all population members have the same opportunity to be sampled.

4.5 Validity and Reliability Test

- Validity test The validity test was carried out using confirmatory factor analysis on each latent variable. The indicators of a variable are said to be valid if they have a loading factor > 0.5 , which is significant at $(\alpha = 5\%)$ (Ghozali, 2008).
- Reliability Test Construct reliability was assessed by calculating the reliability index of the instrument used with the SEM model that was analyzed. Reliability testing is carried out to determine the construct indicators' internal consistency that shows the degree to which each hand identifies a typical constructor latent factor or how specific things help explain a general phenomenon.

4.6 Statistic test

The data will be processed and presented based on the principles of descriptive statistics, while for analysis and hypothesis testing, and inferential statistical approach is used. The research used to test the theory in this study is a structural equation model (Structural Equation Modeling or SEM) using AMOS.

III. DISCUSSION

5.1 Validity Test

To measure the validity of the construct can be seen from the value of the loading factor, whose results must be 0.5.

Table 5.1 Validity Test

Variable Items			Loading Factor
PE1	<---	PE	0,747
PE2	<---	PE	0,816
PE3	<---	PE	0,774
PE4	<---	PE	0,810
EE1	<---	EE	0,830
EE2	<---	EE	0,829
EE3	<---	EE	0,763
EE4	<---	EE	0,860
SI1	<---	SI	0,842
SI2	<---	SI	0,798
SI3	<---	SI	0,792
SI4	<---	SI	0,766
FC1	<---	FC	0,741
FC2	<---	FC	0,853
FC3	<---	FC	0,732
FC4	<---	FC	0,730
BI1	<---	BI	0,796
BI2	<---	BI	0,830
BI3	<---	BI	0,861

Table 5.1 explains that all indicators have a loading factor value of 0.5 so that all hands are said to be valid so that they meet the requirements for further analysis.

5.2 Reliability Test

Table 5.2 Recapitulation of Reliability Test Results

No.	Variable	Construct Reliability	Keterangan
1.	<i>Performance Expectancy</i>	0,866	Reliable
2.	<i>Effort Expectancy</i>	0,892	Reliable
3.	<i>Social Influence</i>	0,876	Reliable
4.	<i>Facilitating Condition</i>	0,849	Reliable
5.	<i>Behavioral Intention to Use the System</i>	0,868	Reliable

Construct reliability of 0.70 or more indicates good reliability (Ghozali, 2017). Table 5.2 explains that the Construct Reliability values of all the variables above are Reliable.

5.3 SEM Analysis Results

A. Evaluation of Structural Equation Model (SEM) assumptions

1. Sample Size In SEM modeling, two types of sample sizes must be met: first, between 100-200 samples (Hair et al., 1998)
2. Outlier Test The results of the outliers test in the study (Appendix) appear to be the Malahanobis distance or Mahalanobis d-squared. To calculate the value of Malahanobis distance based on the value of Chi squares at 19 degrees of freedom (the number of indicator variables) at the $p < 0.01$ (χ^2 0.05) is 35.190 (based on the distribution table 2). So data with a Mahalanobis distance greater than 35,190 is a multivariate outlier.
3. Normality Test Test

The results of the data normality test of the research variables (Appendix), all of which have a critical ratio value of -1.836. It proves that there is no violation of the SEM normality assumption in the input data of this study.

B. Results of Structural Equation Modeling (SEM)

1. Model Test

Based on the method of determining the value in the model, the testing variables for the first model are grouped into exogenous and endogenous variables. Exogenous variables are variables whose values are defined outside the model. Endogenous variables are variables whose values are determined through equations or the relationship model formed, including in the group of exogenous and endogenous variables.

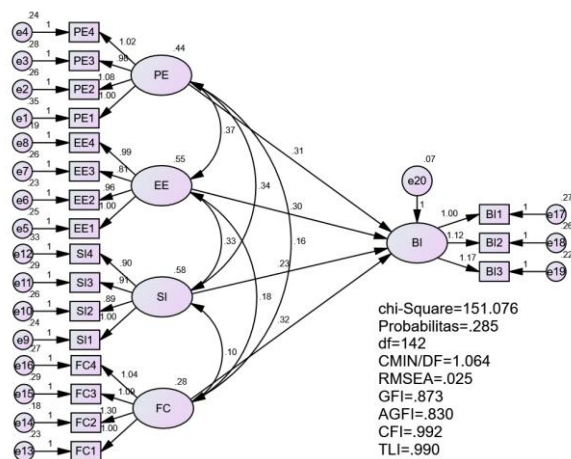


Figure 3 SEM Model

The initial model construct test results presented in Figure 3 are evaluated based on goodness of fit indices, model criteria, and critical values that have data suitability can be seen in Table 5.3 below.

Table 5.3 Evaluation of Goodness of Fit Indices Kriteria Criteria

Goodness of fit Index	Cut off value	Model Result	Description	Result		
				Poor Fit	Marginal Fit	Good Fit
Chi-Square	Expected small	151,076	Good Fit			√
Significance Probability	$\geq 0,05$	0,285	Good Fit			√
CMIN/DF	$\leq 3,00$	1,064	Good Fit			√
RMSEA	$\leq 0,08$	0,025	Good Fit			√
GFI	$0 \leq GFI \leq 1$	0,873	Marginal Fit		√	
AGFI	$\geq 0,90$	0,830	Marginal Fit		√	
TLI	$\geq 0,95$	0,990	Good Fit			√
CFI	$\geq 0,95$	0,992	Good Fit			√

Based on table 5.3 above, it can be seen that the GFI value < 0.9 and the AGFI value is < 0.9 to get the Marginal Fit result. Therefore, it is recommended to ignore it and look at other goodness of fit Index criteria. Regarding other measures, it can be seen that the values of Chi-Square, Significance Probability, CMIN/DF, RMSEA, TLI, CFI show Good fit results (excellent). According to (Samuel, 2007) if there are one or more parameters that have been fit, then the model is said to be fit

1. Hypothesis Testing

After it is known that the model in this analysis is fit, the subsequent research determines the level of relationship and the significance or significance of the relationship between the variables in this study. The results of testing with the AMOS program give the results of a structural equation model that shows a relationship between exogenous and endogenous variables. After knowing the description of the relationship between the variables of this study, the results of hypothesis testing will then be presented. If the probability is < 0.05 , then the effect of the exogenous variable on the endogenous variable is proven to be significant. If the likelihood is > 0.05 , then the impact of exogenous variables on endogenous variables is proven to be insignificant. On the contrary, in this case, the path coefficient values between variables will be presented along with the significance of the results of hypothesis testing in the table, as follows:

Table 5.4 Path Coefficient Value and Hypothesis Testing

Variable	Coefficient	C.R.	Probability	Significance level	Test result
P.E. → BI	0,307	2,236	0,025	0,05	Significant
EE → BI	0,295	2,781	0,005	0,05	Significant
SI → BI	0,228	2,563	0,010	0,05	Significant
FC → BI	0,318	3,050	0,002	0,05	Significant

The first hypothesis in this study states that P.E. (Performance Expectancy) is significant to B.I. (Behavioural Intentions). It is known that the coefficient value is 0.307 and the C.R. 2,236 more than the required critical value of 2. It states that Performance Expectancy has a significant effect on Behavioral Intentions. The second hypothesis in this study states that E.E. (Effort Expectancy) is substantial to B.I. (Behavioural Intentions). It is known that the coefficient value is 0.295 and the C.R. 2,781 is more than the required critical value of 2. It means that Effort Expectancy has a significant effect on Behavioral Intentions. The third hypothesis in this study states that S.I. (Social Influence) is substantial to B.I. (Behavioural Intentions). It is known that the coefficient value is 0.228 and the C.R. 2,563 is more than the required critical value of 2. It means that Social Influence has a significant effect on Behavioral Intentions. The fourth hypothesis in this study states that F.C. (Facilitating Conditions) is substantial to B.I. (Behavioural Intentions). It is known that the coefficient value is 0.318 and the C.R. 3.050 is more than the required critical value of 2. It means that Facilitating Conditions have a significant effect on Behavioral Intentions. The path of the coefficient value of Facilitating Conditions (F.C.) to Behavioral Intention (B.I.) has the most considerable coefficient value, 0.318, compared to the course of other coefficient values. It can be interpreted that the user prioritizes the facility factor. The summary of the results of hypothesis testing is presented in Table 5.5, and it is known that of all the hypotheses in this study, three assumptions are proven/accepted

Table 5.5 Summary of Hypothesis Testing Results

No.	Description	Hypothesis	Test Result
1.	Performance Expectancy affects behavior	Hypothesis 1	Proven/Rejected
2	Effort Expectancy affects behavior	Hypothesis 2	Proven/Accepted
3	Social influence affects behavior	Hypothesis 3	Proven/Accepted
4	Facilitating Condition affects behavior	Hypothesis 4	Proven/Accepted

IV. CONCLUSION

Performance Expectancy has a significant effect on Behavioral Intentions. E.E. (Effort Expectancy) is substantial to B.I. (Behavioural Intentions), the coefficient value is 0.295, and the C.R. 2.781 is more than the required critical value of 2. It means that Effort Expectancy has a significant

effect on Behavioral Intentions. S.I. (Social Influence) is substantial to B.I. (Behavioural Intentions), the coefficient value is 0.228, and the C.R. 2,563 is more than the required critical value of 2. It means that Social Influence has a significant effect on Behavioral Intentions. F.C. (Facilitating Conditions) is substantial to B.I. (Behavioural Intentions), the coefficient value is 0.318, and the C.R. 3.050 is more than the required critical value of 2. It means that Facilitating Conditions have a significant effect on Behavioral Intentions. The path of Facilitating Conditions (F.C.) to Behavioral Intention (B.I.) has an immense coefficient value of 0.318 compared to the direction of other coefficient values. It can be interpreted that users are prioritizing the facility factor.

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