
**SUCCESSFUL IMPLEMENTATION OF E-COMMECE USED BY
MICRO, SMALL, AND MEDIUM ENTERPRISES (SMEs) IN PALOPO AS
EFFECTIVE MARKETING MODEL**

Rahmad Solling Hamid

Sekolah Tinggi Ilmu Ekonomi Muhammadiyah Palopo
rahmadhamid959@yahoo.co.id

Abstract

This study aimed at evaluating whether E-commerce adopted by the Micro, Small and Medium Enterprises (SMEs) has been successfully implemented by the last users as well as a positive impact on the individual performance and organizations by using the ratings success of system DeLone and Mclean model which modified by McGill, Hobbs, and Klobas (2003), by involving 98 samples of Micro, Small and Medium Enterprises (SMEs). This research resulted in several important discoveries about the implementation of e-commerce as one of the alternative marketing products and effective services.

Keywords: *E-Commece, micro enterprises, small enterprises, medium enterprises*

Introduction

Background

In Indonesia, from 231.83 million people, there are only 64 240 small medium enterprises or 0.24 percent of the total population (Achmad Solechan and Natalisty, 2011). In fact, according to experts, a country can only be developed if the entrepreneurial amount equal to two percent of the total population. The obstacles faced by micro, small, medium enterprises (SMEs) in Indonesia are narrow marketing coverage product, consumers lack of information about the products offered by the owner of Micro, Small and Medium Enterprises (SMEs) as well as ineffective and inefficiency of the sales process because it is still conventional.

E-Commerce is one of the alternatives that could be used by the of Micro, Small and Medium Enterprises (SMEs) to market their products and expand their market access and be able to talk a lot and compete in the globalization era. Thus the future of Micro, Small and Medium Enterprises is able to compete with local products and international products. There are some researchers who did their research on E-Commerce on SMEs from Indonesia, those are Sugiharto Toto et al (2007), Eva Agustina MS (2007) and Mira Kartiwi (2006), while from abroad, they are Ahmad Ghandour et. al (2008), and Husnayati Hussin et.al (2005). Mira Kartiwi (2006) with her qualitative analysis method found that SMEs need to adopt E-commerce as an effective marketing medium. While Toto Sugiharto et al (2007) analyzed only on self Reported measurement instruments and they didn't analyze the factors that affect the success of E-Commerce in SMEs.

Agustina Eva MS (2007) with qualitative descriptive analysis found that the implementation of e-Commerce for the development of SME product marketing has quite an opportunity. Ahmad Ghandour et. al (2008) only studied on the modification model but he has not reached the stage of quantitative analysis testing, while Husnayati Hussin et.al (2005) conducted a review on the factors influencing the adoption of E-Commerce, but did not use successful modeling factors and information systems by DeLone McLean (1992). There are still very few E-Commerce factors on SMEs in Indonesia and abroad who can proved empirically by using quantitative analysis approach which to prove success factors an E-Commerce website to be accepted by users, both owners of SMEs and SME buyers. There were only a few previous studies that analyzed the success

factors success of E-Commerce in SMEs, so this research become clear because of the limited research in testing models of success factors adopted from the research conducted by William DeLone and Ephraim McLean (1992) were modified by McGill et al (2003). One of the research that is used as the main reference in this research is the result of a study conducted by Achmad Solechan and Natalisty, (2011), where the results of their study conducted using quantitative analytical approach model testing success factors adopted from the research conducted William DeLone and Ephraim McLean (1992), but the difference is this study use the research conducted by William DeLone and Ephraim McLean (1992) which was modified by McGill, et al (2003), while research conducted by Achmad Solechan and Natalisty, (2011) used unmodified research conducted by William DeLone and Ephraim McLean (1992).

Empirical proving by using a quantitative analytical approach with a model developed by William DeLone and Ephraim McLean (1992) modified by McGill, et al (2003) is still little done on modeling of E-Commerce in the SME sector, especially in Indonesia, and it motivated the researcher to conduct research about successful factors of E-Commerce in the Micro, Small and Medium Enterprises (SMEs) in Palopo.

Empirical proving by using a quantitative analytical approach with a model developed by William DeLone and Ephraim McLean (1992) modified by McGill, et al (2003) is still little done on modeling of E-Commerce in the SME sector, especially in Indonesia, and it motivated the researcher to conduct research about successful factors of E-Commerce in the Micro, Small and Medium Enterprises (SMEs) in Palopo.

Research Problem

This research was conducted with reference to the model developed by McGill, et al (2003), the problem in this study is whether or not E-commerce adopted by the Micro, Small and Medium Enterprises (SMEs) in Palopo has been successfully implemented by the last users and give a positive impact on individual and organizational workers.

Objective of the Research

This study aims at evaluating whether or not E-commerce adopted by the Micro, Small and Medium Enterprises (SMEs) have been successfully implemented by the last users give a positive impact on individual and organizational workers by using the ratings success system of DeLone and Mclean model modified by McGill, Hobbs, and Klobas (2003).

Method

Research Type

In this study, the researchers used quantitative research methods using a type of explanatory research. According Sugiyono (2013:8) that quantitative research can be defined as research method which based on positivism, used to research on certain population or sample, the data collection use is quantitative to test the given hypothesis.

Data Collection Method

The data were collected through questionnaires. The candidate respondent data were gathered from the Office KUMKM Palopo. Before it is sent to the respondents, it was conducted a pretest before, to ensure that the sentence contained in the questionnaire can be understood by the respondent. The questionnaire was derived from the earlier study with a little development, so it has been tested for validity and reliability. It is assumed that 80% of the questionnaires will be returned with the spread questionnaires carried out proportionally based on population and a sample. To enhance the response rate, when the distribution of the questionnaire it was also included a souvenir for the respondent.

Population and Samples

According to Sugiyono (2013: 80), population is a generalization which consist of object / subject that has certain qualities and characteristics defined by the researchers to learn and then drawn conclusions. The population in this study was 4,935. Micro, Small and Medium Enterprises (SMEs) in Palopo. Sugiyono (2013: 81) stated that sample is part of the number and characteristics possessed by this population. Determination of the number of samples is done by using slovin formula with precision 10% with a confidence level of 95%, (Riduwan, 2007: 65). The sampling technique used is accidental. According to Bambang Prasetyo and Lina Miftahul Jannah (2014: 135), the accidental sampling technique is based on the ease (convenience), where samples can be chosen because it is on time, situation, and the right place.

Based on the formula above, the number of the sample is as follow:

$$n = \frac{N}{N \cdot d^2 + 1}$$

$$n = \frac{4.935}{4.935 \cdot (0,10)^2 + 1} = 98,0138 \approx 98$$

Thus, the total number of samples obtained was 98 Micro, Small and Medium Enterprises (SMEs) who adopting E-commerce in running the business activity with the sampling technique used is convenience sampling.

Data analysis method

The data analysis method used is Descriptive Analysis and Partial Least Square (PLS) with the help of application WarpPLS 4.0. Partial Least Square (PLS) is a multivariate analysis technique that aims to examine the relationship between constructs predictions by seeing whether there is a connection or influence between these constructs southern, (Hengki, 2013: 14). The steps of PLS include, Imam Ghozali (2011):

- 1) The design of structural models (inner model) explains the relationship between the latent variables with each other latent variable;
- 2) The design of the measurement model (outer model) describes the relationship between the latent variables with a reflective indicator variable in this study;
- 3) Construction drafting path diagram based on two models, namely the structural model and the measurement model;
- 4) Conversion path diagram into a structural equation model (the relationship between latent variables studied) and the measurement model (indicator variable relationship with the latent variable);
- 5) The estimation of the parameters in the PLS (reflective models) conducted by way of a path estimate (estimated path);
- 6) Evaluation of Goodness of Fit by way of testing the suitability of the model, namely the outer model (Convergent validity, Discriminant validity, and Composite reliability) and inner model (R-Square or Adjusted R-Square, Effect Size (f2), Variance accounted For (VAF));
- 7) Hypothesis testing is done with a Stable resampling method and statistical test used was to test.

a. Respondent Characteristic

An overview of the demographic characteristics of respondents can be presented in Table 1 below:

Table1. Respondent Characteristic Demography

No	Item	Frequency	Percentage (%)
	Ages		
	18 – 22 years old	4	4.08
	23 – 27 years old	10	10.20
1	28 – 32 years old	20	20.41
	33 – 37 years old	52	53.06
	> 38 years old	12	12.24
	Total	98	100
	Sex		
2	Male	60	61.22
	Female	38	38.78
	Total	98	100
	Kinds of Business		
	Manufacture	10	10.20
3	Trading	60	61.22
	Service	28	28.57
	Total	98	100
	Kinds of E-Commerce		
	Facebook	37	37.76
	Twiter	15	15.31
4	Instagram	16	16.31
	Traveloka	8	8.16
	Beeholiday	12	12.24
	Kaskus (FJB)	10	10.20
	Total	98	100
	Origins of Main Consumer		
5	Palopo	50	51.02
	Outside of Palopo	48	48.98
	Jumlah	98	100

Source: Data Analysis

From the recapitulation of the respondent profile data in this study shows that by age of respondents was dominated by the age group 33 years to 37 years as many as 52 people (53.06%). For the sex of the respondents are dominated by male respondents - men as much as 60 people (61.22%) followed by the female sex as many as 38 people (38.78) . The dominant business of the respondents are general trading (trading) as many as 58 people (59.318%), then kind of e-commerce used is up as many as 37 people (37.76%), and the main consumer areas of origin palopo city as many as 50 people (51.02%) and outside of palopo many as 48 people (48,98%) ,

b. Evaluation Model

1) Evaluation Measurement Model (Outer Model) with Reflexive Construct

Outer Model is a measurement model that connects the indicator with latent variables. This model is used to determine the validity and reliability of connecting indicators with latent variables. Indicator in this study was reflective as indicators of latent variables affect the indicator.

So we use three measurements according to Ghazali and southern Hengki (2014: 74), namely:

2) ***Convergent Validity***

Convergent validity relates to the principle that the gauges (manifest variables) of a construct should correlate high. Test the validity of convergent indicators reflexive with WarpPLS 4.0 program can be seen from the loading factor for each indicator constructs. Rule of thumb is commonly used to assess convergent validity value loading factor must be greater than 0.7 for confirmatory studies and the value of the loading factor between 0.6 to 0.7 for exploratory research that is still acceptable and the value of average variance extracted (AVE) must be greater than 0.5. However, to study the early stages of development scale of measurement, the value of the loading factor of 0.5 to 0.6 is considered fairly , (Chin in Ghozali and southern Hengki, 2014: 74). The convergent validity of the test results as follows: Value Loading Factor Convergent validity of the test results are as follow:

3) ***Loading Factor Value***

Convergent validity of the test results with the value parameter loading factor can be presented in Table 2 as follows:

Table 2. Combined loadings and cross-loadings

	<i>System Quality</i>	<i>Perceived System Quality</i>	<i>Intended Use</i>	<i>Information Quality</i>	<i>User Satisfaction</i>	<i>Individual Impact</i>	<i>Organizational Impact</i>
SQ1	0.909	0.089	-0.064	0.013	0.05	0.012	-0.024
SQ2	0.889	-0.006	-0.028	0.045	-0.013	0.037	-0.049
SQ3	0.902	-0.004	0.04	-0.028	-0.018	-0.022	0.036
SQ4	0.884	-0.107	0.066	-0.033	-0.029	-0.028	0.042
PSQ1	-0.348	0.782	-0.063	-0.016	0.225	-0.087	-0.014
PSQ2	-0.358	0.779	-0.124	0.02	0.251	-0.081	-0.013
PSQ3	0.237	0.904	-0.008	-0.01	-0.086	0.056	0.006
PSQ4	-0.096	0.798	0.105	-0.074	-0.065	-0.101	0.111
PSQ5	0.08	0.803	0.029	0.061	-0.065	0.071	-0.069
IU1	0.079	-0.067	0.686	0.063	-0.046	0.015	0.122
IU2	0.082	-0.072	0.768	-0.128	-0.121	0.094	-0.049
IU3	0.086	-0.087	0.88	0.014	0.057	0.058	0.099
IU4	-0.028	0.027	0.868	0.165	0.137	-0.044	0.02
IU5	-0.006	0.06	0.72	0.017	0.083	-0.24	0.062
IU6	-0.112	0.08	0.827	-0.102	-0.089	0.043	-0.143
IU7	-0.112	0.08	0.827	-0.102	-0.089	0.043	-0.143
IQ1	0.049	0.04	0.06	0.832	-0.236	0.141	0
IQ2	0.049	0.04	0.06	0.832	-0.236	0.141	0
IQ3	-0.087	0.047	-0.04	0.771	0.338	-0.265	0.078
IQ4	-0.053	-0.102	0.09	0.708	0.032	-0.134	0.03
IQ5	0.044	-0.037	-0.151	0.823	0.068	0.125	-0.107
US1	0.071	-0.119	-0.267	-0.031	0.763	-0.285	0.191
US2	-0.078	0.027	0.261	0.124	0.819	-0.147	-0.183
US3	0.04	-0.053	-0.134	-0.175	0.796	-0.327	0.181
US4	0.084	0.014	0.123	-0.079	0.865	-0.201	0.05
US5	-0.077	0.081	-0.092	0.099	0.701	0.763	-0.128
II1	-0.085	0.07	0.163	-0.061	-0.043	0.851	-0.153
II2	0.003	0.019	-0.032	-0.033	0.19	0.896	0.01
II3	0.1	-0.113	-0.153	0.124	-0.224	0.797	0.174
II4	-0.085	0.07	0.163	-0.061	-0.043	0.851	-0.153
II5	0.003	0.019	-0.032	-0.033	0.19	0.896	0.01
II6	0.1	-0.113	-0.153	0.124	-0.224	0.797	0.174
OI1	0.017	0.015	0.025	-0.216	0.397	-0.282	0.826
OI2	-0.013	-0.005	-0.038	0.152	-0.218	0.175	0.931
OI3	0.026	-0.074	-0.004	-0.166	0.061	-0.1	0.701
OI4	0.017	0.015	0.025	-0.216	0.397	-0.282	0.826
OI5	-0.015	0.016	0.012	0.144	-0.236	0.168	0.937

Source: Research Data Analysis Result

From Table 2 above shows that the value of the loading factor for each indicator has a value above (> 0.60). It can be concluded that the indicator forming construct System Quality, Perceived System Quality, Intended Use, Information Quality, User Satisfaction, Individual Impact and Impact Organization categorized valid.

4) Value Average Variance Extracted (AVE)

Convergent validity of the test results with parameter values Average Variance Extracted (AVE) can be presented in Table 3 as follows:

Table 3. Average Variance Extracted (AVE)

	<i>System Quality</i>	<i>Perceived System Quality</i>	<i>Intended Use</i>	<i>Information Quality</i>	<i>User Satisfaction</i>	<i>Individual Impact</i>	<i>Organizational Impact</i>
<i>Average Variance Extracted (AVE)</i>	0,803	0,664	0,639	0,631	0,626	0,721	0,720

Source: Research Data Analysis Result

Table 3 shows that the value of Average Variance Extracted (AVE) for each construct are System Quality = 0.803, Perceived System Quality = 0.664, Intended Use = 0.639, Information Quality = 0.631, User Satisfaction = 0.626, Individual Impact = 0.721, and Organization Impact = 0.720 own values above 0.50, it means that the construct seven is categorized valid. Thus, to test convergent validity which consists of the parameter value must be the loading factor and Average Variance Extracted (AVE) which is categorized into valid.

5) Validity Discrimination

Further validity discrimination relate to the principle that is the measure (manifest variables) distinct constructs should not correlated with height. How to test the validity of discrimination with reflexive indicators is by comparing the square root of AVE for each construct with the correlation between the constructs in the model. Good discrimination validity shown on the square root of AVE for each construct is greater than the correlation between the constructs in the model, Ghazali and southern Hengki (2014: 74).

Convergent validity of the test results with the square root of a value parameter (AVE) can be presented in Table 4 as follows:

Table 4 Square Root Value (AVE)

	<i>System Quality</i>	<i>Perceived System Quality</i>	<i>Intended Use</i>	<i>Information Quality</i>	<i>User Satisfaction</i>	<i>Individual Impact</i>	<i>Organizational Impact</i>
<i>System Quality</i>	0.896	0.493	0.009	0.11	0.057	0.003	-0.055
<i>Perceived System Quality</i>	0.493	0.815	0.006	-0.008	0.012	-0.061	-0.045
<i>Intended Use</i>	0.009	0.006	0.799	0.543	0.564	0.344	0.231
<i>Information Quality</i>	0.11	-0.008	0.543	0.795	0.522	0.196	0.214
<i>User Satisfaction</i>	0.057	0.012	0.564	0.522	0.791	0.564	0.175
<i>Individual Impact</i>	0.003	-0.061	0.344	0.196	0.564	0.849	0.237
<i>Organization Impact</i>	-0.055	-0.045	0.231	0.214	0.175	0.237	0.848

Source: Research Data Analysis Result

From Table 4 above can be seen that the value of the square root of AVE for each construct are greater than the value of the correlation between the constructs in the model that each of them has value System Quality = 0.896, Perceived System Quality = 0.815, Intended Use = 0.799, Information Quality = 0,795, User Satisfaction = 0.791, Individual Impact = 0,849, and the Organization Impact = 0.848.

6) **Composite Reliability**

To measure the reliability of a construct and reflexive indicator can be done in two ways, namely by Cronbach's Alpha and Composite Reliability. Rule of Thumb is commonly used to assess the construct reliability namely the value of composite reliability must be greater than 0.7. for studies that are confirmatory and the value of 0.6 to 0.7 is acceptable for research that is exploratory.

From the result of the reliability test with parameters Composite Reliability can be presented in

Table 5 as follows:

Table 5. Composite Reliability Value

	System Quality	Perceived System Quality	Intended Use	Information Quality	User Satisfaction	Individual Impact	Organizational Impact
Composite Reliability	0,942	0,908	0,925	0,895	0,893	0,939	0,927

Source: Research Data Analysis Result

Table 5 shows that the value of Composite Reliability for each construct are System Quality = 0.942, Perceived System Quality = 0.908, Intended Use = 0.925, Information Quality = 0.895, User Satisfaction = 0.893, Individual Impact = 0.939, and the Organization Impact = 0.927 has owned values above of 0.70,. it means that from four construct categorized, it is reliable.

7) **Cronbach Alpha**

To measure the reliability of a construct and reflexive indicator can be done in two ways, namely by Cronbach's Alpha and Composite Reliability. Rule of Thumb is commonly used to assess the reliability of the construct that Cronbach's Alpha value must be greater than 0.7 for studies that are confirmatory and the value of 0.6 to 0.7 is acceptable for research that is exploratory.

From the results of reliability test with Cronbach's Alpha parameter can be presented in Table 6 as follows:

Table 6. Cronbach's Alpha Vauel

	System Quality	Perceived System Quality	Intended Use	Information Quality	User Satisfaction	Individual Impact	Organizational Impact
Cronbach's	0,918	0,884	0,905	0,853	0,851	0,923	0,909

Source: Research Data Analysis Result

Table 6 shows that the value of Cronbach's Alpha for each construct are System Quality = 0.918, Perceived System Quality = 0.884, Intended Use = 0.905, Information Quality = 0.853, User Satisfaction = 0.851, Individual Impact = 0.923, and the Organization Impact = 0.909 has owned values above 0.70, it means that the four construct categorized are reliable.

So, to test convergent validity with the parameter value of loading factor and Average Variance Extracted (AVE), discriminant validity test parameters AVE square roots and correlation between latent constructs and reliability tests with the parameters Composite Reliability and Cronbach's Alpha is categorized valid and reliable. Q-squared Coefficients

Table 7. NQ-squared Coefficients values

	System Quality	Perceived System Quality	Intended Use	Information Quality	User Satisfaction	Individual Impact	Organizational Impact
<i>Q-Square coefficients</i>		0,273	0,426		0,304	0,346	0,121
<i>Full Collinierity</i>	1,360	1,342	1,719	1,676	2,174	1,573	1,113
<i>y VIFs</i>							

Source: Research Data Analysis Result

From the model inner testing in table 7 for the value of R-Square which is obtained is categorized moderate and weak. For the value of VIFs Full collinearity, it produces very good model because it has <3.3 value. It means that there is no problem of multicollinearity in the model, while for Q2 predictive relevance indicates that the model has predictive relevance because the value is greater than 0, Chin (1998), Chin (2010), (Hair et al, 2011), and (Hair et al, 2012). Based on Table 5 for the value of the size effect, it was obtained small and medium enterprises category.

c. Designing Structural Model (Inner Model)

The results of structural model test or inner model in this research can be presented in the following figure:

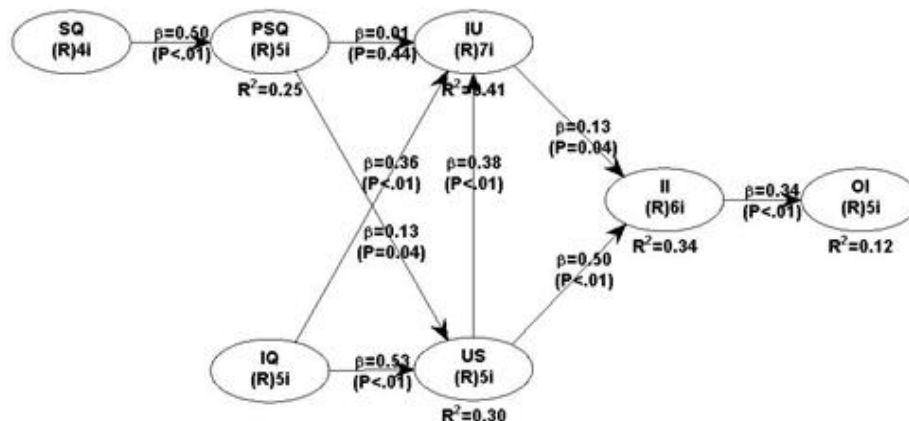


Figure 1 the result of Structural Model (Inner Model) analysis

Source: Research Data Analysis Result

Here is presented the results of the test model fit and quality indices based on the model with multiple mediators or structural model (Inner Model) test based on Figure 1 above is as follows:

Table 8. Model fit and quality indices

Criteria	Values
<i>Average path coefficient (APC)</i>	0,319
<i>Average R-squared (ARS)</i>	0,282
<i>Average adjusted R-squared (AARS)</i>	0,269
<i>Average block VIF (AVIF)=</i>	1,239
<i>Average full collinearity VIF (AFVIF)</i>	1,565
<i>Tenenhaus GoF (GoF)</i>	0,440
<i>Sympson's paradox ratio (SPR)</i>	1,000
<i>R-squared contribution ratio (RSCR)</i>	1,000
<i>Statistical suppression ratio (SSR)</i>	1,000
<i>Nonlinear bivariate causality direction ratio (NLBCDR)</i>	0,889

Source: Research Data Analysis Result

From the output of general result in table 8 can be seen that the model has good fit is good, where the P value for the Average Path Coefficient (APC), Average R-squared (ARS) and the Average Adjusted R-Square (AARS) <1 with each value are APC = 0.319, ARS = 0,282, AARS = 0.269.

Then the Average block VIF (AVIF) and Average Full collinearity VIF (AFFIV), which is produced is <3.3, which means that no multicollinearity problem between indicators and the latent variables, with each value AVIF = 1.239 and AFVIF = 1,565.

Furthermore, the resulting value GoF is 0.440 > 0.25, which means a good fit model. For Symson's paradox (SPR), the R-squared of contribution ratio (RSCR), and the Statistical Suppression Ratio (SSR) index, each of them produce the same value, it is 1. It means that there is no causality problem in the model. Then for Nonlinear Bivariate Causality Direction Ratio (NLBCDR) yields the value 0.889 > 0.70, which indicates there is no problem of causality in the model.

1) *Path Coefficient*

The results influence test between constructs in the research model presented in table 9 below:

Table 9. Results of Path Coefficient

Path	Effect	P-Value
<i>System Quality</i> → <i>Perceived System Quality</i>	0,497	0,001
<i>Perceived System Quality</i> → <i>User Satisfaction</i>	0,132	0,044
<i>Information Quality</i> → <i>User Satisfaction</i>	0,528	0,001
<i>User Satisfaction</i> → <i>Intended Use</i>	0,337	0,001
<i>Information Quality</i> → <i>Intended Use</i>	0,357	0,001
<i>Perceived System Quality</i> → <i>Intended Use</i>	0,011	0,441
<i>User Satisfaction</i> → <i>Individual Impact</i>	0,496	0,001
<i>Intended Use</i> → <i>Individual Impact</i>	0,132	0,044
<i>Individual Impact</i> → <i>Organizational Impact</i>	0,344	0,001

Source: Research Data Analysis Result

Table 9 shows that the probability value is at 5% level. It is concluded that there are a three significant and four insignificant lane. The interpretation of table 9 can be explained as follows:

- a) Quality System has a positive and significant impact on the Perceived Quality System with P = 0.001 (<0.05). This coefficient shows that the increasing of

Quality System will be followed by the increasing of Perceived Quality System significantly.

- b) Perceived Quality System has a positive and significant impact on User Satisfaction with $P = 0.044 (<0.05)$. This coefficient shows that the increasing Perceived Quality System will be followed by the increasing of user Satisfaction significantly.
- c) Information Quality has a positive and significant impact on User Satisfaction with $P = 0.001 (<0.05)$. This coefficient indicates that the increasing of Information Quality will be followed by the increasing of user satisfaction significantly.
- d) User Satisfaction has a positive and significant impact on the Intended Use with $P = 0.001 (<0.05)$. This coefficient shows that the increasing User Satisfaction will be followed by the increasing of Intended Use a significantly.
- e) Information Quality has a positive and significant impact on the Intended Use with $P = 0.001 (<0.05)$. This coefficient indicates that the increasing of the Information Quality will be followed by the increasing of Intended Use significantly.
- f) Perceived Quality System has positive impact and insignificant effect on Intended Use with $P = 0.441 (> 0.05)$. This coefficient shows that the increasing of Perceived Quality System will be followed by an increasing of Intended Use insignificantly.
- g) User Satisfaction has a positive and significant impact on Individual Impact with $P = 0.001 (<0.05)$. This coefficient shows that the increasing of User Satisfaction will be followed by the increasing of Individual Impact significantly..
- h) Intended Use has a positive and significant impact on Individual Impact with $P = 0.044 (<0.05)$. This coefficient shows that with increasing of the Intended Use will be followed by the increasing of Individual Impact significantly.
- i) Individual Impact has a positive and significant impact on Organizational Impact with $P = 0.001 (<0.05)$. This coefficient indicates that the increasing of Individual Impact will be followed by the increasing of Organizational Impact significantly.

2) Size Effect

To know the proportion of certain exogenous variance variables on endogenous variables, it can be calculated by using a partial F-test which is often called effect size, Ghazali and southern (2014: 98). The value of the resulting size effect can be seen in the following table:

Table 10. Size Effect Values

	<i>System Quality</i>	<i>Perceived System Quality</i>	<i>Intended Use</i>	<i>Information Quality</i>	<i>User Satisfaction</i>	<i>Individual Impact</i>	<i>Organizational Impact</i>
<i>System Quality</i>							
<i>Perceived System Quality</i>	0.247						
<i>Intended Use</i>		0.001		0.199	0.214		
<i>Information Quality</i>							
<i>User Satisfaction</i>		0.017		0.279			
<i>Individual Impact</i>			0.053		0.282		
<i>Organization Impact</i>						0.118	

Source: Research Data Analysis Result

From table 10, the values for size effect which produced by quality system construct through Perceived Quality System construct is $0.247 > 0.15$. it is included into

the medium category. For Perceived Quality System variable through Intended Use construct is $0.001 < 0.02$ categorized into small category. Value of size effect for Perceived Quality System construct through User Satisfaction construct is $0.017 > 0.02$ which categorized into small category. For the value of size effect constructs Intended Use through Individual Impact construct is $0.053 > 0.02$ which categorized into small category. Then for the value of size effect through Intended is $0.199 > 0.15$ which categorized into middle category. For the value of the variable size effect of the User Satisfaction Quality Information for $0.279 > 0.15$ fall into the middle category. Then for the value of the size effect User Satisfaction variable is $0.214 > 0.15$ fall into the middle category.

For the value of the size effect User Satisfaction variable through individual Impact is $0.282 > 0.15$ fall into middle category. While the value of size effects on Individual Impact variable is $0.118 > 0.02$ which categorized into small category.

3) *The value of R-Squared*

The R-Squared value of this research is as follows:

Table 11. R-Squared Coefficient

Endogen Variable	Adjusted R-Squared Value
<i>Perceived System Quality</i>	0,247
<i>Intended Use</i>	0,414
<i>User Satisfaction</i>	0,281
<i>Individual Impact</i>	0,335
<i>Organizational Impact</i>	0,118

Source: Research Data Analysis Result

Table 11 shows the R-Squared value. It indicates that *Perceived Quality System* has 0.247 or 24.7% which categorized into weak category because it is < 0.25 and the rest is 75.3% influenced by other construct outside of model used in this research. The next is *intended use* which has 0.414 or 41.4% which categorized moderate because it is < 0.45 and this is the highest variable from five variables. *user satisfaction* get 0.281 or 28.1% is also categorized into moderate category and then for *Individual impact*, it gets 0.335 or 33.5% categorized into moderate and the last is *Organizational Impact* which obtains 0.118 or 11.8% which categorized onto weak category.

The results and discussion of research hypothesis can be summarized in Table 12 as follows:

Table 12. The Summary of Hypothesis

Hypothesis	Result	P-Value
H ₁ <i>System Quality</i> has influence on <i>Perceived System Quality</i>	Accepted	0,001
H ₂ <i>Perceived System Quality</i> has influence on <i>User Satisfaction</i>	Accepted	0,044
H ₃ <i>Information Quality</i> has influence on <i>User Satisfaction</i>	Accepted	0,001
H ₄ <i>User Satisfaction</i> has influence on <i>Intended Use</i>	Accepted	0,001
H ₅ <i>Information Quality</i> has influence on <i>Intended Use</i>	Accepted	0,001
H ₆ <i>Perceived System Quality</i> has influence on <i>Intended Use</i>	Rejected	0,441
H ₇ <i>User Satisfaction</i> has influence on <i>Individual Impact</i>	Accepted	0,001

H ₈ <i>Intended Use</i> has influence on <i>Individual Impact</i>	Accepted	0,044
H ₉ <i>Individual Impact</i> has influence on <i>Organizational Impact</i>	Accepted	0,001

Source: Research Data Analysis Result

Discussion

Based on Table 12, the results of testing the hypothesis in this study can be explained in detail as follows:

a. *The influence of Quality System toward Perceived Quality System*

Quality System directly affect positively and significantly toward Perceived Quality System. It means that by improving Quality System will be followed by an increase Perceived Quality System. This means that perpetrators of Micro, Small and Medium Enterprises (SMEs) have positive perception of the use of E-commerce, where they perceived that the quality of the e-commerce is able to provide convenience for users as fast navigation, customization, and loading time fast. Besides that the quality of e-commerce system used by the Micro, Small and Medium Enterprises is able to present the features which are believed affect on the user. These findings support the model developed by McGill, Hobbs, and Klobas (2003).

b. *The influence of Perceived System Quality toward User Satisfaction*

Perceived Quality System is directly affects positively and significantly on the User Satisfaction. It means that by improving Perceived Quality System, it will be followed by an increasing of User Satisfaction. This means that perpetrators of Micro, Small and Medium Enterprises (SMEs) have positive perception of the use of e-commerce. These finding answers the first hypothesis that is “there is significant influence between Quality System on Perceived Quality System”. It means that perpetrators of Micro, Small and Medium Enterprises (SMEs) have a good perception of the quality of e-commerce systems that they use such as ease of use, fast navigation, customization and fast loading times. These findings support the model developed by McGill, Hobbs, and Klobas (2003).

c. *The influence of Information Quality toward User Satisfaction*

Information Quality positively and significantly effect on the User Satisfaction. It indicates that the improvement of Information Quality will effect on the increasing of User Satisfaction. The perpetrators of Micro, Small and Medium Enterprises (SMEs) have positive perception on the use of e-commerce. The quality of information provided also contributed to e-commerce sites that are used by the Micro, Small and Medium Enterprises (SMEs). The information Quality of e-commerce which is used by the Micro, Small and Medium Enterprises (SMEs) can be dynamic content, personalized, accurate, and up-to-date. The quality of this information turned out to be a positive impact on user satisfaction. These findings support the model developed by McGill, Hobbs, and Klobas (2003) and the results of research conducted by Seddon and Kiew (1996), Rivard, Poirier, Raymond and Bergeron (1997), Roldan and Millan (2000), Istianingsih and Wijanto (2008), who argued that the perception of the quality system significantly affect on the last user satisfaction.

d. *The influence of User Satisfaction toward Intended Use*

User Satisfaction significantly and positively effect on Intended Use. It indicates that the increasing of User Satisfaction will affect on the Intended Use. This means that perpetrators of Micro, Small and Medium Enterprises (SMEs) have positive perception of the use of e-commerce. Micro, Small and Medium Enterprises (SMEs) considers that e-commerce sites that they use are able to create satisfaction in terms of ease to use, comfort and speed of e-commerce sites. So that it results pleasure and it impacts on their desire to continue using e-commerce sites. The findings support the findings made by Igbaria and Tan (1997), Fraser and Salter (1995), Rai et al (2002), Bokhari (2005), Wu and Wang (2006), Mao and Ambrose (2004), who found that the last-user satisfaction significantly affect on the use of the system.

e. *The Influence of Quality Information toward Intended Use*

Information Quality significantly and positively effect on Intended Use. It indicates that by increasing the Information Quality, it will effect on the improvement of Intended Use. This means that perpetrators of Micro, Small and Medium Enterprises (SMEs) have positive perception on the use of e-commerce when it is viewed from the Information Quality and Intended Use. Respondents in this case the perpetrators of Micro, Small and Medium Enterprises (SMEs) consider that the quality of information from e-commerce sites that they use has a high degree of accuracy, reliable, up-to-date and complete, so it positively impacts to their interest to continue using the site e-commerce. The findings in this study support the research that has been done by Clay et al (2005), Kurniawan Tjakrawala F.X. and Aldo Cahyo (2010), who found his that it significantly affect the quality of information system usage.

f. *The Influence of Perceived Quality System toward Intended Use*

Perceived Quality System positively but insignificantly effect on the Intended Use. It indicates that by improving Perceived Quality System will increase the Intended Use. This means that perpetrators of Micro, Small and Medium Enterprises (SMEs) perceive that e-commerce sites that they use cannot arise merely based on the perception of the quality system but the perpetrators of Micro, Small and Medium Enterprises (SMEs) should feel satisfied before so it will have an impact on interest to continue using e-commerce sites. These findings support the research findings by Siti Nur Hadiyati and Mohammad Alfian (2015), where this research also adopted a model developed by McGill, Hobbs, and Klobas (2003). They found that Perceived System Quality has insignificantly influence on Intended Use.

g. *The Influence of User Satisfaction toward Individual Impact*

User Satisfaction significantly and positively effect on Individual Impact. It indicates that meaning the increasing of User Satisfaction will increase the Individual Impact. It means that perpetrators of Micro, Small and Medium Enterprises (SMEs) have a positive perception of the use of e-commerce. This means that the more frequent users (SME) uses information systems in e-commerce, the more increasing learning (degree of learning) are obtained by users of the system. The findings in this study support the research that has been done by Gelderman (1998), Igbaria and Tan (1997), Etezadi-Amoli and Farhoomand (1996), Roldan and Millan (2000), Livari (2005), and Kurniawan Tjakrawala F.X. and Aldo Cahyo (2010)

h. The Influence of Intended Use Terhadap Individual Impact

Intended Use significantly and positively effect on Individual Impact. It indicates that the increasing of intended use will increase Individual Impact. This means that perpetrators of Micro, Small and Medium Enterprises (SMEs) have positive perception toward the use of e-commerce. Respondents thought that e-commerce sites which they use are supported with interesting features so it impacts new on motivation or and innovations to keep competing and improving quality. The findings in this study support the research that has been done by Almutairi and Subramanian (2005), Mao and Ambrose (2004), and Kurniawan Tjakrawala F.X. and Aldo Cahyo (2010)

i. The influence of Individual Impact Terhadap Organizational Impact

Individual Impact significantly and positively effect on Organizational Impact. It indicates that the incresing of Individual Impact will increase Organizational Impact. This means that perpetrators of Micro, Small and Medium Enterprises (SMEs) have positive perception toward the use of e-commerce when it is viewed from Individual and Organizational Impact. This means that the higher interest of SMEs to use e-commerce sites the more it will impact on performance improvement of organization or on going business. These findings support the model developed by McGill, Hobbs, and Klobas (2003).

Conclusion and Suggestion

Conclusion

Based on the problem statement, objective of the research, and discussion, it can be concluded that from nine alternative hypotheses offered in this research there are eight accepted, namely (1) System Quality effect on Perceived Quality System; (2) Perceived Quality System effect on User Satisfaction; (3) Information Quality affect on User Satisfaction ;. (4) User Satisfaction affect on the Intended Use; (5) Information Quality affect on the Intended Use; (6) User Satisfaction effect on Individual Impact; (7) Intended Use effect the Individual Impact; (8) Individual Impact effect on Organizational Impact. The only one rejected hypothesis is Perceived Quality System effect on Intended Use, Perceived Quality System positively but insignificantly effect on the Intended Use.

The findings of this study provide important contributions to the study of information systems development, namely e-commerce sites. Specifically, the study found an important role of the use of e-commerce to support activities or business operations of Micro, Small and Medium Enterprises (SMEs) in Palopo.

This study also provides empirical support to the model developed by William DeLone and Ephraim McLean (1992) which modified by McGill, et al (2003) in the context of the implementation of the information system e-commerce by Micro, Small and Medium Enterprises (SMEs) in supporting business activities in Palopo. From the results of the study shows that the benefits and user satisfaction is an important determinant that explains the interest behaves using e-commerce. Then the findings next important is that the perpetrators of Micro, Small and Medium Enterprises (SMEs) in Palopo assume that e-commerce is one alternative or how to promote and market products or services, where e-commerce is used is supported by the navigation system quickly , features (features) a complete, high accuracy, up-to-date, and trustworthy. Besides e-commerce is considered to have a user friendly design that allows users.

However, the problem lies in the internet connection is still not evenly distributed to all service providers in Indonesia specially in Palopo. it is also considered by the researchers to spread the questionnaire using computer-based questionnaire and paper-based questionnaire, so that researchers spread out questionnaires manually. Another interesting thing that the shape of e-commerce business is predominantly used social media shop which is still dominated by Facebook followed Instagram and Twitter. Then for business forms Classifieds via e-commerce, namely Tokobagus, OLX, trade, Kaskus FJB also be used, but the users are still limited so is the air ticket sales sites such as beeholiday, Traveloka and iTiket.com also used and is still limited. The surprising finding is E-commerce not only used by Micro, Small and Medium Enterprises (SMEs) but it also spreads to the students. This indicates that the motivation, innovation and creativity among young entrepreneurs to keep trying to create jobs independently. The weakness of this study is that the number of samples is only 98.

Suggestion

It is needed the role of government to create a climate that is comfortable for Micro, Small and Medium Enterprises (SMEs), especially for new entrepreneurs. The government also needs to create a rule that makes Micro, Small and Medium Enterprises (SMEs) easy to develop their business and continuously conduct socialization about the development of the use of e-commerce. Then the government should also continue to assist Micro, Small and Medium Enterprises (SMEs) by providing information and consistently to holding seminars on e-commerce.

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