

Conference Paper

Analysis of E-Marketplace Use in East Java's MSMEs Using the Technology Acceptance Model Approach

Rurid Dwi Anggraeny and Imam Baihaqi

Department of Technology Management, Industry Management Expertise, Faculty of Creative Design and Digital Business (CREABIZZ), Sepuluh Nopember Institute of Technology

ORCID:

Rurid Dwi Anggraeny: <http://orcid.org/0000-0001-5951-8945>

Abstract

The e-commerce industry has the potential to be one of the drivers of the domestic economy. One of the impacts of the advancement of e-commerce is the emergence of many online-based marketplaces or so-called e-marketplaces. However, a lot of these online marketplaces sell 90% imported products. In addition, the outbreak of Covid-19 in Indonesia has prompted the government to establish several policies that have significantly reduced MSME performance by up to 70-100%. This study aimed to provide an empirical analysis of the influence of factors based on the Technology of Acceptance Model (TAM) approach, namely e-marketplace self-efficacy, complexity, perceived usefulness, perceived ease of use, attitude towards using, behavioral intention to use, and actual technology use in e-marketplaces. The sample consisted of MSMEs in East Java, especially those engaged in the food and beverage industry sector with ready-to-eat processed food products whose business activities use the Shopee e-marketplace application platform. This is an online shopping marketplace focused on mobile platforms. There were 150 respondents. The Structural Equation Model (SEM) was used. E-marketplace self-efficacy, complexity, perceived usefulness, perceived ease of use, attitude towards using, behavioral intention to use, and actual technology use in e-marketplaces all had positive effects on each other. This showed that a system that offers convenience will improve behavior, habits, and performance for MSMEs in using e-marketplace activities. The theoretical and methodological implications and opportunities for further research are discussed.

Keywords: MSMEs, E-Marketplace, Technology Acceptance Model

Corresponding Author:

Rurid Dwi Anggraeny
rurid1990@gmail.com

Published: 22 March 2021

Publishing services provided by
Knowledge E

© Rurid Dwi Anggraeny and Imam Baihaqi. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the ICOEN Conference Committee.

 OPEN ACCESS

1. Introduction

As technology advances rapidly, electronic commerce, aka e-commerce, is also growing rapidly. The growth of e-commerce in Indonesia in the last five years has reached 150%, from IDR 56 trillion to IDR 144 trillion (Bank Indonesia data, 2020). The e-commerce industry has the potential to be one of the drivers of the domestic economy. However, a

lot of marketplaces sell 90% of imported products (Indonesian e-commerce association). East Java Province is a province with a trade contribution to the National Gross Domestic Product (GDP) of 20.7% which is the second largest after DKI Jakarta, which is 23.46%, followed by West Java province in third place at 14.88%. Data from the Office of Cooperatives and MSMEs of East Java Province stated that the number of MSMEs in this province until 2017 was 6,825,931. He also conveyed that in a study by the International Finance Corporation in collaboration with The United States Agency for International Development (USAID) in 2016, the SME sector contributed 22% to Indonesia's GDP. In the past four years, the contribution of the Food and Beverage Industry sub-sector has an average of 31.69 percent in East Java, the Tobacco Processing sub-sector has an average of 26.63 percent, and the Chemical, Pharmaceutical and Traditional Medicine Industry has an average of 8.03 percent (2014-2019 Renstra, East Java Cooperative and UMKM Office).

The food and beverage industry sector developed in Micro, Small and Medium Enterprises (MSMEs) is an industry that has the potential to become the means of equalization, given the increase in people's income and the growth of the middle class population and also the tendency of people's consumption patterns to lead to the consumption of processed food products. For MSMEs in East Java, the food and beverage industry is the largest sector affecting East Java's GRDP of 34.96% (BPS East Java, 2020). In addition, out of 12.1 million MSMEs, 60% of them are food and beverage entrepreneurs, followed by fashion by 30%, while the rest are jewelry and trinkets (East Java Cooperative and MSMEs Office, 2019). Therefore, this study only focuses on MSMEs that sell food products that have gone through processing and can be consumed directly without having to go through further processing or called 'ready-to-eat' food.

The East Java Provincial Government has collaborated with several e-commerce companies, one of which is PT Shopee International Indonesia (Shopee) which was authorized by the signing of a Collective Agreement, one of the areas for which includes strengthening the market network for superior products in East Java and the introduction of an online sales system for cooperatives and MSMEs through digital literacy in East Java; in addition, through the East Java Provincial Industry and Trade Office, several synergies have been carried out in an effort to help businesses market their products online, including in the form of seminars. In this study, the object used in the analysis of the use of e-marketplaces at MSMEs is the Shopee application platform, which is an online shopping platform focused on mobile application, making it easier for users to shop and sell directly using cell phones. This application offers many kinds of products

with sales categories, namely food, electronics, accessories, household items, and many others.

In this study, the TAM model will add external variables, namely self-efficacy and complexity. The concept of self-efficacy was first put forward. Self-efficacy is defined as a belief that a person has the ability to perform certain behaviors [1]. Self-efficacy is a factor that affects use, usability and ease of [2]. Meanwhile, complexity, namely “the degree to which an innovation is perceived as being difficult to use” [3].

2. Methods and Equipment

2.1. Methods

2.1.1. Technology Acceptance Model (TAM)

An TAM is used to describe and estimate the acceptance of the use of information systems; this method has the basics for knowing the factors that affect acceptance of a system, then also explains how the causal relationship is related to the benefits of an information system and the ease of use of it, shown in Figure 1 [4]. TAM is designed to achieve this goal by identifying some of the basic variables suggested in previous studies that agree with the factors that affect cognitively and affectively on computer acceptance and using TRA as a theoretical basis to determine the relationship model of the research variables. TAM positions two beliefs, namely perceive usefulness and perceived ease of use as a major factor in computer acceptance behavior.

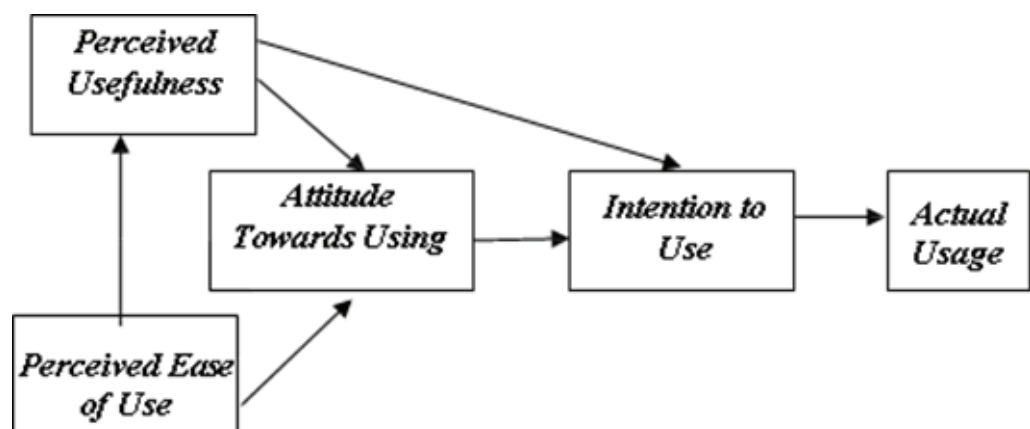


Figure 1: Technology Acceptance Model Framework

The following is the research model used:

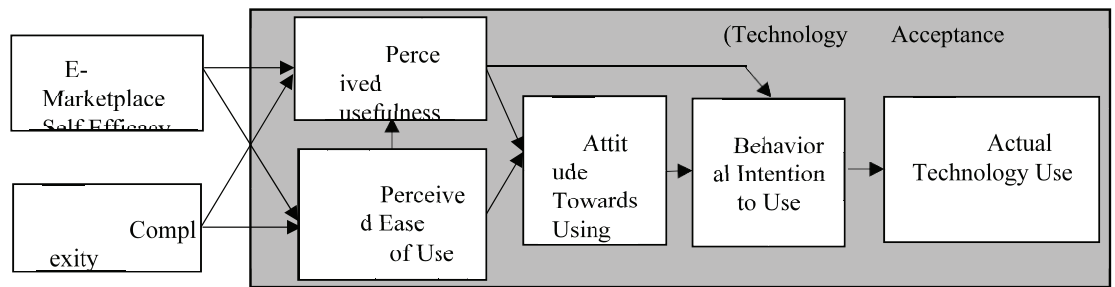


Figure 2: Framework

2.1.2. Data Collection Techniques

The questionnaire is an information collection technique that allows the analyst to study the attitudes, beliefs, behavior and characteristics of some of the main people in the organization who can be affected by the proposed system or by the existing system. The Likert scale used in this study is a 7-point Likert scale, which is a scale of 1 for strongly disagreeing responses to a scale of 7 for strongly agreeing responses. Table 2 shows the likert scale used.

Before the questionnaire was distributed, the researchers conducted a discussion and briefing on filling out the questionnaire (carried out via video conference to the Deputy Chairperson of the Standing Committee for Inter-District / City Business Networks - KADIN East Java, Chair of the Indonesian Product Shopping Movement - GERBAPI and 5 MSMEs engaged in the food and beverage sector) as an effort to manufacture a pilot project to determine the extent to which respondents understand the meaning of the questions and the procedures for filling out the questionnaire. A total of 200 questionnaires were distributed during the study and 150 questionnaires were returned.

2.1.3. Data Analysis Techniques

1. Validity Test

The validity test aims to measure the accuracy and precision of measurement instruments in performing their measuring functions [5]. A measurement instrument or questionnaire is considered valid if the questions on the questionnaire are able to reveal something that will be measured by the questionnaire [6]. Tests were carried out using Confirmatory Factor Analysis techniques, using SPSS 21 for Windows.

2. Reliability Test

TABLE 1: TAM Variable and Indicator Relationship

Code		Variable	Indicator	
1	X1	E - Marketplace Self-Efficacy (Park, 2009).	a	Confidence in finding information on the E-Marketplace system
			b	The level of proficiency required to use the E-Marketplace
2	X2	Complexity (Amoroso dan Gardner, 2004).	a	Time taken to perform tasks
			b	Integration of computer results into existing work
			c	Vulnerability
3	X3	Perceived usefulness (Davis, 1989)	a	Work More Quickly
			b	Increase Job Performance
			c	Increase Productivity
			d	Increase Effectiveness
			f	Makes Job Easier
			g	Useful
4	X4	Perceived Ease of Use (Davis, 1989)	a	Easy of learn
			b	Controllable
			c	Clear and understandable interaction
			d	Flexibility
			e	Easy to become skillful
			f	Easy to use
5	X5	Attitude toward using technology (Hanggono, 2015)	a	Convenience of interaction
			b	Happy to use
			c	Enjoy to use
			d	Not boring
6	X6	Behavioral Intention to Use (Amoroso dan Gardner, 2004).	a	Carrying out the task
			b	Planned utilization in the future
7	X7	Actual Technology Use (Wibowo, 2006)	a	Real Use
			b	True Frequency
			c	User Satisfaction

The reliability test was performed using the Cronbach Alpha technique with the help of SPSS 21 For Windows. It is done by dividing the level of reliability by the criteria alpha or r count as follows [7]:

- 0.80-1.0 then the reliability is good,
- 0.60-0.799 then the reliability is acceptable,

TABLE 2: Likert scale used

LIKERT SCALE	RESPONSE
1	Strongly disagree
2	Disagree
3	Somewhat disagree
4	Quite agree
5	Somewhat agree
6	Agree
7	Strongly agree

- less than 0.60, the reliability is declared not really good.

3. Normality Test

Requirements that must be met in addition to sample adequacy in using SEM analysis is data normality. Normality testing is carried out using the C.R Skewness and Kurtosis values of the data distribution from the SEM output which is processed through the Analysis of Moment Structure (AMOS) software version 4.0. This study used the critical value of CR Skewness based on the 1% significance level of +2.58 and the critical value of Kurtosis [8], namely:

- Normal if z statistic or kurtosis value is <7,
- Moderately non normal if the kurtosis value is between 7-21
- Extremely non normal if the kurtosis value is > 21.

4. Outliers Test

Analysis of the outliers can be evaluated in two ways, namely the Univariate Outliers and the Multivariate Outliers. This study focuses on data handling on Multivariate Outliers by eliminating a number of multivariate data using the Mahalanobis Distance Squared criteria which can increase the normality of the data, especially the value of kurtosis..

5. Goodness of Fit Test

Before interpreting the results of hypothesis testing, the step that must be taken is to analyze the goodness of fit model. This is done to ensure that the constructed model has a good fit with the settings used as the object of observation through the data obtained.

6. Structural Model Interpretation

When the model is considered acceptable, the results need to be examined to determine the level of correspondence of the existing models in the research

framework using 2 criteria. First, examining the significance of the relationship between the variables indicated by the t-value for each coefficient. If the t-value is less than the specified parameter, this means that it is considered insignificant and will be removed from the final model. The strength of the relationship will be analyzed when the research line is considered significant. The second criterion is the squared multiple correlation coefficient which shows the measurement of the proportion of the variance of the dependent variable described by the independent variable.

7. Hypothesis Test

After the criteria for the estimated goodness of fit of the structural model can be met, the next step is an analysis of the model's structural relationships (hypothesis testing). The relationship between constructs in the hypothesis is indicated by the value of regression weights. Hypothesis testing is done by analyzing the significance level of the causality relationship between constructs in the model based on the C.R value (z-count) is greater than or equal to the z-table value (z-count and z-table).

2.1.4. Hypothesis

This study uses Structural Equation Modeling (SEM) as a method for processing data and answering existing hypotheses.

3. Results

Respondents in this study were MSMEs entrepreneurs in East Java in the food and beverage sector who used the Shopee e-marketplace in their business activities. The results of the complete descriptive statistical analysis can be seen in the following tables:

It is known that of the 150 sample respondents, 44.6% were male and the remaining 55.4% were women. The number of male respondents was 67 and female respondents were 83 people.

Based on the age distribution, the age of 26-30 years is the age of the largest sample of respondents, namely 55 respondents (36.7%). There are only 7 respondents (4.6%) who are over 50 years old.

TABLE 3: Research Hypothesis

Hypothesis	Explanation	
H1	H0	E-Marketplace Self Efficacy has no significant influence on Usefulness
	H1	E-Marketplace Self Efficacy has a significant influence on Usefulness
H2	H0	E-Marketplace Self Efficacy has no significant effect on Ease of Use
	H1	E-Marketplace Self Efficacy has a significant effect on Ease of Use
H3	H0	Complexity has no significant effect on Usefulness
	H1	Complicity has a significant effect on Usefulness
H4	H0	Complexity has no significant effect on Ease of Use
	H1	Complexity has a significant effect on Ease of Use
H5	H0	Ease of Use has no significant effect on Usefulness
	H1	Ease of Use has a significant effect on Usefulness
H6	H0	Usefulness has no significant effect on attitudes
	H1	Usefulness has a significant effect on attitudes
H7	H0	Ease of Use has no significant effect on Attitude
	H1	Ease of Use has a significant effect on Attitude
H8	H0	Usefulness has no significant effect on intensity
	H1	Usefulness has a significant effect on intensity
H9	H0	Attitude has no significant effect on intensity
	H1	Attitude has a significant effect on intensity
H10	H0	Intensity has no significant effect on actual technology use
	H1	Intensity has a significant effect on actual technology use

TABLE 4: Distribution of Respondents by Gender

Gender	Frequency	Percentage (%)
Male	67	44,6
Female	83	55.4

TABLE 5: Distribution of Respondents by Age

Age	Frequency	Percentage (%)
26-30	55	36.7
31-35	23	15.3
36-40	32	21.3
41-45	21	14
46-50	12	8
>50	7	4.6

Based on the latest education, the most popular respondents were respondents who had the latest senior high school education, namely as many as 83 respondents or with a percentage of 55.3%. It can also be seen that none of the respondents had the latest elementary education. There are only 2 respondents who have the latest S2 (Master's Degree) education.

TABLE 6: Distribution of Respondents by Education Level

Education Level	Frequency	Percentage (%)
SD (Elementary)	0	0
SMP (Junior High)	3	2
SMA (Senior High)	83	55,3
D3 (Diploma)	8	5,3
S1 (Bachelor's Degree)	54	36
S2 (Master's Degree)	2	1,3
S3 (Doctoral Degree)	0	0

TABLE 7: Distribution of Respondents Based on Position in MSMEs

Position	Frequency	Percentage (%)
Owner	117	78
Marketing Staff	31	20,6
Production Staff	2	1,3
Others	0	0

Based on the position of the respondent, there were 117 respondents as owners at 78%, 31 respondents as marketing staffs, and 2 respondents as production staffs.

TABLE 8: Distribution of Respondents by Length of Business

Length of Business (years)	Frequency	Percentage (%)
0-1	0	0
1.1-3	2	1,3
3.1-5	13	8,7
>5	135	90

Respondent data based on the length of business in carrying out their business activities were 2 respondents for 1-3 years, in the second place were the business age 3.1-5 years, namely 13 respondents (8.7%), and SMEs with more than 5 years of business by 135 respondents or by 90%.

TABLE 9: Distribution of Respondents Based on Use of Shopee's E-marketplace

Usage per month	Frequency	Percentage (%)
<5	3	2
>5	147	98

Based on the use of e-commerce which is more than 5 times per month is the largest sample of respondents, namely 147 respondents, meanwhile, the use of e-commerce which is fewer than 5 times per month is 3 respondents.

3.1. Outliers Test

The number of indicator variables used in this study is 26 indicators, by looking at the table number x2 (26,0.001) (attachment 10), it is found that the Mahalanobis Critical Distance is 54.05196.

TABLE 10: Mahalanobis Distance

Observation number	Mahalanobis d-squared	p1	p2
51	65,926	,000	,004
44	63,659	,000	,000
50	54,628	,001	,000
3	52,824	,001	,000
10	49,402	,004	,000
.	.	.	.
.	.	.	.
.	.	.	.
148	20,806	,752	,993

A data is said to be outliers if it has a Mahalanobis distance of more than 54.05196. From the SEM output processed with AMOS 21 software, it was found that there was one outlier data, namely at numbers 50, 44 and 51 because the values were more than 54.05196. However, because there is no specific reason to exclude cases (various answers from a respondent) that indicate an outlier, this case must be included in further analysis [9]. Thus the number of samples used remained 150 respondents.

3.2. Data Normality Test

This study uses a critical value of CR Skewness based on 1% significance level of ± 2.58 with the following results:

The results of the data normality test were seen as univariate, C.R Skewness of the construct almost entirely had a C.R value below 2.58, except for X32 and X71 which meant that the distribution was considered normal and could be used for estimation in further analysis. Meanwhile, in the multivariate manner, the C.R distribution of kurtosis showed the number 12,287 which means that the data can be said to be moderately non-normal by multivariate.

TABLE 11: TAM Questionnaire Data Normality Test

Variable	Min	Max	Skew	C.R.	Kurtosis	C.R.
X73	1,000	7,000	-.408	-2.438	.058	.174
X72	1,000	7,000	-.332	-1.981	-.702	-2.097
X71	2,000	7,000	-.435	-2.595	-.024	-.073
X62	2,000	7,000	.057	.338	-.085	-.255
X61	3,000	7,000	-.023	-.135	-.178	-.532
X51	3,000	7,000	-.305	-1.819	.788	2.352
X52	3,000	7,000	-.021	-.128	-.870	-2.597
X53	3,000	7,000	-.265	-1.580	-.599	-1.787
X54	3,000	7,000	-.121	-.722	-.688	-2.054
X41	1,000	7,000	-.377	-2.249	.122	.364
X42	2,000	7,000	-.083	-.496	-.385	-1.150
X44	1,000	7,000	-.202	-1.204	.199	.595
X45	2,000	7,000	-.213	-1.271	-1.318	-3.936
X46	2,000	7,000	-.230	-1.375	.302	.901
X36	1,000	7,000	.317	1.896	.299	.894
Variable	Min	Max	Skew	C.R.	Kurtosis	C.R.
X35	1,000	7,000	.283	1.693	-.969	-2.894
X34	2,000	7,000	.047	.280	.175	.523
X32	3,000	7,000	-.691	-4.128	1.284	3.833
X31	2,000	7,000	-.393	-2.348	.138	.414
X21	3,000	7,000	-.181	-1.083	-.732	-2.186
X22	3,000	7,000	-.424	-2.535	.369	1.102
X23	2,000	7,000	-.357	-2.130	.004	.012
X11	3,000	7,000	-.373	-2.230	.004	.013
X12	3,000	7,000	-.141	-.843	.528	1.578
Multivariate					75.949	12.287

3.3. Validity and Reliability Test

The data from the questionnaire will be declared valid if the correlation value is above > 0.1603 according to the r product moment table for n = 150 and $\alpha = 0.05$ [10]. Meanwhile for reliability, it is declared sufficient if the alpha value exceeds 0.6 [11]. The following are the results of the validity and reliability test on the TAM variable questionnaire data.

3.4. Model Validity Test

The number of factors extracted is 7 variables in accordance with the estimated number of constructs. In order for the data to rotate in groups, in the Confirmatory Factor analysis,

TABLE 12: Validity and Reliability Test Results

Perception Questionnaire					
No	Indicator	Validity		Reliability	
		Correlation Value	Description	Value	Description
E - Marketplace Self -- Efficacy (X1)					
1	Confidence in finding information on the E-Marketplace system	0.917	Valid	0.800	Reliable
2	The level of proficiency required to use the E-Marketplace	0.909	Valid		
Complexity (X2)					
3	Time taken to perform tasks	0.845	Valid	0.871	Reliable
4	Integration of computer results into existing work	0.896	Valid		
5	Vulnerability	0.934	Valid		
Perceived usefulness (X3)					
6	Work More Quickly	0.861	Valid	0.923	Reliable
7	Increase Job Performance	0.874	Valid		
8	Increase Productivity	0.878	Valid		
9	Increase Effectiveness	0.882	Valid		
10	Makes Job Easier	0.825	Valid		
11	Useful	0.864	Valid		
Perceived Ease of Use (X4)					
12	Easy of learn	0.734	Valid	0.832	Reliable
13	Controllable	0.756	Valid		
14	Clear and understandable interaction	0.813	Valid		
15	Flexibility	0.812	Valid		
16	Easy to become skillful	0.779	Valid		
17	Easy to use	0.680	Valid		
Attitude toward using technology (X5)					
18	Convenience of interaction	0.901	Valid	0.912	Reliable
19	Happy to use	0.878	Valid		
20	Enjoy to use	0.891	Valid		
21	Not boring	0.887	Valid		
Behavioral Intention to Use (X6)					
22	Carrying out the task	0.916	Valid	0.730	Reliable
23	Planned utilization in the future	0.864	Valid		
Actual Technology Use (X7)					
24	Real Use	0.881	Valid	0.899	Reliable
25	True Frequency	0.918	Valid		
26	User Satisfaction	0.939	Valid		

varimax rotation is used with the loading factor criteria set in this study, which is > 0.5, so data that has a loading factor below 0.5 is not included in the next analysis..

TABLE 13: KMO and Bartlett's Test Phase 1

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.935
Bartlett's Test of Sphericity	Approx. Chi-Square	3.676E3
	df	325
	Sig.	.000

The reason behind the elimination of questions X33 and X44 after being re-examined is that it is suspected that the questions on the research questionnaire are too general or confusing so that the respondents do not understand the meaning of these questions. The results of the analysis show that there are several variables that have not been perfectly extracted, namely indicators X33 and X43. The solution that can be done on question items that have not been extracted perfectly is by eliminating question items or indicators that are suspected of not being the measuring factor of the variables which are then repeated CF analysis to get the question items extracted perfectly. After being tested again, the results are as follows:

TABLE 14: KMO and Bartlett's Test Phase II

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.930
Bartlett's Test of Sphericity	Approx. Chi-Square	3.259E3
	df	276
	Sig.ddd	.000

By eliminating the indicator question items from X33 and X43, the validity results show the KMO- MSA result of 0.930, with a significant chi-square value of 3.259E3 at 0.000 so that it can be tested further. The results of the Rotated Component Matrix show that all indicator variables or question items have been extracted perfectly with a loading factor of > 0.5.

3.5. Model Specifications

Before interpreting the results of hypothesis testing, the step that must be taken is to analyze the goodness-of-fit model. This is done to ensure that the constructed model has a good fit with the settings used as the object of observation through the data obtained. The results of the structural analysis can be seen in Figure 3.

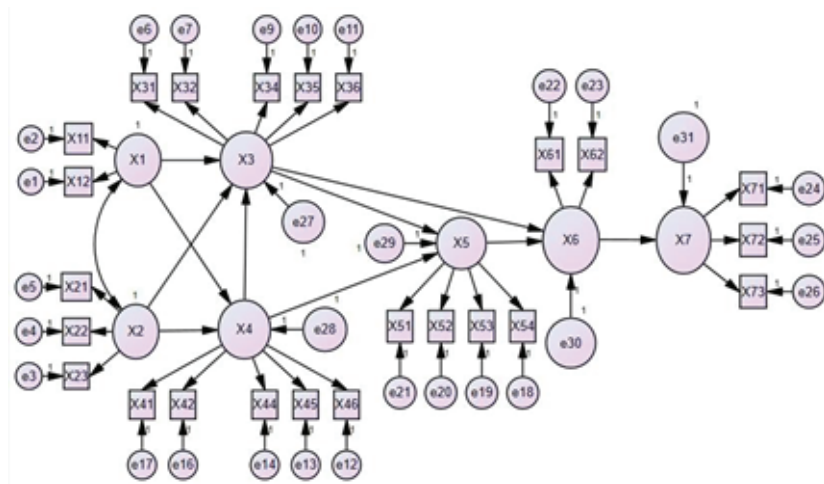


Figure 3: Initial Structural Equation Model (SEM)

3.6. Goodness of Fit

Before interpreting the results of hypothesis testing, the step that must be taken is to analyze the goodness-of-fit model [12]. This is done to ensure that the constructed model has a good fit with the settings used as the object of observation through the data obtained.

TABLE 15: Initial Model Goodness of Fit Results

Goodness of Fit Index	Cut of Value	Value	Description
Chi Square	Expected to be small	791.592	-
Probability	≥ 0.05	0	Bad
RMSEA	≤ 0.08	0.124	Bad
AGFI	≥ 0.90	0.599	Bad
GFI	≥ 0.90	0.678	Bad
CMIN/DF	≤ 2.00	3.285	Bad
CFI	≥ 0.95	0.829	Marginal
TLI	≥ 0.95	0.804	Marginal

It can be seen that the chi-square value of 791,592 with a degree of freedom of 241 is statistically significant at the 0.000 significance level. The probability of 0.000 is less than 0.05, which is a bad indication. Thus, there is a difference between the sample covariance matrix and the observed population covariance matrix. A GFI value of 0.678 is a bad indication. Furthermore, the AGFI value of 0.599 is a bad indication. The TLI value of 0.804 is a Marginal indication. The CFI value of 0.829 is an indication of Marginal. An RMSEA value of 0.124 is a bad indication. In addition to the parsimony fit measures index, the CMIN / df value of 3.285 is a bad indication. From the overall measurement of goodness of fit mentioned above, it indicates that the model proposed

in this study cannot be accepted. Because the model proposed in this study cannot be accepted, the researchers consider modifying the model to form an alternative model that has a better goodness of fit.

3.7. Model Modification

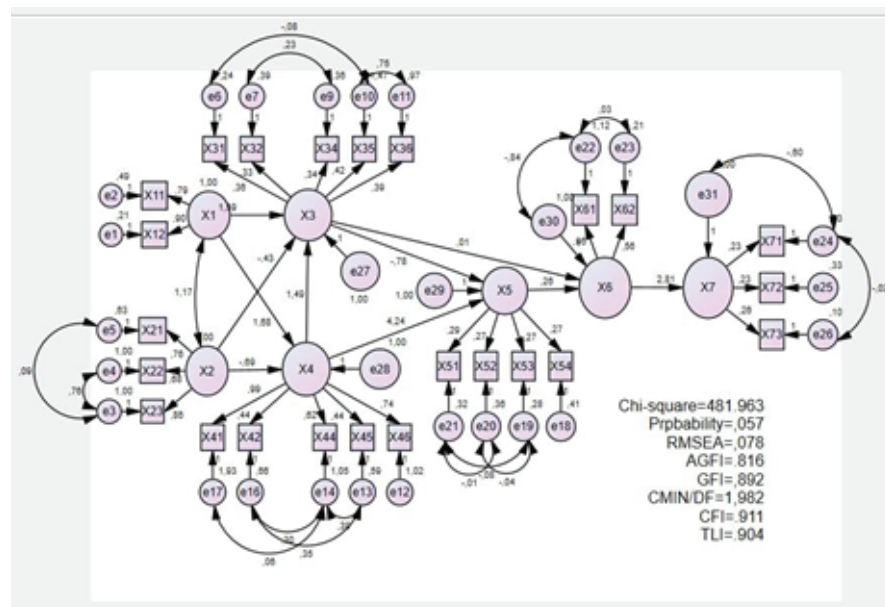


Figure 4: Structural Equation Model (SEM) Modification

To obtain acceptable model criteria, the researcher estimates the correlation between error terms which does not require theoretical justification. Following are the results of the structural analysis after modification:

TABLE 16: Goodness of Fit Result of Modification Model

Goodnees of Fit Index	Cut of Value	Value	Description
Chi Square	Expected to be small	481.963	-
Probability	≥ 0.05	0.057	Good
RMSEA	≤ 0.08	0.078	Good
AGFI	≥ 0.90	0.816	Marginal
GFI	≥ 0.90	0.892	Marginal
CMIN/DF	≤ 2.00	1.982	Good
CFI	≥ 0.95	0.911	Good
TLI	≥ 0.95	0.904	Good

4. Discussion

4.1. Chi Square Testing

The value of χ^2 in this study is 481.963 with a probability of 0.057, indicating that the proposed research model is acceptable. Normed Chi-Square (CMIN / DF) in this model is 1.982 indicating that this research model is good. The Goodness of Fit Index (GFI) reflects the degree of suitability of the overall model calculated from the squared residuals of the predicted model compared to the actual data. The GFI value ranges from 0 - 1, where 0 indicates poor fit and 1 indicates perfect fit; it can be concluded that this research model has a marginal or sufficient level of suitability with a GFI value of 0.892. The Adjusted Goodness of Fit Index (AGFI) value in this model is 0.816, indicating a marginal indication. Thus, the overall model (developed) is fit with the data. The Tucker Lewis Index (TLI) is an incremental fit index that compares the tested model with the null model. The recommended value is > 0.9 . It can be concluded that the proposed model shows a good level of conformity with a TLI value of 0.904. As for the magnitude of Comparative Fit Index (CFI) is in the range of 0 to 1 and a value close to 1 indicates that the model has a good level of fit. Taking into account the recommended values, namely > 0.9 ; then the CFI value of 0.911 indicates that this model has a good fit. The Root Mean Square Error of Approximation (RMSEA) is a measure used to correct the tendency for chi-square statistics to be sensitive to large sample sizes. The recommended acceptance value < 0.08 ; The RMSEA model value of 0.078 indicates a good level of suitability. Based on the overall goodness-of-fit measurement of the research model after the above modification process, it indicates that the model proposed in this study is acceptable. After the research model is accepted, the next sub-discussion will explain the analysis of hypothesis testing and discussion of the research results.

4.2. Hypothesis Testing

After the criteria for the estimated goodness of fit of the structural model can be met, the next step is an analysis of the model's structural relationships (hypothesis testing). The arrow (\leftarrow) shows the direction of influence from one variable to another. A positive standardized regression weight means that the relationship between the two variables has a positive direction. The significance test of the relationship was carried out by looking at the p-value of each relationship. If the p-value is smaller than 0.05, the relationship between the two variables is significant.

TABLE 17: Regression Weights Results

Variable Relationships			Estimate	S.E.	C.R.	P Value	Description
X4	<---	X2	.440	.154	2.895	0.034	H1 accepted
X4	<---	X1	.315	.193	3.185	0.021	H1 accepted
X3	<---	X1	.612	.188	4.990	0.018	H1 accepted
X3	<---	X2	.841	.196	5.439	0.037	H1 accepted
X3	<---	X4	.536	.191	2.609	0.029	H1 accepted
X5	<---	X3	.254	.635	2.820	0.025	H1 accepted
X5	<---	X4	.746	.141	6.220	0.039	H1 accepted
X6	<---	X3	.843	.192	6.732	0.041	H1 accepted
X6	<---	X5	.677	.186	7.224	0.047	H1 accepted
X7	<---	X6	.477	.192	6.617	0.034	H1 accepted

4.3. Managerial Implications

From this research, the results show that the application of the Shopee E-marketplace has a good impact when used as a medium for transactions for MSME products. This is based on the results of Actual Usage from Shopee E-marketplace users who are used for MSME product transactions where if someone starts wanting to use a technology, then he will intensively apply it in his daily life. In accordance with the results of this study, Intention to Use affects Actual Usage. In this case, MSME players who are starting to want to implement an E-marketplace, then they will use the E-marketplace intensively in their business activities. Through this research, it is hoped that SMEs will know the various benefits offered by the Shopee E-marketplace and can encourage MSME players to start applying the E-marketplace to support their business activities.

From this research, it can be taken into consideration for MSME marketing parties to use the Shopee E-marketplace as an option in introducing and selling products that are owned by food and beverage MSMEs. This is also based on the development of technology that has shifted to the digital world. So that in order not to be left behind with products from large manufacturers, the marketing party must be able to follow this technology. This is also in line with the results of research that the Shopee E-marketplace has a good impact when used as a medium for transactions for MSME products.

Identification of factors determining the intention of implementing E-marketplaces for SMEs is beneficial for the government, especially the Department of Industry, Trade and, the Office of Cooperatives and SMEs as well as OPD which deals with / has guidance for Business Actors within the Government of East Java Province in determining policies to develop and maintain the sustainability of MSMEs. This research is also useful for the government to be able to provide insight into information, guidance, or stimulation

to MSMEs based on the factors that influence MSME players to use the E-marketplace that has been identified in the research.

This research is expected to be able to be an inspiration for the development of MSMEs as well as an inspiration for further research to develop a Technology Acceptance Model in the context of different technology acceptance as part of academic activities.

5. Conclusion

Based on the main problems studied, the conclusions that can be drawn are in accordance with the results of the discussion in this study as follows:

1. The results of the analysis show that E-marketplace Self Efficacy has a positive effect on perceived usefulness and perceived ease of use if the Shopee E-marketplace is applied as a sales medium for MSMEs, so that for hypotheses 1 and 2, H1 is accepted. E-marketplace Self-Efficacy is the experience of using E-Marketplace, especially Shopee. In this study, it is proven that the ability to use Shopee E-marketplace affects the confidence of MSME players in using Shopee which can improve their business performance (Perceived Usefulness) and also affects the belief of these MSME players that using Shopee will ease them to carry out their business activities (Perceived Ease of Use).
2. The results of the analysis show that complexity has a positive effect on perceived usefulness and perceived ease of use of Shopee e-marketplace application as a sales medium for MSMEs, so that for hypotheses 3 and 4, H1 is accepted. In this study, the variable complexity shows the influence on the confidence of SMEs (Perceived usefulness) in using Shopee for transactions.
3. The results of the analysis show that the perceived ease of use on Shopee E-Marketplace affects the perceived usefulness and attitudes towards use of MSME consumers towards the application of Shopee as a sales medium for MSMEs, so that for hypotheses 5 and 7, H1 is accepted. From the results of this study, there is a relationship between the ease of using the E-marketplace (Perceived Ease of Use) and the benefits or using E-marketplace (Perceived Usefulness) in helping MSME business owners in making transactions.
4. The results of the analysis show that the response of MSME consumers about the perceived usefulness of Shopee has a positive effect on the use (attitude towards

using) and behavioral intention to use Shopee E-marketplace as a sales medium for MSMEs, so for hypothesis 6 and 8, H1 is accepted. Variety of benefits offered by the technology will affect the attitude of acceptance or rejection of a person in using a certain technology (Perceived Usefulness affects Attitude Towards Using). The benefit variables offered by E-marketplace, such as accelerating the transaction process and being able to reach all customers from all over the world, encourage MSME players to accept and use E-marketplaces in their business activities.

5. The results of the analysis show that the attitude towards using of MSME consumers affects the behavioral intention to use Shopee E-marketplace as a sales medium for East Java MSMEs, so that for hypothesis 9, H1 is accepted. If someone accepts a certain technology, then he wants to apply this technology in his life. MSME players who accept to use the E-marketplace, also want to apply the E-marketplace in their business activities. If someone starts wanting to use a technology, then he will intensively apply it in his daily life.
6. The results of the analysis show that the behavioral intention to use Shopee E-marketplace owned by MSME consumers has a positive effect on the actual technology use of Shopee's e- marketplace as a sales medium for MSMEs, so for hypothesis 10, H1 is accepted. In accordance with the results of this study, Intention to Use affects Actual Usage. In this case, MSME players who are starting to want to implement an E-marketplace, then they will use the E-marketplace intensively in their business activities.

5.1. Suggestions

Suggestions that can be given based on the results of the research that have been done are as follows:

1. The object of observation used in this study only focuses on the e-marketplace, especially Shopee, so that the impact on the generalization of the study is limited. To apply this study to a different context, examining the product characteristics inherent in the object of research should be done carefully. In addition, with a sample size of 150 respondents, hopefully later on, it can be further refined by increasing the number of samples to better interpret the results. This is necessary so that there is no bias in the test results which can lead to errors in formulating the policies taken. However, hopefully rigid testing procedures will not reduce the degree of confidence in the accuracy of the resulting prediction models.

2. The government is advised to facilitate and provide training for MSMEs to become more familiar with e-marketplaces (e-commerce) and the ins and outs of marketing via the internet, providing stimulation or stimulus to MSMEs regarding the benefits of e-marketplaces that can support their business activities, for example by providing socialization about what e-marketplace (e-commerce) is and its benefits and roles in maintaining the sustainability of MSMEs.
3. Research on user behavior towards technology acceptance in future research can use the TAM approach to be further developed by combining other theories from the fields of social science, economics, psychology, or other fields of science. Objects that can be researched are suggested to be more diverse, ranging from information technology which includes networks, information systems and applications to obtain a more diverse range of research results.

References

- [1] Jogiyanto, H. M. (2008). *Sistem Informasi Keperilakuan*. Yogyakarta: Penerbit ANDI.
- [2] Lee, K. A. and Larsen, K. R. T. (2003). The Technology Acceptance Model Past, Present, Future. *Communication of The Association for Information System (CAIS)*, vol. 12, issue 1, pp. 752-780.
- [3] Rogers, E. M. (1995). *Diffusion of Innovations* (4th ed.). New York: The Free Press.
- [4] Sidharta, I. and Sidh, R. (2014). Pengukuran Persepsi Manfaat dan Persepsi Kemudahan terhadap Sikap serta dampaknya atas penggunaan ulang online shopping pada e- Commerce. *Journal Computech and Bisnis*, vol. 8, issue 2, pp. 92–100.
- [5] Cooper, D. R. and Schindler, P. S. (2003). *Business Research Methods* (7th ed.). NY: McGraw- Hill.
- [6] Ghozali, I. and Fuad. 2005. *Struktural Equation Modelling*. Semarang: Badan Penerbit Universitas Diponegoro.
- [7] Sekaran, U. (2000). *Research Methods for business: A Skill Building Approach*. Singapore: John Wiley & Sons, Inc.
- [8] Ghozali, I. and Fuad. (2005). *Struktural Equation Modelling*. Semarang: Badan Penerbit Universitas Diponegoro.
- [9] Ferdinand, A. (2005). *Structural Equation Modeling Dalam Penelitian Manajemen: Aplikasi Model-Model Rumit Dalam Penelitian Untuk Tesis Magister Dan Disertasi Doktor* (3rd ed). Semarang: Badan Penerbit Universitas Diponegoro.

- [10] Sugiyono, S. (2011). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung: Afabeta.
- [11] Malhotra, N. K. and Birks, D. F. (2007). *Marketing Research: An Applied Approach*. London: Pearson Education.
- [12] Amani, F. A. dan Waluyo, I. (2016). Pengaruh Ukuran Perusahaan, Profitabilitas, Opini Audit dan Umur Perusahaan terhadap Audit Delay. *Jurnal Nominal*, vol. 5, issue 1, pp. 135-150.