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Analysis of Satisfaction Relationship Model and Customer Loyalty in Marketing Smartphone Brand X

Minto Waluyo*
Industrial Engineering Department,
Faculty of Engineering
UPN "Veteran Jawa Timur
East Java, Indonesia
mintow.ti@upnjatim.ac.id

Nur Rahmawati
Industrial Engineering Department,
Faculty of Engineering
UPN "Veteran Jawa Timur
East Java, Indonesia
nur.rahma.ti@upnjatim.ac.id

Kinanti Resmi Hayati
Industrial Engineering Department,
Faculty of Engineering
UPN "Veteran Jawa Timur
East Java, Indonesia
kinantihayati.ti@upnjatim.ac.id

Mohammad Rachman Waluyo
Industrial Engineering Department,
Faculty of Engineering
UPN "Veteran Jakarta
Jakarta, Indonesia
aanvicenzo@gmail.com

***Abstract*— Smartphone Brand X is one of the smartphone brands from China which in the third quarter of 2019 had the second largest market share in Indonesia and it surprised competitors and consumers. The researcher made a model to measure customer satisfaction and loyalty towards users of the Brand X Smartphone products. The aim of this study is to determine the factors that influence satisfaction with the brand smartphone customer loyalty. The research method uses Structural Equation Modeling (SEM) tools, collecting data based online with the Google Form sample platform collected as many as 170 by conducting two stages of the Measurement and Structural Model tests. The results show that brand image on customer satisfaction has a negative effect and not significant (est. Std. Regression weight = -0.168). Price perception on customer satisfaction also has a positive effect but not significant (est. Regression weight = 0.208), product quality on customer satisfaction has a positive effect too and not significant (est. Std. Regression weight = 0.541). e-commerce on customer satisfaction has a positive effect but not significant effect (est. Std. Regression weight = 0.403). Interpersonal communication on customer satisfaction has a positive effect and not significant (est. Std. Regression weight = 0.434). Customer satisfaction on customer satisfaction has a positive effect and not significant with (est. Std. Regression weight = 0.890).**

Keywords: Brand Image, Price Perception, Product Quality, E-commerce, Interpersonal Communication, Customer Satisfaction, Customer Loyalty, SEM

I. INTRODUCTION

The current communication technology in Indonesia is currently experiencing a very rapid development.With this huge market potential, several branded smartphone players have begun to expand the Indonesian market such as Samsung, Apple, Oppo, Lenovo, Xiaomi and others. A unique anomaly occurs in a smartphone brand X which is a product of a Chinese private electronics company. From the first quarter of 2016 to the third quarter of 2019, based on data compiled from the Global Statistics Counter website, the market share of Chinese smartphone products is in the second position of 22.67% which only has a slight difference with the rulers of the electronic market in Indonesia such as Samsung with a market share of 25.11%.

For this reason, this study aims for modeling factors which influence the success of smartphone brand X manufacturers. Departing from this uniqueness problem, researchers measured the factors that influence satisfaction with customer loyalty to smartphone users. The model designed focuses on brand image factors, price perceptions, product quality, e-commerce, and interpersonal communication as exogenous variables and these variables are generally used to measure customer satisfaction, for endogenous variables customer satisfaction and loyalty. In this paper will use the Structural Equation Modeling (SEM) method. Research with similar topics has been carried out beforehand among them (Jiang and Zhang, 2016) which conducted research on airline users in China, on automobile service users (Izogo, E. et al., 2015), on retail customers (Neupane, 2015), on Islamic bank consumers in Malaysia (Kashif, et al., 2015), on user's health services (Lonial and Raju., 2015), as well as online shop users (Wu, M. Y and Tseng, L. H, 2015)

Structural Equation Modeling (SEM) was chosen because SEM is a multivariate analysis technique which is a combination of path analysis, factor analysis, regression analysis, and structural models. Several previous studies have also used SEM (Del Giudice and Della Peruta, 2016), including using SEM to determine the effect of management systems of IT-based knowledge on innovation and internal venturing (Elkaseh, A, et al, 2016) using SEM to find out perceptions of the ease and usefulness of social media for e-learning in higher education in Libyan (Chin, W. Et al, 2008) used SEM to create a marketing model (Gau, J.,

2010) used SEM to model criminal justice and criminology (Xiong, Y et al, 2015). used SEM to test the relationship between student motivation, engagement, and retention in the Massive Open Online Course (Ockey, G. J and Choi, I., 2015) used SEM for language assessment (Tan, L. P and Wong, K. Y, 2015) used SEM to find out the link between manufacturing performance and knowledge management (Tarhini, A et al, 2017) used SEM to find out the factors that influence students who adopt e-learning (Alrowwad, A. et al, 2017) used SEM to know the transformational leadership impact on organizational performance. The model produced in this study later can be used as a measurement guideline in making marketing strategies in the next quarters.

II. METHOD

This research used Structural Equation Modeling (SEM) method to analyse the problems. Questionnaire distribution is done online based on the googleform platform using Linkert scale (1-5). Data processing uses two stages measurement model which is intended to confirm a dimension or factor based on its empirical indicators. Furthermore the structural measurement model discusses the structure of relationships that shape or explain causality between constructs. The questionnaire collection data obtanined 170 respondents who met the criteria a number of data is sufficient maximum likelihood (100-200)..

III. RESULT AND DISCUSSION

A. Measurement Model Test

Measurement model test is a test carried out on each model of measurement, related to the relationship between manifest variables and latent variables, the aim is to find out how precisely manifest variables (indicators) can explain existing lanten variables, the basis of measurement of validity (CR > 2 SE) and significant < 0.05, results of Measurement Test models as in the table below.

Table 1. Validity, significant and standardized regression weight Measurement Model.

	Estimate	S.E.	C.R.	2.SE	P	Ket. Valid	Ket. Signifikan	Estimate Standardized Regression Weight
X2.4 <--- X2	1							0,359
X2.3 <--- X2	0,856	0,371	2,308	0,742	0,021	Valid	Signifikan	0,289
X2.2 <--- X2	1,3	0,536	2,425	1,072	0,015	Valid	Signifikan	0,395
X2.1 <--- X2	1,679	0,617	2,721	1,234	0,007	Valid	Signifikan	0,502
X3.7 <--- X3	1						Signifikan	0,254
X3.6 <--- X3	1,338	0,551	2,427	1,102	0,015	Valid	Signifikan	0,387
X3.5 <--- X3	1,762	0,648	2,718	1,296	0,007	Valid	Signifikan	0,507
X3.4 <--- X3	1,635	0,643	2,542	1,286	0,011	Valid	Signifikan	0,404
X3.3 <--- X3	1,438	0,587	2,448	1,174	0,014	Valid	Signifikan	0,378
X3.2 <--- X3	1,024	0,442	2,32	0,884	0,02	Valid	Signifikan	0,322
X3.1 <--- X3	1,158	0,537	2,156	1,074	0,031	Valid	Signifikan	0,286
X4.9 <--- X4	1						Signifikan	0,434
X4.8 <--- X4	0,839	0,241	3,488	0,482	***	Valid	Signifikan	0,367
X4.7 <--- X4	0,692	0,224	3,081	0,448	0,002	Valid	Signifikan	0,313
X4.6 <--- X4	0,258	0,203	1,268	0,406	0,205	Valid	Tidak Signifikan	0,116
X4.5 <--- X4	1,5	0,348	4,312	0,696	***	Valid	Signifikan	0,679
X4.4 <--- X4	0,534	0,212	2,515	0,424	0,012	Valid	Signifikan	0,262
X4.3 <--- X4	0,773	0,24	3,219	0,48	0,001	Valid	Signifikan	0,381
X4.2 <--- X4	0,958	0,243	3,939	0,486	***	Valid	Signifikan	0,456
X4.1 <--- X4	0,833	0,244	3,415	0,488	***	Valid	Signifikan	0,379
X5.4 <--- X5	1						Signifikan	0,226
X5.3 <--- X5	2,408	1,035	2,328	2,07	0,02	Valid	Signifikan	0,535
X5.2 <--- X5	2,618	1,131	2,315	2,262	0,021	Valid	Signifikan	0,595
X5.1 <--- X5	2,255	0,938	2,403	1,876	0,016	Valid	Signifikan	0,497
X1.3 <--- X1	1						Signifikan	0,357
X1.2 <--- X1	0,734	0,328	2,242	0,656	0,025	Valid	Signifikan	0,251
X1.1 <--- X1	1,339	0,461	2,901	0,922	0,004	Valid	Signifikan	0,512
Y1.1 <--- Y1	1						Signifikan	0,071
Y1.2 <--- Y1	8,494	12,898	0,659	25,796	0,51	Tidak Valid	Tidak Signifikan	0,67
Y1.3 <--- Y1	8,073	11,918	0,677	23,836	0,498	Tidak Valid	Tidak Signifikan	0,581
Y2.4 <--- Y2	1							0,078
Y2.3 <--- Y2	3,234	2,175	1,487	4,35	0,137	Tidak Valid	Tidak Signifikan	0,234
Y2.2 <--- Y2	1,351	0,971	1,392	1,942	0,164	Tidak Valid	Tidak Signifikan	0,111
Y2.1 <--- Y2	0,659	0,71	0,928	1,42	0,353	Tidak Valid	Tidak Signifikan	0,056

B. Structural Model Test

All Variable are valid except for Y1 X1 and probability P >0.5 all variable is not significant, but all variable have direct effect ecxept Y1 X1

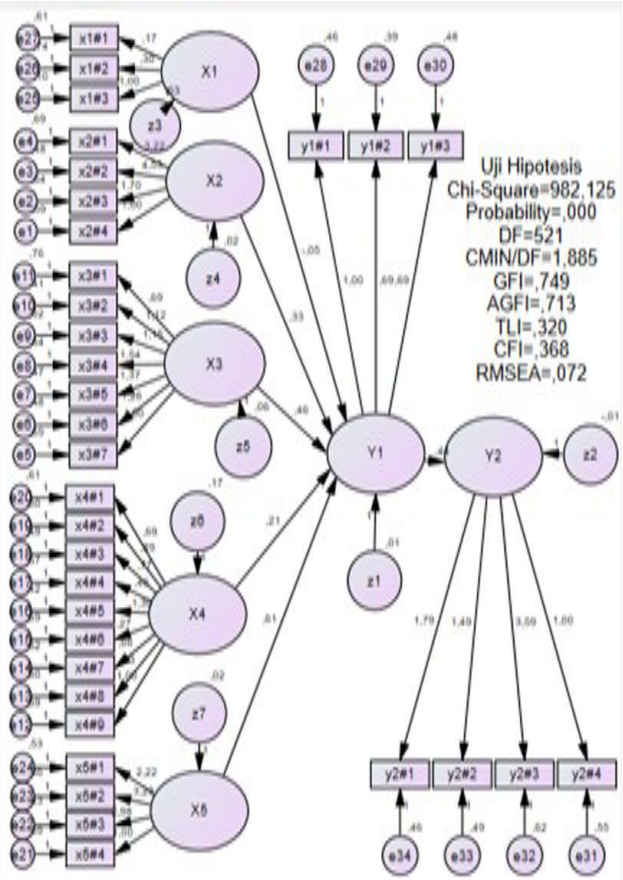

Table 2. Validity, significant and standardized regression weight Structural Model

	Estimate	S.E.	C.R.	2 S.E.	P	Ket. Valid	Ket. Signifikan	Estimate Standardized Regression Weight
Y1 <--- X3	0,459	0,285	1,611	0,57	0,107	Valid	Tidak Signifikan	0,541
Y1 <--- X2	0,331	0,318	1,043	0,636	0,297	Valid	Tidak Signifikan	0,208
Y1 <--- X4	0,213	0,122	1,745	0,244	0,081	Valid	Tidak Signifikan	0,403
Y1 <--- X5	0,608	0,481	1,264	0,962	0,206	Valid	Tidak Signifikan	0,434
Y1 <--- X1	-0,045	0,068	-0,664	0,136	0,507	Tidak Valid	Tidak Signifikan	-0,168
Y2 <--- Y1	0,459	0,345	1,282	0,686	0,2	Valid	Tidak Signifikan	0,393

Hypothesis Analysis

H1: Brand image has a significant relationship to the satisfaction of customer

Data from the hypothesis test results are presented in Table 2. From this table it can be seen that H0 is accepted which means Brand Image (X1) does not have a significant effect on Customer Satisfaction (Y1).

H2: Price perception has a significant relationship to customer satisfaction

Data from the hypothesis test results are presented in Table 2. From this table it can be seen that H0 is accepted which means Price Perception Price (X2) does not even have a significant effect on customer satisfaction (Y1).

H3: Product quality has a significant influence relationship to customer satisfaction

Data from the hypothesis test results are presented in Table 2. From this table it can be seen that H0 is accepted, which means product quality (X3) does not have a significant effect on customer satisfaction (Y1).

H4 : E-commerce has a significant influence relationship to the satisfaction of customer

Data from the hypothesis test results are presented in Table 2. From this table it can be seen that H0 is accepted which means E-commerce (X4) does not have a significant effect on customer satisfaction (Y1).

H5: Interpersonal communication has a significant influence relationship to customer satisfaction

Data from the hypothesis test results are presented in Table 3. From this table it can be seen that H0 is accepted which means Interpersonal Communication (X5) has a positive effect but not significant on customer satisfaction (Y1).

H6: Customer satisfaction has a significant relationship to the loyalty of customer

Data from the hypothesis test results are presented in Table 3. From this table it can be seen that H0 is accepted, which means customer satisfaction (Y1) does not have a significant effect on customer loyalty (Y2).

IV. CONCLUSION

The results of the analysis and discussion can be concluded, that the Factors Affecting Satisfaction toward Customer Loyalty Smartphone brand X include: Brand Image (X1) does not significantly influence Customer Satisfaction (Y1), Price Perception (X2) does not effect significantly on customer satisfaction (Y1), product quality (X3) does not effect significantly on customer satisfaction (Y1), E-commerce (X4) does not have an effect significantly on customer satisfaction (Y1), Interpersonal communication (X5) also has a positive effect but not significant on customer satisfaction (Y1) and customer satisfaction (Y1) has a positive effect but not significant on customer loyalty (Y2). To test the model produces. Goodness of Fit and Cut-off Value are Chi-square = 982.125, Probability level = 0.0003, df = 521 Cmin / df = 1.885, RMSEA = 0.72, GFI = 0.749, AGFI = 0.713, CFI = 0.368, TLI = 0.320.

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