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Price and Customer Satisfaction on Loyalty: An Empirical Study of Online Transportation in Indonesia

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Abstract:- Business of transportation Online is growing in Indonesia. The competition is very competitive. The aim of this study is to analyze the effect of price and customer satisfaction on customer loyalty at online transportation in Indonesia. Customer loyalty is required factor for long-term profitability. The responses collected were 102 completed questionnaires. The data were analyzed using Structural equation modeling (SEM) method using AMOS 24. Some items were removed to get an adequate goodness of fit through the measurement model using confirmatory factor analysis with verification of the modified index. Goodness of fit for the structural models of hypothesized model shows promising findings. Result of analysis show that price is related positively with customer satisfaction and customer satisfaction is related positively to customer loyalty. Customer satisfaction variables as an intervening variable on the price towards the customer loyalty. From the result of analysis, it can be recommended that the online transportation's firm should pay attention to price in order to increase customer satisfaction and ultimately increases customer loyalty on all services issued by online transportation's firm.

Keywords:- *Price, Customer Satisfaction, Customer Loyalty, SEM.*

I. INTRODUCTION

The growth of smartphone users in Indonesia is quite high. A survey conducted by the Pew Research Center on May 14 through August 12, 2018 released information that young (aged 18-34 years) users smartphone ownership rates increased from 39% to 66% from 2015-2018. Whereas for ages over 50, smartphone users also rose from 2% in 2015 to 13% in 2018. Along with the development of smartphone users in Indonesia, digital disruption occurred in various industrial sectors. One of them is happening in the transportation industry. The birth of online transportation applications such as Go-Jek and Grab, has made people feel easy to meet their needs. This is because online transportation applications exist not only for vehicles but also provide features for buying food, cleaning services, shipping goods and much more. The two online transportation application service providers compete so tightly that their application is the most widely used. Since the initial application was introduced to the public, the two companies have used a subsidy strategy, known as the "burn money". This money-burning activity is generally carried out by companies by giving large discounts, the aim being that consumers are interested in using services. As done by Gojek through its digital payment service namely GoPay and Grab through its payment service namely OVO, transactions made with digital payments will get various promos, both in the form of discounts and cashback. The second goal of this startup is to increase the number of application users. The strategy of prioritizing customer satisfaction is carried out by both companies to ensure long-term growth. Wartaekonomi.co.id mentions that Gojek will focus on growth oriented to strengthening products to maintain customer satisfaction. Through the three pillars of the products most needed and desired by customers, namely food and beverage delivery, payment, and transportation. Likewise with Grab who provides services from all my heart with three moves, namely (1) Show Appropriate Attitude, (2) Build Communication, and (3) Ensure Work Tools Always Prime. All of this is done so that the service is getting better so that it can satisfy the customer. In the end, customer loyalty is expected to increase revenue. Customer loyalty in enjoying the products and services used, loyal to the brand, will have an impact on increasing company profits. This study aims (1) to analyze the effect of price on customer satisfaction, (2) to analyze the relationship of customer satisfaction and customer loyalty, and (3) to analyze the price relationship and customer loyalty.

II. THEORETICAL FRAMEWORK

A. Price

There are several marketing mix elements, one of them is price. It is the most flexible that can be able changed rapidly, after product specifications and the characteristic of a service (Dovaliene and Virvilaite, 2008). The decision to make price changes will be very effective when synchronized with other marketing mix elements such as products, services, locations and promotions. According to Nagle and Müller (2017) the creation of products and services, sales and promotions are the beginning of business success and optimal pricing ensures revenue. Ostaseviciute and Sliburyte (2008) confirm that service prices are the only marketing mix element that brings revenue to the company.

B. Customer Satisfaction

Customer online reviews have significant business value in the digital and big data era. Online textual reviews have an open structured form, namely the linguistic attributes of online textual reviews (Zhao, 2019). Customer satisfaction can be easily seen by online. Perceptions include customer satisfaction and dissatisfaction (Berezina et al., 2016) based on the assumption that positive reviews indicate satisfaction and negative reviews indicate dissatisfaction. Online textual reviews are unstructured user-generated content (Zhang et al., 2016). Therefore, consumption experience and customer perception in more detail compared to customer ratings can be seen from online textual reviews (Xu and Li, 2016).

C. Customer Loyalty

Brand loyalty, store loyalty and service loyalty are classifications of customer loyalty (Dick & Basu, 1994). In this digital era, internet media is the ideal medium for achieving customer loyalty (Huda & Wahyuni, 2013). According to Wu (2018) Customer loyalty can be built by the marketing mix and that can be maintain with real-time interactions and establish social relations with customers. Website atmosphere plays a mediating role that significantly affects customers' loyalty outcomes such as recommendation. To maintain the customer's future loyalty, a fast online response is also needed with a commitment to service improvement and compensation (Gu and Ye, 2014). Realizing the importance of customer loyalty, most of the network operators have designed gifts and loyalty program to attract and retain customers (Tanford et al. ,2012).

D. Hypothesis

One of the important factor of customer satisfaction in the Marketng literature is price. Customers usually think of prices when evaluating the value of products or services (Croninet al., 2000). Mudie & Pirrie (2012) shows that the extent of satisfaction depends on service quality, product quality, price, situation, and personal factors. Singh and Sirdeshmukh (2000) have concluded that price significantly influences customer satisfaction in service industrie. In restaurant industry, Han and Ryu (2009) found that perceived price has significant influence on customer satisfaction. Therefore, the proposed hypothesis is:

H1: It is suspected that price influences customer satisfaction.

In addition, when consumers feel that the price of a service or product is reasonable, it is possible for them to display the intention of repeated buying behavior. Conversely, if consumers do not feel that their sacrifice is valuable, they may not make a purchase again, even when they are satisfied with the product or service (Bei and Chiao, 2001). With this in mind, the proposed hypothesis is:

H2: It is suspected that price influences consumer loyalty.

The central element in the marketing is Consumer satisfaction, because this has contributed to the success of service providers (Darian et al., 2001). In addition, satisfaction is one important factor for predicting consumer behavior, and more specifically for repeat purchases. Oliver (1997) defines loyalty as something that is firmly committed to repeating the purchase of a preferred product or service consistently in the future, even though situational influences and marketing efforts (eg pricing policies) have the potential to bring about change. The possibility of consumers repeating purchases in the same place is higher as long as consumers are met what they expect during purchase or service needed (Wong dan Sohal, 2003). Thus, customer satisfaction along with other antecedents is an important factor for getting loyal customers who will also recommend their regular products or service providers to other customers. Many related empirical studies report satisfied consumers showing more loyal behavior (Wong and Zhou, 2006). Therefore, customer satisfaction leads to customer loyalty, and the following hypothesis is proposed:

H3: It is suspected that customer satisfaction has an effect on customer loyalty.

III. METHODOLOGY

Quantitative, non-experimental, explorative (comparative) and explanatory (correlational) research is conducted to assess the relationship between price and customer satisfaction on consumer loyalty. The following are the models in this study.

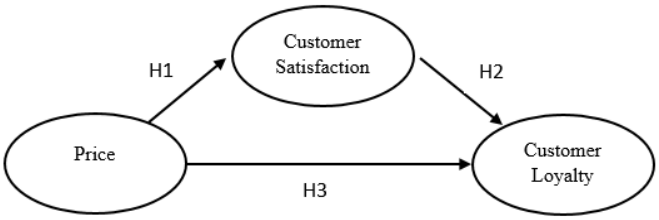

Fig 1: Proposed research framework

A. Research design

The past research sources related to the online transportation industry are seen to be developed. The next step was designing questionnaire questions and pre-testing the questionnaire given to several speakers. The pre-test was play an important role in assessing the readability, strengths and weaknesses of the questionnaire and ensuring that all related to the variables that to be observed. At this session, some instrument were modified with the aim to remove ambiguity, to eliminate inappropriate items and to improve the quality of the questions so that they are relevant to the context. The final version is given to respondents through an online group messaging application in Indonesia.

B. Measurement

The questionnaire asked respondents to evaluate the online transportaion services which they often used. It included perception from them that were assessed on five-point Likert scales. Each scale item was anchored at the number one with the verbal statement "strongly disagree" and at the number five with the verbal statement "strongly agree." Several items are used to measure each construction so the nature of the measurement can be evaluated for its

reliability and validity. The item scale measures the dependency of the variable chosen to reflect price, satisfaction and customer loyalty with the firm. Demographic data was also obtained from respondents.

C. Population and Sample

The population in this study is the online motorcycle taxi users in Indonesia with a proposive sampling technique. The number of samples in this study were 112 respondents specifically users who used online motorcycle taxi services at least three times in the last three months. The number of samples generally should not be less than 50 observations, and the sample size should be greater than or equal to 100 (Hair et al. 2010). All variables use a five-point Likert scale, and range from strongly agree (5) to strongly disagree (1).

IV. RESULTS AND DISCUSSION

A total of 102 questionnaires were collected. All questionnaires were coded for statistical analysis using SPSS Version 24. Of the total 102 respondents, 81 (79%) of respondents were female and 21 (21%) were male. A total of 61 (60%) respondents were the young generation (25-38 years), the adolescent generation (9-24 years) were 34 (33%) and 7 (7%) were older than 39 years old. The educational level of respondents was 58 (57%) having a bachelor's degree, 35 (36%) of high school / high school level and 8 (8%) had an associate's degree.

Before the model is analyzed, the validity and reliability tests are first performed. Based on the validity test output, it is known that the calculated r value for each indicator is greater than r table (0.1816) so that it can be concluded that each indicator is valid.

Based on the reliability test output, Cronbach's alpha value for the indicators of price, customer satisfaction and loyalty amounted to 0.784; 0.841 and 0.797. Where the alpha value is greater than 0.6 so it is concluded that the variable is reliable.

The SEM model results shown in Figure 2 were obtained using AMOS Version 24, and testing of the model is reported in Table 1. The overall model fit χ 2 is 208,639 with 87 degrees of freedom. The value associated with this result is .000. The p-value is significant using a type I error rate of 0.05; thus, the ness2 goodness-of-fit statistic does not indicate that the observed covariance matrix matches the covariance matrix estimation in the sampling variance. According to previous studies, a number of indices are available to evaluate suitable models (Bentler, 1992; Fornell and Larcker, 1981; Jöreskog and Sörbom, 1992), but there is no single generally agreed-upon index or standard; hence, several criteria must be used to evaluate the overall fit of the theoretical model (Hair et al., 2010; Bagozzi and Yi, 1988). The RMSEA value, an absolute compatibility index, is 0.084. This value is smaller than the guideline value of .10 for models with 15 variables measured and sample size 199. Therefore, RMSEA supports the suitability of the model. The GFI value (0.862) is higher than the guideline value. RMR has a value of 0.024, and SRMR (0.047) is smaller than 0.05. The normed χ 2 is 2,398. This measure is the chi-square value divided by the number of degrees of freedom. Figures smaller than 3.0 are considered very good. Thus, normed norm 2 shows a suitable model for the structural model.

A. Model Suitability Test (Goodness of Fit Test)

The results of the chi-square test calculation on the full model obtained a value of 151.737 still below the chi-square table with a degree of freedom at a 5 percent significance level of 185.8. The probability value is 0.323 above 0.05 which is the required probability value. GFI and AGFI values of 0.833 and 0.770 can be received marginally, so that it can still be said to be a fit model. TLI value of 0.955 is greater than 0.95 which is the required TLI value. CFI value of 0.962 is greater than 0.95 which is the required CFI value. And the value of RMSEA is included in good criteria so that the results indicate that the construct meets the criteria of the model fit (Goodness of-Fit Indices)

Criteria	Cut of Value	Result	Evaluation
Chi-square	χ 2 with df : 100; p : 5% is 124.34	151.737	good
Probability	$\geq$ 0.05	0.317	good
GFI	$\geq$ 0.90	0.833	marginal
AGFI	$\geq$ 0.90	0.770	good
TLI	$\geq$ 0.90	0.955	good
CFI	$\geq$ 0.95	0.962	good
RMSEA	$\leq$ 0.08	0.076	good

Table 1:- Goodness of fit index

B. Evaluate Data Normality

Normality analysis is done by looking at the CR values for multivariates with a range of ± 2.58 at a significance level of 1 percent (table 2). Normality test is carried out using a critical ratio of ± 2.58 at a significance level of 0.01 (1 percent) so that it can be concluded that there are no distorted data. Test data normality for each proven normal. Similarly, multivariate, it appears that the value of c.r of 0.45 does not exceed the required criteria of ± 2.58.

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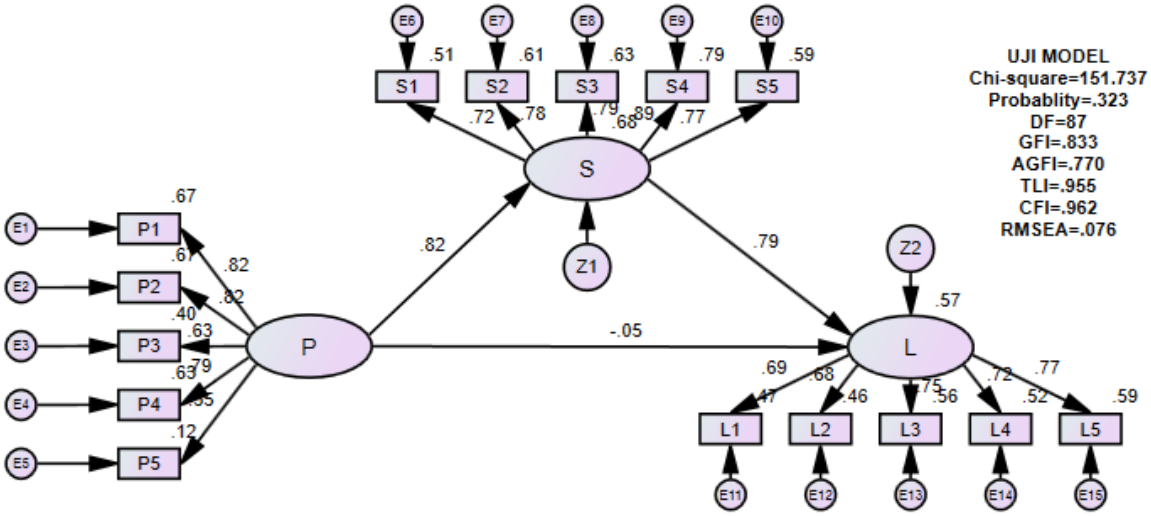

Fig 2:- Construct confirmatory analysis

Variable	min	max	skew	c.r..	kurtosis	c.r.
L1	1	5	-0.32	-1.32	-0.439	-0.905
L2	1	5	-0.362	-1.494	-0.269	-0.554
L3	2	5	-0.391	-1.611	0.054	0.112
L4	2	5	-0.409	-1.688	0.385	0.794
L5	1	5	-0.887	-3.658	1.89	3.897
S5	2	5	-0.6	-2.474	0.719	1.481
S4	3	5	-0.063	-0.261	-0.455	-0.937
S3	3	5	-0.265	-1.092	-0.702	-1.447
S2	3	5	-0.163	-0.671	-0.533	-1.099
S1	3	5	-0.095	-0.393	-0.708	-1.46
P5	1	5	-0.697	-2.876	0.239	0.492
P4	2	5	-0.379	-1.563	0.452	0.931
P3	3	5	0.205	0.847	-0.42	-0.866
P2	2	5	-0.24	-0.991	0.152	0.314
P1	2	5	-0.336	-1.385	0.024	0.049
Multivariate					38.598	8.631

Table 2:- Parameter estimation calculation result

C. Causality Test

After evaluating the assumptions in SEM, then hypothesis testing will be conducted. The results of testing the hypothesis are as follows:

	Estimate	S.E.	C.R.	P
S ←P	0.717	151,737	6.346	***
L ← S	0.955	0,317	3.605	***
L ← P	-0.048	0,833	-0.235	0.814

Table 3:- Result of hypotheses testing

Hypothesis 1 is the influence of Price on Customer satisfaction. Based on the results of data processing shows the CR (Critical Ratio) value of 6,346 with a probability of p <.001. Therefore the probability value ≤ 0.05 concluded that the first hypothesis was accepted namely the variable service quality proved to have a significant effect on customer satisfaction.

Hypothesis 2 is the influence of customer satisfaction on customer loyalty. Based on the results of data processing shows the CR (Critical Ratio) value of 3,605 with a probability of p <.001. Therefore the probability value ≤ 0.05 is concluded that the second hypothesis is accepted, namely the variable customer satisfaction is proven to have a significant effect on customer loyalty.

Hypothesis 3 is the effect of price on customer loyalty. Based on the results of data processing shows the value of CR (Critical Ratio) of -0.235 with a probability of 0.814. Therefore the probability value> 0.05 concluded that the third hypothesis was rejected, namely the Price variable had no effect on customer loyalty.

D. Analysis of Direct Effects, Indirect Effects and Total Effects of the Research Model

	Price	Satisfaction	Loyalty
Satisfaction	0.823	0	0
Loyalty	-0.046	0.79	0

Table 4:- Standardized direct eEffect

Table 4 shows the direct effect of price on customer satisfaction of 0.823, while the effect of price on customer loyalty of -0.046. The value of the direct effect of price on customer satisfaction is statistically significant, but not on price on customer loyalty.

	Price	Satisfaction	Loyalty
Satisfaction	0	0	0
Loyalty	0.65	0	0

Table 5:- Standardized indirect effect

Table 5 shows the indirect effect of price on customer loyalty of 0.65. The value of the indirect effect of price on customer loyalty through customer satisfaction. This shows that price has an indirect effect on increasing customer loyalty through customer satisfaction. So it can be concluded that customer satisfaction is proven as an intervening variable.

	Price	Satisfaction	Loyalty
Satisfaction	0.717	0	0
Loyalty	0.636	0.955	0

Table 6:- Standardized total effect

Table 6 shows the total effect of price on customer satisfaction of 0.717, the effect of total price on customer loyalty of 0.636. This shows that price has a positive contribution to customer satisfaction and customer loyalty.

E. Conclusion

The results of this study indicate that price directly has a significant effect on customer loyalty. This finding supports H1 and the results are consistent with the findings of Wu, C. C. (2011). For H2 the results show that customer satisfaction directly has a significant effect on customer loyalty. Therefore, this hypothesis is supported and the results are consistent with the findings of Putri et al. (2018) and Eakuru et al. (2008). For H3 the results show that price does not directly affect customer loyalty. This hypothesis was rejected, and the results are not in line with the study of Virvalaite (2009). Therefore, online transportation application companies must specifically focus on customer satisfaction to be able to build long-term and mutually beneficial relationships with customers and create loyalty as a competitive advantage in the market. From the respondents, the company must also pay more attention to female customers who are under the age of 38 to increase its market share.

The SEM approach has allowed researchers to test the hypothesis that there are a number of factors that can describe interrelationships between variables, but future research can use different designs to test the causal relationships proposed by the theory, such as service quality, to explore other antecedents to loyalty, and must be done in other industries.

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