

# ANALYSIS STRUCTURAL EQUATION MODELLING OF CONSUMER REPURCHASE IN THE MARKETPLACE

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# **ABSTRACT**

Advances in technology, the internet, and smartphones have increased the number of digital service users in Indonesia. One of them is an online product purchase service. Marketplace is one of the largest E-Commerce in Indonesia which has carried out a digital marketing strategy to reach all levels of society, especially Z generation and millennials. This study aims to analyze the effect of digital marketing on repurchases with customer engagement and customer experience as intervening variables on repeat purchases. This research was conducted by collecting data through questionnaires to 100 respondents who are Marketplace users in the Lamongan Region. The statistical method used is multigroup Structural Equation Modelling. The Result of this research are Digital Marketing has a big influence in building Customer Engagement and Customer Experience on online marketplace services. Customer Engagement and Customer Experience encourage repurchases on online marketplace services.

**KEYWORDS:** Digital Marketing, Customer Engagement, Customer Experience, repurchases, Structural Equation Modelling.

# 1 INTRODUCTION

The rapid development of technology greatly affects all aspects of life, one of which is buying and selling activities and also shopping that can be done online. This phenomenon is also supported by the increasing number of e-commerce platforms that support this technological change. The e-commerce platform is a system developed for buying and selling activities via the internet. E-commerce platforms are developing very quickly in Indonesia because of their ease and low operating costs. Indonesia is a country with the largest number of e-commerce transactions in Southeast Asia which is expected to continue to increase until 2025 (Bisnis.com, 2020; Lidwina, 2019).

The rapid growth of e-commerce, many small and large entrepreneurs sell their products through e-commerce platforms such as Tokopedia, Shopee, Blibli, Lazada, and Bukalapak (CNN Indonesia, 2021). According to Putri and Zakaria in a study published in 2020, Shopee, Tokopedia, Lazada, Bukalapak, and Blibli are the 5 largest e-commerce in Indonesia according to website & social media performance, as well as survey results

on platform usage by respondents. Shopee is the number one E-Commerce based on social media total followers, engagement rate, like rate, comment rate, average engagement/post, average likes per post, and average comment per post, visitor, monthly visitor, unique visitor, page per visit, bounce rate, average visit, and search traffic. This competition between E-Commerce makes all E-Commerce vying to be the best by doing digital marketing intensively on social media. Digital marketing is an effective marketing strategy to reach the target market, especially Generation Z who are actively using the internet and social media (Bismo & Putra, 2019). Companies can establish relationships and interact with customers through social media to increase customer engagement. Customers who are at a high level of engagement will tend to be loyal to the company and do not hesitate to make repeat purchases (Sashi, 2012).

Companies need to provide a satisfying customer experience at every touchpoint when customers interact with the company. This is what underlies research on digital marketing, customer engagement, customer engagement and repeat purchases on Marketplace. In addition, this study wants to find out the influence of digital marketing on repurchases with customer engagement and customer experience as intervening variables on repeat purchases.

Digital marketing is the use of technology to assist marketing activities in order to increase customer knowledge (Chaffey & Smith, 2017). The main activities of digital marketing that need to be optimized are content marketing, search engine optimization, paid advertising, social media marketing, and email marketing. Content marketing uses digital media platforms to deliver content to an audience. The use of blogs as a content marketing tool can increase sales revenue, where consumers can read product reviews from other customers and write comments about their personal experiences using these products (Bala & Verma, 2018). Social media marketing is a form of digital marketing by using social media platforms to promote company products and services (Chaffey & Smith, 2017). Social media is very popular among consumers and marketers because it offers many opportunities to share ideas, content, recommend a brand, and build interaction with the target audience (Bala & Verma, 2018).

Customer engagement is an interaction that occurs repeatedly between the customer and the brand that can strengthen the emotional and psychological side of the customer towards the brand (Chaffey, 2007). Customer engagement focuses on satisfying customers by providing superior value or value than competitors to build customer trust and commitment in long-term relationships (Sashi, 2012). Engaged customers will become partners who collaborate with sellers in the process of adding value in order to meet their expectations as well as other customers.

In the context of e-marketing, customer engagement aims to increase the time and attention given by customers to a brand on a website or social media. Social media interactivity can increase customer engagement and encourage the formation of commitment between sellers and buyers. There are seven stages in the process of building customer engagement, namely connection, interaction, satisfaction, retention, commitment, advocacy, and engagement (Sashi, 2012).

Customer experience is the internal and subjective response of the customer when dealing with the company, either directly or indirectly (Schwager & Meyer, 2018). Customer experience consists of a series of touch points. Touch point is every time a customer makes contact with the company's brand. At each touch point there will be a customer gap, namely the difference between customer perceptions and expectations. Customer perception is a subjective assessment by customers of their experience using goods or services (Schwager & Meyer, 2018).

Customers hope that the company can provide a good customer experience when delivering products or services (Singh, 2019). Customers do not hesitate to switch to competitors who are able to provide better value and customer experience. To be able to retain existing customers, companies must provide experiences that can meet customer needs or exceed customer expectations.

Repeat purchase intention is the customer's desire to make repeat purchases or continue to purchase products from the same seller (Chiu et al., 2014). Motivation and customer satisfaction will influence the decision to make a repeat purchase (McGuire, 1974). Repeat customers or repeat customers are more profitable for the company because they are less price sensitive, have a greater shopping capacity, and have a greater opportunity to share positive experiences and recommendations with those around them. Therefore, companies must be able to retain customers to benefit from repeat sales (Gupta & Kim, 2007).

Based on research by Gupta & Kim (2007), as many as fifty percent of repeat customers rarely complete a third purchase. One reason is the company's inability to meet changing customer expectations. As sales increase, customer expectations also increase. Companies need to find out what factors influence customer decision making when making transactions with the company.

Structural equation modeling (SEM) is a multivariate analysis which is a combination of factor analysis and regression analysis (correlation), which has the aim of testing the relationships between variables in a model, both between indicators and their constructs, or relationships between constructs (Hair, 1998).

In 2020, a study was conducted to determine the analysis of the influence of digital marketing on repeat purchases on the Go-Food food delivery service in the Surabaya area. The analytical method used is path analysis or path analysis. In 2021, research has been carried out with the title of analyzing the influence of advertising on Instagram social media on people's buying interest in E-Commerce. The analysis used is regression analysis using secondary data collected by distributing questionnaires to E-Commerce users.

Based on two previous studies by combining two research results, this research was carried out using the same variables, namely digital marketing, customer engagement, customer engagement and repeat purchases, but was carried out on the number one E-Commerce object in Indonesia based on the research of Putri and Zakaria in 2020. namely Shopee. The state of art or novelty in this research is the existence of affiliate indicators that will be included in the indicators for forming digital marketing variables. In addition,

the analytical method that will be used in the study is to use structural equation modeling.

# 2 MATERIALS AND METHODS

This study uses data analysis with statistical methods. The statistical method used is Structural Equation Modeling (SEM) which will see the effect of digital marketing, customer engagement and customer experience on repurchase. This study uses secondary data obtained from questionnaires that will be filled out by customers or E-Commerce users in Lamongan Regency. The expected number of respondents is 100 respondents. The collection of samples to fill out this questionnaire uses purposive sampling, which is a sample that is determined according to the purpose of this study, where only customers or E-Commerce users can fill out this questionnaire. Questionnaires will be created through a google form and distributed online. Data collection was carried out from June to July. The data that has been collected will be immediately processed using SmartPLS with the Structural Equation Modeling method.

The conceptual research consists of variables X, Z and Y.  $X_1$  is digital marketing which consists of eight indicators.  $Z_1$  is customer Experience yang which consists of eight indicators.  $Z_2$  is customer Engagement which also consists of eight indicators. Y is dependent variable repeat purchase or repurchase which consists of five indicators.

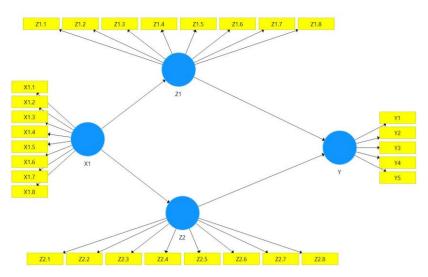


Figure 1: Conceptual Research

#### 3 RESULTS AND DISCUSSION

The results of filling in the questionnaire data for variables X, Z1, Z2 and Y were processed using SmartPLS. The first step is to identify whether each indicator in the variable is valid. The results of data processing indicate that there are several invalid variables that must be discarded and not included in further data processing. Invalid

indicators are X1.8, Z1.5, Z1.6, Z1.7, Z1.8, Z2.1, Z2.2, Z2.5, Z2.6 and Z2.8. The data was reprocessed and the following results were obtained:

Table 1. Outer Loading Result

Indicators	Outer Loading
X1.1	0,732
X1.2	0,878
X1.3	0,804
X1.4	0,726
X1.5	0,854
X1.6	0,798
X1.7	0,837
Z1.1	0,840
Z1.2	0,809
Z1.3	0,854
Z1.4	0,748
<b>Z2.</b> 3	0,829
Z2.4	0,842
Z2.7	0,84
Y1	0,745
Y2	0,762
Y3	0,723
Y4	0,757
Y5	0,709

Table 1 shows that the indicators in the table are indicators that are already valid. The second proof that the indicator is valid is to pay attention to the AVE value.

Table 2. AVE of Variable

Variabel	AVE
X1	0,650
<b>Z</b> 1	0,662
<b>Z</b> 2	0,700
Y	0,546

Based on Table 2, it is found that the AVE value of each variable is valid so that the analysis can be continued. The next analysis that must be done is to see the value of the Fornell lacker criterion. Fornell's lacker criterion is the correlation of the variable with the variable itself, and the correlation with other variables. Fornell's lacker criterion is the correlation value of a variable with the variable itself should not be smaller than the correlation value of a variable with other variables.

Table 3. Fornell Lacker Criterion

Variabel	$X_1$	$Z_1$	$Z_2$	Y
X <sub>1</sub>	0.806			

$Z_1$	0,407	0,814		
$\mathbb{Z}_2$	0,378	0,239	0,837	
Y	0,534	0.421	0.392	0.739

Based on Table 3, it is found that the Fornell Lacker Criterion value is valid. This can be seen from the correlation value between the variables itself which is not smaller than the correlation value of that variable with other variables. The next analysis that must be done is to look at the cross loading value. The value of cross loading is the correlation of the indicator with the variable. The criterion is the value of indicator a for variable a must be greater than the value of indicator a for other variables. If there is an indicator value of a for another variable that is greater than that, the indicator must be deleted and data processing is repeated from the beginning.

The results of data processing concluded that there was no invalid cross loading value. So that all validity tests have been completed both for convergent validity and discriminant validity. The next analysis is reliability testing.

Reliability testing is a test test by looking at the two values of composite reliability (composite reliability) and Cronbach's alpha must be more than 0.7. The value of composite reliability (composite reliability) and Cronbach's alpha will be shown in Table 4 as follows:

Table 4. Cronbach Alpha Value and Composite Reliability

Variabel	Cronbach's	Composite	Description
variabei	Alpha	Reliability	Description
$X_1$	0,909	0,928	Reliable
$Z_1$	0,829	0,887	Reliable
$\mathbb{Z}_2$	0,787	0,875	Reliable
Y	0,795	0,858	Reliable

Based on Table 4 it is found that the composite reliability and Cronbach alpha values for each variable are reliable. If all indicators and variables are valid, and all variables are reliable, then data analysis may be continued to test the structural model. This means that all indicators and variables are appropriate to be used in the PLS SEM analysis.

The value of R square is the value of the endogenous variable, in this study the variable Z and the Y variable. The value of R is shown in the table 5.

Table 5. R Square Value

Variabel	R Square	Adjusted R Square
Υ	0,267	0,252

$Z_1$	0,166	0,157
$\mathbf{Z}_2$	0,143	0,134

Based on Table 5, it can be concluded that the  $X_1$  variable has an influence on the  $Z_1$  variable by 16.6%. The effect of 66.5% is influenced by other variables outside of  $X_1$ . While the  $X_1$  variable affects the Y variable by 26.7%. The remaining 78.4% is influenced by other variables outside the  $X_1$  variable. The  $X_1$  variable has an effect on the  $Z_2$  variable by 14.3%. Further research is needed to find out what variables affect the  $Z_1$ ,  $Z_2$  and Y variables.

Significant test between variables can be seen based on the value of T statistics and P values. The criteria for the T statistic is if the value is more than 1.96 then it is significant. The criterion for P values is if it is less than 0.1 then it is significant. The results of bootstrapping the data so that the T statistic and P values are obtained are as follows.

Table 6. T Statistic And P Value

Variabel	T Statistic	P Values	Description
X1 <b>→</b> Y	4,225	0,000	Signifikan
X1 <b>→</b> Z1	3,773	0,000	Signifikan
X1 <b>→</b> Z2	4,158	0,000	Signifikan
Z1 <b>→</b> Y	3,365	0,001	Signifikan
Z2 -> Y	3,420	0,001	Signifikan

Based on Table 6, it can be concluded that the variable  $X_1$  to  $Z_1$  has a positive and significant relationship. Variable  $X_1$  to  $Z_2$  has a positive and significant relationship direction. Variable  $Z_1$  to Y has a positive and significant relationship. Variable  $Z_2$  to Y has a positive and significant relationship. The variable  $X_1$  to Y has a positive and significant relationship. Furthermore, these results will be compared with the indirect effect between each variable which will be shown in table 7 below:

Table 7 Indirect Relationship Value

Variabel	T Statistik	P Values	Description
$X_1 \rightarrow Z_1$	2,113	0,035	Signifikan
$X_1 \rightarrow Z_2$	2,274	0,023	Signifikan

Based on Table 7, it can be concluded that the variable  $X_1$  is significant to both  $Z_1$  and  $Z_2$ . The last step is to compare the results of a significant indirect relationship with a direct relationship to determine the role of variable Z, namely variable Y as an intervening variable. The  $X_1$  variable, namely digital marketing, has an effect on  $Z_1$ , namely the customer experience variable and the customer experience variable has an effect on Y Repurchase. This means that the customer experience variable only acts as

a partial intervening variable. If the customer experience variable is omitted, the digital marketing variable will still affect repurchase.

The  $X_1$  variable is significant to both  $Z_2$  and Y. The  $X_1$  variable, namely digital marketing, has an effect on  $Z_2$ , namely the customer engagement variable and the customer engagement variable has an effect on Y Repurchase. This means that the customer engagement variable only acts as a partial intervention variable. If the customer engagement variable is omitted, the digital marketing variable will still affect repurchase.

# 4 CONCLUSION

There are two conclusions obtained from this study. The first conclusion is about the influence of digital marketing on the repurchase variable. Digital marketing has proven to have an effect on repurchase, this proves that digital marketing efforts by sellers in the marketplace can attract consumers to repurchase their products in the marketplace. The second conclusion is that the intervening customer experience variable and the engagement variable have an effect on repurchase. However, the two intervening variables show partially intervening variables, meaning that the presence or absence of the two variables will not have a significant influence or impact on changes in the influence of digital marketing on repurchase.

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