

# Investigating the mediating role of customer experience on the relationship between perceived ease of use of E-Money (Shopeepay) and customer satisfaction during the COVID-19 Pandemic (empirical evidences from Generation Z in Indonesia)

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**Abstract.** Pandemic COVID-19 gave enormous amount of changes to the way people lives their life. Along with rapid changes in technology, including financial technology, the effect of changes has been more fluid and continuous. E-Money has now penetrated every sector of life, including personal applications found on personal smartphones. One of them is from the Shopee application, where Shopeepay features electronic money / E-Money services. During the COVID-19 pandemic, numerous people centralized their consumption necessities on online shopping for goods or products to meet their daily needs. In this study, we examine the mediating role of customer experience on the relationship between perceived ease of use of E-Money Shopeepay and customer satisfaction. We employed the SEM-PLS model based on an online questionnaire from 125 respondents. Our expected results focused on determining the significant effect of customer experience on the relationship between perceived Ease of Use of E-Money Shopeepay and customer satisfaction. This study is unique because it focused on modeling the relationship between perceived ease of use of E-Money Shopeepay, customer satisfaction, and customer experience of Generation Z during Pandemic COVID-19 in a single empirical model. A valuable contribution from this study is the recommendation to Shopee and E-Money Shopeepay providers to focus on maintaining a balanced customer experience on the perceived ease of using e-money Shopeepay to increase customer satisfaction, especially during the pandemic COVID-19 era.

**Keywords :** perceived ease of use; FinTech E-money Shopeepay; customer satisfaction; customer experience; Generation Z; Pandemic COVID-19

## 1. Introduction

Entering the 21st century, various kinds of activities carried out by humans are not much related to technology. Through technology, activities that are usually carried out traditionally are now changing and can be completed in a faster time. Technological progress is developing rapidly. The presence of an instant lifestyle phenomenon in society certainly makes various kinds of innovations, especially in the financial and information technology sectors [1]. Coupled with the innovation of smartphones and

financial technology in society, the use of digital payments is growing rapidly (Teo, Tan, Ooi & Lin, 2015) [2].

Indonesia as one of the countries in the world is facing the COVID-19 pandemic. The COVID-19 virus not only has an impact on the world of health, but this virus also has an impact on the economy in Indonesia [3]. The Indonesian government continues to work hard in eradicating the transmission of the COVID-19 virus and suppressing the rate of transmission of the virus in order to save the Indonesian economy. The government also ordered related to Large-Scale Social Restrictions (PSBB) with the aim of reducing and preventing transmission. Supported by Bank Indonesia, which is trying to prevent the transmission of COVID-19 by directing the public to use non-cash payments in their daily lives [4]. The COVID-19 pandemic has also changed people's behavior in conducting transactions in addition to being directed by Bank Indonesia. Usually transactions made by the public use non-cash transactions. However, under different circumstances, people use electronic money (E-Money) [5]. E-Money is a form of innovation in the field of financial payment instruments that is made to replace cash payment instruments. According to Suseco (2016), electronic money itself offers advanced features in speed and comfort in transactions when compared to debit or credit cards [6].

E-Money has now penetrated every sector of life, including personal applications found on personal smartphones. One of them is from the Shopee application, where ShopeePay provides electronic money/E-Money services. During the COVID-19 pandemic, many people are focusing their consumption needs on shopping for goods or products online to meet their daily needs, as a precaution against COVID-19 and following the protocol to stay at home. These consumers follow the Government's instructions to promote cashless payments, and one of them uses E-money ShopeePay. Along with the development of ShopeePay, Shopee customers are faced with feelings of satisfaction or dissatisfaction in using ShopeePay.

Based on research the company PT. Neurosum Technology International (2021) as a company that is expert in conducting market research in capturing the trend of penetration of the electronic money market in Indonesia, ShopeePay is in the highest market with a poll of 68% [7]. Astrid Williardry (2021) explained that the Shopee platform, which has a network of hundreds of thousands of merchants throughout Indonesia in various categories, ranging from food and beverages, fashion, logistics, to social merchants such as donations, creates consumer lines such as ShopeePay. Coupled with the offer of convenience in shopping [8]. According to the article Inews.id (2020) explains that the younger generation, especially Generation Z (born 1995 – 2010) is the group with the highest penetration rate in the use of electronic money or E-Money [9]. (Putera, 2019) E-Money platforms in Indonesia are growing rapidly where they use discounts to get Generation Z interested in this. If someone walks in a shopping center or other place they will see many transactions from e-money offered because of discounts or cashbacks [10]. A study conducted by Brandon (2017) and Dahlberg (2015) explains that these people use cell phones 150 times per day which makes most business people renew alternatives in buying goods/services through mobile devices and wireless communication technology in mobile payments [11]. With these conditions, the authors are interested to know and explore Ease of Use ShopeePay, Customer Satisfaction users of electronic money or e-money (ShopeePay) and the factors of the Customer Experience electronic money or e-money (ShopeePay).

## 2. Method

This study uses a quantitative approach to the type of correlational research. The Independent variable (X1) is Ease of Use, Dependent Variable (Y1) is Customer Satisfaction, and Intervening Variable (Z1) is Customer Experience (Z1). The population used is E-Money (ShopeePay) users who are included in Generation-Z during the COVID-19 pandemic. In this study, to measure operational variables, an interval scale is used, namely the Likert scale. In conducting this research, the validity test was carried out using the Exploratory Factor Analysis (EFA) method. And in conducting this research using the reliability test with the Alpha-Cronchbach model. Wiratna Sujerweni (2014) the basis for taking the Cronchbach-Alpha reliability test where the questionnaire is said to be reliable if the Cronchbach-

Alpha value is less than 0.6 or  $< 0.6$ . The reliability test in this study used IBM SPSS Statistic 26 software where each variable was valid.

The analysis technique used is descriptive analysis in the form of respondents in the form of age, gender, occupation, origin, monthly income while using ShopeePAY. In addition, variable descriptive analysis techniques are used to describe respondents' responses to the three variables, including Ease of Use (X1), Customer Satisfaction (Y1), and Customer Experience (Z1). This study uses VB-SEM with Partial Least Square (PLS) type with the use of SmartPLS 3.0 software with the aim of processing data from respondents. One of the reasons for using SEM-PLS is the number of samples in this study about 125 respondents based on the criteria for using VB-SEM type PLS.

### 3. Results and Discussion

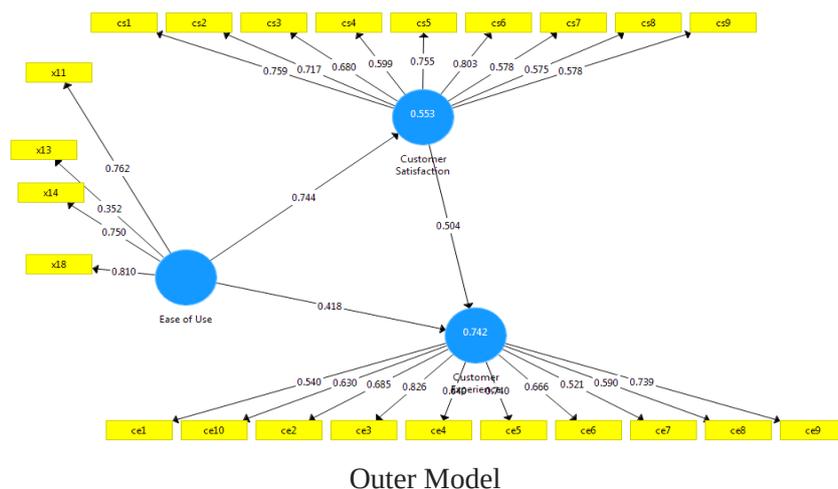
#### 3.1 Characteristics of ShopeePAY E-Money Users

The characteristics of the 125 ShopeePAY users who became respondents in this study were obtained with the results that 87.2% were female, 12.8% were male. Judging by the age of respondents, ShopeePAY users consist of 68.8% aged 18-22 years, 16% aged 22-26 years, 14.4% aged 14-18 years, 0.8% aged 11-14 years. Based on the level of monthly expenditure, it was found that 68.8% with expenses  $< 1$  million, 26.4% with expenditures of 1 million – 3 million, 4.8% with expenditures of 3 million – 5 million. And for the spending level of ShopeePAY users per month, it consists of 92.8% users with spending levels  $< 1$  million, 7.2% users with spending levels of 1 million – 3 million.

#### 3.2 Validity and Reliability Test

Based on the tests that have been carried out on the Validity and Reliability Tests, it can be explained that there are 39 indicators that are declared valid and in testing the reliability tests, each of the Ease of Use, Customer Satisfaction, and Customer Experience variables has valid results.

#### 3.3 SEM-PLS Analysis



3.3.1 Testing the Outer Model. The outer model is used to see the validity and reliability of a model. The following are sub points that will be explained which include: Loading Factor, Average Variance Extracted (AVE), Discriminant Validity, and Composite Reliability. The loading factor is one of the initial mode validity tests. The conditions set are that it must be  $> 0.6$  so that an indicator is declared valid. After analyzing using SmartPLS Software, 4 indicators from the Ease of Use construct, 9

indicators from the Customer Satisfaction construct, and 10 indicators from the Customer construct were declared valid because the value of the indicator was  $> 0.6$ .

*Average Variance Extracted (AVE)*. AVE is the value used in the convergent validity test obtained from the convergent validity. The AVE requirement in this study is that it must be  $> 0.5$ . The Ease of Use variable has a value of 0.481, Customer Satisfaction 0.458, Customer Experience 0.440. Average Variance Extracted (AVE) is higher than 0.5 but can accept 0.4. This is because Fornell and Larcker say if the AVE is less than 0.5 but the Composite Reliability is higher than 0.6, the convergent construct validity is still adequate. (Fornell & Larcker, 1981).

In the Discriminant Validity stage, the goal is to test the discriminant validity of the indicator by having a provision for a relationship between the indicator and its latent variable. When compared with a correlation, between the presence of other latent indicators in this case outside the block. After conducting the analysis, it was found that there were 23 valid indicators and 17 invalid indicators from cross loading because the value was below 0.7.

*Composite Reality*. The final step in evaluating the outer model is to ensure that there are no problems in the measurements in this study by testing the unidimensionality of the model. This test was carried out with composite reliability and alpha cronchbach. The value of 0.7 is the cut off value. The composite reliability value for ease of use is 0.775, customer satisfaction is 0.882, and customer experience is 0.885. Therefore, there is no unidimensionality problem in the research investigating the mediating of the role of customer experience on the relationship between perceived ease of use E-Money (Shopeepay) and Customer Satisfaction During the COVID-19 Pandemic.

*3.3.2 Inner Model Testing*. Coefficient of Determination  $R^2$  (R-Square). In using PLS, it can be explained that the value of  $Q^2$ ,  $Q^2$  can be interpreted as the same as determination (R-Square) in a regression analysis.

Table 1 R-Square Model

Construction	R Square	R Square Adjusted
Customer Experience	0.742	0.737
Customer Satisfaction	0.553	0.549

From the table it can be calculated  $Q^2$  as follows:  $Q^2 = 1 - (1 - R_1^2)(1 - R_2^2) = 1 - (1 - 0.742)(1 - 0.553) = 0.884674 = 88$  percent. This means that the model can explain 88 percent of the data, which consists of 74 percent of Customer Experience and 55 percent of Customer Satisfaction.

### 3.4 Hypothesis Testing

T-Statistic Coefficient. In testing the hypothesis whether the hypothesis is accepted or rejected, it can be done by statistical testing using the t value ( $t_o$ ) with t table( $t$ ). The t-table value is obtained from degree of freedom (DF) = Total data (n)-k. K is the number of variables in the study. Therefore, it can be determined that the number of t-tables is  $125 - 3 = 122$ . Then the t-table is 1.979, with a significance level of 5 percent. The following table T statistics from SmartPLS. Based on the hypothesis test table, the relationship between the variables in the hypothesis can be drawn. The t-

value of the Ease of Use statistic on Customer Satisfaction is  $17.547 > t\text{-table } 1.979$  showing a significant influence between Ease of Use on Customer Satisfaction. The t-statistic value of Customer Satisfaction on Customer Experience is  $6.196 > t\text{-table } 1.979$  showing a significant influence between Customer Satisfaction on Customer Experience. The t value of the Ease of Use statistic on Customer Experience is  $5.112 > t\text{ table } 1.979$ .

The relationship of t-value and t-table based on each variable that has been tested explains that each variable namely Ease of use, Customer Satisfaction, and Customer Experience that has been tested has the result that the t-value of each variable is greater than the t-table so that it shows that the variable has a significant effect on the t-table. Based on research conducted at Sam Ratulangi University, it was found that ease of use creates customer satisfaction (Andhy Philip Lantang, et. al., 2021) [12]. Again, all three hypothesis are accepted.

#### 4. Conclusion

The results of this study prove that there is an effect of the ease of using E-Money (Shopeepay) perceived by Generation-Z on customer satisfaction and customer experience. By doing research calculations on SmartPLS 3.0 Software, it can be concluded that The value of t statistic of Ease of Use on Customer Satisfaction is  $17,547 > t\text{ table of } 1,979$ . This shows that there is a significant influence between Ease of Use on Customer Satisfaction. The value of t statistic of Customer Satisfaction on Customer Experience is  $6.196 > t\text{ table of } 1.979$  so that Customer Satisfaction has a significant influence on Customer Experience. The t value of the Ease of Use statistic on Customer Experience is  $5.112 > t\text{ table } 1.979$  showing a significant influence between Ease of Use and Customer Experience. Limitation of this study focused on exploring the mediating role of customer experience on the relationship between perceived ease of use of E-Money (Shopeepay) and customer satisfaction during the COVID-19 Pandemic specifically on Generation Z. Future direction will focus on exploring the phenomena in much broader context, not only limited to Generation Z.

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