

Examining User Acceptance Intention for Mobile Payment System in Indonesia using the UTAUT2

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ABSTRACT

This research investigates the influence between performance and effort expectancy, social influence, facilitating conditions, hedonic motivation, and habits on behavioral intentions and use behavior by applying The UTAUT2 (Unified Theory of Acceptance and Use of Technology). This type of research is quantitative research using the Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis model. The data source in this research was obtained by distributing questionnaires to 180 Indonesian users of OVO mobile payment. The results of this study state that Performance Expectancy, Social Influence, and Facilitating Conditions support Behavioral Intention (BI) while other variables such as Effort Expectancy, Hedonic Motivation, and Habit do not support BI. However, BI supports Use Behavior.

Keywords: UTAUT 2, Behavioral Intention, Technology Adoption, Technology Acceptance, Mobile payment

1. INTRODUCTION

People who will use mobile payment technology will be influenced by a person's intention to use this technology further in everyday life. Improvements in technology combined with the increased use of smartphones have become one of the functions of increasing online purchases of goods and non-cash payments by utilizing mobile payments (Kim et al., 2010; Abrahao et al., 2016; Hussain et al, 2019). According to Hussain et al. (2019), the growth of mobile devices has resulted in consumer activities which were initially electronic commerce (e-commerce) services to become mobile commerce (m-commerce). Business opportunities are also created because of innovation from technological developments in the financial sector called Financial Technology (FinTech). Concrete evidence of innovation in the financial sector is mobile payment which can be used to facilitate buying and selling activities. Mobile payment is a non-cash (cashless) payment tool that utilizes technology such as NFC, QR Code, and OTP (One Time Password) supported by smartphones.

Customers in Indonesia utilize a variety of mobile payment brands to complete non-cash purchases. Now, more people use digital wallets than debit or credit cards. According to the findings of the Polling Institute report titled Indonesia Fintech Trends 2023, 46% of Indonesians specifically utilize e-wallets as a digital payment mechanism for in-person purchases. The best digital wallet in Indonesia based on its popularity on Google Play and the App Store is OVO (Noviyanti, 2023).

The UTAUT 2 model is an improvement on the UTAUT model regarding acceptance and use of technology which aims to explain important constructs from research on acceptance and use of technology and change existing relationships, namely hedonic motivation, and habit (Venkatesh et al., 2012; Gupta & Arora, 2019). There are 6 independent variables in this research, including Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC), Hedonic Motivation (HM), and Habit (HA). The 2 dependent variables in this research include Behavioral Intention (BI) and Use Behavior (UB). Gupta and Arora (2020) prove that the influence of HM and SI variables does not influence BI, however, research conducted by Sivathanu (2019) found that the Hedonic HM and SI influence BI. The research object that will be used in this research is OVO mobile payment users. Therefore, it was found that there were gaps or differences in research results in previous research. In this study, researchers will investigate whether the influence of HM and SI affects BI. The hypothesis proposed is as follows:

H1: Performance expectancy has a positive influence on behavioral intention.

H2: Effort expectancy has a positive effect on behavioral intention.

H3: Social influence has a positive effect on behavioral intention.

H4: Facilitating conditions have a positive effect on behavioral intention.

H5: Hedonic motivation has a positive effect on behavioral intention.

H6: Habit has a positive effect on behavioral intention.

H7: Behavioral intention has a positive effect on use behavior.

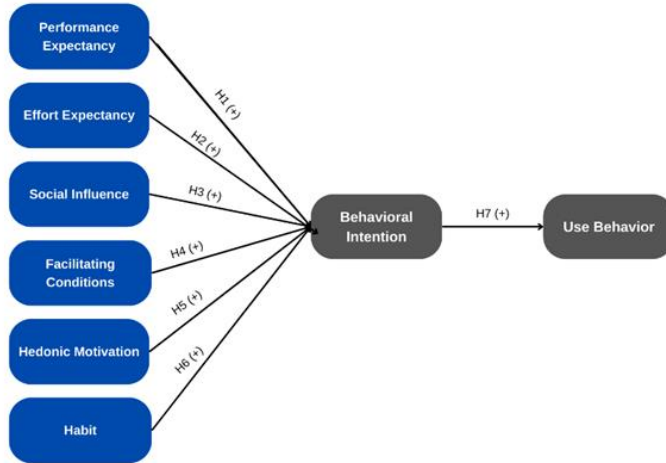


Figure 1 Research Model

2. RESEARCH METHOD

This research uses a quantitative approach because this research uses data in the form of quantitative numbers. This data was obtained through a survey by distributing questionnaires to OVO mobile payment users. The data that has been obtained will be processed using IBM SPSS Statistics 24 and using the SEM (Structural Equation Modeling) technique. Hair et al. (2014) stated that SEM itself is an analytical tool used to test the cause-and-effect relationship of a variable.

The data used is primary data. This data was obtained from respondents who used OVO mobile payment in Surabaya, Indonesia. This data was obtained by distributing questionnaires via Google Forms. The questionnaire contained respondents' responses regarding Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Hedonic Motivation, and Habit on Behavioral Intention and Use Behavior among OVO mobile payment users in Surabaya. In the questionnaire, respondents are asked to fill in their name, age, gender, frequency of use of OVO mobile payments, the main reasons that make someone use OVO mobile payments, and how long the respondent has used OVO mobile payments. The interval measurement level uses a numerical measurement scale that has the same objective distance from the scale. Respondents will make an assessment using a numerical scale based on what is measured by 9 levels of scale in each statement. The scale of numbers 1 to 9 shows the assessment given by respondents regarding their assessment of OVO mobile payments. The smaller the number, the more likely the respondent disagrees with the question given, and the larger the number chosen, the more the respondent agrees with the statement given.

In this research, several criteria of respondents are (1) using OVO mobile payment, minimum use of OVO is 3 times in the last month; (2) being at least 18 years old or having an ID card, because when you want to upgrade services on OVO mobile payments you need an identity card, namely a KTP, and (3) the respondent's minimum last education is high school/equivalent so that respondents can understand and provide answers objectively so that the data obtained is accurate. Systematic sampling is a type of non-probability sampling, wherein one population there is no equal chance of sampling. The type of non-probability method is judgmental sampling based on personal judgment that is appropriate to the sample (Zikmund et al. 2015).

3. RESULT AND DISCUSSION

The data collection process in the research was carried out by distributing questionnaires online via social media. The data results for this research were obtained by distributing questionnaires to 180 respondents, but only 179 respondents met the criteria and could be used. who met the criteria and could be used. The highest number of respondents was 23 – 27 years old with an average of 76 respondents (52.5%), followed by 28 – 31 years old with 50 respondents (27.9%), then 18 – 22 years old with the number of respondents was 40 (22.3%), and the respondents with the lowest age were over 32 years old with only 13 respondents (7.3%). The longest number of respondents using OVO was > 3 years with 125 respondents (84.9%), followed by 2 - 3 years with 22 respondents (12.3%), and the lowest

number of respondents was 6 months - 1 year with the number of respondents was 5 (2.8%). The number of respondents based on the frequency of use of OVO in the last month was 4 times with the number of respondents 92 (51.4%), followed by > 4 times with the number of respondents 73 (40.8%), then 3 times with the number of respondents 14 (7.8%), and no respondents chose the item 1 - 2 times used in the last 1 month. The number of respondents based on the final number of education, the highest was Bachelor with 118 respondents (65.9%), High School/Equivalent with 28 respondents (15.6%), followed by Diploma with 25 respondents (14%), then Master with 8 respondents (4.5%).

From the research results, the variable that has the highest mean value is performance expectancy. The presence of OVO helps many people to make transactions and payments easily. Not all features in OVO can be used by users if the user is not yet a primary user. Meanwhile, the variables that have the lowest mean value are social influence and use behavior.

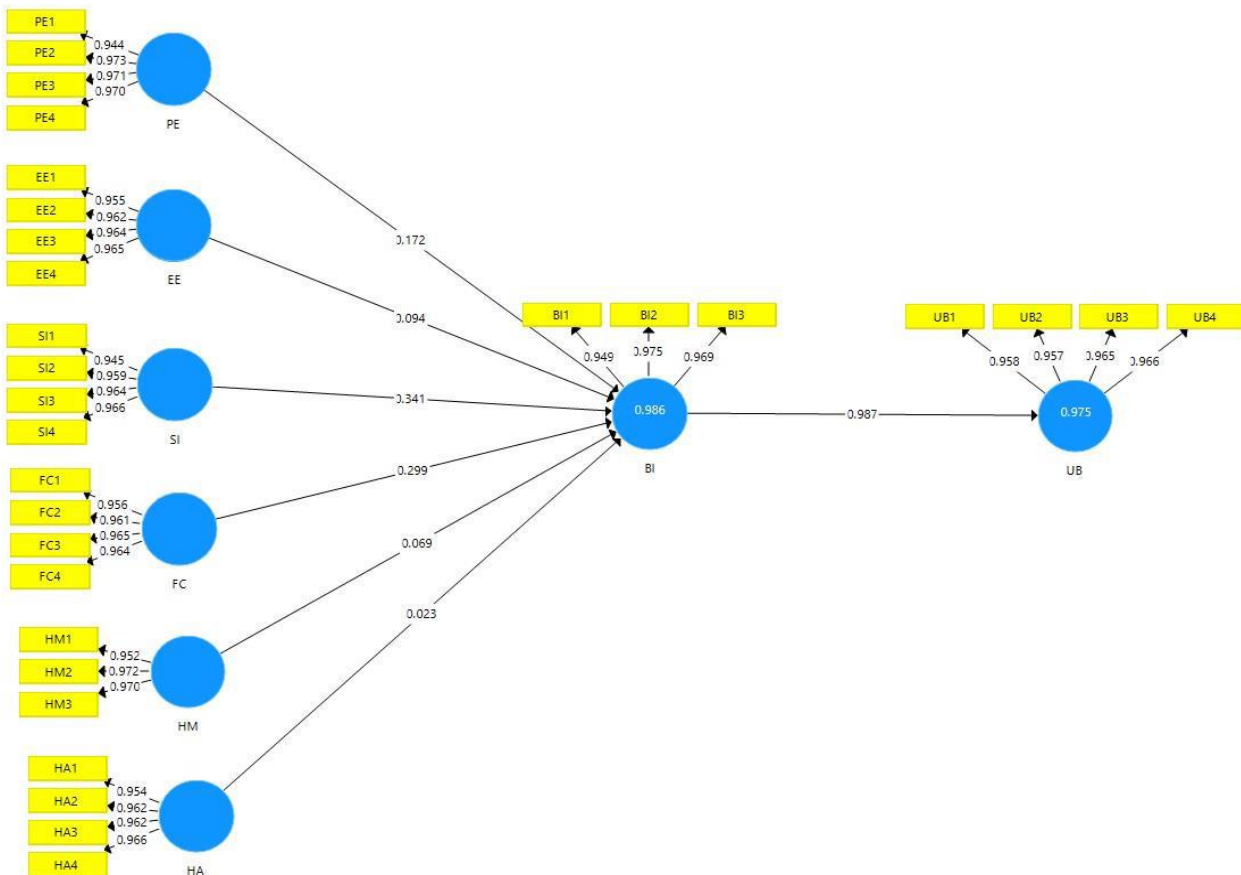


Figure 2 Constructs of Outer Loading

This research uses SEM (Structural Equation Modeling) analysis techniques which are analyzed using Smart PLS 3 (Partial Least Square). Data processing in this research will use two steps, the outer model, and the inner model. Tests carried out in the outer model include Convergent Validity, which is a measurement model based on the correlation between item scores and construct scores. Convergent Validity is seen from the loading factor value. The loading factor shows how much each indicator is related to each construct. The expected reflective value is > 0.7 with the constructs in the research. Figure 2 shows that all indicators have a loading value of more than 0.7, indicating that all indicators have met the convergent validity value. Table 1 shows that Discriminant Validity as seen from the Average Variance Extracted (AVE) value has a value of more than 0.5 for all constructs in the research, so the research can be said to be valid and the composite reliability value for all constructs has a value above 0.8 so that all constructs in research meets reliability requirements.

The next PLS-SEM model measurement is the inner model. Inner model testing is carried out to test the relationship between the independent variable and the dependent variable. The tests in the structural model include R Square, which is a value obtained from the coefficient of determination value contained in the endogenous construct. If the R Square value is 0.67 it can be said to be strong, 0.33 is moderate and 0.19 can be said to be weak. Table 2 shows the R - Square Adjusted value for the behavioral intention variable of 0.986 so it can be concluded that PE, EE, SI, FC, HM, and HA variables can carry out the BI variable by 98.6% and the rest is outside the research can still have an influence or impact

on BI variable of 1.4%. The magnitude of the behavioral intention variable in influencing the use behavior variable is 0.974 or 97.4% and the remainder outside the research which can still have an influence or impact on the use behavior variable is 2.6%.

Table 1. Validity & Reliability

Variables	AVE	Result	CR	Result
<i>Performance Expectancy (PE)</i>	0.930	Valid	0.982	Reliable
<i>Effort Expectancy (EE)</i>	0.924	Valid	0.980	Reliable
<i>Social Influence (SI)</i>	0.919	Valid	0.978	Reliable
<i>Facilitating Conditions (FC)</i>	0.925	Valid	0.980	Reliable
<i>Hedonic Motivation (HM)</i>	0.930	Valid	0.976	Reliable
<i>Habit (HA)</i>	0.923	Valid	0.980	Reliable
<i>Behavioral Intention (BI)</i>	0.931	Valid	0.976	Reliable
<i>Use Behavior (UB)</i>	0.924	Valid	0.980	Reliable

Table 2. R-Square Result

Variable	R - Square	R - Square Adjusted
<i>Behavioral Intention</i>	0.986	0.986
<i>Use Behavior</i>	0.975	0.974

Table 3. Hypothesis testing

Hypothesis		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics	P Values	Result
H1	PE → BI	0.172	0.171	0.085	2.013	0.045	supported
H2	EE → BI	0.094	0.101	0.090	1.045	0.297	not supported
H3	SI → BI	0.341	0.338	0.071	4.798	0.000	supported
H4	FC → BI	0.299	0.298	0.094	3.190	0.002	supported
H5	HM → BI	0.069	0.066	0.082	0.832	0.406	not supported
H6	HA → BI	0.023	0.023	0.090	0.261	0.794	not supported
H7	BI → UB	0.987	0.987	0.003	366.853	0.000	supported

Based on Table 3, H1 has an Original Sample (O) value of 0.172, with a T Statistics value of 2.013, and a P Value of 0.045. H2 has an Original Sample (O) value of 0.094, with a T Statistics value of 1.045, and a P Value of 0.297. H3 has an Original Sample (O) value of 0.341, with a T Statistics value of 4.798, and a P Value of 0.000. H4 has an Original Sample (O) value of 0.299, with a T Statistics value of 3.190, and a P Value of 0.002. H5 has an Original Sample (O) value of 0.069, with a T Statistics value of 0.832, and a P Value of 0.406. H6 has an Original Sample (O) value of 0.023, with a T Statistics value of 0.261, and a P Value of 0.794. H7 has an Original Sample (O) value of 0.987, with a T Statistics value of 366.853, and a P Value of 0.000. Table 3 shows that of the 7 existing research hypotheses, 4 hypotheses are supported, and 3 other hypotheses are not supported. The 4 supported hypotheses include H1, H3, H4, and H7 while the 3 hypotheses that are not supported are H2, H5, and H6.

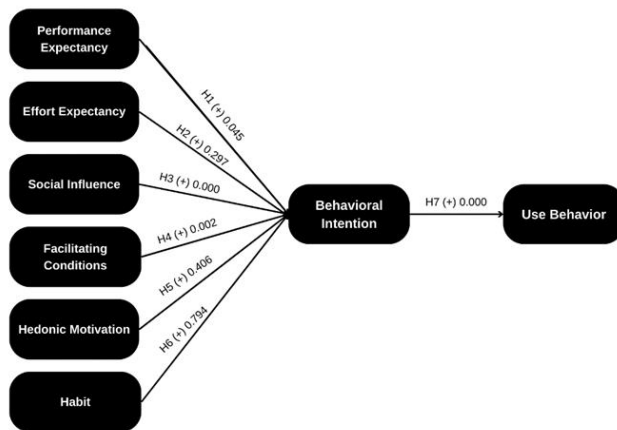


Figure 3 Structural Model Results

4. CONCLUSION

The results of testing hypothesis 1 (H1) which were supported stated that PE has a positive and significant influence on a person's interest in using OVO. These results follow Gupta and Arora (2020), Sivathanu (2019), and Rahayu (2022) that PE using a mobile payment system can increase consumer knowledge about applications and can increase user productivity in making transactions. Respondents who have used OVO mobile payments feel that OVO can carry out transactions faster than cash payments and can increase performance productivity.

In the results of testing H2, researchers found that the EE variable did not influence BI. These results follow research by Oliveira et al. (2016) who stated that effort expectancy is not a significant predictor in influencing someone's interest in using mobile payments. Meanwhile, the study by Ispriandina et al. (2019) stated that young people (young people) tend to be used to using mobile payments, the level of convenience is not the reason why young people use mobile payments. In this study there were many respondents aged 23 - 27 years who were young people, so many respondents in this study said that the level of convenience was not a consideration when using OVO.

The results of the H3 which tested the influence of SI on BI were supported. The results found by researchers were similar to research conducted by Sivathanu (2019). Respondents who use OVO are not influenced by people who influence them or by people they consider important. Respondents agreed that SI could influence user intentions. However, a person's intentions are not only influenced by important people in carrying out transactions but a person's intentions can be influenced by the innovations created by mobile payments, as well as the ease of use that makes someone have the intention to use OVO.

Researchers found that the FC variable influenced BI in H4. This is similar to research conducted by Madan and Yadav (2016), Khan et al. (2017), Gupta and Arora (2020), and Sivathanu (2019) that the availability and lack of availability of resources such as the internet or smartphones have a significant influence on users' interest in using e-wallets. Respondents who have adequate resources such as sophisticated smartphones or strong internet networks and adequate facilities can increase their intention to use OVO.

The results of the H5 test which tested the influence of HM on BI were not supported. This is in line with research conducted by Hussain et al. (2019), Gupta and Arora (2020), and Rahayu et al (2022) which stated that users felt unhappy and enthusiastic about using the mobile payment system. Users like using the mobile payment system, but do not have feelings or passion for using the mobile payment system. Respondents agreed that OVO was attractive, comfortable, and fun to use. Hedonic motivation is not a significant predictor that can influence pleasure or satisfaction in using mobile payment. Respondents felt happy, excited, and enthusiastic about using OVO because of the usefulness and benefits they get when using OVO, not as something that can entertain users.

The results of testing H6, researchers found that HA did not influence BI. This is similar to research by Armansyah (2021) which found that users felt the need to use the application only when the application was needed, so that users did not feel the need to get used to using mobile payments. Respondents are used to using OVO without having to think again or choose to use other mobile payments. However, OVO is an application that can only be used to make payments. This causes users not to use OVO if it is not necessary so there is no need to get used to it.

The test results of H7 which tested the positive influence of BI on UB were supported. In line with research by Sivathanu (2019), Gupta and Arora (2020) and Armansyah (2021) stated that behavioral intentions to use mobile

payments are quite effective in predicting behavior in using mobile payment systems and behavioral intentions to accept mobile payment systems have a positive effect on behavior in using mobile payment systems. If we look at the average respondents' answers, it shows that the possibility of users using OVO in the future is quite large. It can be seen in this research that the average respondent in this study has loyalty to always use OVO.

This research has limitations in the distribution of respondents only in Surabaya, Indonesia. Recommendations for further research are to expand the distribution of respondents and add the price value variable as a variable that can influence behavioral intention.

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