



ORIGINAL ARTICLE

Mobile Payment Usage: Risk Perspective

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ABSTRACT

Pandemic risks create a lot of worries for consumers when making purchase transactions. When the need for a product increases even though movement restrictions are still enforced by the government, the existence of mobile payments is one of the solutions offered to consumers. This research takes a deeper look at the behavior of using mobile payments during a pandemic. This study uses the Smart PLS analysis tool to process data that has been collected by a total of 100 respondents. The results obtained are that readiness to adopt mobile payments has a positive effect on the use of mobile payments, perceptions of the risk of a pandemic have a positive but not significant effect on the use of mobile payments. Meanwhile, it turns out that consumers who use mobile payments. The behavior of using Mobile Payment mediated has a significant positive influence on Adoption Readiness on EWOM. The behavior of Using Mobile Payment mediated has a positive influence on Perception of Risk to EWOM significantly. This research is still limited to consumers' views regarding risk and has not examined other variables that may influence mobile payment usage behavior. So that further research can use a different point of view regarding the reasons for using mobile payments. There is even a phenomenon of having more than one mobile payment account.

Keywords: *Pandemic, Mobile Payment Usage, EWOM.*

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INTRODUCTION

Today's information technology is developing rapidly, until now cellular technology has emerged. The existence of this mobile technology has a major impact on daily activities, which allows people to easily pay for goods and services without cash using mobile devices while traveling (Widyanto et al., 2022). Mobile payments is one of the fastest growing areas of mobile commerce. Mobile payment is the use of mobile devices to perform, authorize and confirm financial transactions to acquire goods and services. It is widely used as an alternative method for paying for products, services and other forms of invoicing through mobile media that can be used for online and offline payments. It is predicted that in the future mobile payments will compete directly or be used interchangeably with cash, credit cards and debit cards (Hampshire, 2017; Widyanto et al., 2022).

Mobile payments have penetrated every corner of our lives. The presence of mobile payments manifests many benefits for various stakeholders such as financial institutions, mobile network operators, integration partners, merchants, consumers and regulators. This mobile payment provides users with a channel for fast, convenient and secure payment services available anytime and anywhere. Convenience and efficiency are factors for the rapid increase in online transactions (Leong et al., 2021). Mobile payments in Indonesia are still relatively new and have low users, because currently Indonesian people tend to use cash. Mobile payments are payments for goods or services using mobile devices such as mobile phones that are equipped with NFC features. User background, such as income level, education and infrastructure is significantly and positively associated with perceived readiness to use mobile payments. However, age is negatively related to readiness, this implies that younger consumers are more open to using digital financial services/products because they are more familiar with technology. Other factors of using mobile payments are supported by performance expectations, innovation, compatibility, and social impact that are directly and indirectly significant with the adoption of mobile payments (Balakrishnan & Shuib, 2021). Barriers to technology adoption in digital payments are inconvenience, privacy and risk perceived by users. However, no studies have investigated risk as a mediation between habitual use and EWOM. To test the acceptance and use of mobile payments, researchers use the UTAUT 2 theory.

UTAUT 2 is a theoretical model of the expansion of the UTAUT model formulated by (Viswanath Venkatesh, 2012), through this theory the researcher wants to test the reliability and revalidate of the UTAUT 2 theory which is applied to mobile payments. This model introduces three new constructs, namely hedonic motivation, price value and habit. Hedonic motivation refers to the level of pleasure that arises from using technology. Price value refers to an individual's cost to use or purchase the technology. Habit in the consumer context refers to the automaticity of individual behavior in order to be able to use the technology.

Research (Aji et al., 2020) shows the effect of customers switching to e-wallets during the COVID-19 pandemic. This study contributes to the literature by examining the influence of perceived risk, government support, and perceived benefits on customers' intentions to use e-wallets during the COVID-19 outbreak. The results of this study show that the effect of using e-wallets during the COVID-19 pandemic, namely Perceived COVID-19 Risk, Government Support, Perceived Usefulness, has proven to influence Intention to Use E-Wallet. This research examines the use of e-wallets during the COVID-19 pandemic. Research by (Priya et al., 2018) states that the variables perceived usefulness, perceived convenience, perceived credibility, and structural guarantees have a positive and

significant effect on the intention to adopt mobile payment, and the variable user satisfaction also has a positive and significant effect on the intention to adopt mobile payment. Research (Balakrishnan & Shuib, 2021) yielded Ease of Use, Usability, Innovation, Optimism and Lack of awareness to directly influence users' readiness to go cashless. Interestingly, perceived readiness did not have a direct effect on the adoption of digital payment services, but the effect was found to be significant with the inclusion of risk and intrinsic motivation as mediating factors. In this study, researchers tried to collaborate on the three research results by testing the UTAUT 2 theoretical model combined with adoption readiness and perceived risk on mobile payment usage behavior towards EWOM in Surakarta.

Adoption is a decision to use a new idea as the best way to act. Innovation decision is a mental process, from the time someone becomes aware of an innovation to make a unique decision. Adoption is defined as a person's mental process from hearing, knowing innovation to finally adopting (Leong et al., 2021; Widyanto et al., 2022). Perceived risk is defined as the perceived uncertainty in a buying situation. Perceived risk is perceived risk as a buyer's subjective expectation of possible losses when making decisions about online shopping. If viewed from a psychometric perspective, the risk of something is assessed based on a combination of risk characteristics which include fear, knowledge, and ability to control which are then categorized into cognitive and emotional risks (Laksamana et al., 2022; Ramadan & Aita, 2018). One can feel various worries when using something new like mobile payment. New users will feel worried about the disclosure of personal information for others to see, or lose some money when using this service. Easily accessible personal information will potentially be misused for crime. Mobile payment usage behavior is an attitude towards product purchases based on previous experience and this attitude is very strong in influencing consumer intentions to buy or recommend services or products to others. Mobile payment usage behavior is a behavioral tendency to continue using technology. The level of technology use in a person can be predicted from his attention to technology, for example the desire to add supporting reasons, motivation to keep using it and the desire to motivate other users. The behavior of using technology becomes a real condition of using the system which is conceptualized in the form of measuring the frequency and duration of time using technology (Leong et al., 2021; Shaikh et al., 2022; Widyanto et al., 2022). EWOM as a communication medium for sharing information about a product or service that has been consumed between consumers who do not know each other and have met before. EWOM influences consumer behavior before consumers decide to buy a product or service. Consumers who have a high level of trust in a product tend to make purchases and provide positive information about the product. The spread of communication from word of mouth (word of mouth) can also be done via electronics so it is called electronic word of mouth (EWOM) (Nguyen Hoang & Tung, 2022).

METHOD

Based on the research objectives, this type of research is a qualitative descriptive study, namely this research was conducted to provide a more detailed description of a symptom or phenomenon that occurs, with a correlation research type, namely to determine the relationship between variables in the study, namely the independent variables and the dependent variable. The independent variable is a cause, while the dependent variable is the result of a phenomenon. So, this research can be used as material for consideration that provides understanding, explanation, regarding the relationship

between variables to a phenomenon. Population refers to the entire group of people, events, or things of interest that the researcher wants to investigate. The population in this study are smartphone users who use mobile payments in Central Java. This study used purposive sampling, because not all criteria were included in the sample determined by the researcher. The criteria for the sample in this study are the people of Central Java, especially Surakarta City, who have smartphones that use mobile payments. The sample is part of the number and characteristics possessed by the population (Sugiyono, 2013).

RESULTS AND DISCUSSION

Questionnaires were distributed via google form media and distributed through social media. The researcher used the purposive sampling method so that the questionnaires obtained had to meet a predetermined quota of 100 respondents using Google form media and processed using Partial Least Square software, SmartPLS 3.0.

Table 1 .Descriptive Statistics

Gender		Percentage
Man	33	33%
Woman	67	67%
Total	100	
Age		
<17 years	1	1%
18-22 years	50	50%
23-32 years	15	15%
>32 years	34	34%
Total	100	
Type of work		
civil servant	8	8%
Self-employed	8	8%
Private sector employee	37	37%
Housewife	2	2%
Student	45	45%
Total	100	
Monthly Income		
< Rp. 1,000,000	31	31%
Rp. 1,000,000 – Rp. 3,000,000	30	30%
Rp. 3,000,000 – Rp. 5,000,000	12	12%
>Rp. 5,000,000	27	27%
Total	100	
Application Type		
GoPay	51	
OVO	45	
Fund	34	
ShopeePay	66	
LinkAja	11	
Total	100	

Based on Table 1. it can be seen that the majority of respondents are women, in the age range of 18-20 years, the main job is as a student, monthly income is less than Rp. 1,000,000, and the mobile payment used is shopeepay.

Validity and reliability

An indicator is said to be feasible or valid in terms of convergent validity if the outer loading value is > 0.7 in terms of communality > 0.5 . The following is the value of outer loading > 0.5 from each indicator variable in this study:

Table 2. Outer Loadings

Variable	Indicator	Outer Loadings	Information
Adoption Readiness	A1	0.625	Valid
	A2	0.746	Valid
	A3	0.840	Valid
	A4	0.822	Valid
	A5	0.850	Valid
	A6	0.818	Valid
Perception of Risk	B1	0.732	Valid
	B2	0.671	Valid
	B3	0.762	Valid
	B4	0.612	Valid
Mobile payment usage behaviour	E1	0.876	Valid
	E2	0.916	Valid
	E3	0.829	Valid
	E4	0.738	Valid
	E5	0.886	Valid
	E6	0.888	Valid
EWOM	Y1	0.891	Valid
	Y2	0.920	Valid
	Y3	0.716	Valid
	Y4	0.906	Valid
	Y5	0.817	Valid
	Y6	0.810	Valid

Based on the table above, each indicator shows an outer loading value of > 0.7 so that each indicator of this study can be said to be good or valid in terms of convergent validity. Each indicator must have a high correlation with its construct, so that it is said to be valid in discriminant validity with an AVE > 0.5 . A variable is said to be reliable if it has a Cronbach's alpha value or composite reliability > 0.7 however, a value of 0.6 is still acceptable. The following is the AVE value of each variable in this study.

Table 3. Cronbach's alpha, composite reliability and AVE

	Cronbach's Alpha	Composite Reliability	Average Extracted (AVE)	Variant
EWOM	0.919	0.938	0.716	
Adoption readiness	0.875	0.907	0.620	
Perceived of risk	0.757	0.789	0.585	
mobile payment usage behavior	0.927	0.943	0.735	

Based on the table above, all variables show an AVE value > 0.5 so that all variables are valid. Based on the Cronbach's alpha EWOM value, Readiness for adoption, Perceived of risk and mobile payment usage behavior shows a value of > 0.7 so it is reliable . If

viewed from the value of composite reliability , all variables have a value of > 0.7 so that it is reliable .

Inner models

Evaluation of the inner model is a structural model for predicting the causality relationship between latent variables. The following is an evaluation image of the inner model using smartPLS 3.0.

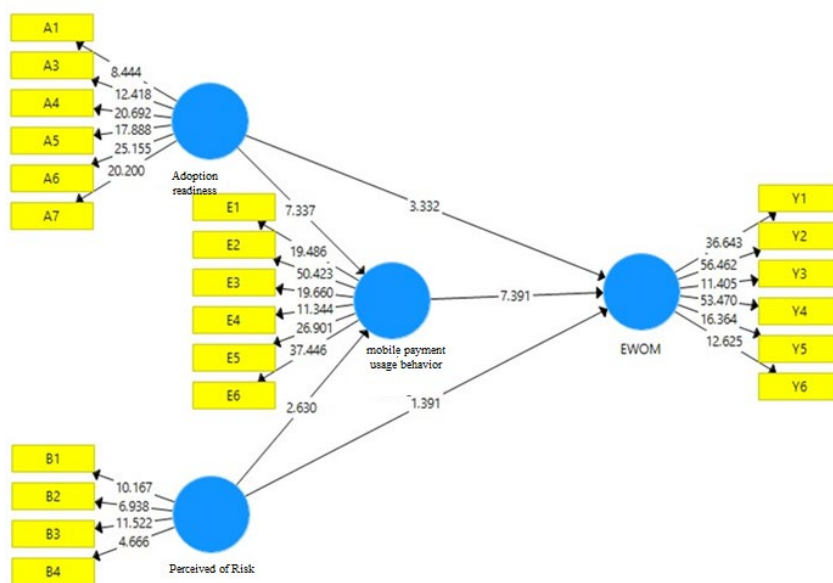


Figure 1. Inner model

Evaluation of this model was carried out using the coefficient determination (R^2), goodness of fit test, effect size test (f^2), and hypothesis testing (t test, direct effect and indirect effect). The Coefficient determination (R^2) value is expected to be between 0 and 1 with the criteria for an R square value below 0.33 - 0.19 which is declared a low value, then 0.33 - 0.67 has a medium value, while for a value of 0.67 and above has a strong value. The following is the value of the determination coefficient (R^2), from this study:

Table 4. R square

	R square	R square adjusted
EWOM	0.781	0.774
Mobile Payment Usage Behavior	0.556	0.547

Based on the table above, the r square value is used to see the magnitude of the influence of EWOM and mobile payment usage behavior on adoption readiness and perceptions of risk. Whereas the influence of the behavior of using mobile payment on adoption readiness and perceived of risk is 9,556 or 55.6%, the large influence of EWOM on adoption readiness, perceived of risk is 0,781 or 78.1%.

Test goodness (goodness of fit)

The goodness-of-fit test uses r squared dependent latent variable with the same interpretation as regression. Q square predictive relevance for construct models that measure how well the observed values produced by the model and its parameter estimates. The value of q square > 0 indicates the model has predictive relevance. The Q-square quantity has a value with a range of $0 < Q^2 < 1$. The following is the Q square calculation from this study:

$$\begin{aligned} Q \text{ square} &= 1 - [(1 - R_1^2) \times (1 - R_2^2)] \\ Q \text{ square} &= 1 - [(1 - 0.781) \times (1 - 0.556)] \\ Q \text{ square} &= 1 - [(0,219) \times (0.444)] \\ Q \text{ square} &= 1 - [0,097] \\ Q \text{ square} &= 0,9027 \end{aligned}$$

Calculation above shows that the Q square value is 0.9027 or 90.27% which fulfills the Q square range, namely the range $0 < Q^2 < 1$. This means that the level of model diversity shown by the independent variable in explaining the dependent variable is 90.27% and the remaining 9.73% is influenced by other factors. This calculation shows that this research model has predictive relevance.

Hypothesis testing

Hypothesis testing is a decision-making method based on data analysis. Test the hypothesis of this study using the t test, direct effects and indirect effects. The results of the t test are said to have a significant effect if the t-statistic value is > 1,988 (t-table) and if the T statistics value is <1,988 (t-table) then it has an insignificant effect. The t statistics value of this study is described in the following table.

Table 5. T-test

	t-statistics	t-table	Information
Adoption Readiness → EWOM	3,599	1988	Significant
Adoption Readiness → Mobile payment usage behaviour	7,697	1988	Significant
Perceived of risk → EWOM	1310	1988	Significant
Perceived of risk → mobile payment usage behaviour	2,712	1988	Significant
Mobile payment usage behavior → EWOM	7,818	1988	Significant
Perceived of risk → mobile payment usage behaviour → EWOM	2,657	1988	Significant
Adoption readiness → mobile payment usage behaviour → EWOM	5,068	1988	Significant

Based on the table above, the t statistics value shows the significance of the influence between variables. The results show that all variables have a significant effect on competitive advantage with a t statistics value > 1,988.

Direct influence to test the hypothesis of the direct effect of a variable that influences (exogenous) on the variable that is influenced (endogenous). If the path coefficient value is positive, then the influence between variables is unidirectional, if the value of an exogenous variable increases, then the value of the endogenous variable also increases. If the path coefficient value is negative, then the influence of a variable on is in the opposite direction, if the value of an exogenous variable increases, then the value of the endogenous

variable decreases. If the p values < 0.05 (5%), then it is significant. If the p values > 0.05 (5%) then it is not significant. The following is an analysis of the direct effects in this study.

Table 6. Direct effects

	Original samples	P values	Information
Adoption readiness → EWOM	0.273	0.000	Significant
Adoption readiness → mobile payment usage behavior	0.611	0.000	Significant
Perceived of risk → EWOM	0.095	0.191	Significant
Perceived of risk → mobile payment usage behavior	0.238	0.007	Significant
Mobile payment usage behaviour → EWOM	0.613	0.000	Significant

Based on the table above, the original sample values and p values show a direct effect between variables. The results of the analysis of the direct influence of adoption readiness variables on EWOM, adoption readiness on mobile payment usage behavior, perceptions of risk on EWOM, perceptions of risk on mobile payment usage behavior, and mobile payment usage behavior on EWOM original sample positive and p values < 0.05 then it has a positive and significant relationship.

Indirect influence analysis is useful for testing the hypothesis of the indirect effect of an influencing (exogenous) variable on an influenced (endogenous) variable mediated by an intervening variable. If the p values < 0.05 (5%), it is significant. That is, intervening variables mediate the influence of an exogenous variable on an endogenous variable. In other words, the effect is indirect. If the p value is > 0.05 (5%), it is not significant, meaning that the mediator variable does not mediate the effect of an exogenous variable on an endogenous variable. In other words, the effect is direct. The following is an analysis of the indirect effect on this study:

Table 7. Indirect effect

	original samples	P values	Information
Perceived of risk → mobile payment usage behavior → EWOM	0.146	0.000	Significant
Adoption readiness → mobile payment usage behaviour → EWOM	0.375	0.000	Significant

Based on the table above, the results of the indirect effects analysis of the variable perceived of risk → mobile payment usage behavior → EWOM show an original sample value of 0.146 with p values 0.000 < 0.05 which means it is positive and significant and Readiness for adoption → mobile payment usage behavior → EWOM shows an original sample value of 0.375 with p values < 0.000 which means it is positive and significant.

DISCUSSION

The results of this study indicate that Adoption Readiness has a significant positive effect on Mobile Payment Usage Behavior. Mobile Payment users believe in the adoption of the latest technology and innovations from mobile payments. According to mobile payment users, it provides convenience and comfort because it can be used anytime and

anywhere. Besides that, it can save time because transactions are carried out quickly and without waiting for change. That way someone can take advantage of the time by doing other things that are useful (Balakrishnan & Shuib, 2021).

Perceived risk is a consequence of a consumer in making a decision to use mobile payments. When a consumer makes a payment transaction online, the risk that a consumer chooses is also greater. Someone will be more confident that adopting mobile payments can increase digital payment transactions. The government also recommends using mobile payments for transactions because they are more cashless. The results of this study are supported by (Balakrishnan & Shuib, 2021) and (Aji et al., 2020).

Marketing is often carried out by mobile payment service providers, various kinds of promotions can be carried out by these service providers. One of them is EWOM (Electronic Word Of Mouth), this promotion can be carried out after a consumer's satisfaction in using a technology they will usually recommend to others. This promotion is proven to influence someone in adopting a technology. Usually one can see from the reviews of the products listed on the website. Someone will be attracted by a product if the reviews from previous users are good. After that a consumer will be ready to adopt new innovations and technologies. The results of this study and the results of research conducted (Balakrishnan & Shuib, 2021) show that the results of Adoption Readiness have a significant positive effect on EWOM. The results of this study also answer the formulation of the problem whether there is a significant positive relationship between the independent variables.

Basically someone who is afraid to adopt new technology will seem difficult to accept and learn about it. If someone has been recommended but according to the consumer, he doesn't want to use it, it must be harder for him to learn new things. Consumers who have difficulty adopting new technology will certainly choose cash payments. This illustrates that Perceived Risk has a positive and insignificant effect. This is in contrast to research conducted (Zhang et al., 2012) which shows that Perceived Risk influences EWOM.

A person's attitude in using a product can influence someone else to use the product. If the product provides benefits and convenience for other users, surely someone will spread good news to other consumers. But we also cannot deny that there are still those who give bad reviews of a product. It also influences someone to make decisions in using a product. The results of this study are in accordance with research conducted by (Cong & Zheng, 2017; Priya et al., 2018) which shows that perceptions of Mobile Payment Usage Behavior have a significant positive effect on EWOM.

In adopting one's technology can affect one's intention to use the technology. That way someone will believe the attitude of others. Usually, what often affects consumers is the people around them, such as friends, relatives, and their families. These results are consistent with research conducted (Aji et al., 2020) showing that Mobile Payment Usage Behavior mediates the effect of Adoption Readiness on EWOM. The results of this study also answer the formulation of the problem whether there is a significant relationship between the independent variables.

In this case consumers are motivated by using mobile payments because they perceive mobile payments as a technology that is trusted to provide convenience and security. Someone also believes in the information provided by the mobile payment service provider. This can also reduce one's worries about using mobile payments. The government also tends to support the use of mobile payments..

CONCLUSION

Based on the results, this research can be concluded that Adoption Readiness has a significant positive effect on mobile payment usage behavior, Perception of Risk has a positive and significant influence on Mobile Payment Usage Behavior, Adoption Readiness has a positive and significant influence on EWOM, Perceived of Risk has a positive and insignificant effect on EWOM, Mobile Payment Usage Behavior has a positive and significant influence on EWOM, Usage Behavior Mobile Payment mediates the effect of Adoption Readiness on EWOM is positive and significant, Mobile Payment Usage Behavior mediates the effect of Perceived of Risk on EWOM is positive and significant.

There are several limitations that may affect the results of the study. Researchers did not conduct interviews because the number of respondents was very large so that the conclusions put forward were only based on data collected through the use of a questionnaire instrument filled out via Googleform. The subject of this study was limited to only 5 Mobile Payment applications, so this conclusion cannot be generalized to a sample of Mobile application users. Other payments, the location of this research is only focused on 1 city, the number of respondents is only 100 due to time constraints. Future research will better consider some of these things. Future research is expected to use additional methods other than questionnaires in order to obtain more objective results, for example through interviews or open questionnaires. Can add respondents who use other Mobile Payment applications. Can add research locations to be wider not only in one city so that they can represent the use of Mobile Payment as a whole. Can add a larger scale of respondents, in order to get more accurate data.

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