



Examining the Determinants of Continuance Intention to Use Mobile Payment Service

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Abstract

Innovation in finance and advances in payment systems are very important to boost remittances and encourage the successful development of electronic businesses around the world. Thus, many leading companies use mobile payment services to improve the customer experience of their customers. This study aims to identify the factors that influence consumers to continue using mobile payment in Indonesia. Several influencing factors include Service Quality, Perceived Ease of Use, Security, Perceived Usefulness, and Trust. This research was conducted in Madiun City, one of the big cities in Indonesia, with a total of 176 respondents. The study results can help mobile payment companies understand factors that are relevant to increasing volume usage in the context of merchants. The findings of this research is Continuance Intention influenced by Trust. Trust is significantly influenced by the independent variables such as Service Quality, Perceived Ease of Use, Security, and Perceived Usefulness. However, perceived risk has no significant effect on continuance intention. Therefore, mobile Payment service providers should be able to implement action plans related to the quality of their services, user experience to customers, security of an application, and the functions and features implemented by a Mobile Payment. Hopefully those things will generate trust in customers to continue to use Mobile Payment services.

Keywords: Mobile Payment, Service Quality, Security, Trust, Continuance Intention

1. INTRODUCTION

Payment is the sector that uses information technology the most, especially in mobile payments. Mobile payment or abbreviated as M-Payment is a payment method that uses a smartphone as a means. Mobile payment, which mobile phone users widely know, is of course a banking product called Mobile Banking or abbreviated as M-Banking. Through the M-Banking service, we can check our savings account balances at the bank, transfer money, and pay bills, including purchasing top-up credit. In addition to M-Banking, which is generally managed by the banking system, Bank Indonesia has allowed cellular operators to provide card-based payment systems, particularly for micropayments. This system is referred to as Electronic Wallet (E-Wallet) or for mobile phones, it is also called Mobile payment [1].

In 2014, Indonesian Bank announced the National Non-Cash Movement (GNNT) to encourage electronic money transactions. As a result, the government has implemented non-cash transactions, especially in big cities. Such as payments for TransJakarta transportation services, Commuter Line Train, and payments at toll gates. Based on data from Indonesian Bank, 39 e-wallets have been officially licensed. In 2018, e-wallet transactions in Indonesia reached 1.5 billion USD and are predicted to increase to 25 billion USD by 2023 [2]. In addition, in this pandemic era, money is one of the media that is considered to be able to transmit the covid-19 virus. Therefore, the use of cashless payments is highly recommended to prevent the transmission of the virus.

Neuro Sensus, one of the startups engaged in market research with neuroscience technology, researched the volume of mobile payment usage in Indonesia. The NeuroSensus survey recruited 1,000 respondents of active e-commerce users aged 19-45 years in eight major cities in Indonesia. The research was conducted from November 2020 to January 2021. Research from NeuroSensus states that ShopeePay will dominate the Indonesian digital wallet market in early 2021. ShopeePay is also superior in terms of usage volume, 29% of total usage. Then, OVO 25% of the total, GoPay 21%, DANA 20% and LinkAja 6%. Meanwhile, the highest transaction value from offline and online shopping using ShopeePay is 33%. The portion beats OVO 24%, GoPay 19%, DANA 18%, and LinkAja 6%. In terms of frequency, users transact with ShopeePay 14.4 times per month. OVO is used for transactions 13.5 times per month, GoPay 13.1 times, DANA 12.2 times, and LinkAja 8.2 times. Then 35% of respondents admitted that ShopeePay is the most frequently used form of a digital wallet, followed by OVO 27%, GoPay 20%, DANA 14%, and Link Aja at 5% [3].

Mobile payment is an innovation from exchanging value or other payment instruments that can be used by consumers who tend to rely more on the sophistication of features from smartphones and consumer financial authorization [4]. Based on this opinion, it can be concluded that Mobile payment Service is a payment method that is carried out via a smartphone and is connected directly to financial institutions or fintech services that the Indonesian government licenses. Several studies have summarized factors that influencing continuance intention in Mobile Payment. Study conducted by [5] analyze the factors which are most beneficial to facilitate users' continuance usage of mobile payment. Initial trust, and post-adoption factors, such as confirmation, perceived usefulness, satisfaction, and continuance intention toward mobile-based payments were the research variable used. Other factors such as security, perceived risk, additional value, convenience and interoperability are variables that also used in research related to continuance intention [6]. The results obtained indicate that these variables have a significant effect on the Trust mediation variable and also indirectly affect the continuance intention variable.

Moderating variables such as age, income, and experience also affect the relationship between the dependent variable and other variables [7]. Another research conducted by [8] analyzes the most beneficial factors to facilitate users' continuance usage of mobile payment. Mobility, Customization, Security, Reputation, Gender, Trust, Perceived Risk, and Continuance Intention were the research variable used. While in research [9] entitled "Examining the determinants of continuance intention to use and the moderating effect of the gender and age of users of NFC mobile payments: a multi-analytical approach aims to analyze the factors which are the most significant antecedents of continuance intention towards mobile payments. Those researches were divided into two based on gender, male versus female. Then the results obtained are different for each gender. It can be concluded that the moderating variable affects the research.

Mediation variables such as Trust, Convenience, interoperability, and dissatisfaction can also mediate the independent variables behind them. For example, research conducted by [9] showed that the number of familiar friends and relatives with deep connections influences the establishment of Trust, leading to the development of Mobile Payment continual use. Meanwhile, the interaction built based on emotions, like Para-social interaction, was found to have an indirect effect on the formation of trust through Perceived Risk as a moderating variable. Then the research conducted by [10] stated that mediating variables such as convenience and interoperability have a mediating effect on the independent variables, especially on the platform security variable.

The previous studies mentioned above indicate the many research variables that pointed to continuance intention that related to this research. Therefore, comparing each variable has become a way of developing the structural model of this study in order to determine the elements that influence society in Continuance Intention of Mobile Payment.

2. METHODS

The steps that will be used in this research are formulating the problem, Study Literature, formulating Research Model, formulating hypotheses, making research questionnaires, collecting data and determining analysis and conclusions. The flowchart of the research framework is shown in Figure 1.

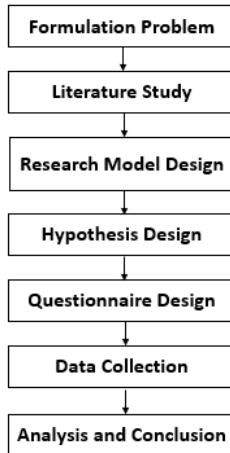


Figure 1. Research Flow

2.1 Structural Model & Hypothesis

Previous research is used as a reference in conducting research so that a larger source of reference and theoretical review is obtained. The research conducted by [5] entitled "Point of adoption and beyond. Initial trust and mobile-payment continuation intention", using a research model with variables such as Perceived Information Quality, Perceived Service Quality, Perceived Uncertainty, Perceived Asset Specificity, Perceived Benevolence, Perceived Integrity, Perceived Ability, Trust and Continuance Intention. Where the Trust variable functions as a mediator variable for the Continuance Intention. The research model used is shown in Figure 3.

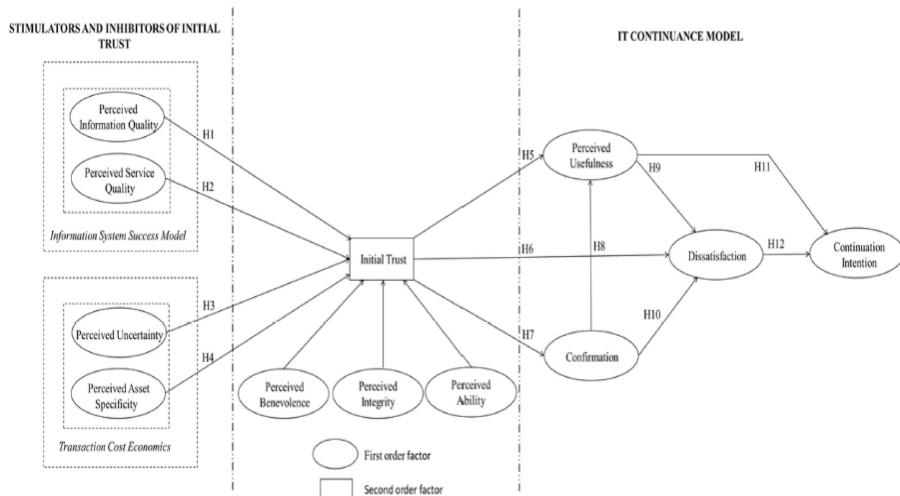


Figure 3. Research Model Reference 1 [5]

Another study conducted by [7] entitled “Understanding mobile payment continuance usage in physical store through social impact theory and trust transfer”, the research model used based on individual social experiences that build trust to increase Continuance Intention of Mobile Payments. This study explores the mediating role of Trust between Perceived Herd, Parasocial Interaction and Perceived Risk with the Continuance Usage variable. In addition, the research model used also adds the role of moderator variables such as age, gender, income and experience in using Mobile Payment. The research model used is shown in Figure 2.

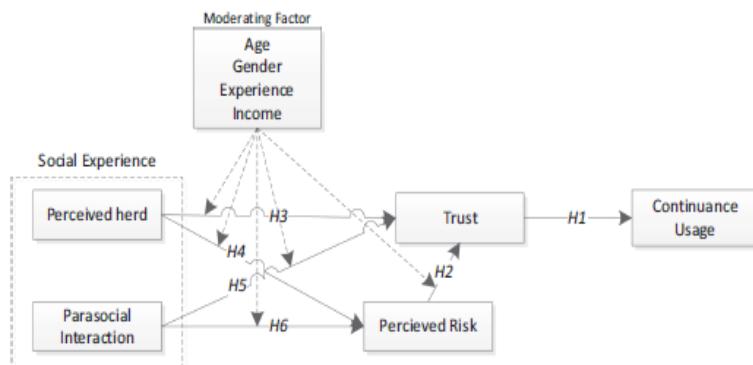


Figure 2. Research Model Reference 2 [7]

Another reference is a study conducted by [13] entitled “Consumer attitude and intention to adopt a mobile wallet in India – An empirical study”. The purpose of this study is to empirically examine the factors that influence consumer attitudes and intentions to use mobile wallets. This study applied quantitative research methods. The theoretical framework used in this research consists of five independent variables, one mediating variable, and one dependent variable. The research model used in is shown in Figure 4.

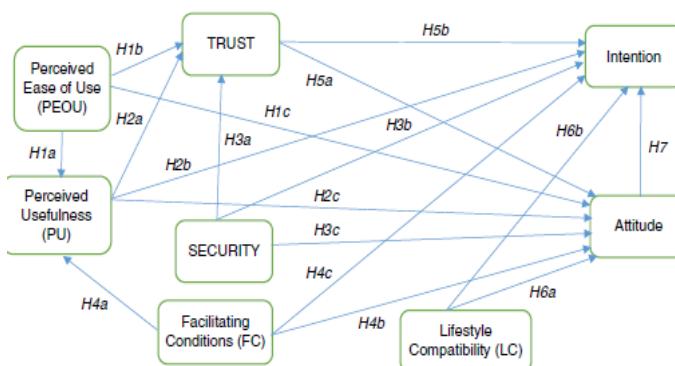


Figure 4. Research Model Reference 3 [13]

The research that will be conducted will use several variables obtained from the literature study conducted by the researcher. The variables specified above are the result of modification of existing models and the addition of other variables based on the literature study conducted. The structural model shows that the continuance intention is measured by six other variables: Service Quality, Perceived Ease of Use, Perceived Risk, Security, Perceived Usefulness, and Trust. The research model is shown in Figure 5.

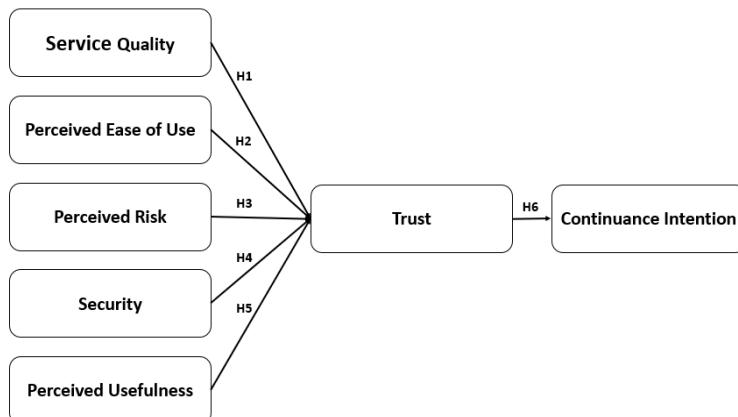


Figure 5. Structural Model

The variables that had been selected have a significant influence on Continuance Intention. Table 1 listed the variables and referenced from previous study.

Table 1. List of Variables and Reference

Variables	Reference
Service Quality	[12], [18]
Perceived Ease of Use	[13] – [14]
Perceived Risk	[7], [10], [14]
Security	[8], [13], [16]
Perceived Usefulness	[13], [17]
Trust	[13], [17]
Continuance Intention	[5] – [8]

Based on the framework, the hypotheses can be defined as below. They examine each correlation in the research framework as portrayed in Figure 2.

1) Hypothesis 1 (**H1**)

- H_0 : Service Quality does not influence Trust significantly
- H_1 : Service Quality influences Trust significantly

2) Hypothesis 2 (**H2**)

- H_0 : Perceived Ease of use does not influence Trust significantly
- H_1 : Perceived Ease of Use influences Trust significantly

3) Hypothesis 3 (**H3**)

- H_0 : Perceived Risk does not influence Trust significantly
- H_1 : Perceived Risk influences Trust significantly

4) Hypothesis 4 (**H4**)

- H_0 : Security does not influence Trust significantly
- H_1 : Security influences Trust significantly

5) Hypothesis 5 (**H5**)

- H_0 : Perceived Usefulness does not influence Trust significantly
- H_1 : Perceived Usefulness influences Trust significantly

6) Hypothesis 6 (**H6**)

- H_0 : Trust does not influence Continuance Intention significantly
- H_1 : Trust influences Continuance Intention significantly

2.2 Data Collection

Data collection was carried out by distributing questionnaires to Link Aja's users. Link Aja is one of the Mobile Payment applications, a synergy of several government-owned banks in Indonesia licensed and supervised by the Indonesian Bank. Link Aja also occupies the top 5 ranks as the most widely used and in-demand Mobile Payment application in Indonesia. The research was held in Madiun, one of the cities with the highest percentage between Link Aja's users and the total population.

The questionnaire is designed based on the proposed model. Each item on the questionnaire is determined based on the literature study carried out from previous studies. On the Service Quality variable, the respondents will be asked about attributes related to the service quality of the application and how the mobile payment application can satisfy customers. In the perceived ease of use variable, the respondents will be asked about attributes related to the ease and flexibility of customers in using mobile payments. In the Perceived Risk variable, the respondents will be asked about attributes related to potential risks that may occur in transactions. For Security factor, the respondents will be asked about systems that can guarantee the security of users. In the Perceived Usefulness variable, the respondents will be asked about attributes related to the usefulness of a mobile payment application. Finally, in variables of Trust and Continuance Intention the respondents will be

asked about attributes related to trust in the mobile payment system and statements to use mobile payments continuously.

In this study, we have measured all items using a 5-point Likert scale, ranging from strongly disagree to strongly agree. Details of the questions are shown in table 2.

Table 2. Questionnaire Design Summary

Variables	Items	Questionnaire Details
Service Quality	SQ1	I think mobile payment provides on-time services.
	SQ2	I think mobile payment provides dependable services
	SQ3	Mobile payment can always satisfy my daily transactions
	SQ4	Mobile Payment platform can save my time while improving transaction efficiency
Perceived Ease of Use	PEOU1	I believe that learning to use mobile payment would be easy for me.
	PEOU2	Learning to operate mobile payment would be easy for me.
	PEOU3	I would find mobile payment to be flexible to interact with
	PEOU4	I believe it is easy to transfer money through mobile payment as minimum steps are required
Perceived Risk	PR1	I would feel totally safe providing personal private information over the mobile payment
	PR2	The risk of an unauthorized party intervening in the Mobile Payment is low
	PR3	I think using Mobile Payment transactions has low potential risk
Security	S1	I believe that mobile payment guarantee my privacy
	S2	The mobile payment platform provides good firewall technology to prevent unauthorized intrusion
	S3	I believe the Mobile Payment service has a potential to be safer than traditional payment options
Perceived Usefulness	PU1	I think using mobile payment would enable me to accomplish transactions more quickly.
	PU2	Overall, I think using a mobile payment would improve my performance.
	PU3	Mobile payment increases my work efficacy
Trust	T1	I trust mobile payment will keeps customer interest in mind

	T2	I trust mobile payment will not divulge any of my information to third party
	T3	I trust that mobile payment is safe for purchase some transactions
	CI1	I would like to do transactions using mobile payment in the near future.
Continuance Intention	CI2	I plan to use Mobile Payment frequently.
	CI3	I will strongly recommend others to use mobile payment.

This research will use Link Aja's users as the samples to represent Mobile Payment Services. The number of samples using the formula is proposed by [11], the number of research indicators (23 indicators) is multiplied by 5 -10 to get an adequate number of samples. Based on the calculation results, the minimum sample size that must be taken is the number of indicators multiplied by 5, so the results obtained are 115 respondents for minimum., the number of respondents obtained is as many as 186 respondents. There were 176 respondents who were valid and passed to the next stage to become the research sample.

3. RESULT AND DISCUSSION

The questionnaires that have been filled out by the respondents are then analyzed according to the PLS SEM method using the Smart PLS software.

3.1 Respondent Profile

This study involved 176 respondents consisting of 123 men (70%), and 53 women (30%). Those respondents are in the age group 17-30 years old (100 people/57%), followed by the age group 31-40 years (52 people/30%), the age group 41-50 years (16 people/9%), the group age <17 years (6 people/3%), and age group >50 years (2 people/1%). The education level of the respondents obtained is that Senior High School is the most with a percentage of 46% or as many as 81 people. Then followed by a bachelor's degree with a percentage of 40% or as many as 71 people. Then followed by a diploma degree with a percentage of 11% or as many as 20 people. The other is master's degree with a percentage of 2% or as many as four people.

3.2 Validity Test

The validity test is measured by using Pearson Correlation (loading factor) with 0.7. The indicators can be certified valid if the loading factor is larger than 0,7 . Table 3 shows the result.

Table 3. Loading Factor

	Continuance Intention (CI)	Perceived Ease of Use (PEOU)	Perceived Risk (PR)	Perceived Usefulness (PU)	Security (S)	Service Quality (SQ)	Trust (T)
CI1	0.863						
CI2	0.846						
CI3	0.774						
PEOU1		0.786					
PEOU2		0.873					
PEOU3		0.824					
PEOU4		0.770					
PR1			0.839				
PR2			0.900				
PR3			0.822				
PU1				0.747			
PU2				0.927			
PU3				0.858			
S1					0.867		
S2					0.865		
S3					0.839		
SQ2						0.861	
SQ3						0.788	
SQ4						0.802	
T1							0.801
T2							0.863
T3							0.849
SQ1						0.866	

Table 3 shows that Outer Loading values are more than 0,7. There are no indicators produce a loading factor value less than 0,7 therefore these data can be declared valid. And the research can be continued to the next stage.

3.3 Discriminant Validity Test

The discriminant validity test is measured by looking at the value of the cross-loading measurement of the latent variables. When the measurement model has a relationship between constructs or latent variables with each own indicator higher than the relationship with each indicator of the other latent variables. The details shown in Table 4.

Table 4. Discriminant Validity Test

	Continuance Intention (CI)	Perceived Ease of Use (PEOU)	Perceived Risk (PR)	Perceived Usefulness (PU)	Security (S)	Service Quality (SQ)	Trust (T)
CI1	0.863	0.612	0.568	0.571	0.568	0.581	0.584
CI2	0.846	0.586	0.433	0.587	0.506	0.581	0.600
CI3	0.774	0.558	0.539	0.699	0.543	0.533	0.616
PEOU1	0.519	0.786	0.569	0.584	0.555	0.681	0.675
PEOU2	0.589	0.873	0.601	0.685	0.618	0.764	0.781
PEOU3	0.567	0.824	0.556	0.581	0.567	0.712	0.679
PEOU4	0.625	0.770	0.623	0.636	0.624	0.679	0.715
PR1	0.460	0.547	0.839	0.541	0.615	0.593	0.549
PR2	0.571	0.659	0.900	0.610	0.709	0.658	0.642
PR3	0.552	0.637	0.822	0.625	0.678	0.617	0.604
PU1	0.591	0.628	0.633	0.747	0.516	0.592	0.593
PU2	0.656	0.685	0.625	0.927	0.696	0.666	0.703
PU3	0.657	0.633	0.520	0.858	0.655	0.622	0.714
S1	0.581	0.666	0.681	0.638	0.867	0.604	0.687
S2	0.524	0.583	0.650	0.592	0.865	0.568	0.614
S3	0.567	0.615	0.683	0.671	0.839	0.628	0.644
SQ2	0.575	0.714	0.619	0.630	0.549	0.861	0.759
SQ3	0.548	0.734	0.526	0.604	0.588	0.788	0.727
SQ4	0.540	0.688	0.624	0.626	0.632	0.802	0.745
T1	0.634	0.657	0.470	0.676	0.587	0.713	0.801
T2	0.532	0.748	0.597	0.565	0.574	0.793	0.863
T3	0.652	0.795	0.690	0.743	0.734	0.783	0.849
SQ1	0.602	0.757	0.650	0.597	0.560	0.866	0.793

The cross-loading value for each indicator must have the largest value for the variable itself. So, for example, the value of cross-loading on the SQ1 indicator against the SQ variable has the largest value compared to the value of cross-loading on other variables. The same things also happened to other indicators with the greatest value for the variable itself.

From Table 4, the highest cross-loading value of each research variable used is found in each indicator of the research variable formed by itself compared to the cross-loading value of other variables. Based on these results, it can be stated that each indicator has good discriminant validity.

3.4 Reliability Test

In the reliability test, the test is measured by looking at the value of Cronbach's Alpha and Composite Reliability. A variable can be declared reliable if the values of Cronbach's Alpha and Composite Reliability are greater than 0.7. Other parameters measured is an Average Variance Extracted (AVE) limit of 0.5. The variables can be certified reliable if the value of Average Variance Extracted (AVE) is greater than 0.5. The result of the reliability test is shown in Table 5.

Table 5. Reliability Test

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Continuance Intention (CI)	0.770	0.769	0.868	0.686
Perceived Ease of Use (PEOU)	0.830	0.834	0.887	0.663
Perceived Risk (PR)	0.814	0.820	0.890	0.730
Perceived Usefulness (PU)	0.799	0.812	0.883	0.718
Security (S)	0.820	0.822	0.893	0.735
Service Quality (SQ)	0.849	0.850	0.898	0.689
Trust (T)	0.787	0.789	0.876	0.702

From Table 4, all variables have Cronbach's Alpha and Composite Reliability is greater than 0.7. and Average Variance Extracted (AVE) values are more than 0.5. There are no indicators produce Crobach's Alpha and Composite Reliability values less than 0,7 and an AVE value less than 0,5. Based on these results, we can conclude that the variables used in this study are valid and reliable.

3.5 Coefficient Determination

The following are the results of the coefficient of determination (R-Square) and the significance value of the path coefficient. The determination test or the R-Square value in this research is shown Table 6.

Table 6. Coefficient Determination (R-Square)

	R Square	R Square Adjusted
Continuance Intention (CI)	0.527	0.524
Trust (T)	0.885	0.882

From Table 6, it can be seen that Service Quality influences the Trust variable 88%, Perceived Ease of Use, Perceived Risk, Security, Perceived Usefulness, and 12% is influenced by other variables other than those used in this study. Trust influences the continuance Intention variable by about 53%. Other variables outside of this study influence the continuance intention of about 47%.

3.6 Hypothesis Testing

Path Coefficient measurement, which includes measurement of t-value and P-value, shows the test results on a hypothesis, whether it is accepted or rejected. The value of T-Statistics is less than T-table (1.964) and P-Value > 0.05, then the relationship between the variables is declared insignificant, whereas if the value of T Statistics > T-table (1.964) and P-Value < 0.05, then the relationship between these variables is declared significant. The results of the measurement of these parameters are shown in Table 7.

Table 7. The Result of Hypothesis Testing

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Perceived Ease of Use (PEOU) -> Trust (T)	0.219	0.216	0.085	2.579	0.010
Perceived Risk (PR) -> Trust (T)	-0.117	-0.117	0.069	1.703	0.089
Perceived Usefulness (PU) -> Trust (T)	0.160	0.154	0.067	2.396	0.017
Security (S) -> Trust (T)	0.178	0.182	0.061	2.897	0.004
Service Quality (SQ) -> Trust (T)	0.564	0.569	0.091	6.175	0.000
Trust (T) -> Continuance Intention (CI)	0.726	0.727	0.057	12.752	0.000

From Table 7, it can be seen that five of the six hypotheses have significant results with T-statistics > 1.960 and P-Value < 0.05. Only one hypothesis that does not have a significant result is Perceived Risk to Trust. The following is a detailed explanation of hypothesis testing in this study :

H1: Service Quality has a significant effect on Trust.

In the test of Hypothesis 1, it is stated that Service Quality has a significant effect to Trust. The results obtained found the relationship between Service Quality and Trust has a t-statistics of 2.897 and a P Value of 0.004. Based on these results, it can be seen that there is a positive and significant effect from SQ to T. Therefore, it can be stated that H1 is supported, where Service Quality has a significant effect on Trust.

Service Quality which has a significant effect on Trust is in line with previous research conducted by [12] aims to analyze the effect of the mediating factor of the Trust variable on Continuance Intention with factors including Service Quality. It is also discussed the same hypothesis regarding the relationship between Service Quality and Trust, the effect of Service Quality on Trust has a p-value < 0.001, almost exactly the same as the P-value obtained in this study.

H2: Perceived Ease of Use has a significant effect on Trust.

In the test of Hypothesis 2, it is stated that Perceived Ease of use has a significant effect to Trust. The results obtained found the relationship between Service Quality and Trust has a t-statistics of 2.579 and a P-Value of 0.010. Based on these result, it can be seen that there is a positive and significant effect from PEOU to T. Thus, it can be stated that H2 is supported where Perceived Ease of Use has a significant effect on Trust.

Then the results of hypothesis testing on the Perceived Ease of use variable on Trust are in line with previous research conducted by [13]. In this study it was found the effect of Perceived Ease of Use on Trust with a p Value < 0.001, exactly the same as the P Value obtained in this study. Another study [14] also discusses the relationship between Perceived Ease of Use and Trust. The research was conducted in Pakistan, with the respondents in the form of Mobile Payment users in that country. In Islam research, it is concluded that the Perceived Ease of use variable positively influences the Trust variable. The P-Value value obtained for this hypothesis is 0.001.

H3: Perceived Risk has no significant effect on Trust.

In the test of Hypothesis 3, it is stated that Perceived Risk of use has a significant effect to Trust. The results obtained found the relationship between Service Quality and Trust has a t-statistics of 1.703 and a P-Value of 0.017. Based on these results, it can be seen that there is no significant effect from Perceived Risk to Trust. Thus, it can be stated that H3 is rejected where Perceived Risk does not have a significant effect on Trust.

In this hypothesis, the results are in accordance with research conducted by [15]. The research was also used the same hypothesis, namely the relationship between Perceived Risk and Trust. The research was conducted in South Korea by taking Mobile Payment users in that country as respondents. The research results from Park stated that Perceived Risk negatively affected the Trust variable.

H4: Security has a significant effect on Trust.

In the test of Hypothesis 4, it is stated that Security has a significant effect to Trust. The results obtained show that the relationship between Security and Trust has a t-statistics of 2.897 and a P-Value of 0.004. Based on these results, it can be seen that

there is a positive and significant effect from S to T. Thus, it can be stated that H4 is supported where Security has a significant effect on Trust.

The results of hypothesis testing obtained in this study are in line with previous research [16]. The research was also used the same hypothesis, namely Security has an effect on Trust. In this study, it was found that Security had a significant effect on Trust with the t-statistic value obtained was 5.166.

H5: Perceived Usefulness has a significant effect on Trust.

In the test of Hypothesis 5, it is stated that Perceived Usefulness has a significant effect on Trust. The results obtained found the relationship between Service Quality and Trust has a t-statistics of 2.396 and a P-Value of 0.017. Based on these results, it can be seen that there is positive and significant effect from PU to T. Thus, it can be stated that H1 is supported, where Perceived usefulness has a significant effect on Trust.

The Perceived Usefulness Hypothesis testing results on Trust also align with previous research conducted [17]. The research also used the same hypothesis, namely that Security has an effect on Trust. The research was conducted in India in 2019. This study found that Perceived Usefulness had a significant effect on Trust with a p-value of <0.001.

H6: Trust has a significant effect on Continuance Intention.

In the test of Hypothesis 6, it is stated that Trust has a significant effect on Continuance Intention. The results obtained found that the relationship between Trust and Continuance Intention has t-statistics of 12.752 and a P-Value of 0.000. Based on these results, it can be seen that there is positive and significant effect from T to CI. Thus, it can be stated that H6 is supported where Trust has significant effect to Continuance Intention. The results obtained are also in line with previous research conducted by Chawla and Joshi at 2019. In this study, it was found the effect of Perceived Usefulness on Trust with a p-value of 0.000, exactly the same as the P-value obtained in this study. However, contrary with the research conducted by Shao (2019), the research was conducted in China in 2019, with the respondents used being Mobile Payment users in that country. This study found that Trust had a significant effect on Continuance Intention with a p-value of <0.001.

3.7 Indirect Effect Analysis

This analysis is conducted to see the relationship between each dependent variable and the independent variable through the mediating variable, namely Trust. The results can be seen in table 8.

Table 8. Indirect Effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Perceived Risk (PR) -> Trust (T) -> Continuance Intention (CI)	-0.085	-0.086	0.051	1.661	0.097
Security (S) -> Trust (T) -> Continuance Intention (CI)	0.129	0.133	0.047	2.732	0.007
Perceived Ease of Use (PEOU) -> Trust (T) -> Continuance Intention (CI)	0.159	0.157	0.062	2.560	0.011
Perceived Usefulness (PU) -> Trust (T) -> Continuance Intention (CI)	0.116	0.112	0.051	2.281	0.023
Service Quality (SQ) -> Trust (T) -> Continuance Intention (CI)	0.409	0.413	0.071	5.729	0.000

From table 8 it can be concluded that the variables of Security (S), Perceived Ease of Use (PEOU), Perceived Usefulness (PU) and Service Quality (SQ) have an indirect significant influence on the Continuance Intention variable. The two variables that have the greatest influence on Continuance Intention indirectly are the Service Quality variable and the Security variable. Service Quality variable has t statistics of 5.279 and p value of 0.000. Then for the security variable, the t statistics variable is 2.732 and the p-value is 0.007. It can be concluded that the Trust variable can mediate independent variables such as Service Quality, Perceived Ease of Use, Security and Perceived Usefulness to influence the Dependent variable, namely Continuance Intention (CI).

4. CONCLUSION

Based on the results, factors such as Service Quality, Perceived Ease of Use, Security, and Perceived Usefulness have a significant effect on Trust. In addition, the four variables also have an indirect effect on continuance intention. Service Quality and Security has the greatest influence on Trust and Continuance Intention from the four influential variables. This can be taken as special attention by the Mobile Payment providers to continue to maintain the quality of their services so

that they can continue to gain customers' trust and increase the volume of transactions using Mobile Payment. After analyzing the factors that affect Continuance Intention, the research can be continued by analyzing the factors that affect loyalty, or adding loyalty as the dependent variable. For further research, it is expected to be able to add other variables that make up the Trust Continuance Intention that is outside the discussion of this research.

REFERENCES

- [1] Lesmana AN, Sfenrianto. Analysis of acceptance of mobile payment as an alternative transaction of parking payment. *J Theor Appl Inf Technol*. 2019;97(9).
- [2]. Bank Indonesia. Elektronifikasi [internet]. 2020 [cited 2021 Aug 9] Available from: <https://www.bi.go.id/id/fungsi-utama/sistem-pembayaran/ritel/elektronifikasi/default.aspx>
- [3]. Burhan, F. A. Rapor ShopeePay, GoPay, LinkAja 2020: Transaksi Kuliner – Donasi Naik [internet]. 2021 [cited 2021 Aug 21] Available from: <https://katadata.co.id/desysetyowati/digital/600a665262231/rapor-shopeepay-gopay-linkaja-2020-transaksi-kuliner-donasi-naik>
- [4] Gia-Shie Liu, Pham Tan Tai. A Study of Factors Affecting the Intention to Use Mobile Payment Services in Vietnam. *Econ World*. 2016;4(6).
- [5] Talwar S, Dhir A, Khalil A, Mohan G, Islam AKMN. Point of adoption and beyond. Initial trust and mobile-payment continuation intention. *J Retail Consum Serv*. 2020 Jul 1;55.
- [6] Seannery G, Gui A. Mobile Payment Continuance Usage Intention in Indonesia. 2021 25th Int Conf Inf Technol 2021. 2021;(February):25–8
- [7]. Handarkho, Y. D. (2021). Understanding mobile payment continuance usage in physical store through social impact theory and trust transfer. *Asia Pacific Journal of Marketing and Logistics*, 33(4), 1071–1087. <https://doi.org/10.1108/APJML-01-2020-0018>
- [8] Shao Z, Zhang L, Li X, Guo Y. Antecedents of trust and continuance intention in mobile payment platforms: The moderating effect of gender. *Electron Commer Res Appl* [Internet]. 2019;33:100823. Available from: <https://doi.org/10.1016/j.elerap.2018.100823>
- [9] Liébana-Cabanillas F, Singh N, Kalinic Z, Carvajal-Trujillo E. Examining the determinants of continuance intention to use and the moderating effect of the gender and age of users of NFC mobile payments: a multi-analytical approach. *Inf Technol Manag* [Internet]. 2021;22(2):133–61. Available from: <https://doi.org/10.1007/s10799-021-00328-6>
- [10] Hwang Y, Park S, Shin N. Sustainable development of a mobile payment security environment using fintech solutions. *Sustain*. 2021;13(15):1–15.

- [11] Hair JF, Sarstedt M, Hopkins L, Kuppelwieser VG. Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *Eur Bus Rev.* 2014;26(2):106–21.
- [12] Yuan S, Liu L, Su B, Zhang H. Determining the antecedents of mobile payment loyalty: Cognitive and affective perspectives. *Electron Commer Res Appl.* 2020;41(July 2019).
- [13] Chawla, D., & Joshi, H. (2019). Consumer attitude and intention to adopt mobile wallet in India – An empirical study. *International Journal of Bank Marketing,* 37(7), 1590–1618. <https://doi.org/10.1108/IJBM-09-2018-0256>
- [14] Islam, T., Saif-Ur-Rehman, Abid, C. M. S., & Ahmer, Z. (2020). How perceptions about ease of use and risk explain intention to use mobile payment services in Pakistan? The mediating role of perceived trust. *Pakistan Journal of Commerce and Social Science,* 14(1), 34–48.
- [15] Park, J., Amendah, E., Lee, Y., & Hyun, H. (2019). M-payment service: Interplay of perceived risk, benefit, and trust in service adoption. *Human Factors and Ergonomics In Manufacturing,* 29(1), 31–43. <https://doi.org/10.1002/hfm.20750>
- [16] Maureen Nelloh, L. A., Santoso, A. S., & Slamet, M. W. (2019). Will users keep using mobile payment? It depends on trust and cognitive perspectives. *Procedia Computer Science,* 161, 1156–1164. <https://doi.org/10.1016/j.procs.2019.11.228>
- [17] Singh, N., & Sinha, N. (2020). How perceived trust mediates merchant's intention to use a mobile wallet technology. *Journal of Retailing and Consumer Services,* 52(June 2019), 101894. <https://doi.org/10.1016/j.jretconser.2019.101894>
- [18] Tang YM, Chau KY, Hong L, Ip YK, Yan W. Financial innovation in digital payment with wechat towards electronic business success. *J Theor Appl Electron Commer Res.* 2021;16(5):1844–61.