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The Role of Trust in Mediating Risk Perception and Security Perception on the Intention to Use QRIS

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Abstract. The development of digital payments through *QRIS* has encouraged changes in people's transaction behavior, but they still face obstacles related to risk perception, security perception, and user trust. This study aims to analyze the influence of risk perception and security perception on the intention to use *QRIS* with trust as a mediating variable. Using a quantitative method with a survey approach, data was collected through a questionnaire distributed to 100 respondents consisting of business actors and communities in Shelter Manahan, solo using purposive sampling techniques. The data analysis was conducted with Structural Equation Modeling (SEM) based on Partial Least Square (PLS). The results showed that risk perception had a negative and significant effect on use intention, while safety perception had a positive and significant effect on use intention. Trust has also been shown to have a positive and significant effect on the intention to use *QRIS* and is able to mediate the influence of risk perception and security perception on the intention to use. In conclusion, trust is the key to increasing the intention to use *QRIS*, so strengthening security aspects and effective risk management needs to be done to encourage the adoption of digital payments more widely. The implications of this study provide recommendations for service providers to improve system reliability to build user trust.

Keywords: Intention Of Use; Perception Of Security; *QRIS*; Risk Perception; Trust.

1. Introduction

The development of digital payment systems is part of the technology-based economic transformation in the industrial era 4.0. In Indonesia, the implementation of the Quick Responden Code Indonesia Standard (*QRIS*) is one of the strategic instruments in encouraging financial inclusion and transaction efficiency, especially in the Micro, Small and Medium Enterprises (MSMEs) sector (Rachman et al., 2024);(Nada et al., 2021). Despite the adoption *QRIS* Showing an increasing trend, the level of continuous use still faces various behavioral barriers, especially related to the psychological perception of users, especially the perception of risk, safety and trust in shaping the intention of use. (Usman et al., 2020);(Almaiah et al., 2023).

Despite usage trends *QRIS* increasing, the use of this technology is not fully appropriate among the community and MSME actors. This shows that the successful use of technology depends not only on the availability of the system, but also on user behavior. In this situation, the Technology Acceptance Model (TAM), created by (Davis, 1989), provides a useful theoretical basis for explaining how one's perception affects their intention to explain how one's perception affects their intention to use technology is not only determined by usability and convenience aspects, but is also influenced by risk, security, and trust factors (Zhang,

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2024);(Almaiah et al., 2023). The perception of security is related to the user's confidence in the system, while the perception of risk indicates the user is worried about potential losses (Slovic, 2016);(Turban et al., 2018). When it comes to digital transactions, these two components are very important components.

Intentions indicate the individual's readiness and their propensity to use the system in the future (Cigdem Altin Gumussoy, 2017). In the intention of use *QRIS* not only the desire to use it, but also the consistency of use and the desire to advise others to use it. One of the main factors that influence the intention to use technology is the perception of risk (*perceived risk*). Risk perception can be interpreted as the level of uncertainty and possible danger felt by a person in using a system (Slovic, 2016). In the context of digital payments such as *QRIS*, The perceived risks can be in the form of possible transaction failures, personal data leaks, and potential fraud (The et al., 2022). The high perceived risk perception can cause doubts and hinder users in adopting technology, especially in MSME actors who tend to be more careful in making financial decisions.

Trust (*Trust*), serves as an important factor between the two components, linking risk perception, security perception, and intent to use. The user's confidence in the depth, integrity, and ability of the system to perform its job well is called trust (Musriani & Sanaba, 2024). Since transactions are carried out without direct physical interaction, trust is essential in digital payments. A high level of trust can improve the perception of security and reduce the negative effects of risk perception.

Although various studies have examined the relationship between risk perception, security perception, trust, and intent to use, the results still show inconsistencies. Some studies have found that risk perception has a significant effect on use intent (Almaiah et al., 2023), while other studies show different results (Fauziah et al., 2024). Similarly, the role of trust as a mediating variable has not shown consistent conclusions in various research contexts (Which Intani et al., 2024). This inconsistency shows that there is a research gap that needs to be studied further.

This research is different from previous research conducted on general users or digital banking services. Specifically, this study examines the use of *QRIS* in the location-based MSME sector such as in Shelter Manahan, Solo. This approach is important because of the heterogeneous characteristics of MSME actors, diverse levels of digital literacy, and transaction patterns that are different from previous research. The novelty of this study uses the TAM theory developed with trust variables as mediation. Compared to the conventional TAM model, the approach of this study is broader because it considers trust as the main

psychological mechanism that bridges the influence of risk perception and security perception on intention to use.

Based on this background, this study aims to analyze the influence of risk perception and security perception on the intention to use *QRIS* with trust as a mediating variable in MSME actors and the community in Shelter Manahan, Solo. This research is expected to contribute to providing empirical reinforcement of the role of trust in improving *QRIS* and provide practical implications for service provision in improving security and minimizing risk.

2. LITERATURE REVIEW

Technology Acceptance Model (TAM)

This research is based on *Technology Acceptance Model* (TAM) developed by (Davis, 1989), which is a framework for understanding the process of technology acceptance by users. In the context of this study, the TAM model is expanded by integrating risk perception and security perception variables to adjust to the characteristics of digital transactions. The use of TAM allows researchers to analyze how external and psychological factors shape beliefs, which ultimately influences the intention of use (Almaiah et al., 2023);(Musriani & Sanaba, 2024). The expansion of the model is carried out by placing trust as a mediating variable that connects the perception of risk and the perception of security to the intention of use. This approach provides a more comprehensive understanding of the mechanism for the formation of the intention to use digital payment technology, in particular *QRIS*. The model used also allows the identification of direct and indirect relationships between variables, resulting in a more in-depth empirical picture of the factors influencing users' decisions to adopt digital payment technology (Usman et al., 2020).

Risk Perception

The perception of risk in this study refers to the level of uncertainty and concern of users about potential losses that can arise in the use of digital payment technology. These risks include the possibility of transaction failure, financial losses, and the threat of personal data leakage that has the potential to be misused by irresponsible parties (The et al., 2022). According to (Alalwan et al., 2018), (Kasilingam, 2020), and (The et al., 2022), risk perception is measured through three indicators, namely security, credibility, and privacy. In this context, risk perception acts as a cognitive inhibiting factor that influences user decisions. The higher the level of concern for the security and reliability of the system, the lower the tendency of users to switch and make optimal use of digital payment methods. These findings are in line

with (Almaiah et al., 2023);(Farhan & Wardani Shifa, 2023) that perception of risk affects the intention for use *QRIS*. From this explanation, the following hypotheses can be drawn:

H1-Risk perception has a negative and significant effect on the intention to use *QRIS.*

Security Perception

The perception of security in this study refers to the level of confidence of users that their personal information and financial assets are protected from the threat of unauthorized access during electronic transactions (Alert, 2012). In the context of digital payments, security is not only viewed from the technical aspects of the system, but also from the regulatory and legality aspects that support the reliability of the service (Zhang, 2024). According to (Alert, 2012), security perception is measured through three indicators, namely not worrying about providing information, believing that information is protected, and believing that transactions are guaranteed security on electronic devices. Users tend to have a higher level of trust when they know that payment systems, such as *QRIS,* is under surveillance Financial Services Authority. A good perception of security plays a role in minimizing risk concerns, thus encouraging the formation of confidence in using non-cash payment methods. These findings are in line with (Buluati et al., 2023);(Usman et al., 2020) that perception of security affects intent for use *QRIS*. From this explanation, the following hypotheses can be drawn:

H2- Security perception has a positive and significant effect on the intention to use *QRIS.*

Trust

Trust in this study is defined as the level of user confidence that the system *QRIS* able to operate reliably, consistently, and without causing losses in the transaction process (The et al., 2022). Trust acts as a psychological mechanism that bridges users' perceptions of technology, especially in dealing with potential risks and security issues (Saputri, 2020). Trust is measured through five indicators, namely data and transaction protection, service quality, information and education, information accuracy, and meeting user needs (Musriani & Sanaba, 2024). (Musriani & Sanaba, 2024) emphasizing that trust has an important role as a mediating variable that is able to strengthen the relationship between perception factors and intention to use. In this context, even if the user is aware of the risks or limitations of the system, a high level of trust in the reliability and stability of the service will encourage the formation of an intention to use the technology (Syahri & Yanita Setyawati, 2023) . Thus, trust is a key factor that strengthens users' belief that digital payment systems are a credible and feasible means of supporting transaction activities. These findings are in line with (Musriani & Sanaba, 2024) ; (Wijaya et al., 2024) that trust has an effect on the intention to use *QRIS*. In addition, trust indirectly affects the relationship between risk perception and intention for use *QRIS* (Primandari & Suprapti, 2022);(Saputri, 2020). and (Wijanarko & Sihite, 2024);(Buluati et al.,

2023) concludes that trust indirectly affects the relationship between security perception and intent for use *QRIS*. From this explanation, the following hypotheses can be drawn:

H3- Trust has a positive and significant effect on the intention to use *QRIS.*

H4- Risk perception affects the intention to use *QRIS* through trust as a mediation variable.

H5- The perception of security affects the intention to use *QRIS* through trust as a mediation variable.

Intention to use

The intention of use in this study is defined as the level of an individual's desire or plan to use a technology in the future (Cigdem Altin Gumussoy, 2017). Based on the synthesis of (Cigdem Altin Gumussoy, 2017) and (The et al., 2022), intent to use is defined as a tendency to user behavior that is reflected through a strong intention to use *QRIS*, a plan for sustainable use, and a willingness to recommend the system to other parties, especially fellow business actors. According to (Cigdem Altin Gumussoy, 2017) and (The et al., 2022), intention to use is measured through three indicators, namely strong intention to use, intention to use sustainably, and intention to recommend use. The intention of use is the result of the user's cognitive evaluation of various factors such as risk perception, security perception, and level of trust that has been formed during the consideration process and experience of using technology (The et al., 2022) ; (Wijaya et al., 2024). Thus, the intention of use becomes an important indicator that describes the readiness of the individual to adopt and maintain use *QRIS* as a digital payment system in daily business activities (Rahimi et al., 2024).

3. RESEARCH METHODS

This study uses a quantitative approach with a survey method. According to (Scott, 2019), quantitative research is a research method based on the philosophy of positivism, used to research on a specific population or sample with the aim of testing a hypothesis that has been established. This approach allows researchers to systematically identify relationships between variables through numerical data and statistical analysis. The object of this research is the user *Quick Response Code Indonesian Standard* (*QRIS*) consisting of business actors and the community in the Manahan Shelter, Solo. The selection of research objects is based on the high transaction activity in the location, thus encouraging the use of digital payment systems.

The variables in this study consist of independent variables, namely risk perception and security perception, dependent variables, namely use intention. *QRIS*, as well as the intervening variable, namely trust. Risk perception reflects the possible losses or threats that users feel in

using digital payment systems (Slovic, 2016). Security perception is the level of confidence users have in the system's ability to protect data and transactions from various threats (Turban et al., 2018). Trust is the user's belief in the reliability and integrity of the digital payment system (Musriani & Sanaba, 2024). Intention to use is the level of a person's desire or tendency to use a certain technology or system in conducting transactions (Cigdem Altin Gumussoy, 2017).

Variable measurements were carried out using a questionnaire instrument with a Likert scale of 1–5, ranging from strongly disagree to strongly agree. The Likert scale is used to systematically measure respondents' attitudes, perceptions, and opinions (Scott, 2019). The indicators of each variable are compiled based on the operational definition that has been established in the research. The population in this study is business actors and user communities *QRIS* at the Manahan Shelter, Solo. Because the population is not known for sure, the sample was determined using the Lemeshow formula with an error rate of 5%, so that a sample of 100 respondents was obtained. The sampling technique uses accidental sampling, namely respondents who are met by chance and meet the research criteria (Digdowiseiso, 2017).

The data used in this study are primary and secondary data. Primary data was obtained through the distribution of questionnaires using Google Form to respondents, while secondary data was obtained from relevant previous documents and research. The data collection technique was carried out by the questionnaire method, which is to give a series of questions to respondents to answer (Scott, 2019). Data analysis was carried out using the Structural Equation Modeling (SEM) method based on Partial Least Square (PLS) with the help of the SmartPLS application. This method is used to test the relationship between variables simultaneously and analyze direct and indirect influences through mediation variables. Model testing is carried out through the evaluation of the outer model to test the validity and reliability, as well as the inner model to test the relationship between variables and research hypotheses (Imam Ghozali, 2023).

4. RESULT AND DISCUSSION

Respondent Characteristics

Based on the results of the study, the number of respondents in this study was 100 respondents consisting of the community (consumers) and business actors in Shelter Manahan, Solo. Based on gender, respondents were dominated by women as many as 61 respondents (61%), while men as many as 39 respondents (39%). Based on age, the majority of respondents were in the age range of 17–26 years old as many as 77 respondents (77%), followed by 27-36

years old as many as 15 respondents (15%), 37-46 years old as many as 7 respondents (7%), and over 46 years old as 1 respondent (1%). The dominance of 17–26 years old shows that the younger generation tends to be more receptive to digital technology developments, especially in the use of non-cash payments through *QRIS*.

Based on the status of respondents, as many as 80 respondents (80%) are people or consumers, while 20 respondents (20%) are business actors or MSME managers. In addition, the majority of respondents stated that they were interested in using *QRIS* as many as 95 respondents (95%), while 5 respondents (5%) stated that they were not interested. The high interest in using *QRIS* shows that digital payment systems are considered more practical, fast, and efficient than the use of cash. In addition, respondents assessed that the use of *QRIS* can simplify the transaction process, reduce the risk of errors in refunds, and help record transactions digitally so that it makes it easier for users to control expenses. However, there are still some respondents who are less interested in using *QRIS* because they feel more comfortable transacting using cash and still have concerns about the security of digital transactions.

Validity and Reliability Test Results

The results of the outer model processing are as follows:

Validity Test

The Validity Test consists of convergent validity and discriminant validity. The following are the results of the data analysis:

Tabel 1. Outer loading.

Indicator	Loading Value	Remarks
X1.1	0.863	Vailid
X1.2	0.906	Vailid
X1.3	0.846	Vailid
X2.1	0.840	Vailid
X2.2	0.862	Vailid
X2.3	0.771	Vailid
Y1	0.910	Vailid
Y2	0.927	Vailid
Y3	0.879	Vailid
Z.1	0.935	Vailid
Z.2	0.762	Vailid
Z.3	0.931	Vailid
Z.4	0.916	Vailid
Z.5	0.812	Vailid

Source : Researcher's Processed Data (2026).

Based on the table above, it is known that all loading *factor* values are above 0.70, so that no indicators are eliminated and all constructs are declared to meet the validity criteria. Furthermore, *convergent validity* testing is carried out to determine the level of correlation between indicators in each construct. Based on the results of data processing using the PLS

Algorithm on indicators that have been declared valid, the *Average Variance Extracted* (AVE) value is obtained which is presented in the following table:

Tabel 2. Average variance extracted.

Variabel	*Average variance extracted* (AVE)	Klasifikasi
Trust	0.764	Meet
Intention to Use	0.821	Meet
Security Perception	0.681	Meet
Risk Perception	0.760	Meet

Source : Researcher's Processed Data (2026)

Based on the table above, it can be seen that the AVE value for all variables meets the requirement value, which is above 0.5. Thus, *the convergent validity* of each of the indicators studied was proven to meet the validity requirements.

Cross-loading *values* are used for discriminant validity measurements. The following are the results of *the cross-loading* value :

Tabel 3. cross-loading.

Indicator	Risk Perception	Security Perception	Trust	Intention to Use
X1.1	0.863	-0.121	-0.357	-0.386
X1.2	0.906	-0.186	-0.532	-0.542
X1.3	0.846	-0.050	-0.257	-0.321
X2.1	-0.165	0.840	0.317	0.312
X2.2	-0.208	0.862	0.519	0.334
X2.3	0.035	0.771	0.276	0.329
Z.1	-0.405	0.396	0.935	0.590
Z.2	-0.190	0.318	0.762	0.445
Z.3	-0.523	0.449	0.931	0.527
Z.4	-0.475	0.476	0.916	0.521
Z.5	-0.392	0.391	0.812	0.429
Y1	-0.432	0.368	0.497	0.910
Y2	-0.487	0.413	0.612	0.927
Y3	-0.439	0.271	0.441	0.879

Source : Researcher's Processed Data (2026).

Based on table 4, all the indicator results of each construct are higher than the other constructs, this means that each latent variable has *a good* discriminant validity.

Reliability Test

Cronbach's Alpha and Composite Reliability values were used to test the reliability of the construct, with the following results:

Table 4. Cronbach's Alpha and Composite Reliability

Variabel	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Klasifikasi
Risk Perception	0.849	0.929	0.905	Highly Reliable
Security Perception	0.770	0.802	0.865	Reliabel
Intention to Use	0.891	0.908	0.932	Highly Reliable
Trust	0.921	0.939	0.942	Highly Reliable

Source : Researcher's Processed Data (2026)

The *Composite Reliability* value in the table above is 0.70 for the total of the variables and *the Cronbach's Alpha* value is >0.60. Referring to these values, the reliability of the research variables as a whole can be said to be high, so it can be accepted or said to be reliable.

The results of the inner model processing are as follows:

R Square Value

Table 5. R Square.

Variabel	R-square	Klasifikasi
Trust	0.381	Moderate
Intention to Use	0.428	Moderate

Source : Researcher's Processed Data (2026).

The results of the evaluation of the structural model (*inner model*) showed that the R-square value in the confidence variable was 0.381 and the intention of use was 0.428. This value indicates that the variables of risk perception and security perception were able to explain the variation in trust by 38.1%, while the trust variable with the independent variable was able to explain the intention of use by 42.8%. Based on the assessment criteria, the two R-square values are in the moderate category, which shows that the research model has a fairly good explanatory ability in explaining the relationship between variables**.**

Effect Size f2

Tabel 6 Effect Size f2.

Variable Relationships	Value f2	Klasifikasi
Risk Perception → Intention of Use	0,131	Kecil (*Small*)
Security Perception → Intent of Use	0,046	Kecil (*Small*)
Trust → Intent to Use	0,129	Kecil (*Small*)

Source : Researcher's Processed Data (2026)

The results of the *effect size* (f^2) test showed that all variables had an influence in a small category on the intention of use. This indicates that the contribution of variables in the model is still limited in explaining the intention of use.

Uji Hypothesis

In PLS, testing each relationship is done using a simulation with the bootstrapping method of the sample. This test aims to minimize the problem of abnormalities in the research. The results of the calculation can be seen based on direct and indirect influences. The following are the results obtained from the direct influence analysis.

Table 7. Direct Effect Hypothesis Test.

Variabel	Original sample (O)	T statistics (|O/STDEV|)	P values	Results
Risk Perception -> Intent of Use	-0.311	2.794	0.005	Not rejected
Security Perception -> Intent of Use	0.184	2.010	0.045	Not rejected
Trust -> Intent of Use	0.346	3.200	0.001	Not rejected

Source : Researcher's Processed Data (2026)

The hypothesis test in this study used a T-statistical limit of 1.96 with a significance level of 5%. If the value of T-statistics ≥ 1.96 and the probability value ≤ 0.05, then the hypothesis is not rejected and the variable has a significant effect. Based on these criteria, the results of the above test can be explained as follows:

H1- Risk perception of user intent

Risk perception has a negative and significant effect on the intention of use *QRIS* (t = 2.794; p = 0.005), until H1 is accepted. These findings suggest that increased perceived risk decreases intention to use, in line with (Almaiah et al., 2023).

H2- Security perception of user intent

Security perception has a positive and significant effect on use intent *QRIS* (t = 2.010; p = 0.045), until H2 is accepted. This shows that the higher the perceived level of security, the higher the intention to use, in line with (Buluati et al., 2023).

H3- Trust in the user's intent

Trust has a positive and significant effect on the intention of use *QRIS* (t = 3,200; p = 0.001), until H3 is accepted. These findings confirm that trust is an important factor in driving intent to use, in line with (Musriani & Sanaba, 2024).

Meanwhile, the results of the indirect influence analysis are as follows:

Table 8. Indirect Effect Hypothesis Test.

Variabel	Original sample (O)	T statistics (|O/STDEV|)	P values	Results
Risk Perception -> Trust -> Intent of Use	-0.140	2.298	0.022	Not rejected
Security Perception -> Trust -> Intent of Use	0.141	2.542	0.011	Not rejected

Source : Researcher's Processed Data (2026)

The hypothesis test in this study used a T-statistical limit of 1.96 with a significance level of 5%. If the value of T-statistics ≥ 1.96 and the probability value ≤ 0.05, then the hypothesis is not rejected and the variable has a significant effect. Based on these criteria, the results of the above test can be explained as follows:

H4- The effect of risk perception on user intent through trust

Risk perception had a negative and significant effect on use intention through trust (t = 2.298; p = 0.022), so H4 was accepted. This shows that trust mediates the influence of risk perception in lowering the intention to use *QRIS* (Primandari & Suprapti, 2022).

H5- The effect of security perception on user intent through trust

The perception of safety had a positive and significant effect on the intention of use through trust (t = 2.542; p = 0.011), so H5 was accepted. These findings suggest that trust is able to strengthen the influence of security perceptions on increased use intent *QRIS* (Wijanarko & Sihite, 2024).

Discussion

The Effect of Risk Perception on Use Intent

The results show that risk perception has a negative and significant effect on the intention of use *QRIS*. This indicates that the higher the perceived risk, the lower the tendency of users to adopt digital payment technology. Risk perception, which includes potential financial losses, system uncertainty, and data security threats, is an inhibiting factor in the technology adoption process. These findings are in line with (Buluati et al., 2023) and (Farhan & Wardani Shifa, 2023) which states that risk perception has a negative influence on the intention to use digital technology. However, this result differs from (Fauziah et al., 2024) who found that risk perception had no significant effect. This difference shows that the context of use and the level of digital literacy of users can influence the perception of risk in determining the intention of use.

The Effect of Security Perception on Use Intent

The results show that the perception of security has a positive and significant effect on the intention of use *QRIS*. This confirms that the level of security that users feel is an important factor in increasing trust and confidence in digital payment systems. The higher the perception of security, the more likely users are to use *QRIS*. These findings are in line with (Buluati et

al., 2023) and (Usman et al., 2020)which states that security is the main determinant in increasing the intention to use technology. However, these results are not entirely consistent with (Khoirunnisa & Abidin, 2024) which indicates that the perception of security does not always have a significant effect, thus indicating that there is a variation in user perception of system security.

The Influence of Trust on Use Intent

The results of the study show that trust has a positive and significant effect on the intention of use *QRIS*. Trust is a key factor in shaping users' confidence in the reliability and integrity of digital payment systems. Users who have a high level of trust tend to be more confident in making transactions and are more willing to continue using *QRIS*. These findings are in line with (Musriani & Sanaba, 2024) and (Wijaya et al., 2024) which confirms that trust has a strategic role in driving technology adoption. This shows that in the context of digital payments, trust not only serves as a direct variable, but also as a key foundation in shaping user behavior.

The Effect of Risk Perception on Use Intent through Trust

The results of the study show that risk perception has a negative and significant effect on the intention of use through trust. This indicates that trust is able to mediate the relationship between risk perception and intention to use *QRIS*. High risk can lower user confidence levels, which ultimately leads to decreased intent to use. These findings are in line with (Primandari & Suprapti, 2022) and (Saputri, 2020) which states that trust plays a role as a mediating variable in the relationship between risk perception and intention to use. This shows that risk management not only has a direct impact, but also through the formation of user trust in the system.

The Effect of Security Perception on Use Intent through Trust

The results show that the perception of security has a positive and significant effect on the intention of use through trust. This suggests that trust is able to strengthen the relationship between security perception and use intent *QRIS*. The higher the level of security felt, the higher the user trust, which ultimately increases the intention to use. These findings are in line with (Wijanarko & Sihite, 2024) and (Buluati et al., 2023) which states that security plays an important role in building user trust in digital technology. Thus, trust not only serves as a mediating variable, but also as a key mechanism in reinforcing the influence of security perceptions on user behavior.

5. CONCLUSION

This study aims to analyze the influence of risk perception and security perception on the intention to use *QRIS* with trust as a mediating variable. This study uses a quantitative approach with the Structural Equation Modeling (SEM) method based on Partial Least Square (PLS) to test the relationship between variables in explaining user behavior towards digital payment adoption. This topic is becoming relevant as the use of cashless payment systems increases which demand a higher level of security and trust.

The results showed that risk perception had a negative and significant effect on the intention of use, while the perception of security and trust had a positive and significant effect on the intention to use *QRIS.* In addition, trust has been shown to mediate the relationship between risk perception and security perception of use intent. These findings indicate that trust has an important role to play in strengthening the adoption of *QRIS*, particularly in reducing the negative impact of risk perception and increasing the positive influence of security perception.

Although the use of digital payments continues to increase, the results of this study confirm that user perception remains a key factor in the acceptance of technology. Therefore, service providers need to improve security, transparency, and user data protection to build stronger trust. These efforts are expected to encourage an increase in the use of *QRIS* in a sustainable manner and strengthen the digital payment ecosystem in Indonesia.

This research still has limitations, especially in the number of samples and the scope of the research area that is only conducted in Solo, so the results of the research cannot be generalized widely. The next research is expected to be carried out in a wider area with a larger number of respondents so that the research results will be more representative. The addition of variables such as benefit perception, ease of use, and digital literacy is also expected to be able to provide a deeper picture of the factors that affect the use of *QRIS* in the community.

REFERENCES

Alalwan, A. A., Dwivedi, Y. K., Rana, N. P., & Algharabat, R. (2018). Examining factors influencing Jordanian customers' intentions and adoption of internet banking: Extending UTAUT2 with risk.

Almaiah, M. A., Al-Otaibi, S., Shishakly, R., Hassan, L., Lutfi, A., Alrawad, M., Qatawneh, M., & Alghanam, O. A. (2023). Investigating the role of perceived risk, perceived security and perceived trust on smart m-banking application using SEM, 1–17.

Alert, I. (2012). Accelerating the adoption of information technology transaction systems to improve the accessibility of banking services, *16*(1).

Buluati, R., Karundeng, D. R., & Suyanto, M. A. (2023). The effect of convenience, security, and trust in transactions on interest in using QRIS (Quick Response Indonesian Standard) in MSME actors in Boalemo Regency. *Nature, 75*(2), 33–47. https://doi.org/10.36456/wahana.v75i2.7378

Cigdem Altin Gumussoy, A. K., & E. O. (2017). Industrial engineering in the.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 319–340.

Digdowiseiso, K. (2017). *Economic and business research methodology*. National University Publishing Institute (LPU-UNAS).

Farhan, A., & Shifa, A. W. (2023). The use of QRIS payment methods in every MSME in the digital era. *Journal of Community Service of the Archipelago, 4*(2), 1198–1206. https://doi.org/10.55338/jpkmn.v4i2.1045

Fauziah, I., Yuliyanti, D., Maula, N. S., & Destiana, R. (2024). Influence of perceived convenience, perceived usefulness, and perceived risk on the use of QRIS to increase MSMEs income. *International Journal of Business, Law, and Education, 5*(2), 1689–1601. https://doi.org/10.56442/ijble.v5i2.716

Ghozali, I. (2023). *Partial least squares: Concepts, techniques and applications using the SmartPLS 4.5 program for empirical research*. Primary Yoga.

Intani, V., Suhaidar, & Rahmadoni, F. (2024). The effect of perception of convenience, perception of benefits, and risk perception on the intention of MSME actors in Pangkalpinang City using the Quick Response Code Indonesian Standard (QRIS). *Innovative: Journal of Social Science Research, 4*(4), 3330–3340.

Kasilingam, D. L. (2020). Understanding the attitude and intention to use smartphone chatbots for shopping. *Technology in Society, 62*, 101280.

Khoirunnisa, T. I., & Abidin, A. Z. (2024). Analysis of the impact of using QRIS merchant on efficiency and safety at UMKM in Manahan Shelter, 48–63.

Le, V. P., Do, S. H., & Nguyen, H. N. L. (2022). A study on the factors affecting intention of using online banking services in Vietnam. In *Global changes and sustainable development in Asian emerging market economies* (Vol. 1, pp. 179–198). Springer.

Musriani, M., & Sanaba, H. F. (2024). Preferences of traditional market traders in deciding to use Quick Response Code Indonesia Standard (QRIS) as a transaction tool. *Jurnal Manajemen Bisnis, 11*(2), 1463–1471. https://doi.org/10.33096/jmb.v11i2.857

Nada, D. Q., Suryaningsum, S., & Negara, H. K. S. (2021). Digitalization of the Quick Response Indonesian Standard (QRIS) payment system for MSME development. *Journal of International Conference Proceedings, 4*(3), 551–558. https://doi.org/10.32535/jicp.v4i3.1358

Primandari, I. D. A. A. Y., & Suprapti, N. W. S. (2022). Role of trust mediates the effect of perceived ease of use and perceived risk on intention to re-use QRIS payment methods. *International Journal of Business, Economics & Management, 5*(3), 201–210. https://doi.org/10.21744/ijbem.v5n3.1942

Rachman, A., Julianti, N., & Arkoyah, S. (2024). Challenges and opportunities for QRIS implementation as a digital payment system in Indonesia. *EkBis: Journal of Economics and Business, 8*(1), 1–13. https://doi.org/10.14421/ekbis.2024.8.1.2134

Rahimi, Y., Restuti, S., & Wasnury, R. (2024). Analysis of the use of QRIS (Quick Respondentense Indonesian Standard) with the Technology Acceptance Model (TAM) approach. *PP*, *3*(1), 177–187.

Saputri, O. B. (2020). Consumer preferences in using the Quick Response Code Indonesia Standard (QRIS) as a digital means of payment. *Performance: Journal of Economics and Management*, *17*(2), 237–247. https://doi.org/10.30872/jkin.v17i2.7355

Slovic, P. (2016). The perception of risk. In *Scientists making a difference: One hundred eminent behavioral and brain scientists talk about their most important contributions* (pp. 179–182). https://doi.org/10.1017/CBO9781316422250.040

Sugiyono. (2019). *Quantitative, qualitative, and R&D research methods*. Alpahabet.

Syahri, A., & Setyawati, C. Y. (2023). The effect of perceived ease of use on intention to use QRIS BCA Mobile with perceived usefulness as a mediation variable. *Journal of Finance and Business*, *21*(2), 143–151. https://doi.org/10.32524/jkb.v21i2.949

Turban, E., Outland, J., King, D., Lee, J. K., Liang, T. P., & Turban, D. C. (2018). *Electronic commerce 2* (9th ed.).

Usman, O., Septianti, A., Susita, M., & Marsofiyati, M. (2020). The effect of computer self-efficacy and subjective norm on the perceived usefulness, perceived ease of use and behavioural intention to use technology. *Journal of Southeast Asian Research*, *11*, 6662–6673.

Wijanarko, M. F., & Sihite, J. (2024). Analysis of the effect of perceived ease of use, perceived usefulness and perceived security on intention to use BRImo Mobile Banking with trust as mediation. *Indonesian Journal of Business Analytics*, *4*(1), 93–110. https://doi.org/10.55927/ijba.v4i1.8122

Wijaya, I. D., Astuti, E. S., Yulianto, E., & Abdillah, Y. (2024). The mediation role of perceived risk, trust, and perceived security toward intention to use in the model of fintech application adoption: An extension of TAM. *KnE Social Sciences*, *2024*, 324–335. https://doi.org/10.18502/kss.v9i11.15804

Zhang, Y. (2024). Impact of perceived privacy and security in the TAM model: The perceived trust as the mediated factors. *International Journal of Information Management Data Insights*, *4*(2), 100270. https://doi.org/10.1016/j.jjimei.2024.100270