Published *online* on the journal's web page : http://innovatics.unsil.ac.id

Innovation in Research of Informatics (INNOVATICS)

| ISSN (Online) 2656-8993 |

When Culture Meets Code: Enhancing E-Payment Technology Adoption Through QRIS in The Digital Transformation

Danar Retno Sari[1], Erick Sorongan[2], Hendra Sanjaya Kusno[3]

[1,2,3]*Politeknik Negeri Balikpapan, Balikpapan, 76126, Indonesia*
[1]*danar.retno@poltekba.ac.id,* [2]*erick.sorongan@poltekba.ac.id,* [3]*hendra.sanjaya@poltekba.ac.id*

ARTICLE INFORMATION

Article History:
Received: November 11, 2024
Last Revision: April 16, 2025
Published *Online*: April 30, 2025

KEYWORDS

QRIS Technology,
Electronic Payment Systems,
Trust in Digital Payments,
Power Distance,
Uncertainty Avoidance

CORRESPONDENCE

Phone: 082250742616
E-mail: danar.retno@poltekba.ac.id

ABSTRACT

Bank Indonesia has implemented the National Non-Cash Movement (GNNT) to advance the payment system in Indonesia, focusing on safety and efficiency. The use of QRIS technology has accelerated transaction processes, reduced queues and increasing efficiency in various sectors. The electronic money component has seen significant growth, especially in non-bank institutions, with a rise in shopping transactions and the number of merchants. Trust in QRIS technology is high due to ease of use and secure transactions, supported by government regulations. This research investigates the factors influencing the adoption of QRIS (Quick Response Code Indonesian Standard) technology as an electronic payment system in Indonesia after the COVID-19 pandemic. The study focuses on the cultural dimensions of Power Distance (PD) and Uncertainty Avoidance (UA), and their influence on Trust and the Attitude to Use QRIS. A quantitative methodology using a questionnaire was employed, involving 103 active QRIS users, with analysis conducted using Structural Equation Modeling (SEM) via SmartPLS. Results show that Uncertainty Avoidance has a significant positive effect on Trust, which in turn significantly influences the Attitude to Use QRIS. However, Power Distance does not significantly impact, suggesting that while government regulations are important, they do not directly enhance trust in the system. The findings highlight the importance of improving user confidence by reducing perceived risks and enhancing the security of the QRIS platform to foster wider adoption of cashless payments. Future research should explore the role of government policies in further detail to enhance user trust in digital payment systems.

1. INTRODUCTION

Bank Indonesia, as the central bank of the Republic of Indonesia, has actively responded to the dynamic challenges and technological advancements in the financial sector by promoting the adoption of QRIS (Quick Response Code Indonesian Standard) technology [1]. This initiative is part of a broader effort under the National Non-Cash Movement (GNNT), launched by Bank Indonesia to modernize and advance the country's payment ecosystem [2]. The GNNT initiative is strategically designed to foster a secure, efficient, and reliable payment infrastructure that aligns with the objectives of enhancing the effectiveness and resilience of the national financial system. In this context, QRIS serves as a unifying platform for digital transactions, encouraging financial inclusion and supporting the digital economy [3]. Notably, during the COVID-19 pandemic, the adoption of electronic payment (e-payment) methods, including QRIS, played a crucial role in minimizing physical contact, thereby reducing the risk of virus transmission through conventional cash-based transactions. This transformation marks a significant step toward achieving a cashless society while reinforcing public trust in the safety and convenience of digital financial services [4].

QRIS is a digital payment method that speeds up the transaction process by minimizing the time needed to make payments. This speed provides additional benefits in reducing queues and increasing service efficiency, especially in the retail and consumer services sectors [5].

The adoption of QRIS technology has significantly transformed the payment landscape in Indonesia, especially post-COVID-19. Studies have shown that the use of QRIS has streamlined transactions and increased efficiency in various sectors [6].

Based on data from the Indonesian Financial Market Infrastructure and Payment System Statistics (SPIP), Electronic Money Providers significantly increased in 2019 to May 2024, especially in the Non-Bank Institution component, with an increase of up to 128.57%. Meanwhile, Commercial Banks increased by 75%. The value of shopping transactions using electronic payment instruments from 2019 to 2023 also increased significantly by 215.27%. Furthermore, merchant data from 2019 to 2023 reached 1,108,824 units [7]. QRIS is believed to provide ease of use and security of transactions using QRIS can be trusted in addition, the Government also plays a role in increasing the use of non-cash transactions through the regulations made. In the cultural dimension, government intervention can be represented as high Power Distance [8].

The data shows a significant increase in electronic money usage between 2019 and 2023, a period that coincided with the Covid-19 pandemic. The pandemic accelerated the shift from cash to digital payments due to health and safety concerns. This trend provides a strong foundation for studying the growth of electronic money in the post-pandemic era, including its driving factors and impact on the financial system.

2. RELATED WORK

Previous research has explored various factors influencing the adoption of electronic payment systems. For instance, research by [7] examined the impact of cashless transactions on daily payment activities, while focused on consumer intentions during the COVID-19 pandemic. However, there is limited research on the cultural dimensions affecting QRIS adoption [9] while this research stands out by integrating cultural dimensions into the analysis of QRIS adoption, focusing on the post-COVID-19 context, and providing a detailed examination of trust as a central variable. These aspects contribute to the novelty of the study, offering new insights and practical implications for enhancing the adoption of QRIS technology in Indonesia. In the use of electronic payment systems, the main thing that plays an important role is the level of trust. This involves the belief that the technology used can function properly and consistently. In addition, states that a good experience in making electronic transactions is measured by the comfort and habits of users using the features. Cultural factors that influence the use of electronic payment systems are collectivism which emphasizes group harmony and common interests. Social norms present in this cultural dimension positively influence the use of electronic payment systems.

The security, reliability and integrity of electronic payment systems are the main factors that can influence user trust [10]. Electronic money users prioritize the security of the payment system and there are no obstacles or disruptions when making transactions. The commitment of electronic money organizers is also a highlight for users to increase the level of trust. Digital wallets are included in one of the electronic payment system methods. In its use, several factors that influence the adoption of this method are social norms, government regulations and technological infrastructure [11].

Another method that is an electronic payment system is Near Field Communication (NFC) mobile payment. In this study, trust also has an influence on the use of NFC Mobile payment. Trust according to [12] is divided into two categories, namely Institution Based Trust and Characteristic Based Trust. Institution Based Trust can be represented as the legality and regulation of the government that has the authority in the circulation of NFC Mobile Payment, this is considered to increase user trust in the electronic payment platform. In addition, Characteristic Based Trust can be represented as user confidence in the provider of the electronic payment platform in terms of benefits, trust, integrity and competence. In addition, perceived risk has a negative effect on the use of NFC Mobile payment. Users feel that they have no risk of using this feature. This is because the trust given by the feature can convince users and provide a sense of security in making transactions. Perceived usefulness, perceived risk, perceived ease of use are also mediated by trust in increasing the use of electronic money [13].

QRIS is one of the most widely used electronic payment methods in Indonesia, regulated by Bank Indonesia through specific policies that ensure standardization, security, and ease of use for both consumers and merchants. Introduced as part of the national effort to unify various QR code payment systems, QRIS simplifies digital transactions by allowing interoperability across different payment service providers. Its implementation aims to promote financial inclusion, support the growth of the digital economy, and reduce reliance on cash-based transactions. Moreover, Bank Indonesia formalized its use through the Regulation of the Member of the Board of Governors concerning the Implementation of National Standards for Quick Response Codes for Payments, reinforcing its role as a secure, efficient, and accessible digital payment solution nationwide [14].

Security and transaction disruptions in electronic payments can be represented as the Uncertainty Avoidance cultural dimension [15]. Uncertainty Avoidance is a dimension that measures the extent of avoidance of uncertainty about a condition. At a high level of uncertainty avoidance, individuals tend to look for payment methods that are considered safe and reliable. In addition, individuals tend to avoid risks so that they are slower to adopt electronic money because they are worried about the potential for losing money, privacy, or vulnerability to fraud. Furthermore, the Power Distance cultural dimension explains the distance of power between individuals. If there is a superior individual who is considered to have more power, then other individuals feel they have obedience to the superior individual. This can be represented as a society that complies with government regulations in handling the covid-19 pandemic. QRIS is a digital payment system regulated by the government and financial institutions. Digital transactions via QRIS are vulnerable to security risks such as fraud and system failures. In companies that avoid uncertainty, users are more cautious and require clear security before accepting new technology. This becomes the basis that the relevant

cultural dimensions are the cultural dimensions of power distance and uncertainty avoidance [16].

Given the significant growth in electronic money transactions during and after the COVID-19 pandemic, and the limited research on how cultural dimensions influence QRIS adoption, this study seeks to address this gap. By integrating the cultural dimensions of Power Distance represented by user compliance with government regulation and Uncertainty Avoidance reflected in user concern over transaction risks this research offers a novel perspective. The findings are expected to provide deeper insights into trust formation in digital payment systems, particularly QRIS, and offer strategic recommendations to enhance adoption across culturally diverse segments of Indonesian society.

3. METHODOLOGY

This research employs a quantitative methodology using Structural Equation Modeling (SEM) via SmartPLS. This research is quantitative using a questionnaire. The stages can be seen in Figure 1.

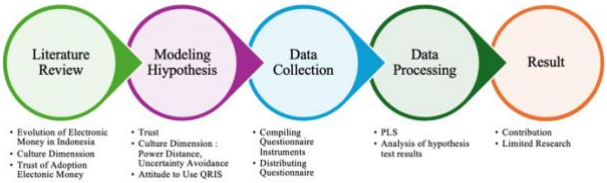

FIGURE 1. RESEARCH METHODOLOGY

The study employs a quantitative research design to investigate the factors influencing the adoption of QRIS (Quick Response Code Indonesian Standard) technology in Indonesia. The focus is on understanding how cultural dimensions, specifically Power Distance (PD) and Uncertainty Avoidance (UA), impact Trust and the Attitude to Use QRIS.

3.1 Data Collection

The target population for this study includes active users of QRIS technology in Indonesia. A total of 103 active QRIS users were selected as the sample, with the sample size determined based on the requirements for Structural Equation Modelling (SEM) analysis to ensure adequate statistical power and the validity of the results.

A. Sampling Technique

The study used convenience sampling to select participants who were readily available and willing to participate. This method was chosen due to the ease of access to QRIS users and the need for timely data collection.

B. Data Collection Instrument

A structured questionnaire was developed to collect data from participants. The questionnaire included items measuring the key variables of interest: Power Distance, Uncertainty Avoidance, Trust, and Attitude to Use QRIS. The questionnaire was designed based on existing validated scales and adapted to the context of QRIS technology adoption. It included Likert-scale items ranging from 1 (strongly disagree) to 5 (strongly agree).

Data collection procedure was distributed online to QRIS users through various channels, including social media platforms and email. Participants were informed about the purpose of the study, and their consent was obtained before participation. Confidentiality and anonymity of the respondents were ensured.

C. Data Analysis

Structural Equation Modelling (SEM).The data were analysed using Structural Equation Modelling (SEM) via SmartPLS software. SEM was chosen for its ability to test complex relationships between multiple variables simultaneously. The research model included four main constructs: Power Distance, Uncertainty Avoidance, Trust, and Attitude to Use QRIS. The relationships between these constructs were specified based on the hypotheses.

Measurement Model convergent validity was assessed using factor loadings, Average Variance Extracted (AVE), and Composite Reliability (CR). Items with factor loadings above 0.4 and AVE values above 0.5 were considered acceptable. Discriminant validity was evaluated using the Fornell-Larcker criterion, ensuring that the square root of the AVE for each construct was greater than the correlations with other constructs.

The structural model was assessed by examining the path coefficients and their significance levels. Path coefficients indicate the strength and direction of the relationships between constructs. The R-square values were calculated to determine the explanatory power of the model. R-square values above 0.67 were considered substantial, indicating a strong model fit. Hypotheses were tested by examining the significance of the path coefficients. A p-value less than 0.05 was considered statistically significant. Procedure bootstrapping with 5000 resamples was used to assess the stability and reliability of the parameter estimates. This technique provides confidence intervals for the path coefficients, enhancing the robustness of the findings.

This research tests a model based on the literature review that has been conducted. There are several variables that will be tested in this study, including Trust, Power Distance, Uncertainty Avoidance, Attitude to use QRIS. So the model used in this study is as follows in Figure 2.

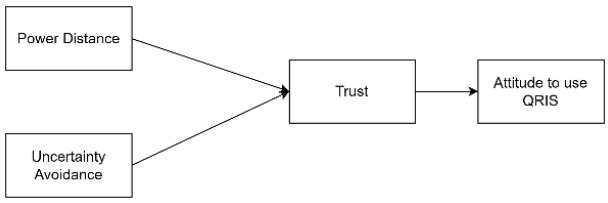

FIGURE 2. RESEARCH FRAMEWORK

Figure 2 illustrates the conceptual framework used in this study to examine the factors influencing the adoption of QRIS technology in Indonesia. The model integrates cultural dimensions, trust, and user attitudes to provide a comprehensive understanding of the adoption process. Here is a detailed explanation of each component and the relationships depicted in the model.

Components of the Research Model. Power Distance (PD) refers to the extent to which less powerful members of a society accept and expect that power is distributed unequally. This cultural dimension is hypothesized to influence Trust in QRIS technology. It represents the impact of hierarchical structures and government regulations on users' trust. Uncertainty Avoidance measures the extent to which members of a culture feel threatened by ambiguous or unknown situations and have created beliefs and institutions to avoid such uncertainty.

This dimension is hypothesized to have a significant positive effect on Trust. It reflects users' preference for structured and predictable environments, which can enhance their trust in QRIS technology.

Trust is the belief in the reliability, truth, or ability of QRIS technology as a secure and efficient payment method. Trust is a central variable in the model, mediating the relationship between cultural dimensions (PD and UA) and the Attitude to Use QRIS. It is hypothesized that higher levels of trust will positively influence users' attitudes towards adopting QRIS. Attitude to Use QRIS refers to users' overall evaluation of and predisposition towards using QRIS technology for electronic payments. This variable represents the dependent outcome of the model. It is hypothesized that Trust will have a significant positive effect on users' attitudes towards using QRIS.

Hypothesized Relationships :

1. Power Distance → Trust. Hypothesis (H1): Power Distance has a positive influence on Trust. It is hypothesized that in cultures with high Power Distance, where hierarchical structures and government regulations are respected, users are more likely to trust QRIS technology.
2. Uncertainty Avoidance → Trust. Hypothesis (H2): Uncertainty Avoidance has a positive influence on Trust. Users who prefer structured and predictable environments (high Uncertainty Avoidance) are expected to have higher trust in QRIS technology due to its perceived reliability and security.
3. Trust → Attitude to Use QRIS. Hypothesis (H3): Trust has a positive influence on Attitude to Use QRIS. It is hypothesized that users who trust QRIS technology are more likely to have a positive attitude towards using it, leading to higher adoption rates.

The indicators on each variable are used to measure the representation of the variable on the construct used in the study. Based on Figure 2, the indicators owned by each variable can be seen in Table 1.

TABLE 1. VARIABLE INDICATORS

Variable	Code	Question
Trust	TR.01	Payment methods using QRIS are reliable
	TR.02	QRIS can be trusted and has legal certainty as a non-cash payment instrument
	TR.03	I trust the Bank that provides QRIS
	TR.04	I prefer to look for tenants/merchants/stores that provide QRIS as an alternative payment
	TR.05	I have never had a problem using QRIS
Uncertainty Avoidance	UA.01	I plan the activities I will do
	UA.02	I like a regular routine
	UA.03	I find it difficult to adapt to new environments
Power Distance	PD.01	I listen to and follow the advice/direction of people I respect
	PD.02	I follow supervisor's decision
	PD.03	I rarely give input/suggestions to others
Attitude To Use QRIS	A.01	Using QRIS is very timesaving in transactions
	A.02	The QRIS application is useful for me in making transactions
	A.03	The QRIS application gives me an alternative to non-cash payment methods
	A.04	QRIS application is difficult to understand
	A.05	The QRIS application is very easy to use
	A.06	Using the QRIS application does not require special skills
	A.07	In my opinion, using the QRIS application is needed
	A.08	I have a good experience using the QRIS application
	A.09	I intend to reuse the QRIS application in the future

Based on the research model, the initial hypothesis can be obtained, H1: Power Distance has a positive influence on Trust. H2: Uncertainty Avoidance has a negative influence on Trust. H3: Trust has an influence on Attitude to use QRIS. In the hypothesis test, the questionnaire was distributed to 103 active QRIS users. The demographics of active respondents in this study can be seen in Table 2.

TABLE 2. RESPONDENT DEMOGRAPHICS

Education	Respondent
Senior High School	30
Diploma	16
Bachelor	26
Post-Graduate	31
Age	**Respondent**
17-25 years old	38
26-35 years old	40
36-45 years old	16
46-55 years old	9
Job	**Respondent**
Undergraduate	35
Civil Servant	23
Private-company Employee	33
Entrepreneur	9
Regional	**Respondent**
Sumatera	4
Jawa	14
Kalimantan	85
Nusa Tenggara Timur	1

To better understand the characteristics of the participants in this research, demographic data was collected and visualized in Figure 3 to 6.

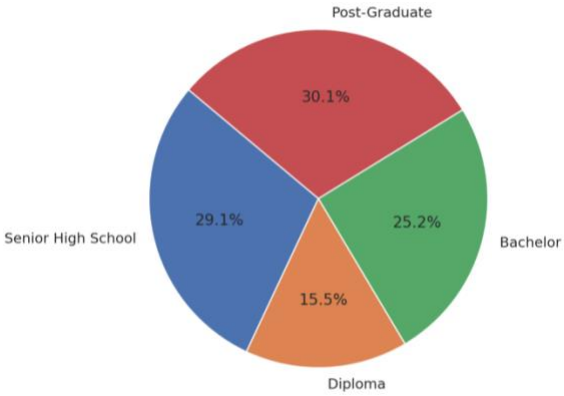

FIGURE 3. EDUCATIONAL LEVEL

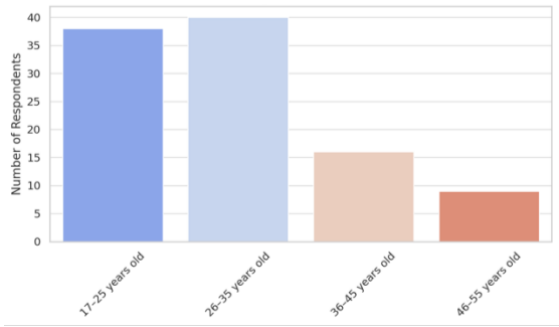

FIGURE 4. AGE DISTRIBUTION

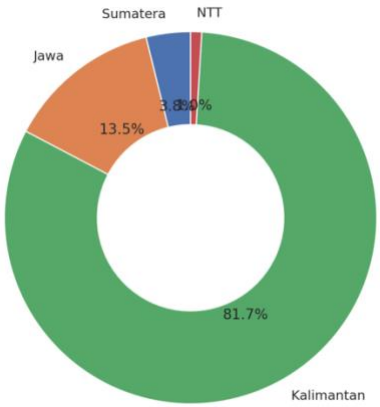

FIGURE 5. REGIONAL REPRESENTATION

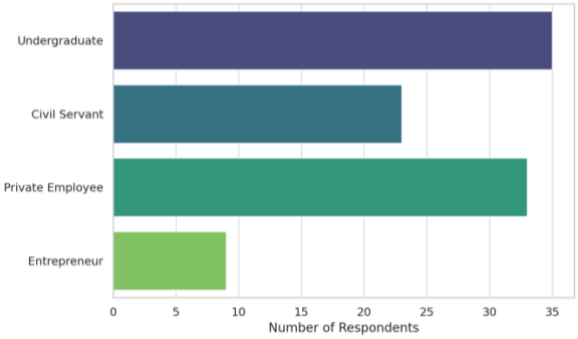

FIGURE 6. JOB TYPE

To gain a comprehensive understanding of the respondents' profiles, this study gathered demographic data across four key categories: education level, age group, occupation, and regional origin. The education data reveal a balanced composition, with the highest number of respondents holding post-graduate degrees (31 respondents), followed closely by those with senior high school education (30 respondents) and bachelor's degrees (26 respondents). This indicates a strong representation of users with moderate to high educational attainment, which is often linked to greater digital literacy and readiness to adopt financial technology. In terms of age, the largest proportion falls within the 26–35 age range (40 respondents), followed by the 17–25 group (38 respondents), suggesting that the majority of QRIS users are young adults who are digitally inclined and frequently engage with mobile payment systems. The smallest age group was 46–55 years, indicating lower adoption among older individuals.

Regarding occupational background, the sample includes a mix of undergraduates (35 respondents), private-sector employees (33), civil servants (23), and entrepreneurs (9), reflecting QRIS's penetration into both formal and informal economic sectors. Regionally, the highest number of respondents came from Kalimantan (85), followed by Java (14), Sumatra (4), and Nusa Tenggara Timur (1). This concentration in Kalimantan may point to targeted promotional efforts, digital infrastructure development, or regional acceptance of QRIS. These demographic patterns are essential for interpreting behavioral trends in QRIS adoption, as they provide insight into how factors such as age, education, occupation, and geographic location influence user trust, attitudes, and overall engagement with electronic payment systems. The findings can guide policymakers and financial institutions in designing tailored strategies to promote QRIS usage more effectively across diverse user segments in Indonesia.

Data collection was conducted to measure the cultural dimensions of Power Distance and Uncertainty Avoidance, Trust and Attitude to Use QRIS. SEM is a method used to test hypotheses using Smart-PLS. The PLS analysis criteria tested are in Table 3.

TABLE 3. PLS ANALYSIS CRITERIA

No	Criteria	Explanation
1	Loading Factor	*loading factor* ≥ 0,4.
2	Cross Loading	The cross-loading value of each indicator must be greater than the cross-loading value of the indicator on the other constructs.
3	Composite Reliability	*Composite reliability* ≥ 0,7
4	AVE	The AVE value is used to explain how well an indicator explains a latent variable.
5	Latent Construct Correlation	The correlation value between latent variables is smaller than the square root value of AVE
6	R Square	The R square value is divided into three, namely Good if ≥ 0.67, Moderate if ≥ 0.33, and Weak if ≥ 0.19.
7	Path Coefficient	Path Coefficient ≤ 0,1 (*Pvalues)*

4. RESULT AND DISCUSSION

Tests conducted on data processing are outer model and inner model. Convergent Validity and Composite Reliability are outer model tests to see the relationship between constructs that affect variables. Based on Table 4, the results of the outer loading analysis, the Power Distance PD03 variable indicator has a value of 0.351. Furthermore, retesting was carried out after removing the PD03 indicator that did not meet the criteria.

TABLE 4. CONVERGENT VALIDITY

Indicator	Attitude to use QRIS	Power Distance	Trust	Uncertainty Avoidance
A01	0.793			
A02	0.863			
A03	0.829			
A04	0.925			
A05	0.889			
A06	0.892			
A07	0.837			
A08	0.759			
A09	0.883			
PD01		0.836		
PD02		0.850		
TR01			0.891	
TR02			0.843	
TR03			0.874	
TR04			0.901	
TR05			0.900	
UA01				0.948
UA02				0.969
UA03				0.844

The results of the retest are presented in Table 5 as follows.

TABLE 5. AVERAGE VARIANCE EXTRACTED (AVE)

Variables	Average Variance Extracted (AVE)
Attitude to use QRIS	0.729
Power Distance	0.711
Trust	0.778
Uncertainty Avoidance	0.850

Based on the table of outer loading analysis results above, the results of the second validity test are tests

carried out after eliminating invalid indicators. Thus, nine indicators of the Attitude to use QRIS variable, two Power Distance indicators, five Trust variable indicators, and three Uncertainty Avoidance variable indicators have met the convergent validity test criteria. Then the convergent validity test uses SmartPLS to determine the AVE value. Because in addition to being seen from the outer loadings, the convergent validity test also uses the AVE (Average Variance Extracted) value which is required to have a value of more than 0.5 to see if the variable is acceptable. The following are the results of the SmartPLS test to determine the Average Variance Extracted (AVE) value:

From the measurement results in the table above, it can be concluded that all variables have an Average Variance Extracted (AVE) value of more than 0.5, which means that all variables can be said to be valid and acceptable, namely the Attitude to use QRIS variable 0.729> 0.5, Power Distance 0.711> 0.5, Trust 0.778> 0.5, and Uncertainty Avoidance 0.850> 0.5. Average Variance Extracted (AVE) is a variant score from a set of latent variables estimated through loading standardization in the algorithm process in PLS. Furthermore, the results of the composite reliability test in Table 6 show that all variables have a score > 0.7. This indicates that the results of the reliability test used to measure the consistency of the research instrument or questionnaire in this study have been met.

TABLE 6. COMPOSITE RELIABILITY

Variables	Composite Reliability
Attitude to use QRIS	0.960
Power Distance	0.831
Trust	0.946
Uncertainty Avoidance	0.944

Inner model testing is conducted to see the influence between variables. R-Square testing is conducted with the results in table 7.

TABLE 7. R-SQUARE

Variable	R Square
Attitude to use QRIS	0.823
Trust	0.747

Table 7 shows that the model has an R^2 value of 0.823 and 0.747, which means that 82.3% of Attitude to use QRIS can be explained by Trust and 74.7% of Trust can be explained by Power Distance and Uncertainty Avoidance. While the remaining 17.7% and 25.3% are explained by other variables not tested in this study.

TABLE 8. PATH COEFFICIENT

Variable	P Values
Power Distance → Trust	0.128
Trust → Attitude to use QRIS	0.000
Uncertainty Avoidance → Trust	0.000

Based on the Table 8, it shows that the Power Distance variable towards Trust has an insignificant value, the results can be seen from the statistical value of 1.525 <1.96 and P Value 0.128> 0.05 with a positive original sample value, which means that the Power Distance variable has no effect on Trust. The Trust variable towards Attitude to use QRIS has a significant value with a statistical value of 36.248> 1.96 and P Value 0.000 <0.05 with a positive original sample value, meaning that the Trust variable has a positive effect on Attitude to use QRIS. The Uncertainty Avoidance variable towards Trust has a significant value seen from its statistical value of 17.256> 1.96 with a positive original sample value. This means that Uncertainty Avoidance has a positive effect on Trust.

Adoption of technology, including QRIS, cannot be fully understood without considering the cultural context of the user, emphasize the importance of cultural context in shaping user attitudes and behavior towards technology. Culture is a collection of individual dimensions used to measure an individual's existence in their environment. Based on the literature study conducted, the specifications of cultural dimensions included in the factors influencing technology use are Power Distance (PD) and Uncertainty Avoidance (UA) (source). PD is a cultural dimension where the highest power is held by the highest position in a hierarchy. PD can be described as government regulations during the Covid-19 pandemic to create PPKM (Enforcement of Community Activity Restrictions) regulations. While UA is a dimension that measures the level of individual acceptance of the uncertainty of a condition or environment. This describes the level of community adaptation to pandemic conditions with all their limitations to post-pandemic conditions that have become a habit for society. The dimensions of Power Distance and Uncertainty Avoidance have an influence on Trust in adopting QRIS technology, because trust is a representation of the desires of a party, in this case the community, who depends on another party, in this case the government, with the hope that the government can handle or provide solutions to certain conditions, namely the Covid-19 pandemic.

These findings provide a strong justification for incorporating cultural dimensions into the research model, with particular emphasis on Uncertainty Avoidance. The significant relationship between Uncertainty Avoidance and Trust supports previous studies, highlighted the influence of cultural risk aversion on digital payment adoption during the COVID-19 pandemic. Furthermore, the central role of Trust in shaping user attitudes toward QRIS adoption is consistent with the work demonstrated that trust significantly affects the acceptance of mobile payment systems in omnichannel retail contexts. By integrating both cultural and psychological variables, this study contributes to a more comprehensive understanding of the behavioral dynamics underlying QRIS adoption. It highlights that beyond technological factors, cultural context and user trust perceptions play a crucial role in determining the success of digital payment platforms. Thus, this research offers valuable insights for policymakers, financial institutions, and digital payment providers in designing culturally responsive strategies to enhance QRIS adoption, particularly in Indonesia's evolving post-pandemic digital transformation.

5. CONCLUSIONS

The results of the data analysis state that Uncertainty Avoidance has an influence on Trust in the use of QRIS. This can be followed up by QRIS banking service providers or other institutions to be able to provide more convenience in transactions using QRIS. The mobile application used can be further upgraded by providing a direct QR Scan feature. Uncertainty Avoidance has a significant influence on the level of trust in using QRIS. Avoidance of uncertainty is one of the efforts of the

community to protect themselves from negative issues from electronic transactions. The occurrence of data leaks is also one of the incidents that reduces the level of public trust in the government. Power Distance as one of the indicators representing the cultural dimension does not have a significant influence on Trust. This is a concern because Power Distance is represented as a regulation or government policy in using QRIS. This can be caused by the government's ability to protect electronic transaction user data. Although it does not directly affect use, the level of public trust in government policies is something that needs to be studied further.

Society with high Power Distance, users tend to trust the authorities or institutions that manage digital payment systems such as QRIS. Therefore, they are more accepting of network security protocols implemented by governments or financial institutions without questioning the technical details much. However, this level of trust requires system administrators to maintain a strict security reputation so as not to lose legitimacy. People with high *Uncertainty Avoidance* are very sensitive to digital transaction security risks. They need assurance that the network is safe from cyber threats such as hacking or data theft. Therefore, the implementation of strong security protocols (e.g. end-to-end encryption, advanced firewalls) is crucial to convince users to use QRIS. In the context of high Uncertainty Avoidance, mobile apps should be designed to be very user-friendly and have minimal risk of misuse (e.g. double confirmation before a transaction). Additional security features such as biometric authentication are also important to reduce user anxiety about potential errors or abuse. This study contributes to the existing literature by highlighting the importance of cultural dimensions and trust in the adoption of QRIS technology. By addressing the gaps in previous research and providing practical implications for policymakers and financial institutions, the study offers valuable insights for enhancing the adoption of digital payment systems in Indonesia and beyond. Future research should continue to explore these dimensions to build a more comprehensive understanding of the factors driving digital payment adoption in diverse cultural contexts.

REFERENCES

[1] C. Wirabuana, B. Purwandari, I. Eitiveni, and E. H. Purwaningsih, "The Effectiveness of Bank Indonesia's SME Development Strategies, Policies, and Support in Financial Technology," *Jurnal Sistem Informasi*, vol. 21, no. 1, pp. 35–58, Mar. 2025. DOI: 10.21609/jsi.v21i1.1440

[2] A. G. R. Nafis, N. N. Binti Zainol, and M. Millaturrofi'ah, "The Implementation Strategy of Non-Cash Payment Systems in The Islamic Boarding School Through Analytical Hierarchy Process Approach," *Economica: Jurnal Ekonomi Islam*, vol. 12, no. 1, pp. 27–53, Jul. 2021. DOI: 10.21580/economica.2021.12.1.6557

[3] R. Listiawati, R. Vidyasari, and N. Novitasari, "QRIS Efficiency in Improving Digital Payment Transaction Services for Culinary Micro-Small and Medium Enterprises in Depok City," *Operations Research: International Conference Series*, vol. 3, no. 2, pp. 67–73, Jun. 2022. DOI: 10.47194/orics.v3i2.133

[4] T. Sendjaja, D. J. Rachbini, R. Astini, and D. Asih, "The Effectiveness of QRIS Transaction Implementation During the COVID-19 Pandemic," *International Journal of Science and Society*, vol. 5, no. 5, pp. 871–878, Dec. 2023. DOI: 10.54783/ijsoc.v5i5.952

[5] R. N. Wulandari and A. Adha, "Analysis of the Effectiveness of the Use of QRIS to Support Paperless in Indonesian Sharia Banks," *Journal of Darunnajah Business School*, vol. 1, 2024 [Online]. Available: https://ejournal.darunnajah.ac.id/index.php/j-dbs

[6] E. Hamzah Muchtar *et al.*, "Quick response code Indonesia standard (QRIS) E-payment adoption: customers perspective," *Cogent Business & Management*, vol. 11, no. 1, Dec. 2024. DOI: 10.1080/23311975.2024.2316044

[7] A. Gunawan, A. F. Fatikasari, and S. A. Putri, "The Effect of Using Cashless (QRIS) on Daily Payment Transactions Using the Technology Acceptance Model," *Procedia Computer Science*, vol. 227, pp. 548–556, 2023. DOI: 10.1016/j.procs.2023.10.557

[8] C. Wirabuana, R. Marbanie, D. I. Sensuse, D. Sumirat Hidayat, and E. H. Purwaningsih, "Perceptions of the Use of Quick Response Code Indonesian Standard (QRIS) for Payment and its Impact on Consumer Behavior," *Jurnal Sistem Informasi*, vol. 20, no. 2, pp. 1–17, Oct. 2024. DOI: 10.21609/jsi.v20i2.1416

[9] H. Hilale and A. Chakor, "Acceptance of electronic payment systems: A critical review forward a parsimonious model including vertical and horizontal cultural orientations," *Telematics and Informatics Reports*, vol. 14, p. 100139, Jun. 2024. DOI: 10.1016/j.teler.2024.100139

[10] R. W. Primadineska and S. M. Jannah, "Perceived Security and Trust in Electronic Payment Systems: How They Affect the Decision to Use EPS During the COVID-19 Pandemic," *Jurnal Manajemen Bisnis*, vol. 12, no. 2, Sep. 2021. DOI: 10.18196/mb.v12i2.11456

[11] D. S. S. binti Azmee and N. bt. Azami, "Factors Influencing the Intention to Use E-Wallet by using Theory of Reasoned Action (TRA) & Technology Acceptance Model (TAM): Evidence from Consumer in Malaysia," *International Journal of Academic Research in Economics and Management Sciences*, vol. 13, no. 1, Mar. 2024. DOI: 10.6007/IJAREMS/v13-i1/20953

[12] M. Alrawad, A. Lutfi, M. A. Almaiah, and I. A. Elshaer, "Examining the influence of trust and perceived risk on customers intention to use NFC mobile payment system," *Journal of Open Innovation: Technology, Market, and Complexity*, vol. 9, no. 2, p. 100070, Jun. 2023. DOI: 10.1016/j.joitmc.2023.100070

[13] M. A. Almaiah *et al.*, "Investigating the Effect of Perceived Security, Perceived Trust, and Information Quality on Mobile Payment Usage through Near-Field Communication (NFC) in Saudi Arabia," *Electronics*, vol. 11, no. 23, p. 3926, Nov. 2022. DOI: 10.3390/electronics11233926

[14] D. Q. Nada, S. Suryaningsum, and H. K. S. Negara, "Digitalization of the Quick Response Indonesian Standard (QRIS) Payment System for MSME

Development," *Journal of International Conference Proceedings*, vol. 4, no. 3, Dec. 2021. DOI: 10.32535/jicp.v4i3.1358

[15] B. Fietz, J. Hillmann, and E. Guenther, "Cultural Effects on Organizational Resilience: Evidence from the NAFTA Region," *Schmalenbach Journal of Business Research*, vol. 73, no. 1, pp. 5–46, Mar. 2021. DOI: 10.1007/s41471-021-00106-8

[16] J. F. J. Vos and A. Boonstra, "The influence of cultural values on Enterprise System adoption, towards a culture – Enterprise System alignment theory," *International Journal of Information Management*, vol. 63, p. 102453, Apr. 2022. DOI: 10.1016/j.ijinfomgt.2021.102453

AUTHORS

Danar Retno Sari

She is an academic and researcher active in the fields of information technology and education. She completed her undergraduate and postgraduate studies in information systems, with a particular interest in intelligent systems development, e-learning, and data management. In addition, she serves as a dedicated lecturer, teaching various courses focused on programming, information systems, and technological innovation in education.

Erick Sorongan

He is an academic and researcher actively engaged in the field of information and communication technology. He also a PhD Student Information System and Lecture in Smart City Information Management in Balikpapan State Polytechnic. He earned his bachelor's and master's degrees in computer engineering, with specific interests in computer networks, cybersecurity, and distributed systems. As a dedicated lecturer, Erick is known for his commitment to teaching and mentoring students, as well as for his involvement in research and community service activities. He has participated in various technology development projects related to smart cities and the Internet of Things (IoT) and regularly publishes his research in both national and international journals.

Hendra Sanjaya Kusno

He is a lecturer of the Tax Accounting Study Program, Business Department, Balikpapan State Polytechnic. He serves as the Head of the Business Department for the 2024-2028 period. He is registered as a member of professional organizations such as the Ikatan Akuntan Indonesia (IAI), the Ikatan Sarjana Ekonomi Indonesia (ISEI) and the Institut Akuntan Publik Indonesia (IAPI). He is also an active Assessor at the Lembaga Sertifikasi Profesi (LSP). His research areas are tax accounting, sustainability accounting and behavioral accounting.