

Analysis of the Level of Trust of Students of Universitas Muhammadiyah Makassar towards the Security of Using Qris (*Quick Response Code Indonesian Standard*) as a Digital Exchange Tool

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ABSTRACT

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The development of information and communication technology, especially in digital payment systems, has changed the way financial transactions are conducted in Indonesia. Quick Response Code Indonesian Standard (QRIS), introduced by Bank Indonesia in 2019, has become one of the popular innovations among students. This study aims to analyze the level of trust of Muhammadiyah Makassar University students in the security of using QRIS as a digital currency. The research method used is a qualitative approach with in-depth interviews and observations of students who have used QRIS. The results showed that students have a fairly high level of trust in QRIS, which is influenced by practicality factors, service provider reputation, and the influence of the social environment. Despite concerns regarding security risks, students tend to see QRIS as a safe and efficient payment solution. In conclusion, to increase user trust, continuous education and socialization regarding the security and benefits of QRIS are needed.

1. Introduction

The development of information and communication technology has brought significant changes in various aspects of life, especially in the way people conduct financial transactions. One innovation that is growing rapidly is the use of a QR code-based digital payment system, namely the Quick Response Code Indonesian Standard (QRIS), which was initiated by (Bank Indonesia, 2019). QRIS makes it easy for users to make transactions quickly, efficiently, and safely by simply scanning the QR code provided by the merchant. However, the adoption rate of QRIS among students still faces challenges, especially related to trust in the security of this system. According to APJII data (2024), internet penetration in Indonesia has reached 79.5%, but only 1.37% of respondents use e-wallets as the main payment method. This shows that there are concerns related to data security and user privacy in digital transactions, especially among generation Z who are known to be critical of their personal data security issues.

1.1 Background

Trust is a key factor in the adoption of new technologies, including digital payment systems such as QRIS. Research (Gefen, D., Karahanna, E., & Straub, 2020), shows that users' trust in the security of information systems strongly influences their intention to use the technology. High perceived security can increase trust and ultimately encourage the use of QRIS among university students (Wang, Y., Chen, L., & Liu, 2021). In addition, the social environment and reputation of service providers also play an important role in shaping students' trust in QRIS (Kim, J., Park,

Y., & Lee, 2020) ; (Chen, X., Zhang, H., & Li, 2021) . Therefore, an in-depth understanding of the factors that influence students' trust in QRIS security is essential to increase the adoption of this system in the campus environment.

1.2 Problem Statement

The main problem in this study is how the level of trust of Muhammadiyah Makassar University students in the security of using QRIS as a digital medium of exchange and the factors that influence it, especially the influence of the social environment and service provider reputation on their decision to use QRIS.

1.3 Purpose and Scope

This study aims to deeply analyze the level of trust of Muhammadiyah University of Makassar students in the security of using QRIS as a digital exchange tool. The focus of the research includes identifying factors that influence student trust, such as perceived security, the influence of the social environment, and the reputation of service providers. The scope of the research is limited to active students of Universitas Muhammadiyah Makassar who have used QRIS in daily transactions, with a qualitative approach through in-depth interviews and observations in the campus environment.

2. Literature Review

2.1 Trust as a Key Factor for QRIS Adoption

Trust is proven to be a key determinant in the adoption of digital payment systems. (Gefen, D., Karahanna, E., & Straub, 2020) , found that users' trust in the security of information technology directly affects their intention to use the system. This study confirms that without trust, the adoption of new technologies such as QRIS will be hindered, even though features and conveniences are available. This research is relevant because students as digital natives still show concerns about the security of their personal data, thus limiting the widespread use of QRIS.

2.2 Perceived Security Affects Trust

(Wang, Y., Chen, L., & Liu, 2021) , showed that high security perceptions significantly increase user trust in digital payment systems. This perception is formed from user experience, understanding of security features, and transparency of service providers. Students who feel that the QRIS system is able to protect their personal data and transactions, tend to trust and actively use QRIS in their daily lives.

2.3 Influence of Social Environment

(Kim, J., Park, Y., & Lee, 2020) , highlights the importance of peer recommendations in building trust in new technologies. In the campus environment, social interaction is the main means of sharing experiences and information related to QRIS usage. This study supports the importance of social factors in accelerating QRIS adoption among college students, where the influence of friends and community can reduce doubts about system security.

2.4 Service Provider Reputation

(Chen, X., Zhang, H., & Li, 2021) , proves that the reputation of digital payment service providers plays a major role in building user trust. In the context of QRIS, the presence of Bank Indonesia as a regulator and security guarantee provider is an important factor that increases

students' sense of security in using QRIS. This research supports the need to socialize the role and commitment of service providers in maintaining the security of digital transactions.

2.5 Demographic Factors and Generation Z

(Asosiasi Penyelenggara Jasa Internet Indonesia (APJII), 2024) , shows that Generation Z, including university students, are more open to digital technology but also more critical of personal data security issues. These studies highlight that age, education and digital experience influence the level of trust in QRIS. This suggests the need for specific educational approaches for younger age groups who tend to be skeptical but adaptive to digital innovations.

2.6 Demographic Factors and Generation Z

The Indonesian Internet Service Providers Association (APJII, 2024), shows that Generation Z, including university students, are more open to digital technology but also more critical of personal data security issues. Similar results are also presented by the report (We Are Social, 2022) , which confirms that although generation Z are active users of the internet and digital services, they have a high tendency to question the security of the digital systems they use. This shows the need for a specific educational approach for young age groups who tend to be skeptical but adaptive to digital innovation.

2.7 Social Cognitive Theory

Cognitive social theory proposed by (Bandura, 1986) , explains that human behavior is formed through interactions between personal, behavioral, and environmental factors. In the context of using QRIS, students tend to learn from observing the experiences of others. Peer recommendations, user testimonials, and social interactions on campus play an important role in shaping perceptions and trust in digital payment systems. This social influence indirectly strengthens the desire to try new technologies that are considered safe and useful.

2.7 Trust, Risk, and User Experience

Research by (Islam, M. R., Rahman, A., & Sarker, 2022) , in the context of mobile payment adoption in Bangladesh shows that trust and risk perception play a major role in shaping usage intention. Low risk perception and previous positive experiences with digital payment services will increase users' tendency to continue using the technology. In the context of university students, this indicates that efforts to strengthen trust must be made not only through security features, but also through an easy and satisfying user experience.

2.8 QRIS Education and Socialization Challenges

(Desy, 2024) , emphasizes that although QRIS provides technical security through encryption and multi-factor authentication, there are still challenges in terms of user understanding. Many students are not well versed with the risks of digital transactions and personal data protection measures. Therefore, it is important for service providers and educational institutions to strengthen the education and socialization strategy of QRIS on an ongoing basis so that students feel confident and comfortable in its use.

2.6 Research Gaps

Although there have been many studies on the factors that influence trust in the use of digital payment systems, there are still gaps in the specific context of students in Indonesia, especially at Universitas Muhammadiyah Makassar. Previous research has focused more on the general population or retail consumers, so it has not deeply explored the social dynamics, experiences,

and perceptions of students as a group of potential QRIS users.

3. Methodology

This research uses a qualitative approach with a phenomenological study design. Data was collected through in-depth interviews with students of Universitas Muhammadiyah Makassar who have used QRIS. Informants were purposively selected based on their active involvement in digital transactions.

3.1 Data Collection

Primary data was obtained from interviews with students, while secondary data came from scientific journals, books, and reports from official institutions such as APJII and Bank Indonesia. The interviews were semi-structured to explore the informants' subjective experiences and perceptions.

3.2 Analysis Technique

Data analysis used the Miles and Huberman model which includes data reduction, data presentation, and conclusion drawing. Analysis was conducted simultaneously with the data collection process to maintain the context of the information.

3.3 Validation

Data validity was maintained through triangulation of sources and methods, and through member checking by confirming findings with informants.

4. Results and Discussion

This study examines how students of Universitas Muhammadiyah Makassar form trust in the security of using QRIS as a digital exchange tool. Based on the results of the interviews, it is known that security perceptions, the influence of the social environment, and the reputation of service providers are the most dominant factors in shaping their level of trust. Students who feel QRIS is safe and reliable tend to use it regularly, especially if they get positive information from the surrounding environment.

4.1 Key Findings

The main finding of this study is that students' trust in QRIS security is influenced by three main factors, namely perceived system security, social environment influence, and service provider reputation. Students who have positive knowledge and experience of QRIS security and get support from the social environment show higher levels of trust. However, there are still concerns about security risks, especially among students with low digital literacy.

4.2 Interpretation of Results

The interpretation of these findings suggests that efforts to increase trust in QRIS among students should focus on education regarding security features, increasing digital literacy, and more effective socialization from service providers. Strengthening the role of social environments, such as campus communities, can also be an effective strategy for collective trust. Thus, increasing student trust in QRIS depends not only on technological aspects, but also on social and institutional factors that support the digital payment ecosystem in higher education.

5. Discussion

The findings of this study confirm that students' trust in the security of using QRIS is strongly influenced by security perceptions, the influence of the social environment, and the reputation of service providers. The implications of these results indicate that increasing digital literacy and

socializing QRIS security features needs to be a major concern so that the adoption of QRIS among students is wider and more stable.

5.1 Comparison with Previous Research

The results of this study are in line with the findings of (Gefen, D., Karahanna, E., & Straub, 2020) which confirms that trust is a major factor in the adoption of information technology, especially digital payment systems. Research (Wang, Y., Chen, L., & Liu, 2021) also supports that perceived security contributes significantly to increasing user trust. In addition, the influence of social environment found in this study is in line with (Kim, J., Park, Y., & Lee, 2020), which states that peer recommendations can strengthen individuals' trust in new technologies. However, this study also highlights that although the reputation of service providers such as Bank Indonesia provides a sense of security, suboptimal socialization is still an obstacle, which has not been discussed in depth in previous studies.

5.2 Limitations

This study has several limitations. First, the research scope is limited to students of Universitas Muhammadiyah Makassar, so the results cannot be generalized to the entire student population in Indonesia. Second, the qualitative approach used provides in-depth understanding, but does not allow quantitative measurement of the relationship between variables. In addition, the data obtained is highly dependent on the subjective perceptions of informants, so the potential for bias cannot be completely avoided.

5.3 Future Research

Future research is recommended to expand the scope of the study to other universities and use a quantitative approach in order to test the relationship between security perceptions, social influence, and service provider reputation more broadly and measurably. In addition, developing a digital literacy program and evaluating the effectiveness of socializing the security features of QRIS are also potential areas that need to be further explored to increase the trust and adoption of QRIS among students.

6. Conclusion

This study concludes that the level of trust of Muhammadiyah Makassar University students in the security of using QRIS as a digital currency is influenced by security perceptions, the influence of the social environment, and the reputation of service providers. Students who have a better understanding of technology and get support from the social environment tend to trust and actively use QRIS. However, there are still challenges in the form of lack of digital literacy and concerns about security risks, so more effective education and socialization efforts are needed.

7. Recommendations

Based on the research findings, it is recommended for digital payment service providers and educational institutions to improve education and socialization programs regarding QRIS security features. A community-based approach and collaboration with the campus can be an effective strategy to build student trust. In addition, the development of educational materials that are easy to understand and relevant to the needs of students needs to be a major concern in order to increase digital literacy and strengthen trust in digital payment systems among the younger generation.

REFERENCES

- [1] Association of Indonesian Internet Service Providers (APJII). (2024). *Internet penetration report in Indonesia*. [tps://www.apjii.or.id](https://www.apjii.or.id)
- [2] Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory* (Prentice- Hall. (ed.)).
- [3] Bank Indonesia. (2019). *Bank Indonesia Regulation Number 21/PBI/2019 on rupiah money management*.
- [4] Chen, X., Zhang, H., & Li, Y. (2021). Trust in digital payment systems: A study of QRcode transactions. *Journal of Financial Technology*, .12
- [5] Desy, N. K. (2024). Trends and challenges of QRIS transaction security in the era of digital payment system transformation. *Journal of Digital Finance*, 10(2), 115–130.
- [6] Gefen, D., Karahanna, E., & Straub, D. W. (2020). Trust and TAM in online purchasing: An integrated model. *MIS Quarterly*, 27(1).
- [7] Islam, M. R., Rahman, A., & Sarker, M. (2022). Factors influencing the adoption of mobile payment services in Bangladesh during the COVID-19 pandemic: An extended technology acceptance mode. *International Journal Article*, 18(4), 245–260.
- [8] Kim, J., Park, Y., & Lee, H. (2020). The role of peer influence in technology adoption: A study on digital payment systems. *Information Systems Research*, 31(2).
- [9] Wang, Y., Chen, L., & Liu, Z. (2021). Perceived security and trust in mobile payment systems: An empirical study. *Electronic Commerce Research and Applications*, 19(3).
- [10] We Are Social. (2022). *Digital 2022: Indonesia*.