

The Dynamics of QRIS Usage Decision in Banjarmasin

Investigating the Mediating Role of Trust between Perceived Usefulness and Perceived Ease of Use

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ABSTRACT

This study explores the pivotal role of trust in mediating the impact of perceived usefulness and ease of use on the adoption of QRIS (Quick Response Code Indonesian Standard) among the residents of Banjarmasin. Employing a purposive sampling method, the research gathered data from 353 QRIS users, predominantly women, across various districts and demographic backgrounds. The results of this research showed that both perceived usefulness and perceived ease of use strongly influence trust, which in turn significantly affects the usage decision. These findings were confirmed through robust t-statistics and p-values of 0.000, indicating a direct and mediated impact of these factors on QRIS adoption. The research corroborates similar studies, emphasizing the necessity of enhancing system usability and trust to foster higher adoption rates. This study provides crucial insights for stakeholders aiming to optimize QRIS as a widely accepted payment platform in Banjarmasin, highlighting the importance of focusing on user-centric design and trust enhancement to drive technological adoption and usage.

Keywords: *Perceived Usefulness, Perceived Ease of Use, Trust, Usage Decision, QRIS*

1. INTRODUCTION

The advent of digital payment systems in Indonesia marked a significant leap forward with the introduction of the Quick Response Code Indonesian Standard (QRIS), which was officially implemented by Bank Indonesia on January 1, 2020. QRIS emerged as a groundbreaking initiative aimed at consolidating various digital payment methods under a unified standard, thereby simplifying transactions across the nation's diverse payment ecosystem. This introduction delves into the dynamics of QRIS usage in Banjarmasin, exploring how this standard is pivotal in redefining financial interactions, particularly emphasizing its impact on micro-businesses and small-scale merchants (Silalahi et al., 2022).

Developed under the regulatory framework of PADG No.21/18/2019, QRIS was launched on August 17, 2019, as part of Bank Indonesia's broader vision to enhance the infrastructure of retail payments. The system was designed to ensure that payments are real-time, seamless, and available at all times, aligning with the strategic objectives of Payment System Vision 2025. This initiative also includes other significant projects like BI-Fast and the National Payment Gateway (GPN), which together facilitate a more efficient, secure, and reliable payment system while prioritizing expanded access and consumer protection (Tobing et al., 2021).

The implementation of QRIS has shown rapid adoption rates across various sectors of the economy. By July 2020, the number of transactions processed through QRIS had increased by 47% since March 2020, and the system was actively used by over 333,992 merchants, marking a 26% increase. This growth is even more pronounced among small and medium enterprises (SMEs) and micro, small, and medium enterprises (MSMEs), with SMEs experiencing a 125% increase in adoption, and MSMEs a 9% increase. Additionally, there was a notable rise in QRIS usage among merchants involved in donation-based services, which saw a 132% increase (Silalahi et al., 2022).

One of the most transformative impacts of QRIS is its significant contribution to financial inclusion, particularly for micro-businesses and individuals in less accessible areas who previously had limited or no access to traditional banking services. The interoperability feature of QRIS enables these smaller entities to participate in the digital economy by accepting payments from various e-wallets and banking applications without the need for multiple QR codes or payment setups (Putra et al., 2023). This convenience not only simplifies the transaction process for both merchants and consumers but also reduces operational costs, which is particularly beneficial for micro-businesses operating with minimal profit margins.

Sari & Adinugraha (2022) explained that integration of the Quick Response Code Indonesian Standard (QRIS) represents a significant shift towards secure and transparent digital transactions, which minimizes the traditional reliance on cash susceptible to theft and fraud. This transition not only provides a safer and more efficient business environment but also fosters a trusting relationship between merchants and their customers. Particularly for micro-businesses, this trust is essential as it boosts customer confidence, potentially leading to increased sales and loyalty. The trust that develops through consistent use of QRIS becomes a critical mediating factor between the perceived usefulness and the perceived ease of use of the system. As small-scale merchants and micro-business owners gain confidence in the security and efficiency of QRIS-enabled transactions, their inclination to adopt and continuously use the system grows. This enhanced trust not only influences their initial decision to adopt QRIS but also shapes their overall perception of its utility and user-friendliness (Setiyono, 2021).

The link between perceived usefulness, trust, and usage decision of QRIS from the consumer's perspective is important for understanding their adoption and utilization of this payment system (Liébana-Cabanillas et al., 2015). Perceived usefulness refers to how beneficial consumers believe QRIS to be in facilitating their payment needs (Srivastava et al., 2013). Ahmad et al. (2020) said that trust plays a mediating role as consumers rely on confidence in the system's reliability, security, and performance to determine whether to use it. This relationship requires deeper exploration into how these factors influence users' decisions. Understanding how consumers perceive the usefulness of QRIS, their level of trust in the system, and how these factors influence usage decisions is essential for stakeholders in digital payments. Stakeholders can tailor strategies by identifying these interconnections helping enhance consumer confidence promoting wider adoption thereby furthering financial inclusion & advancing Banjarmasin's digital economy landscape.

2. RESEARCH METHODS

The study was specifically targeted at the residents of Banjarmasin who use QRIS for their transaction needs. Researchers aimed to gather detailed insights into their perspectives regarding various factors associated with QRIS as a payment method. By employing surveys, the study collected valuable data on respondents' opinions on four key aspects: Perceived Usefulness, Perceived Ease of Use, Trust, and their ultimate Decision to Use QRIS. These components are crucial as they directly influence the adoption and continued utilization of digital payment systems.

According to the technology acceptance model developed by Davis (1989) the concept of Perceived Usefulness within the context of QRIS can be broken down into several indicators. These include Time Conservation—highlighting the efficiency of QRIS in reducing the time needed for transactions; User-Friendliness, which refers to the simplicity of the system's interface; Performance Enhancement, suggesting that QRIS improves the users' transactional capabilities; Effectiveness, which assesses the success rate of completing payments; and Improved Performance, indicating overall enhancement in transactional activities due to QRIS.

Davis (1989) also elaborates on Perceived Ease of Use through several specific indicators that describe the user's interaction with the technology. These are Easy to Learn, meaning that new users can quickly understand how to operate QRIS; User Friendly, which emphasizes the straightforward and intuitive nature of the interface; Controllable, indicating that users feel they have substantial control over the transaction process; Flexible, suggesting the adaptability of QRIS to different user needs; and Clear and Understandable, which ensures that the system's functionalities are transparent and easily grasped by its users.

Meanwhile, Rafida & Ananda (2016) offered a detailed concept of Trust as it breaks it down into several crucial indicators. These indicators include Reliability, which assesses the consistency and dependability of QRIS in processing transactions accurately and without failure; Honesty, which reflects the system's transparency and straightforwardness in handling user data and transactions; Caring, suggesting the system's ability to safeguard user interests and provide prompt support when issues arise; Credibility, which evaluates the trustworthiness and integrity perceived by the users; and Competence, indicating the system's capability to effectively meet the transactional needs of the users. Understanding these trust indicators is vital for comprehending how they influence the overall acceptance and reliance on QRIS by its users, highlighting the essential link between user trust and the successful implementation of new technological solutions in financial transactions.

Furthermore, Priyombodo et al. (2024) delve into the factors influencing the Usage Decision of QRIS, identifying several key indicators that determine whether users decide to adopt this payment system. These include the Security System, which is crucial as it ensures the protection of user data and transactions against potential threats, thereby building user confidence. Providing Benefits refers to the tangible advantages users gain from using QRIS, such as discounts or rewards, which enhance the value of the service. Transparency is critical in clarifying how transactions are processed and how data is handled, fostering trust by ensuring users are well-informed. Trust, as an indicator, underscores the necessity for users to feel confident in the reliability and integrity of the payment system. Lastly, Convenience is essential as it reflects the ease and efficiency with which users can make transactions,

significantly impacting their decision to use QRIS regularly. These indicators collectively play a pivotal role in shaping the decision-making process for users considering QRIS as their preferred mode of payment.

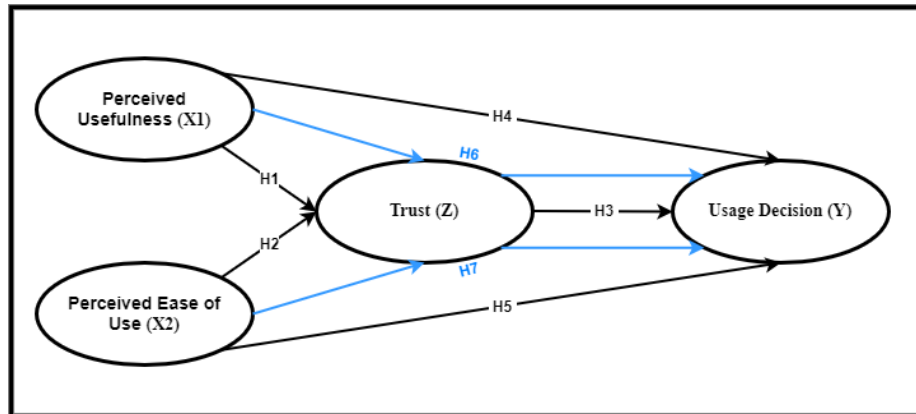


Figure 1 Conceptual Framework

The demographic and psychographic profiling of the respondents in the study provides a comprehensive overview of the diverse range of individuals who utilize QRIS in Banjarmasin. The study carefully employed Purposive Sampling to select participants who were 17 years or older and residents of Banjarmasin with experience using QRIS. This age criterion was specifically chosen to ensure the participants possessed adequate maturity and independence, which are crucial for providing meaningful and credible insights. Of the 353 individuals surveyed, a significant majority were women, totaling 255, compared to 98 men. This gender distribution highlights a predominance of female users in the digital payment system, which could reflect broader trends in technology adoption and usage among women in urban Indonesian settings.

The respondents were not only diverse in terms of gender but also came from various districts within Banjarmasin, with the majority (157) hailing from Banjarmasin Utara. This geographic spread is essential for understanding the localized nuances of QRIS usage across different urban areas. Occupation and educational background further delineated the respondent profiles, introducing additional layers to their demographic characteristics. The occupation categories included college students, private sector or state-owned enterprise employees, freelancers, and other groups, providing a glimpse into the economic activities of the QRIS user base. Educational backgrounds varied widely, with most respondents having completed high school, followed by those holding a bachelor's degree, and smaller numbers with other educational qualifications. This variety ensured a broad spectrum of perspectives on the utility and impact of QRIS in their daily transactions.

The educational and occupational diversity among the respondents enables a richer interpretation of the data collected, considering how different levels of education and types of employment influence QRIS usage. For instance, the high number of students might indicate a tech-savvy group that is more inclined to adopt digital payment solutions. In contrast, the presence of respondents from varied professional backgrounds, such as entrepreneurs and government personnel, suggests QRIS's appeal across different economic sectors. This comprehensive participant profiling not only enriches the understanding of current QRIS usage patterns but also aids in tailoring future digital financial services to meet the needs of a diverse user population.

3. RESULT AND DISCUSSIONS

The concept of construct validity pertains to the accuracy with which the indicators used represent the intended constructs, ensuring that they reflect the nature of the latent variables being measured. This is essential for establishing a model that aligns with relevant theory (Hair et al., 2014). On the other hand, reliability concerns the consistency of measurement results from identical indicators when evaluating a specific construct. A high level of reliability indicates consistent measurement outcomes within a given population Hair et al., (2014). In SmartPLS, Cronbach's Alpha can be employed to evaluate both construct validity and reliability. It serves as an indicator's internal consistency for describing latent variables in partial path analysis using values typically ranging between 0 and 1; higher values signify enhanced reliability. This method assesses whether indicators measuring a particular construct demonstrate adequate consistency, where higher alpha values point towards greater uniformity in measuring said construct. Cronbach's alpha is widely utilized in quantitative analysis to gauge questionnaire or instrument reliability. The decision regarding Cronbach's Alpha test relies on evaluating its value; if it surpasses 0.7, it meets required standards for research usage (Hair et al., 2014).

Table 1. Cronbach Alpha

Variable	Cronbach's Alpha
Perceived Usefulness (X1)	0,884
Perceived Ease of Use (X2)	0,882
Usage Decision (Y)	0,883
Trust (Z)	0,909

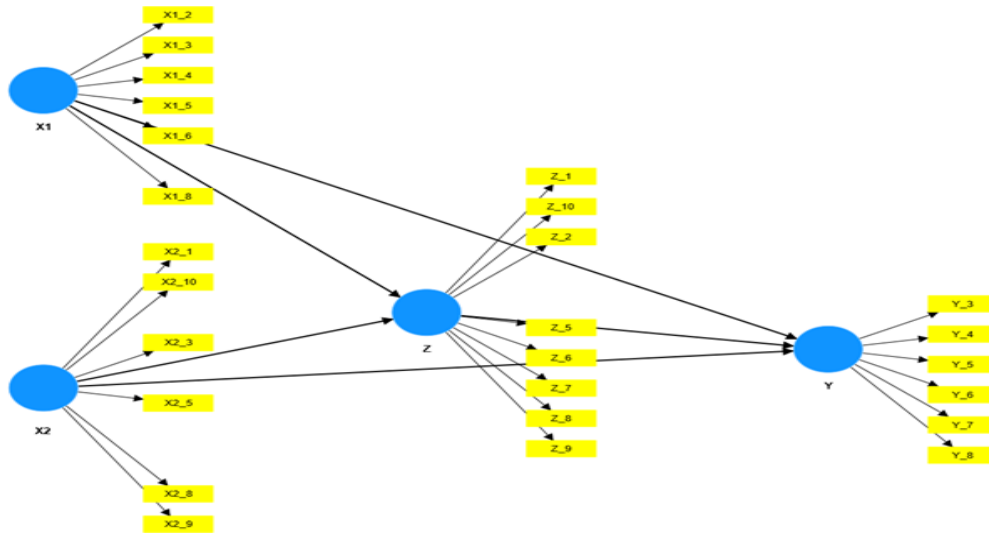


Figure 2 Structural Analysis Model

Table 2. Summary of Path Analysis Result

Path	T statistics	P values
Perceived Usefulness -> Usage Decision	6,466	0,000
Perceived Usefulness -> Trust	6,784	0,000
Perceived Ease of Use -> Usage Decision	6,553	0,000
Perceived Ease of Use -> Trust	9,594	0,000
Trust -> Usage Decision	7,217	0,000

The analysis revealed strong positive relationships across all paths, each with highly significant t-statistics and p-values of 0.000, indicating robust support for the hypothesized relationships within the model. Specifically, the path from Perceived Usefulness to Usage Decision demonstrated a t-statistic of 6.466, and the path from Perceived Usefulness to Trust showed an even higher t-statistic of 6.784, underscoring the strong influence of perceived usefulness on both the trust in and the decision to use QRIS. Similarly, Perceived Ease of Use also showed a significant effect, with a t-statistic of 6.553 on Usage Decision and a notably high t-statistic of 9.594 on Trust. This highlights that ease of use not only directly impacts the usage decision but is also a critical determinant of trust in the QRIS system.

The path from Trust to Usage Decision had a t-statistic of 7.217, confirming trust as a vital mediating variable. This suggests that trust in QRIS significantly mediates the impact of perceived usefulness and ease of use on the decision to adopt QRIS, enhancing the likelihood of its usage among consumers in Banjarmasin. These results underscore the importance of both perceived usefulness and ease of use in fostering trust, which in turn significantly influences the adoption decisions regarding QRIS. The findings are crucial for stakeholders aiming to improve and promote QRIS usage, as enhancing user trust through improved usefulness and ease of use could lead to higher adoption rates.

Table 3. Summary of Indirect Influence Results (Indirect Effects)

Path	T statistics	P values
Perceived Usefulness -> Trust -> Usage Decision	4,906	0,000
Perceived Ease of Use -> Trust -> Usage Decision	6,208	0,000

The path from perceived usefulness through trust to usage decision showed a T-statistic of 4.906 with a P-value of 0.000, indicating a highly significant indirect effect. This suggests that the perceived usefulness of QRIS strongly influences trust, which in turn significantly affects the decision to use the system. In other words, users who find QRIS useful are likely to develop trust in the system, which positively impacts their decision to use it. Similarly, the path from perceived ease of use through trust to usage decision recorded a T-statistic of 6.208 with a P-value of 0.000, also indicating a highly significant effect. This result implies that when users find QRIS easy to use, their trust in the system increases, which significantly enhances their likelihood of adopting QRIS.

These findings highlight the importance of both perceived usefulness and perceived ease of use as critical factors that, through the mediation of trust, drive the decision to adopt QRIS in Banjarmasin. This underscores the necessity for developers and marketers to focus on these attributes to enhance user trust and thereby increase QRIS adoption rates.

4. CONCLUSION

The extensive research presents compelling evidence supporting the significant impact of perceived usefulness and perceived ease of use on QRIS adoption, with trust serving as a mediating factor. The results from path analysis confirm strong effects across all tested relationships, validating the hypothesized model. Notable findings reveal that both perceived usefulness and ease of use directly influence the decision to adopt QRIS, while also impacting user trust in the technology. The statistically significant t-statistics and near-zero p-values along these paths indicate robustness and reliability within these connections. Additionally, trust plays a crucial role as a mediator by amplifying the effects of perceived usefulness and ease of use on QRIS adoption. This implies that bolstering user trust through enhancements in system usability and functionality could play a pivotal role in driving higher adoption rates.

Several studies have yielded similar findings to this research. For example, Nurzanita & Marlina (2020) study demonstrated that the perceived usefulness has a positive and significant impact on usage decision. Additionally, Nurzanita & Marlina (2020) study revealed that when trust is involved as a mediator, perceived usefulness still positively and significantly influences usage decision. Similarly, Alfani & Ariani (2023) found that both perceived usefulness and trust have a positive and significant effect on usage decision. Mawardi & Prabowo (2023) study also discovered that trust and perceived usefulness positively affect usage decision. Ningsih et al. (2021) study reported that ease of use significantly impacts usage decision in a positive manner. Furthermore, Akhyar & Sisilia (2023) research concluded that perceived ease of use along with perceived usefulness positively affect usage decision.

For stakeholders such as developers, marketers, and policymakers focused on promoting QRIS in Banjarmasin, this study furnishes valuable insights emphasizing prioritization for user-centered design approaches and marketing strategies aimed at improving perceived usefulness and ease-of-use to cultivate trust among potential users. By comprehending these dynamics effectively when developing tailored interventions or measures geared towards increasing user perceptions can lead to enhanced adoption levels thus contributing significantly to making QRIS successful payment platform widely utilized within that region. This study emphasizes the interdependency between system usability, user trust, and decisions regarding technological adoption. It highlights the importance of strategically focusing on enhancing usage through targeted improvements informed by end-user perspectives and fostering trustworthy engagements.

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