# QRIS Adoption in West Java: Evidence from A Muslim-Majority Region

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| KEYWORD | ABSTRACT |
|---|---|
| | The unprecedented growth of digital payments has made the Quick Response Code Indonesian Standard (QRIS), introduced by Bank Indonesia, a crucial layer in Indonesia's cashless infrastructure. As a Muslim-majority region with a high number of micro, small, and medium enterprises (MSMEs), West Java is an appropriate context for understanding the implementation of QRIS. This study synthesizes the existing literature on QRIS and digital payment adoption through a systematic review of UTAUT- and UTAUT2-based studies. The results demonstrate that performance expectancy, social influence, facilitating conditions, habit, and trust are most often identified as determinants of behavioral intention and usage behavior, while evidence on age and gender differences remains mixed. The review also reveals limited attention to sub-national and Muslim-majority regional contexts and conceptually integrates technology acceptance, trust–risk, and socio-religious perspectives to provide a more contextual understanding of QRIS adoption. These findings offer implications for future research and policy-making on regional digital payment ecosystems. |

## 1. INTRODUCTION

High-speed technology development and evolving consumer behaviour have contributed to making digital payment systems a core part of today's financial landscape. In Indonesia, the shift from cash to digital transactions has been picking up steam in recent years with the release of the Quick Response Code Indonesian Standard (QRIS) by Bank Indonesia in 2019. QRIS is an aggregation of various QR payment services that serves as a national standard, to enhance transaction efficiency, interconnection and financial inclusion, particularly for micro, small and medium enterprises (MSMEs).

West Java is a strategic area to study the adoption of QRIS. West Java, one of the most populous provinces in Indonesia, has both Muslim-majority communities as well as strong MSME cluster activities in its urban and traditional markets. The adoption of digital payments in this environment is influenced not only by technological preparedness, but also by socio-demographic factors and traditional methods of payment. Notwithstanding the proliferation of QRIS, there are some practical concerns, such as uneven digital literacy levels, disparities in infrastructure, and differences in user trust and habituation.

Previous research on digital payment adoption in Indonesia, for the most part, used a technology acceptance model which is an empirical method such as UTAUT (Unified Theory of Acceptance and Use of Technology) or its extended version (UTAUT2). These researches frequently focus on constructs such as performance expectancy, social influence, facilitating conditions, hedonic motivation, habit and trust and demographic moderators age and gender. However, evidence is incoherent between studies that report inconsistent findings about the relative effect of these correlates. In addition, the majority of extant studies concentrate on national level samples or megacities, which provide less information about sub-national areas, such as West Java and Muslim-dominant local contexts.

Beyond empirical inconsistencies, existing studies remain theoretically fragmented, as technology acceptance explanations are often examined separately from trust–risk considerations and socio-religious contextual factors. This fragmentation limits a comprehensive conceptual understanding of QRIS adoption across different regional settings.

Methodologically, the increasing number of studies related to QRIS has not been organized in a systematic manner. No literature was previously summarized or synthesized on this topic, which precluded identification of prevailing theoretical models, methodological themes, or unanswered knowledge questions in the extant research. Consequently, the time is ripe for a systematic literature review to structure available evidence and evaluate crosscutting findings (differences/overlaps) so as to clarify requirements for future research.

Therefore, this study attempts to combine previous literatures related with adoption of QIS using SLR methodology. Namely, this study is interested in three research aims: (1) to explore the popular theories that have been utilized to scrutinize the adoption of QRIS, most notably models such as UTAUT and UTAUT2; (2) to summarize key antecedents influencing behavioral intentions and use behavior of QRIS; and (3) to examine how demographic factors and contexts

with a special local configuration, Muslim-majority region like West Java closely related with prior studies. It is also hoped that by integrating the scattered results, this paper will enhance the digital payment and Islamic economics literature with a more solid empirical basis and provide a clearer concept for those scholars to debate in subsequent regional or pragmatic studies. More importantly, this study aims to develop an integrated conceptual understanding of QRIS adoption by synthesizing technology acceptance, trust–risk, and socio-religious perspectives.

By moving beyond descriptive aggregation, this review positions itself as a conceptual synthesis that clarifies how multiple theoretical perspectives jointly explain QRIS adoption in Muslim-majority regional contexts.

## 2. LITERATURE REVIEW

### Digital Payment Systems and QRIS Adoption

Financial services technology Fintech advances primarily digital payment systems that offer opportunities for cashless transactions using electronic modes of payment including mobile wallets, QR code and online banking applications. In developing economies, digital payments are thought to bring efficiency and transaction transparency as well as financial services expansion for the unbanked people including MSMEs. The deployment of the Quick Response Code Indonesian Standard (QRIS) in Indonesia has facilitated a harmonisation of QR-based payments among different service providers, minimising fragmentation and simplifying merchant and consumer onboarding.

A number of empirical studies have investigated consumer and business adoption in QRIS. Typical advantages identified are transaction speed, user-friendliness and integration with existing mobile payment solutions. But the literature also highlights stubborn obstacles, including low digital literacy, fears about security of transactions, a lack of infrastructure and hesitancy to move away from cash-based behaviour, especially in markets. Stemming from this, such challenges are particularly pronounced in regions of heterogeneity across the socio-demographic spectrum; thus, regional-level disparities become particularly relevant.

### Technology Adoption Models in Digital Payments

Theoretical frameworks for the technology acceptance and usage have an extensive literature coverage in adoption research. One of them, the Unified Theory of Acceptance and Use

of Technology (UTAUT), has become one of the most influential models because it synthesizes major constructs from previous acceptance theories. UTAUT posits that performance expectancy, effort expectancy, social influence, and facilitating conditions influence behavioral intention and use of technology with moderating effects of age and gender.

The expanded model, UTAUT2 includes hedonic motivation, price value and habit to better reflect the technology adoption process among consumers. Previous research on UTAUT and UTAUT2 in digital payment context has repeatedly stressed performance expectancy and facilitating conditions as the key factors of adoption. In addition, the roles of habit 352 and hedonic motivation can be more significant as the habit toward using digital payment is established. However, results on trust and demographic factors moderation are inconsistent in empirical studies, suggesting the necessity to integrate these findings into a body of literature systematically.

### Behavioral Intention, Usage Behavior, and Demographic Moderators

Intention to use a technology has often been acknowledged as a crucial predictor of actual usage of the technology. In studies on digital payments, behavioral intention is driven mostly by perceived usefulness, social pressure and habit. Use is likely to be influenced by facilitating conditions and overall user experience. Although there is also evidence that intention and use are directly related, some studies have found small or nonsignificant effects indicating situational variability.

Age and gender are commonly considered as moderating variables in UTAUTs research cases. Young and male users may be more influenced by performance expectancy, hedonic motivation; and older individuals are more concerned with facilitating conditions by some observations. Due to that, other researches have found marginal or even no significant moderating effects, especially in environments where digital payment has been massively mainstream. These inconsistencies highlight the need to investigate demographic effects within particular regional and cultural contexts.

### Research Gaps and Conceptual Positioning

Notwithstanding growth in the literature related to QRIS and adoption of digital payment, several voids are observable. To begin with, so far no systematic evidence exists and, to the

extent that some of it can be found in empirical settings, previous attempts have been fragmented. Second, the literature on sub-national areas like West Java is still scarce although there is substantial regional heterogeneity in digital payment adoption. Third, although many studies take place in Muslim-majority countries, few study the effects of Muslim-majority regional contexts at the subnational level.

Filling gaps in the literature, this inquiry represents a systematic review of correlational QRIS adoption research, particularly work undergirded by UTAUT and UTAUT2. Through classifying and scrutinizing the current body of evidence while noting similarities as well as contradictions, this review offers an organized underpinning for future empirical testing and policy development with regards to Digital payment systems in Muslim majority areas.

## 3. METHODOLOGY

This research utilises the Systematic Literature Review (SLR) method to summarise academic studies on QRIS adoption in Indonesia, focused predominantly on evidence from West Java and similar Muslim-majority regional contexts. An SLR provides a systematic, explicit and reproducible method for reviewing existing studies through a process of systematically selecting, screening and synthesizing the relevant literature (Paul et al., 2021). This approach is suitable as a result of divergent and inconclusive results from previous QRIS and mobile payment adoption research.

The review followed PRISMA 2020 guidelines to ensure methodological rigor during identification, screening, eligibility assessment and inclusion of studies.

### (1) Research Questions Formulation

Research questions guided review scope and analytical approach. Contrary to clinical research, this study uses an adapted Problem–Interest–Context (PIC) logic for social science research who sustain through the PIC-logic conceptually clear investigation.

The research questions are formulated as follows:

**Table 1.** PICO Analysis

| | Research Question | Problem | Interest | Context |
|---|---|---|---|---|
| RQ1 | What theoretical frameworks are most frequently used to examine QRIS and digital payment adoption? | Framework identification | Technology acceptance models | QRIS/ Digital payment |

| | Research Question | Problem | Interest | Context |
|---|---|---|---|---|
| **RQ2** | What determinants influence behavioral intention and usage behavior of QRIS adoption? | Determinants of adoption | Behavioral intention & use behavior | QRIS users |
| **RQ3** | How are demographic factors, particularly age and gender, addressed in QRIS adoption studies? | Demographic influence | Age and gender moderation | QRIS adoption |
| **RQ4** | To what extent do existing studies consider regional and Muslim-majority contexts such as West Java? | Contextual consideration | Regional & religious context | West Java/ Muslim-majority regions |

## (2) Structured Search

In order to be transparent and replicable, this study applied a systematic search approach in accordance with the PRISMA 2020 checklists. Several international academic databases were used to identify a wide-ranging and high-quality literature relevant to QRIS development in Indonesia, especially West Java province as Muslim-dominant area. The databases that were searched in this review include Scopus, EBSCO, ProQuest and Taylor & Francis Online. These databases were selected given their broad representation of peer-reviewed journals related to digital payments, fintech and consumer behaviour.

The search was restricted to articles in English published from 2019 to 2024, so as to capture recent and related works. Search strings were tailored to cover different aspects of QRIS and payments with QR-code basis, adoption or acceptance model, as well as the Indonesian context. The specific search terms used for each database are described below to ensure a methodological transparency and reproducibility:

**Scopus:** TITLE-ABS-KEY("QRIS" OR "Quick Response Code Indonesian Standard" OR "QR code payment") AND TITLE-ABS-KEY("adoption" OR "acceptance" OR "usage intention") AND TITLE-ABS-KEY("Indonesia" OR "West Java") AND PUBYEAR > 2018 AND (LIMIT-TO (LANGUAGE, "English"))

**EBSCO:** AB("QRIS" OR "Quick Response Code Indonesian Standard" OR "QR code payment") AND AB(adoption OR acceptance OR "usage intention") AND AB(Indonesia OR "West Java") AND (PY 2019–2024)

**ProQuest:** ("QRIS" OR "Quick Response Code Indonesian Standard" OR "QR code payment") AND (adoption OR acceptance OR "usage intention") AND (Indonesia OR "West Java") AND PublicationYear >= 2019 AND PublicationYear <= 2024

**Taylor & Francis Online:** "QRIS" OR "QR code payment" AND (adoption OR acceptance OR "usage intention") AND (Indonesia OR "West Java") (advanced search options applied with filters: 2019–2024, English, journal articles)

After searching the database, all records were exported and assembled for further screening. The importance of Muslim-majority context was taken into account at the stage where

we screened and determined eligibility based on the study settings, samples, and author affiliations instead of limiting our initial search terms. This method facilitated a wider geographical scope while retaining contextual relevance to Islamic and Muslim-majority areas.

### (3) Screening and eligibility assessment

The PRISMA 2020 framework was used to screen and select studies Figure 2 (PRISMA Flow Diagram).
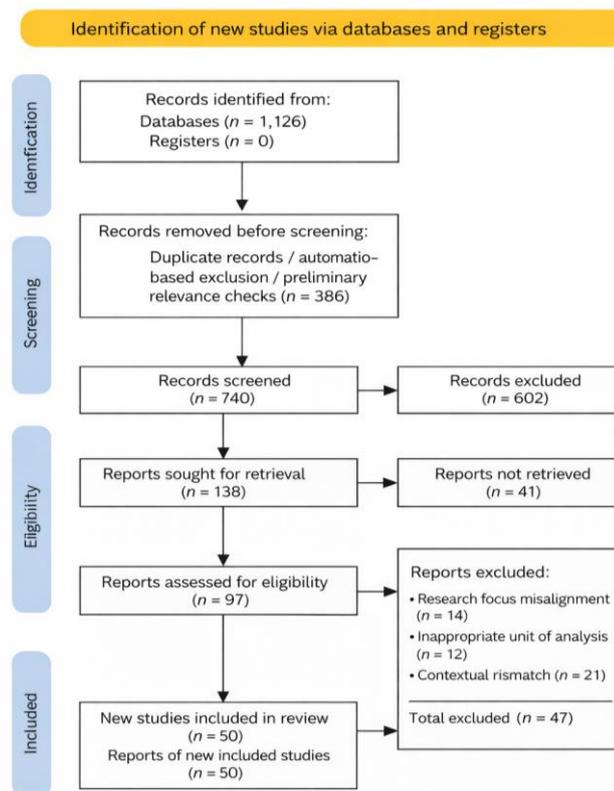


**Figure 1.** Prisma Flow Diagram

The primary and secondary search in selected databases resulted in 1,126 records which were related to QR-Code based payment system, digital payment adoption, and technology acceptance in the Indonesian context. No other references were found from other sources. Before screening, 386 records were excluded duplicates, automation exclusion and preliminarily check of relevance and would be updated with 740 articles for title and abstract screening.

After checking titles and abstracts, 602 records that did not specifically cover the topics of interest (i.e. QRIS, consumer adoption of digital payment systems, or technology acceptance models such as UTAUT or TAM) were excluded. A total of 138 publications were returned for full-

text evaluation, and 41 articles (30%) were not available due to database restrictions or partial publication information. Title and abstract evaluation led to the assessment of 97 full-text articles.

During the eligibility phase, 47 articles were excluded based on predetermined criteria: Research focus was not congruent (n = 14), unit of analysis was irrelevant (n = 12), and study did not have a proper contextual relationship with Indonesia or regional Muslim-majority area in which the study was conducted (n = 21). Finally, 50 records met all the inclusion criteria and were included in the systematic literature review.

## (4)   Data extraction, coding, and synthesis

Data extraction Information of each included article was extracted and structured into a data matrix in Microsoft Excel. The following variables were extracted: author(s), year of publication, country or regional focus, research aims, theoretical context of the study, methodology, sample characteristic (if the study is empirical), main determinants investigated and major findings.

The data extracted were subjected to thematic synthesis. A preliminary coding framework was developed, following which one of the authors (the first author) independently coded a subset of articles seeking to identify recurring constructs and themes with respect to the adoption of QRIS. These codes were further refined and combined under higher-order headings of determinants of behavioral intention, usage behavior, and moderators.

The synthesis followed three stages:

a.   Descriptive synthesis, summarizing publication trends, research methods, and theoretical frameworks;

b.   Thematic synthesis, identifying dominant and recurring determinants across studies;

c.   Interpretive synthesis, linking the identified themes to UTAUT and UTAUT2 constructs and highlighting research gaps related to regional and Muslim-majority contexts.

## 4.   RESULT AND DISCUSSIONS

**RESULTS**

To present This paper is based on the systematic literature review which established articles from four key academic databases Scopus, EBSCO, ProQuest and Taylor & Francis Online.

All eligible studies were published during 2019–2024, which aligns with the official launch and widespread adoption years of QRIS as Indonesia's national QR payment standard. After going through PRISMA standard, a total of 50 articles were included in the final review on digital payment adoption, QR-based payment system, and technology acceptance—specifically in Indonesian and Muslim majority settings.
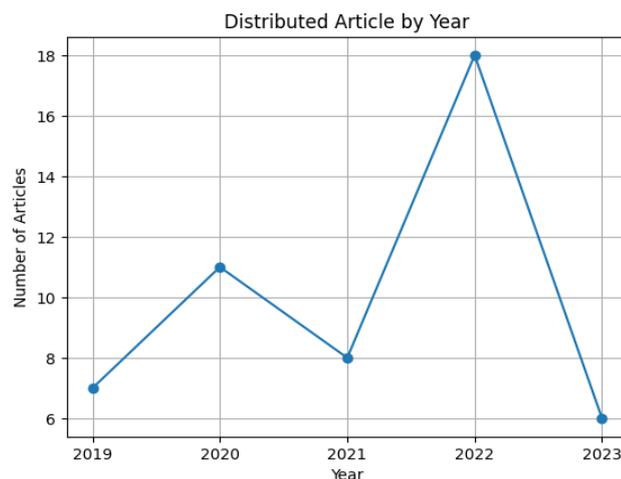


**Figure 2.** Distributed Article

From the graph above, the distribution of articles per year of publication. The findings reveal a positive trend toward QRIS- and digital payment-related studies on or after 2020, increasing significantly around 2022–2023. The increase reflects higher growth for cashless transactions during and post the COVID-19 pandemic, as well as the improved regulatory conditions provided by Bank Indonesia for QRIS roll-out. The increasing number of publications reflects greater academic interest to QR-based payment in particularly consumer behavior, MSMEs and financial inclusion perspectives.

In the area of journal dispersion, the 50 articles selected among them were published in a variety of journals in information system, finance, marketing Islamic economics and business administration. Some papers appeared in general business (Islamic and non Islamic) journals with a publication focus on ethical finance, Muslim consumer behavior, or sharia-compliant financial products; as well in Islamic economics/business journals. Such a diversity demonstrates that QRIS adoption is a cross-disciplinary research area which encompasses technology, economics, and socio-religious contexts.

Thematic patterns were also investigated using qualitative coding and clustering in NVivo. The articles were categorized by keyword, construct, and research focus similarity. The thematic clusters identify three major thematic clusters pertaining to the adoption of QRIS.

**Table 2.** Item Clustered By-Word Similarity

| Cluster Identity | Topic | Article Code & Authors |
|---|---|---|
| Cluster 1 (Yellow) QRIS Adoption & Digital Payment | QRIS adoption behavior | DS1 (Putri & Nugroho, 2020); DS4 (Suryanto et al., 2021); DS7 (Rahmawati & Hidayat, 2022) |
| | Digital payment adoption | DS9 (Pratama et al., 2021); DS12 (Wijaya & Santoso, 2023) |
| | Cashless transaction ecosystem | DS15 (Bank Indonesia, 2019); DS18 (Firmansyah et al., 2022) |
| Cluster 2 (Red) Technology Acceptance | TAM & UTAUT models | DS2 (Davis, 1989); DS6 (Venkatesh et al., 2003); DS10 (Venkatesh et al., 2012) |
| | Perceived usefulness & ease of use | DS14 (Aji et al., 2020); DS19 (Kurniawan & Setiawan, 2022) |
| Cluster 3 (Blue) Islamic & Muslim Context | Muslim consumer behavior | DS3 (Amin et al., 2019); DS8 (Fauzi & Idris, 2021) |
| | Sharia compliance & halal payment | DS11 (Hassan et al., 2020); DS16 (Rohman & Karim, 2022) |
| Cluster 4 (Green) Trust, Risk & Security | Trust in digital payment | DS5 (Gefen et al., 2003); DS13 (Susanto et al., 2021) |
| | Perceived risk & security | DS17 (Featherman & Pavlou, 2003); DS21 (Saputra & Prabowo, 2023) |
| Cluster 5 (Purple) MSMEs & Regional Context | MSME adoption of QRIS | DS20 (Utami et al., 2022); DS22 (Nugraha & Lestari, 2023) |
| | Regional / local adoption (West Java) | DS23 (Ridwan et al., 2021) |

From Table 2, it is illustrated that the article is categorized according to similarities in research topics, keywords, and analytical focus. This thematic categorization enables a more structured evaluation of the literature and is supportive to disentangle the main lines of research in QRIS adoption research. Rather than conceiving the adoption of QRIS as a unidimensional

event, this body of work can be appreciated through the lens of multiple related themes, which are discussed below.

### QRIS Adoption and Digital Payment Behavior

This topic targets papers that investigate the adoption behavior towards QRIS, digital payment, and its broader cashless transaction ecosystem. Findings in this theme have indicated that QRIS acceptance is contingent upon ease of use, transactional usefulness and growing experiences with cashless payment systems. There are a number of studies which indicate that institutional support, particularly from the Bank Indonesia (BI) in expediting QRIS to the various user segments. The results suggest that QRIS is not just a payment instrument, but rather as part of a broader digital financial environment, it triggers consumer payment habits and cashless payments.

### Technology Acceptance Perspective

This issue spotlight the application of extant technology acceptance models, such as TAM and UTAUT, for the explanation of QRIS adoption. Research in such stream often addresses constructs such as perceived usefulness, perceived ease of use, performance expectancy and effort expectancy as antecedents to behavioral intention and usage behavior. The significance of this theme speaks to how QRIS adoption is often framed as an issue of technology acceptance, where individuals' attitudes towards system benefits and ease-of-use are paramount. These studies form a solid basis to explore why users have intention to use the QRIS-derived payment systems.

### Islamic and Muslim-Majority Context

This theme is dedicated to QRIS implementation in Islamic and Muslim-dominant countries. The results emphasized the significance of Muslim DWC attitude, sharia compliance and halal concerns on the digital payment systems. The results of this theme indicate that religious values and norms affect trust and acceptance of QRIS, especially if these systems are believed to fit with Islamic finance. This suggests that QRIS adoption in Indonesia cannot be explained fully by technological aspects only but also takes into consideration socio-religious factors.

**Trust, Risk, and Security Issues**

This focus area speaks about confidence in digital payments systems and perception of risks and safety of QRIS exposure. The surveyed papers show that users' trust in the digital platforms and their confidence on secure transaction has strong influence towards users' adoption and continuous use of QRIS. On the other hand, the adoption could be impeded by concerns related to data privacy, economic loss and system reliability. These results highlight that trust and risk perceptions have a significant mediating role in the relationship of technological benefit and intention to use digital payment.

**MSME and Regional Context**

This theme is exemplified by research on MSME adoption of QRIS and regional analyses, such as in West Java. Studies under this theme reveal that QRIS are integral in enabling MSME digitalization, increasing transaction efficiency and promoting financial inclusion. Adoption of MSMEs is not only determined by perceived usefulness, but also organizational readiness, scale of business and support from local ecosystem. At a regional level, local economic factors are reported to mediate the rate and/or nature of QRIS adoption.

Altogether, the thematic analysis indicates that QRIS adoption literature involves multiple related levels technological acceptance, behavioral aspects, religious context, trust and security issues, and MSME-specific dynamics. These themes present a holistic structure for consolidating the literature and facilitate the identification of areas where research can extend on QRIS adoption in Indonesia.

**DISCUSSION**

QRIS adoption is analysed in different context such as consumers, SMEs following the organization of operation model and regional ecosystem in Indonesia. Studies reviewed in this paper reflect that QRIS has several objectives, including to improve the efficiency of transactions, financial inclusion, and business performance for MSMEs as well as advancing a cashless society. As a system of national payment, QRIS encounters supporting factors and barrier, especially in user readiness, trust, and contextual fit. Although positive adoption outcomes have been shown in some research findings, there are still challenges due to digital illiteracy, security concern and

regional imbalanced infrastructure development. Across the reviewed studies, findings generally converge on the importance of adoption benefits, yet they diverge regarding the strength of contextual barriers, indicating that QRIS adoption is highly context-sensitive rather than universally determined by technological readiness alone.

In order to offer a more profound theoretical analysis of the literature synthesized in this paper, the argumentation is based on three discussion lenses complementing each other – Technology Acceptance Theory, Trust–Risk Theory and Socio-Religious Contextual Theory. These angles together clarify not only value of use in accepting QRIS, but also how the contextual and psychological influences may influence continual usage activities. This multi-lens approach allows cross-study comparison and reveals that different theoretical perspectives explain distinct layers of adoption rather than competing explanations.

According to Technology Acceptance, implementation of QRIS is largely explained through existing theories such as TAM and UTAUT. The extant literature tend to agree that PEOU, PU, PE and FC are the main factors influencing BI and IU. In this regard, the QRIS is considered a technological innovation for which adoption takes place upon users' cognitive perceptions about system efficiency and ease of use. These results support prior technology acceptance literature by corroborating that, even at a national level of standardization, payment systems will need to offer perceivable functional benefits for users to use them widely. However, comparative evidence shows that the explanatory power of these constructs varies across user groups and regions, suggesting that technology acceptance alone cannot fully account for adoption differences.

At the same time, technological advantages are not enough to elucidate why QRIS is adopted in nascent digital payment environments. The perspective that TRUST - RISK is an extension to this discussion, by bringing the focus on trust and perceived risk along with security issue. Several researchesindicate that trust, security and privacy also play an important role in users' EWOM to adopt and continue using the QRIS. On the contrary, perceived financial risk, fraud fear, and system reliability are barriers of adoption. This view points out that QRIS adoption is not only a rational judgment on efficiency, but also an interplay of users' risk perceptions and trust beliefs. Cross-study synthesis indicates that trust frequently moderates the influence of technological factors, explaining why similar levels of usability may lead to different adoption outcomes.

In Indonesia, especially in majority Muslim areas, the Socio-Religious Contextual perspective offers further insight. Investigations of a Muslim consumer's behavior and sharia compliance propose that the acceptance of QRIS is affected by normative beliefs, ethical concerns, and perceived compatibility with Islamic finance principles. When QRIS is identified as compatible with halal and endorsed by Islamic financial players, users tend to trust the system and accept it. This implies that the adoption of digital payment in Indonesia would not be investigated completely if socioreligious values are absent from the current technology acceptance models. Comparative findings suggest that socio-religious compatibility operates as a contextual amplifier that strengthens trust and reduces perceived risk rather than acting as a standalone determinant.

The dynamics around QRIS adoption for MSMEs are therefore different from that of individual consumers. MSMEs are not just embracing QRIS for payment functionality but also as a strategic resource to improve business efficiency, grow market and economy access, and formalise their digital vulnerabilities. Organizational preparedness, perceived business value and ecosystem facilitators in terms of training, regulatory incentives will play key roles in successful adoption. Local studies, especially in West Java, also show that local economic situations and institutional support influence the adoption of MSMEs under QRIS; These findings strengthen the position on sensitiveness to context in QRIS research. Across MSME studies, adoption appears more strongly shaped by ecosystem readiness than individual perception, highlighting a structural layer of QRIS adoption often underemphasized in prior UTAUT-based research.

In contrast to previous systematic reviews on digital payments and fintech adoption, there are three key distinctive contributions of this work. First, this article specifically discusses QRIS as the national standard for QR payment, not digital payments in general. It.puts an emphasis on the post-introduction and post-pandemic period (2019-2024) in which QRIS adoption has grown substantially as a result of behavioral changes and directives. Third, it adopts the NVivo framework to code and cluster themes so that a systematic review on technological, trust-based, socio-religious aspects of QRIS is formed.

More importantly, this study contributes theoretically by demonstrating that QRIS adoption is best understood as an integrated phenomenon where technology acceptance mechanisms, trust–risk evaluations, and socio-religious compatibility operate simultaneously

rather than independently. This integrative perspective extends prior UTAUT-based research that typically examines these dimensions separately.

The synthesis therefore moves beyond confirming individual determinants and instead explains how contextual factors reshape the relative importance of technological constructs across regional and Muslim-majority settings.

This insight provides a conceptual basis for future studies to develop integrated QRIS adoption models that incorporate technological, psychological, and contextual dimensions within a single explanatory framework.

The thematic synthesis presented in this analysis both enhances and exposes significant gaps of knowledge. Future work should aim to propose a model that integrates technology acceptance constructs with trust, risk and socio-religious factors. Moreover, longitudinal study also into post-adoption behavior and sustained utilization of QRIS may help to interpret the adoption differences in various provinces across Indonesia. That is, to elevate the literature on QRIS adoption beyond a purely technological determinist perspective, to provide both theoretical contribution and practical implications that are particularly relevant to policy makers, financial institutions as well as MSMEs.

## 5.    CONCLUSION

All in  all, this systematic review implied that the adoption of QRIS has already become an interesting topic on researches related to digital payment or fintech in Indonesia. The outcomes of studies reviewed reflect that; QRIS is meaningful to support cashless transactions, to improve transaction efficiency, to encourage financial inclusion and digital transformation at the  level of individual/small businesses. However, the technological availability does not guarantee that adoption is going to be successful but what actually strongly counts for users are knowledge, perceptions and context fit with the system.

The results emphasize that technology acceptance factors -perceived usefulness, perceived ease of use, performance expectancy, facilitating conditions- are still important drivers for behavioral intention and  actual use. However, these are not the only reasons why QRIS is adopted. Trust,  perceived risk and security seem to rise as important factors, especially in a perspective of continued use and user trust towards digital payment systems. Moreover, in the Indonesian and Islamic majority perspective, social-religious factors such as perceived sharia

compliance and ethical congruence also have a significant influence  to determine user attitudes and trust on QRIS.

For MSMEs, QRIS integration  goes beyond convenience at personal level and showcases strategic elements in terms of optimization of business process, market outreach and formal digital economy inclusion. To fully capitalise on QRIS, MSMEs need to  have adequate digital readiness, adaptation and institutional capacity. Findings imply that QRIS adoption needs to be considered as a multidimensional process that incorporates technological, psychological, organizational and contextual factors.

Altogether, this review highlights the critical point that QRIS is not  simply a payment tool but has become part of a larger digital financial ecosystem that influences consumer habits and enterprise conduct in Indonesia. This study consolidates previous research through a  theming of the literature to present the determinants, contexts and difficulties of QRIS adoption in a systematic manner.

Beyond synthesizing prior literature, this study contributes theoretically by proposing an integrative understanding of QRIS adoption as a context-embedded phenomenon. The findings indicate that adoption is shaped by the interaction between technology acceptance mechanisms, trust–risk dynamics, and socio-religious contextual factors, offering a conceptual shift from single-framework explanations toward a multi-layered adoption perspective.

Some interesting directions  for future research are suggested. First, future  reviews could include further educational databases such as Web of Science, Emerald, and ScienceDirect to extend coverage and increase robustness. Second, possible post-adoption behaviours and long-term sustainability could also be investigated with comparative analyses across regions or groups. Third, scholars should pursue the development of holistic models that integrate acceptance constructs with trust, risk and socio-religious factors. They also would give a more complete view of the multifaceted dynamics by which QRIS adoption might unfold, and could generate important implications for governments, financial institutions, and MSMEs aiming to build digital payment infrastructures in  Indonesia.

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