



**THE INFLUENCE OF QRIS USAGE ON FINANCIAL RECORDING
ACCOUNTABILITY WITH FINANCIAL LITERACY AS A MEDIATION
VARIABLE: EVIDENCE FROM MSMEs IN DENPASAR, INDONESIA**

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ABSTRACT

This study aims to analyze the effect of QRIS (Quick Response Code Indonesian Standard) usage on financial recording accountability with financial literacy as a mediating variable. Based on the Technology Acceptance Model (TAM), this research employs a quantitative approach using Structural Equation Modeling with Partial Least Squares (SEM-PLS). Data were collected through questionnaires from 100 MSMEs in Denpasar, selected through purposive sampling. The results indicate that QRIS usage has a positive and significant direct effect on financial recording accountability. Furthermore, QRIS usage positively influences financial literacy, which in turn enhances financial recording accountability. Financial literacy also partially mediates the relationship between QRIS usage and financial recording accountability. These findings confirm that the adoption of digital payment technology can improve financial accountability, especially when supported by adequate financial literacy. The study contributes to the extension of TAM in the context of digital financial accountability and provides practical insights for policymakers, financial institutions, and MSMEs in enhancing digital financial governance.

Keywords: QRIS, financial accountability, financial literacy, Technology Acceptance Model, SEM-PLS, MSMEs.

A. INTRODUCTION

The development of the digital revolution has driven significant transformation in the financial sector, one of which is through the shift in payment methods from cash to non-cash (Bank Indonesia, 2019). In Indonesia, the main innovation in this transformation is the Quick Response Code Indonesian Standard (QRIS), a QR code-based payment system developed by Bank Indonesia to integrate various digital transaction platforms to make them more efficient and accessible to the public (Bank Indonesia, 2019). The adoption of QRIS, especially among Micro, Small, and Medium Enterprises (MSMEs), has increased rapidly and is seen as an effective and efficient method because it can reduce operational costs and improve business performance (Istiqomah & Gati, 2020). This increase has accelerated in the wake of the COVID-19 pandemic, driven by the need for contactless transactions (Yulianti, 2023).

Despite offering transaction efficiency, the use of QRIS has not fully contributed to improving accountable financial management. Many MSME players still keep financial records manually without separating personal and business finances, resulting in inaccurate and difficult-to-analyze financial data (Wahyudiono, 2024). In fact, digital payment systems such as QRIS have the potential to support better accounting practices through automatic and traceable transaction recording (Bank Indonesia, 2023). Accountability in financial recording is an important foundation for MSMEs, not only for good administration but also as a requirement for obtaining financing and increasing the trust of business partners (Widyatama et al., 2020).

Based on the Technology Acceptance Model (TAM), the adoption of a technology such as QRIS is influenced by perceived ease of use and perceived usefulness (Davis, 1989a). Previous studies have confirmed the influence of these two factors on the intention and behavior of using financial technology (Agiustino & Yousida, 2021) (Leany et al., 2024). However, studies on the direct implications of payment technology adoption on financial recording accountability practices, particularly in MSMEs, are still limited. The majority of studies focus on behavioral intention or intention to use, while the impact on the quality of accountable financial recording and reporting has not been widely explored in an integrated model (Rahman Hakim et al., 2024).

This research gap indicates that the benefits of technological convenience and usability may not automatically improve financial accountability without supporting factors. In this context, financial literacy is thought to play an important role. Financial literacy—which includes knowledge, skills, and beliefs in financial management (OJK)—determines the extent to which individuals can optimally utilize digital transaction data for accountable recording (Kumalasari et al., 2024). Individuals with adequate financial literacy tend to be better able to interpret QRIS transaction data and manage it into transparent and accountable financial reports.

Therefore, this study aims to analyze the effect of QRIS usage on financial recording accountability by placing financial literacy as a mediating variable. Conceptually, this study presents novelty by integrating TAM and the concept of financial accountability through a financial literacy mediation approach (Ulya et al., 2024). The empirical contribution of this study focuses on the context of MSMEs in Denpasar City, Bali, which has high QRIS penetration but still faces challenges in transparent financial management (Arya et al., 2024). The results of this study are expected to enrich the literature on financial technology adoption and provide a basis for designing a more integrative education strategy between the use of digital payment systems and improving financial literacy for MSMEs.

B. RESEARCH METHOD

This study uses a quantitative approach with a survey method. The research population consists of all Micro, Small, and Medium Enterprises (MSMEs) in Denpasar City, totaling 32,856 businesses based on data from the local Cooperative and SME Office. The sample was determined using purposive sampling, with the following criteria: (1) MSME actors who use QRIS, (2) keep financial records, (3) have an NPWP (tax identification number), and (4) have actively used QRIS for at least the past year. Based on the Slovin formula calculation with a 10% margin of error, a sample of 100 respondents was obtained. Primary data collection was conducted through the distribution of an online questionnaire using Google Forms, which was designed with a 1-5 Likert scale. The questionnaire measured three research variables: QRIS usage (dimensions of perceived ease of use and perceived usefulness), financial literacy (dimensions of knowledge, attitude, and behavior), and financial record-keeping accountability (dimensions of openness, consistency, and utilization of reports). Data analysis used Partial Least Square (PLS)-based Structural Equation Modeling (SEM) with the help of SmartPLS 4 software. The analysis process included two stages: evaluation of the outer model to test convergent validity, discriminant validity, and construct reliability; and evaluation of the inner model to test the coefficient of determination (R^2) and path coefficients. Hypothesis significance testing was performed using the bootstrapping method, in which a hypothesis was accepted if the t-statistic value was > 1.96 and the p-value was < 0.05 .

C. RESEARCH AND DISCUSSION RESULT

Data Analysis

This study uses a quantitative approach, collecting data through questionnaires given to 100 MSMEs in Denpasar City. Data analysis was performed using the PLS-SEM technique through SmartPLS version 4.0 software.

Responden Characteris

This study was conducted on 100 MSME players in Denpasar City who have been

using QRIS for at least one year, keep financial records, and have an NPWP (tax identification number). The majority of respondents are engaged in the culinary sector (40%), followed by retail (24%), services (21%), and fashion (14%). Respondents were relatively evenly distributed across four subdistricts in Denpasar, with businesses aged 3–5 years constituting the majority (45%). These characteristics indicate that the sample is sufficiently representative to examine the impact of QRIS usage in the context of MSMEs with active adoption of digital payment technology.

Analysis Results

a. Validity Test:

Convergent validity testing proves that all indicators consistently measure the intended construct. This is demonstrated by the outer loading value of each indicator, which is above 0.80—exceeding the threshold of 0.70—and the Average Variance Extracted (AVE) value for each construct, namely Financial Recording Accountability (0.774), Financial Literacy (0.728), and QRIS Usage (0.681), all of which exceed the minimum criterion of 0.50.

The discriminant validity test confirmed that each construct is a unique and distinct concept. Based on the Fornell-Larcker criteria, the square root of the AVE for each construct (Accountability: 0.879; Literacy: 0.853; QRIS: 0.825) is higher than the inter-construct correlation. These results are reinforced by Heterotrait-Monotrait Ratio (HTMT) values that are all below 0.90 (highest 0.865) and a cross-loading table showing that each indicator has the highest loading on its original construct.

b. Reliability Test:

The construct reliability test confirms very strong internal consistency. Cronbach's Alpha values (0.882–0.927) and Composite Reliability (0.914–0.945) for the three constructs far exceed the 0.70 threshold. Thus, it can be concluded that the measurement model in this study has met the validity and reliability requirements very well, making it suitable for use in further hypothesis testing.

Table 1 Reliability Test

	Cronbach's alpha	Composite reliability	AVE	Description
Financial Accountability	0.927	0.945	0.774	Reabilitas
Financial Literacy	0.925	0.941	0.728	Reabilitas
Use of QRIS	0.882	0.914	0.681	Reabilitas

Source: data processed by researchers (2026)

c. R-Square (R²)

The strength of the structural model was tested by analyzing the R-Square (R²) value to determine the extent to which the independent variables could explain the variation in the dependent variable. The results show that this model has strong explanatory power. The Financial Recording Accountability variable (Y) obtained an R² value of 0.689, meaning that 68.9% of its variance can be explained jointly by the QRIS Usage (X) and Financial Literacy (M) variables. Meanwhile, the Financial Literacy (M) variable as a mediator had an R² value of 0.537, indicating that 53.7% of its variance was influenced by QRIS Use (X). The Adjusted R-Square values, which are still very consistent (0.682 and 0.532, respectively), reinforce the conclusion that this model is stable and has good predictive power, with the remaining percentage of variance explained by factors outside this research model.

Table 2 R-Square (R2)

Variable	R-Square	R-Square adjusted
Financial Literacy (M)	0.537	0.532
Financial Accountability (Y)	0.689	0.682

Source: data processed by researchers (2026)

d. Hypothesis Testing

Based on the results of hypothesis testing, all direct and indirect effects in the structural model proved to be significant. Specifically, the direct effect test results showed that the use of QRIS (X) had a positive and significant effect on financial recording accountability (Y) with a coefficient of 0.269 ($t=3.266$; $p=0.001$), and on financial literacy (M) with a coefficient of 0.746 ($t=16.433$; $p=0.000$). Furthermore, financial literacy (M) was also proven to have a positive and significant effect on financial recording accountability (Y) with a coefficient of 0.604 ($t=8.333$; $p=0.000$). Meanwhile, the indirect effect test results confirmed that financial literacy (M) played a significant mediating role in the relationship between QRIS usage (X) and financial recording accountability (Y), with an indirect effect coefficient of 0.445 ($t=7.429$; $p=0.000$). These findings overall indicate that in addition to having a direct effect, increased use of QRIS is also consistently followed by increased financial recording accountability through increased financial literacy among its users.

Table 3 Hypothesis Testing

Variable	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T-statistics (O/STDEV)	P-values	Description
M → Y	0.604	0.605	0.072	8.333	0.000	Positive and Significant
X → M	0.746	0.749	0.045	16.433	0.000	Positive and Significant
X → Y	0.269	0.269	0.082	3.266	0.001	Positive and Significant
X→M→Y	0.445	0.447	0.060	7.429	0.000	Positive and Significant

Source: data processed by researchers (2026)

Discussion Result

The Effect of QRIS Use on Financial Recording Accountability

The findings confirm that the adoption of QRIS has a direct, positive, and significant effect on improving the financial recording accountability of MSMEs. This is evidenced by a p-value of 0.001 (< 0.05) and a T-statistic of 3.266 (> 1.96), providing very strong statistical evidence to reject the null hypothesis (H_0) and accept the alternative hypothesis (H_a). This means that, statistically, the effect is real and does not occur by chance. Theoretically, this finding is in line with the Technology Acceptance Model (TAM), where the perceived ease of use and perceived usefulness of QRIS encourage continued adoption. In practical terms, automated and documented transactions via QRIS minimize human error, loss of transaction evidence, and increase cash flow transparency, as supported by research by (Hidayati & Nafidah, 2023).

The Effect of QRIS Use on Financial Literacy

The results of the study show that the use of QRIS also significantly improves the financial literacy of MSME players. The strength of this relationship is even greater than the direct relationship with accountability. With a p-value of 0.000, this effect is statistically significant. The very large T-statistic (16.433) indicates a very robust relationship. Repeated digital transactions through QRIS serve as a medium for informal financial education. Regular interaction with structured transaction reports accustoms business actors to reading and analyzing financial data, which ultimately builds better financial knowledge, skills, and

behavior. These findings are consistent with the research of (Hanggoro et al., 2025).

The Effect of Financial Literacy on Financial Recording Accountability

This study found that financial literacy is a strong predictor of financial recording accountability. The very high statistical significance ($p=0.000$; $T=8.333$) confirms that understanding financial concepts is a crucial foundation for accountability practices. MSME actors with adequate financial literacy do not just “record” but understand why recording must be done, how to categorize it, and how to use the information for decision-making. This results in more consistent, accurate, and accountable record-keeping, supporting the views of the OJK and the findings of (Risakotta, 2023).

The Role of Financial Literacy Mediation

The most important finding in this study is the role of financial literacy as a partial mediator in the relationship between QRIS and financial recording accountability. This means that QRIS affects accountability through two channels:

- 1) Direct Channel (Automation): QRIS improves accountability through automatic and systematic transaction recording features.
- 2) Indirect Path (Capacity Building): QRIS first improves the financial literacy of its users. This higher financial literacy then strengthens and optimizes the ability of MSME actors to utilize data from QRIS for more accountable recording practices.

In other words, technology (QRIS) provides accurate “raw material” data, but financial literacy serves as the “processing skills” needed to transform that data into truly accountable financial information. Without adequate literacy, the benefits of QRIS for financial management will not be optimal. This finding expands the application of TAM by showing that the perceived usefulness of a technology can be maximized when users have supporting competencies (in this case, financial literacy).

D. CONCLUSION

Overall, this study provides strong empirical evidence (with significant p-values and t-statistics) that QRIS is not only a tool for transaction efficiency, but also a catalyst for improving financial literacy and financial accountability among MSMEs. The relationship is complex and partially mediated by financial literacy. Therefore, efforts to improve SME financial management in the digital era require a dual strategy: accelerating technology adoption and strengthening the financial competencies of business actors simultaneously.

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