

From Cashless Transaction Capability to MSME Creditworthiness: The Role of Digital Accounting Quality in Indonesia's Fintech Lending Ecosystem

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ABSTRACT

The increasing adoption of cashless payment systems has created new opportunities for Micro, Small, and Medium Enterprises (MSMEs) to improve financial transparency and access fintech-based financing. This study examines the influence of cashless transaction capabilities on MSME creditworthiness, with digital accounting quality serving as a mediating variable in Indonesia's fintech lending ecosystem. A quantitative research design was employed using data collected from 150 MSME owners and financial managers who actively used digital payment services and had experience with fintech-based financial services. The research variables were measured using a five-point Likert scale, and the data were analyzed using Structural Equation Modeling–Partial Least Squares with SmartPLS 3. The results show that cashless transaction capabilities have a significant positive effect on digital accounting quality and MSME creditworthiness. Digital accounting quality also has a significant positive effect on MSME creditworthiness. Furthermore, digital accounting quality significantly mediates the relationship between cashless transaction capabilities and MSME creditworthiness, indicating partial mediation. The model explains 68.7% of the variance in MSME creditworthiness and demonstrates satisfactory predictive relevance and model fit. These findings indicate that cashless transaction capabilities improve creditworthiness not only through traceable transaction histories but also by enhancing the accuracy, completeness, timeliness, and reliability of digital accounting information.

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1. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) constitute the backbone of Indonesia's economy, contributing more than 60% of the national Gross Domestic Product (GDP) and absorbing approximately 97% of the country's workforce. Despite their substantial economic contribution, MSMEs continue to face persistent challenges in accessing formal financing due to limited collateral, inadequate financial records, and information asymmetry between borrowers and lenders [1], [2]. Conventional financial institutions frequently rely on collateral-based lending and historical financial statements, creating considerable barriers for MSMEs operating with informal accounting systems. The rapid expansion of financial technology (fintech) has introduced alternative lending mechanisms that utilize digital financial data, including transaction histories [3], [4], digital payment records, and behavioral financial information, to evaluate borrowers. At the same time, Indonesia has experienced remarkable growth in digital payment adoption through QRIS, e-wallets, mobile banking, and other cashless payment systems, enabling MSMEs to generate continuous digital transaction records that potentially reduce information asymmetry and improve financing opportunities [5], [6].

Cashless transaction capabilities represent an organization's ability to effectively adopt, integrate, and utilize digital payment technologies within daily business operations. Beyond improving operational efficiency, digital payment systems automatically generate structured, traceable, and real-time financial information that facilitates bookkeeping and enhances financial transparency. Compared with conventional cash transactions, digital transactions provide more reliable documentation that supports accounting processes and financial reporting [7]. Consequently, digital accounting quality has become an increasingly important organizational capability characterized by financial information that is accurate, timely,

complete, reliable, and easily accessible. The implementation of cloud-based accounting software, automated bookkeeping applications, and integrated payment systems enables MSMEs to maintain higher-quality financial records, thereby strengthening managerial decision-making while providing external stakeholders with more credible evidence of business performance and financial condition. Such improvements are expected to enhance MSMEs' creditworthiness within fintech lending ecosystems, where financing decisions increasingly rely on digital financial information rather than solely on conventional financial indicators [8], [9].

The proposed relationships can be explained through the integration of the Resource-Based View (RBV) and Information Quality Theory. The Resource-Based View argues that organizational capabilities, including digital transaction capabilities, constitute valuable strategic resources that generate sustainable competitive advantages when effectively deployed. Cashless transaction capabilities enable MSMEs to develop digital financial resources that improve operational efficiency and financial transparency. Meanwhile, Information Quality Theory emphasizes that decision quality depends on the accuracy, completeness, reliability, and timeliness of available information [8], [9]. Within fintech lending environments, high-quality digital accounting information generated through integrated digital transaction systems reduces uncertainty for lenders, facilitates more accurate credit assessments, and lowers perceived lending risk. Therefore, digital accounting quality is expected to function as a strategic mediating mechanism through which cashless transaction capabilities improve MSME creditworthiness.

Although previous studies have extensively examined fintech adoption, digital financial inclusion, and MSME financing, relatively limited attention has been devoted to explaining how cashless transaction capabilities enhance creditworthiness through improvements in

digital accounting quality. Existing literature generally investigates digital payment adoption as a determinant of operational performance or financial inclusion, whereas studies on accounting quality primarily focus on financial reporting outcomes without explicitly connecting them to fintech lending decisions. Moreover, empirical evidence regarding the mediating role of digital accounting quality in the relationship between cashless transaction capabilities and MSME creditworthiness remains scarce, particularly within emerging economies where digital payment ecosystems continue to develop rapidly. This fragmented evidence indicates the need for a more integrated framework capable of explaining the underlying mechanisms linking digital payment capabilities with financing eligibility.

Indonesia provides an appropriate empirical setting for addressing this research gap because its digital payment ecosystem has expanded substantially through government initiatives promoting financial inclusion, QRIS implementation, and increasing fintech penetration among MSMEs [5], [10]. Nevertheless, many MSMEs continue to encounter difficulties in transforming digital transaction adoption into systematic accounting practices capable of supporting financing applications. As fintech platforms increasingly employ artificial intelligence, big data analytics, and alternative credit-scoring models, the availability of accurate and comprehensive digital accounting information becomes increasingly important in determining financing eligibility. Understanding these relationships is therefore highly relevant for strengthening Indonesia's digital financial ecosystem while improving MSMEs' access to external financing.

Based on these considerations, this study aims to examine the effect of cashless transaction capabilities on MSME creditworthiness and to investigate the mediating role of digital accounting quality within Indonesia's fintech lending ecosystem. This study contributes to the digital finance

literature by integrating the Resource-Based View and Information Quality Theory into a comprehensive framework linking digital payment capability, digital accounting quality, and financing eligibility. The findings are expected to advance theoretical understanding of digital organizational capabilities while providing practical implications for policymakers, fintech providers, accounting software developers, and MSME owners seeking to improve financing accessibility through stronger digital accounting practices.

2. LITERATURE REVIEW

2.1. *Resource-Based View (RBV)*

The Resource-Based View (RBV) explains that organizations achieve sustainable competitive advantage by effectively utilizing valuable, rare, inimitable, and non-substitutable resources [11]. In the digital economy, cashless transaction capabilities represent strategic intangible resources that enable MSMEs to improve transaction efficiency, financial transparency, and information availability. These capabilities extend beyond technology adoption because they reflect the ability of MSMEs to integrate digital payment systems and financial technologies into operational and financial management processes [12], [13]. When effectively utilized, cashless transaction capabilities generate reliable digital financial records, strengthen digital accounting quality, and enhance the credibility of MSMEs in the eyes of external stakeholders [14], [15]. Therefore, RBV supports the argument that stronger cashless transaction capabilities improve digital accounting quality and ultimately increase MSME creditworthiness within fintech lending ecosystems.

2.2. *Information Quality Theory*

Information Quality Theory explains that decision effectiveness depends on the accuracy, completeness, consistency, timeliness, relevance, reliability, and accessibility of available information [16], [17]. Digital accounting

systems improve these attributes by automatically recording, integrating, and processing financial transactions, thereby reducing human error and producing more consistent and timely financial reports. Within fintech lending ecosystems, high-quality digital accounting information enables lenders to assess business performance, cash flow stability, repayment capacity, and operational sustainability more accurately while reducing information asymmetry [18], [19]. Therefore, this theory supports the mediating role of digital accounting quality in transforming cashless transaction capabilities into stronger MSME creditworthiness.

2.3. *Cashless Transaction Capabilities*

Cashless transaction capabilities refer to an organization's ability to effectively integrate and utilize digital payment technologies through technological readiness, transaction management, user competency, and operational flexibility [3], [4]. For MSMEs, the use of mobile banking, QRIS, electronic wallets, payment gateways, and contactless payment systems provides benefits beyond payment convenience by accelerating transactions, reducing cash-handling risks, improving traceability, and automatically generating digital transaction records. These records support bookkeeping, financial reporting, taxation, and business performance analysis while strengthening financial transparency [6], [20]. In Indonesia, the expansion of QRIS and government-led digital financial inclusion initiatives has accelerated cashless payment adoption among MSMEs [7], enabling them to accumulate structured financial data. Therefore, cashless transaction capabilities are increasingly regarded as strategic organizational competencies that improve operational efficiency, financial

management, customer service, and broader digital transformation.

2.4. *Digital Accounting Quality*

Digital accounting quality refers to the ability of digital accounting systems to produce accurate, timely, complete, reliable, relevant, and useful financial information for managerial and external decision-making. Through cloud accounting software, ERP systems, digital bookkeeping applications, and integrated payment platforms, businesses can automate transaction recording, reduce errors, improve consistency, strengthen internal controls, and accelerate financial reporting [18], [21]. These benefits are particularly important for MSMEs, which often face limited accounting knowledge, inadequate human resources, and dependence on manual bookkeeping. By simplifying financial recordkeeping and report preparation, digital accounting technologies improve financial transparency and decision quality [21], [22]. Within fintech lending ecosystems, high-quality digital accounting information also serves as alternative credit data that enables lenders to assess business performance more objectively, reduce lending uncertainty, and improve MSMEs' access to financing.

2.5. *MSME Creditworthiness*

Creditworthiness refers to a borrower's ability and reliability in fulfilling future financial obligations based on financial condition, repayment behavior, operational performance, and business sustainability. While traditional lenders primarily assess creditworthiness through collateral, financial statements, credit history, and income stability, fintech lending platforms increasingly use alternative data such as digital transaction histories, online business activities, payment consistency, customer reviews, inventory turnover, and digital accounting records [23], [24]. Artificial intelligence and machine learning further strengthen credit assessment by

analyzing these diverse digital indicators. For MSMEs, transparent financial reporting and consistent digital transaction records can demonstrate business legitimacy, reduce perceived lending risk, and improve access to financing. Therefore, creditworthiness in the digital economy reflects not only financial strength but also the credibility and transparency of business operations [24], [25].

2.6. Hypothesis Development and Conceptual

Numerous studies have examined digital financial technologies, accounting information quality, and MSME financing, generally finding that digital transformation improves organizational performance, financial inclusion, and access to financing. Cashless payment systems enhance operational efficiency, transaction security, customer convenience, and financial transparency by generating traceable electronic transaction records. Digital accounting systems further improve financial reporting quality through greater accuracy, timeliness, completeness, and reliability, thereby supporting managerial decision-making and increasing lender confidence. Research on fintech lending also shows that alternative digital data can improve credit assessment, particularly for MSMEs with limited collateral or credit histories, because such information reduces asymmetry between borrowers and lenders [3], [4], [20].

Despite these findings, few studies have examined cashless transaction capabilities, digital accounting quality, and MSME creditworthiness within a unified structural model. Existing research often analyzes digital payment adoption and accounting quality separately, leaving the mechanism through which cashless transaction capabilities improve financing eligibility insufficiently explained. Empirical evidence

concerning the mediating role of digital accounting quality also remains limited, particularly in developing economies with rapidly evolving digital financial ecosystems. Therefore, this study proposes that cashless transaction capabilities positively influence digital accounting quality and MSME creditworthiness, while digital accounting quality positively influences creditworthiness and mediates the relationship between cashless transaction capabilities and MSME creditworthiness within Indonesia's fintech lending ecosystem.

H1: Cashless Transaction Capabilities positively influence Digital Accounting Quality.

H2: Cashless Transaction Capabilities positively influence MSME Creditworthiness.

H3: Digital Accounting Quality positively influences MSME Creditworthiness.

H4: Digital Accounting Quality mediates the relationship between Cashless Transaction Capabilities and MSME Creditworthiness.

3. RESEARCH METHODS

3.1. Research Design

This study employed a quantitative explanatory approach to examine the relationships among Cashless Transaction Capabilities, Digital Accounting Quality, and MSME Creditworthiness within Indonesia's fintech lending ecosystem. A cross-sectional survey was conducted by distributing structured questionnaires to MSME owners who had adopted digital payment systems and used fintech financial services. The collected data were analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS 3), which is appropriate for testing causal relationships among latent variables, evaluating predictive models, and examining mediation effects based

on the Resource-Based View and Information Quality Theory.

3.2. Population and Sample

The study population comprised Indonesian Micro, Small, and Medium Enterprises (MSMEs) that actively used digital payment technologies, including QRIS, mobile banking, electronic wallets, payment gateways, or internet banking. Respondents were selected through purposive sampling based on the following criteria: they were MSME owners or financial managers, had operated their businesses for at least one year, regularly used cashless payment systems, had experience applying for or receiving fintech financing or interacting with digital financial institutions, and voluntarily agreed to participate. A total of 150 valid responses were collected and analyzed, meeting the minimum sample size requirement for SEM-PLS based on the ten-times rule.

3.3. Data Collection Technique

Primary data were collected through a structured questionnaire distributed online and offline to MSME communities, business associations, entrepreneurship development centers, and digital business networks across Indonesia. The questionnaire consisted of two sections covering respondent demographic information and measurement items for the research variables. All items were assessed using a five-point Likert scale ranging from 1, representing strongly disagree, to 5, representing strongly agree. Before completing the questionnaire, respondents were informed about the purpose of the study, and their participation was voluntary, anonymous, and confidential.

3.4. Operational Definition of Variables

The study comprises one independent variable, one mediating variable, and one dependent variable. Cashless Transaction Capabilities (CTC) refer to the ability of MSMEs to effectively use digital payment

technologies, measured through the ability to accept multiple digital payment methods, integrate digital payments into daily operations, monitor digital transactions, frequently use digital payments, and manage digital transaction records. Digital Accounting Quality (DAQ) refers to the quality of accounting information generated through digital systems, measured by the accuracy of digital financial records, timeliness of financial reporting, completeness of accounting information, reliability of accounting reports, and ease of information access. MSME Creditworthiness (MC) refers to the ability of MSMEs to demonstrate financial credibility and repayment capacity to fintech lenders, measured through the ability to meet financing requirements, perceived financial transparency, consistency of financial performance, confidence in obtaining fintech financing, and ability to maintain repayment capacity.

3.5. Data Analysis Technique

The collected data were analyzed using SmartPLS Version 3 through Structural Equation Modeling–Partial Least Squares (SEM-PLS), which was selected because it accommodates complex causal models, performs well with relatively small samples, does not require multivariate normality, supports mediation analysis, and is prediction-oriented. The analysis consisted of measurement and structural model assessments. The measurement model evaluated convergent validity using outer loadings of at least 0.70 and Average Variance Extracted (AVE) of at least 0.50, internal consistency using Cronbach's Alpha and Composite Reliability values of at least 0.70, and discriminant validity using the Fornell–Larcker criterion and HTMT values below 0.90. The structural model assessed collinearity using VIF values below 5.00, explanatory power through R^2 values of 0.75, 0.50, and 0.25 for

strong, moderate, and weak levels, effect size through f^2 values of 0.02, 0.15, and 0.35 for small, medium, and large effects, and predictive relevance using Q^2 values above zero. Model fit was examined using SRMR below 0.08 and NFI above 0.90. Hypotheses were tested through bootstrapping with 5,000 subsamples using t-statistics above 1.96 and p-values below 0.05, while mediation was considered significant when the indirect effect had a p-value below 0.05 and the bias-corrected confidence interval did not include zero; partial or full mediation was determined by comparing the

significance of the direct and indirect effects.

4. RESULTS AND DISCUSSION

4.1 Respondent Profile

A total of 150 valid questionnaires were collected from MSME owners operating in various sectors across Indonesia. All respondents met the research criteria, namely actively utilizing cashless payment systems in their business operations and possessing experience with digital financial services, including fintech lending platforms. The demographic characteristics of respondents are presented in Table 1.

Table 1. Respondent Demographic Profile

Characteristics	Category	Frequency	Percentage (%)
Gender	Male	82	54.7
	Female	68	45.3
Age	<25 years	18	12.0
	25–34 years	57	38.0
	35–44 years	46	30.7
	45–54 years	22	14.7
	>54 years	7	4.6
Education	High School	36	24.0
	Diploma	28	18.7
	Bachelor's Degree	71	47.3
	Postgraduate	15	10.0
Business Age	1–3 years	39	26.0
	4–6 years	48	32.0
	7–10 years	41	27.3
	>10 years	22	14.7
Business Sector	Retail	47	31.3
	Food & Beverage	39	26.0
	Services	34	22.7
	Manufacturing	18	12.0
	Others	12	8.0
Digital Payment Used	QRIS	137	91.3
	E-wallet	122	81.3
	Mobile Banking	119	79.3
	Payment Gateway	58	38.7

The demographic profile of 150 respondents shows that 54.7% were male and 45.3% were female, with most respondents aged 25–34 years (38.0%) and 35–44 years (30.7%). In terms of education, nearly half held a bachelor's degree (47.3%), followed by high school

graduates (24.0%), diploma holders (18.7%), and postgraduates (10.0%). Most businesses had operated for 4–6 years (32.0%), followed by 7–10 years (27.3%), 1–3 years (26.0%), and more than 10 years (14.7%). Retail was the dominant business sector (31.3%), followed by food

and beverage (26.0%), services (22.7%), manufacturing (12.0%), and other sectors (8.0%). QRIS was the most widely used digital payment method (91.3%), followed by e-wallets (81.3%), mobile banking (79.3%), and payment gateways (38.7%).

4.2 Descriptive Statistics

Descriptive statistics were calculated to examine respondents' perceptions regarding Cashless Transaction Capabilities (CTC), Digital Accounting Quality (DAQ), and MSME Creditworthiness (MC). Table 2 summarizes the mean values and standard deviations of each construct.

Table 2. Descriptive Statistics

Variable	Mean	Standard Deviation
Cashless Transaction Capabilities	4.213	0.611
Digital Accounting Quality	4.086	0.654
MSME Creditworthiness	4.167	0.592

The descriptive analysis indicates that all variables achieved mean values exceeding 4.00, suggesting that respondents generally agreed with the statements measuring each construct. Cashless Transaction Capabilities obtained the highest mean score (4.213), reflecting the extensive utilization of digital payment systems among participating MSMEs. Digital Accounting Quality recorded a mean of 4.086, indicating that respondents perceived their accounting systems to produce relatively accurate and reliable financial information. MSME Creditworthiness also achieved a relatively high average score (4.167), suggesting that respondents believed their businesses

possessed favorable financing eligibility within fintech lending platforms.

4.3 Measurement Model Assessment

The measurement model was evaluated to determine the reliability and validity of the research constructs. The assessment included convergent validity, internal consistency reliability, and discriminant validity.

A. Convergent Validity

Convergent validity was assessed using indicator loadings and Average Variance Extracted (AVE). According to Hair et al. (2022), outer loading values should exceed 0.70, while AVE should be greater than 0.50.

Table 3. Outer Loading

Construct	Indicator	Loading
Cashless Transaction Capabilities	CTC1	0.842
	CTC2	0.876
	CTC3	0.859
	CTC4	0.826
	CTC5	0.812
Digital Accounting Quality	DAQ1	0.861
	DAQ2	0.889
	DAQ3	0.845
	DAQ4	0.854
	DAQ5	0.833
MSME Creditworthiness	MC1	0.881
	MC2	0.867
	MC3	0.852
	MC4	0.823
	MC5	0.814

The outer loading results show that all indicators exceeded the recommended threshold of 0.70, confirming adequate convergent validity. For Cashless Transaction Capabilities, loading values ranged from 0.812 to 0.876, with CTC2 recording the highest value. Digital Accounting Quality indicators produced loadings between 0.833 and 0.889, with DAQ2 showing the strongest contribution. Meanwhile, MSME Creditworthiness indicators had loading values ranging from

0.814 to 0.881, with MC1 demonstrating the highest loading. These findings indicate that all indicators reliably represent their respective constructs and can be retained for further analysis.

B. Reliability and Average Variance Extracted

Reliability was evaluated using Cronbach's Alpha and Composite Reliability (CR), while convergent validity was further confirmed through AVE.

Table 4. Reliability and Convergent Validity

Construct	Cronbach's Alpha	Composite Reliability	AVE
Cashless Transaction Capabilities	0.893	0.921	0.699
Digital Accounting Quality	0.905	0.930	0.726
MSME Creditworthiness	0.899	0.926	0.714

Table 4 demonstrates that all constructs possess excellent internal consistency, with Cronbach's Alpha values ranging from 0.893 to 0.905, exceeding the recommended minimum value of 0.70. Composite Reliability values also surpassed 0.90, indicating highly reliable measurement instruments.

Moreover, AVE values ranged from 0.699 to 0.726, confirming adequate convergent validity since all exceeded the threshold of 0.50.

C. Discriminant Validity

The Fornell–Larcker criterion was employed to examine discriminant validity.

Table 5. Fornell–Larcker Criterion

Construct	CTC	DAQ	MC
Cashless Transaction Capabilities	0.836		
Digital Accounting Quality	0.711	0.852	
MSME Creditworthiness	0.676	0.781	0.845

The Fornell–Larcker criterion results indicate that the square roots of the Average Variance Extracted for Cashless Transaction Capabilities, Digital Accounting Quality, and MSME Creditworthiness were 0.836, 0.852, and 0.845, respectively. Each diagonal value was higher than the

corresponding inter-construct correlations, which ranged from 0.676 to 0.781. These findings confirm that each construct shares more variance with its own indicators than with other constructs, thereby demonstrating adequate discriminant validity.

Table 6. HTMT Ratio

Construct	CTC	DAQ	MC
Cashless Transaction Capabilities	—		
Digital Accounting Quality	0.812	—	

MSME Creditworthiness	0.758	0.861	—
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The HTMT results indicate that all inter-construct ratios were below the recommended threshold of 0.90, with values of 0.812 between Cashless Transaction Capabilities and Digital Accounting Quality, 0.758 between Cashless Transaction Capabilities and MSME Creditworthiness, and 0.861 between Digital Accounting Quality and MSME Creditworthiness. These findings confirm that the constructs are empirically distinct and demonstrate adequate discriminant validity.

4.4 Structural Model Assessment

Following the confirmation that the measurement model satisfied all reliability and validity requirements, the structural model was evaluated to examine the predictive capability of the proposed research framework. The assessment included collinearity diagnostics, coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), model fit, and hypothesis testing using the bootstrapping procedure.

A. Collinearity Assessment

Before testing the structural relationships, collinearity among predictor constructs was examined using the Variance Inflation Factor (VIF). Hair et al. (2022) recommends that VIF values should remain below 5.00 to indicate the absence of multicollinearity.

Table 7. Collinearity Assessment (VIF)

Relationship	VIF
CTC → DAQ	1.000
CTC → MC	2.024
DAQ → MC	2.024

The collinearity assessment results show that all Variance Inflation Factor (VIF) values were below the recommended threshold

of 5.00. The relationship between Cashless Transaction Capabilities and Digital Accounting Quality recorded a VIF value of 1.000, while the relationships between Cashless Transaction Capabilities and MSME Creditworthiness and between Digital Accounting Quality and MSME Creditworthiness both recorded VIF values of 2.024. These results indicate that the structural model is free from multicollinearity problems and that the predictor constructs can be used reliably in further hypothesis testing.

B. Coefficient of Determination (R^2)

The coefficient of determination (R^2) was used to evaluate the explanatory power of the structural model, with values of 0.75, 0.50, and 0.25 indicating substantial, moderate, and weak explanatory power, respectively (Hair et al., 2022). The results show that Cashless Transaction Capabilities explained 50.6% of the variance in Digital Accounting Quality, as reflected by an R^2 value of 0.506, indicating moderate explanatory power. Meanwhile, Cashless Transaction Capabilities and Digital Accounting Quality jointly explained 68.7% of the variance in MSME Creditworthiness, with an R^2 value of 0.687, indicating moderate-to-high explanatory power. These findings confirm that the proposed structural model has satisfactory explanatory capability for the endogenous constructs.

C. Effect Size (f^2)

The effect size (f^2) was calculated to determine the contribution of each exogenous construct to the endogenous variables.

Table 8. Effect Size (f^2)

Relationship	f^2	Interpretation
CTC → DAQ	1.025	Large
CTC → MC	0.174	Medium
DAQ → MC	0.364	Large

The effect size (f^2) results indicate that Cashless Transaction Capabilities had a large effect on Digital Accounting Quality, with an f^2 value of 1.025. Cashless Transaction Capabilities also had a medium effect on MSME Creditworthiness, as reflected by an f^2 value of 0.174, while Digital Accounting Quality exerted a large effect on MSME Creditworthiness, with an f^2 value of 0.364. These findings show that Digital Accounting Quality plays a substantial role in explaining MSME Creditworthiness, whereas Cashless Transaction Capabilities contribute both directly to creditworthiness and strongly to the improvement of digital accounting quality.

D. Predictive Relevance (Q^2)

Predictive relevance was assessed using the blindfolding procedure, and the results show that Digital Accounting Quality and MSME Creditworthiness obtained Q^2

values of 0.352 and 0.471, respectively. Because both values were greater than zero, the structural model demonstrates satisfactory predictive relevance for the endogenous constructs.

E. Model Fit

Model fit indices were examined to evaluate the overall adequacy of the SEM-PLS model. The results show an SRMR value of 0.056, which is below the recommended threshold of 0.08, indicating a good model fit. The NFI value of 0.923 also exceeded the recommended minimum of 0.90, confirming that the proposed structural model adequately represents the observed data.

4.5 Hypothesis Testing

The proposed hypotheses were tested using the bootstrapping procedure with 5,000 subsamples. A hypothesis was considered supported when the T-statistic exceeded 1.96 and the p-value was less than 0.05.

Table 9. Direct Effects

Hypothesis	Relationship	β	t-value	p-value	Decision
H1	CTC → DAQ	0.711	15.863	0.000	Supported
H2	CTC → MC	0.318	4.327	0.000	Supported
H3	DAQ → MC	0.573	7.916	0.000	Supported

The direct effect results show that Cashless Transaction Capabilities had a positive and significant effect on Digital Accounting Quality ($\beta = 0.711$, $t = 15.863$, $p < 0.001$), thereby supporting H1. Cashless Transaction Capabilities also positively and significantly influenced MSME Creditworthiness ($\beta = 0.318$, $t = 4.327$, $p < 0.001$), supporting H2. In addition, Digital Accounting Quality had a positive and significant effect on MSME Creditworthiness ($\beta = 0.573$, $t = 7.916$, $p < 0.001$), confirming H3. These findings

indicate that stronger cashless transaction capabilities improve both digital accounting quality and MSME creditworthiness, while higher digital accounting quality further strengthens MSME creditworthiness.

A. Mediation Analysis

The mediating role of Digital Accounting Quality was examined using bootstrapping.

Table 10. Indirect Effect

Hypothesis	Indirect Relationship	β	t-value	p-value	Decision
H4	CTC $\rightarrow$ DAQ $\rightarrow$ MC	0.407	6.584	0.000	Supported

The indirect effect results show that Cashless Transaction Capabilities had a positive and significant effect on MSME Creditworthiness through Digital Accounting Quality ($\beta = 0.407$, $t = 6.584$, $p < 0.001$), thereby supporting H4. This finding confirms that Digital Accounting Quality significantly mediates the relationship between Cashless Transaction Capabilities and MSME Creditworthiness, indicating that stronger cashless transaction capabilities enhance creditworthiness by improving the accuracy, reliability, completeness, and timeliness of digital accounting information.

4.6 Discussion

The findings demonstrate that Cashless Transaction Capabilities significantly improve Digital Accounting Quality among Indonesian MSMEs. This result supports the Resource-Based View, which positions digital capabilities as strategic organizational resources that can generate competitive advantage. The integration of QRIS, electronic wallets, mobile banking, and other cashless payment systems enables MSMEs to produce structured and real-time transaction data, thereby improving the accuracy, completeness, reliability, and transparency of accounting records [3], [4]. These findings indicate that digital payment adoption contributes not only to transaction efficiency but also to stronger accounting processes through greater automation and data traceability.

Cashless Transaction Capabilities also have a direct positive effect on MSME Creditworthiness. This finding suggests that fintech lenders increasingly rely on digital transaction histories as alternative indicators of business

performance, financial discipline, and repayment capacity. MSMEs with consistent and traceable digital transactions are perceived as more transparent and less risky because lenders can evaluate cash flow patterns and operational activities more accurately. Therefore, stronger digital transaction capabilities reduce information asymmetry and improve the likelihood of MSMEs receiving favorable credit assessments and broader financing opportunities [5], [26].

Digital Accounting Quality was also found to positively influence MSME Creditworthiness. Accurate, timely, complete, and reliable financial information allows fintech lenders to assess financial performance and repayment capacity more objectively, thereby reducing uncertainty in lending decisions. This result supports Information Quality Theory, which emphasizes that high-quality information enhances decision-making effectiveness. Furthermore, the mediation analysis confirms that Digital Accounting Quality partially mediates the relationship between Cashless Transaction Capabilities and MSME Creditworthiness, indicating that cashless payment adoption improves financing eligibility both directly and indirectly through better accounting information [18], [21], [22].

The structural model explains 68.7% of the variance in MSME Creditworthiness, demonstrating satisfactory explanatory power. These findings extend the digital finance literature by showing that the benefits of cashless payment adoption extend beyond operational efficiency to include improved financial transparency and financing eligibility. Practically, MSME owners should integrate digital payment

systems with digital accounting applications to produce reliable financial information. Policymakers, fintech providers, and accounting technology developers should also promote interoperable financial systems, digital bookkeeping training, and standardized accounting platforms to strengthen MSME access to formal and fintech-based financing.

5. CONCLUSION

This study examined the relationships among cashless transaction capabilities, digital accounting quality, and MSME creditworthiness within Indonesia's fintech lending ecosystem using data from 150 MSMEs analyzed through SEM-PLS 3. The findings confirm that cashless transaction capabilities significantly improve both digital accounting quality and MSME creditworthiness, while digital accounting quality also positively affects creditworthiness and partially mediates the relationship between cashless transaction capabilities and financing eligibility. The structural model explains 68.7% of the

variance in MSME creditworthiness, indicating that traceable digital transactions and high-quality accounting information are important determinants of lenders' confidence. Theoretically, the study extends the Resource-Based View by positioning cashless transaction capabilities as strategic digital resources and supports Information Quality Theory by demonstrating the importance of accurate, timely, complete, reliable, and accessible financial information. Practically, MSMEs should integrate digital payment systems with digital accounting applications, while fintech lenders and policymakers should strengthen alternative credit-scoring mechanisms, interoperable financial systems, digital financial literacy, and technical assistance. However, the study is limited by its cross-sectional design, purposive sampling, and self-reported data; therefore, future research should use longitudinal designs, objective transaction data, larger and more diverse samples, and additional variables such as financial literacy, fintech trust, cybersecurity readiness, and digital business maturity.

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