

Capability Conversion Gap in Accounting Systems and Digital Finance: Evidence from Semi-Urban MSMEs

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Abstract

Purpose: Grounded in the Resource-Based View, this study examines the relationships between accounting information systems, financial inclusion, financial literacy, fintech adoption, and MSME performance in a semi-urban Indonesian context. It introduces the capability conversion gap to explain why accounting and digital financial resources do not automatically generate performance improvements.

Research Methodology: A quantitative explanatory survey was conducted with 150 MSME owners and managers in South Purwokerto, Banyumas Regency, Central Java, Indonesia. Data were analyzed using descriptive statistics, instrument validity and reliability tests, Harman's single-factor test, classical assumption tests, and multiple linear regression in SPSS 25.

Results: Financial inclusion and fintech adoption are positively associated with MSME performance, whereas accounting information systems and financial literacy show statistically significant negative coefficients in the multivariate model. Fintech adoption had the largest positive standardized coefficient.

Conclusions: Transaction-oriented digital financial resources are more readily converted into operational benefits, whereas accounting systems and financial knowledge require stronger behavioral implementation, bookkeeping discipline, and managerial routines.

Limitations: The study uses cross-sectional, self-reported data from a sample dominated by microenterprises; therefore, the findings are interpreted as statistical associations rather than causal effects.

Contributions: This study extends the MSME accounting and digital finance literature by explaining the asymmetric relationships between resources and performance from the perspective of the capability conversion gap. By distinguishing resource availability, capability development, and capability conversion, this study offers a context-specific explanation for why theoretically beneficial resources may not produce immediate performance gains.

Keywords: *Accounting Information Systems, Capability Conversion Gap, Financial Inclusion, Fintech Adoption, MSME Performance*

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1. Introduction

Micro, Small, and Medium Enterprises (MSMEs) are central to employment, household income, local resilience, and inclusive development in Indonesia. Their sustainability is increasingly shaped by digital finance, formal financial services, digital payments, and accounting digitalization, which can improve transaction efficiency, financing access, financial recording, and performance evaluation ([Johri et al., 2024](#); [Kilay et al., 2022](#); [Zuhroh et al., 2025](#)). Indonesia's financial literacy and inclusion agenda further encourages the use of formal and digital financial services ([OJK, 2025](#)). However, access to accounting systems and digital financial tools does not automatically improve MSME performance. Businesses may use bank accounts, QR payments, e-wallets, mobile banking, or bookkeeping applications without using the resulting data for budgeting, cash flow monitoring, cost control, profit evaluation, or strategic decisions ([Astuti, PW, Sidik, & Irawan, 2026](#)).

Therefore, the central issue is whether MSMEs can convert available resources into managerial routines that support performance ([Hokmabadi et al., 2024](#); [Kareem et al., 2024](#); [Susanti et al., 2023](#)). This issue is particularly relevant to semi-urban MSMEs in India. These firms often have greater financial and digital access than rural businesses while retaining informal practices, such as memory-based control, simple notes, and mixed personal and business cash flows. Digital adoption may consequently advance faster than the accounting discipline, making semi-urban MSMEs an important setting for examining the gap between resource availability and capability conversion ([Al-Shami et al., 2024](#); [Irianto & Chanvarasuth, 2025](#); [Lestari et al., 2024](#)).

The Resource-Based View (RBV) provides the theoretical foundation for this study. Resources contribute to performance when firms organize, deploy, and embed them in productive routines. Accordingly, digital tools, financial access, accounting systems, and financial knowledge become valuable when integrated into business processes and managerial decision-making ([Hokmabadi et al., 2024](#); [Kareem et al., 2024](#); [Lestari et al., 2024](#); [Susanti et al., 2023](#)). Prior studies have generally reported positive relationships between accounting information systems, financial inclusion, financial literacy, fintech adoption, and MSME performance ([Hasanudin & Panigfat, 2023](#); [Kareem et al., 2024](#); [Kilay et al., 2022](#); [Kurniasari & Lestari, 2024](#); [Zuhroh et al., 2025](#)). However, these variables are often examined separately, and limited attention is given to why theoretically beneficial resources may fail to produce immediate gains in semi-urban settings.

This study addresses this gap through the capability conversion gap, defined as the difference between possessing or adopting accounting and digital financial resources and converting them into routines that improve performance. Fintech adoption and financial inclusion may yield direct operational benefits, whereas accounting information systems and financial literacy may require stronger implementation, bookkeeping, and managerial routines. This study examines the relationship between accounting information systems, financial inclusion, financial literacy, fintech adoption, and MSME performance in South Purwokerto, Banyumas Regency. This study clarifies when AIS becomes decision-useful, compares three digital finance capabilities in one model, and explains asymmetric relationships through usability, contextual fit, and capability conversion.

2. Literature Review and Hypotheses Development

2.1 Resource-Based Perspective and Capability Conversion Gap

The Resource-Based View explains that resources support sustained advantage when they are valuable and effectively organized and deployed ([Kero & Bogale, 2023](#)). For resource-constrained MSMEs, accounting tools, digital access, data, and financial knowledge create value only when embedded in routines for planning, recording, monitoring, and decision-making ([Kareem et al., 2024](#); [Lestari et al., 2024](#); [Susanti et al., 2023](#)). This study distinguishes between resource availability, capability development, and capability conversion.

Resource availability refers to access to accounting applications, bank accounts, digital payments, fintech services, and financial knowledge. Capability development concerns the ability to understand and use these resources, whereas capability conversion occurs when they become routine practices, such as bookkeeping, budgeting, cash flow monitoring, transaction control, and performance

evaluation ([Haripin & Fatmawati, 2026](#)). A capability conversion gap occurs when MSMEs possess or adopt resources but fail to translate them into routines that improve performance. Therefore, the concept explains why accounting and digital financial resources may show different relationships with MSME performance.

2.2 Accounting Information Systems and MSME Performance

Accounting Information Systems (AIS) collect, process, store, and report financial information for decision making. In MSMEs, AIS may include spreadsheets, mobile applications, or cloud-based platforms that support timely and reliable planning, control, reporting, and evaluation ([Hamdy, Diab, & Eissa, 2025](#); [Ngo, 2023](#); [Sampaio, & Silva, 2025](#); [Zohry, & Al, 2024](#)). Prior studies have associated AIS with better information quality, internal control, and performance. [Kareem, Alsheikh, Alsheikh, Dauwed, and Meri \(2024\)](#) identify a mediating role for AIS, while [Zohry and Al \(2024\)](#), [Gyamera, Eklemet, Adu-Twumwaah, and Gagakuma \(2023\)](#), [Magboul, Jebreel, Shawtri, Qabajeh, Shanti, Alqudah, and Abu \(2024\)](#), and [Maryanti, Mediaty, Arifin, and Mas \(2026\)](#) show that accounting information and digital accounting become valuable when actively used in managerial processes.

However, AIS adoption differs from AIS capability. In semi-urban MSMEs, systems may be used mainly for transaction recording or external requirements rather than for budgeting, cash flow monitoring, cost control, and planning. Without integration into such routines, the AIS may add complexity without immediate performance benefits ([Nur, Siddik, Alief, & Oktaria, 2026](#)). Nevertheless, RBV predicts a positive relationship because reliable and usable accounting information can strengthen control and decision-making. Based on this argument, the following hypothesis is proposed.

H₁: Accounting information systems are positively associated with MSME performance

2.3 Financial Inclusion and MSME Performance

Financial inclusion enables MSMEs to access and use formal savings, credit, payments, and other financial services, thereby supporting liquidity and reducing dependence on informal finance ([Al-Shami et al., 2024](#); [Johri et al., 2024](#); [OJK, 2025](#)). Prior evidence links financial inclusion to easier business operations, financing access, and MSME performance ([Al-Shami et al., 2024](#); [Hasanudin & Panigfat, 2023](#); [Johri et al., 2024](#); [Kumar M.V et al., 2024](#)). Its value arises when access is used to support the operations and growth. In semi-urban settings, formal financial services can facilitate payments, savings, supplier transactions, working capital, liquidity management and transaction traceability. Because these functions are closely connected to daily operations, financial inclusion may be directly converted into performance benefits. Based on this argument, the following hypothesis is proposed.

H₂: Financial inclusion is positively associated with MSME performance

2.4 Financial Literacy and MSME Performance

Financial literacy is the ability to understand and apply knowledge of budgeting, saving, financing, risk, cash flow, profit, and financial planning. Such knowledge should improve decisions by helping MSME owners evaluate alternatives and consequences ([Gosal & Nainggolan, 2023](#); [Hasan et al., 2024](#); [Kumar M.V et al., 2024](#)). Studies generally associate financial literacy with better financial behavior, well-being, entrepreneurial creativity, inclusion and MSME performance ([Al-Shami et al., 2024](#); [Gosal & Nainggolan, 2023](#); [Hasan et al., 2024](#); [Kurniasari & Lestari, 2024](#)).

However, knowledge produces benefits only when it is converted into behavior. Owners may understand budgeting, cash flow management, and the separation of personal and business finances without applying them consistently. This knowledge-practice gap is especially relevant in settings where mentoring, simple tools, and routine-based management are limited. Therefore, financial literacy is expected to improve performance when it becomes a financial behavior and accounting discipline. Based on this argument, the following hypothesis is proposed.

H₃: Financial literacy is positively associated with MSME performance

2.5 Fintech Adoption and MSME Performance

Fintech adoption refers to the use of digital payments, mobile banking, QR payments, e-wallets, digital lending, and other related platforms in business activities. These tools can reduce transaction costs, improve convenience, accelerate payments, and increase responsiveness ([Edo et al., 2024](#); [Firmansyah et al., 2023](#); [Kilay et al., 2022](#); [Nugraha et al., 2022](#)). Prior studies have linked fintech and online payments with innovation, payment-system transformation, and SME performance ([Edo et al., 2024](#); [Irianto & Chanvarasuth, 2025](#); [Kilay et al., 2022](#); [Krah et al., 2024](#); [Nahar, 2022](#); [Nugraha et al., 2022](#); [Nurqamarani et al., 2024](#)). Fintech may provide immediate operational value because it directly supports payments, customer convenience, transaction records and cash flows without requiring extensive organizational restructuring. Digital records may also provide an entry point for improved bookkeeping and reporting. From a capability perspective, fintech becomes valuable when it improves transaction efficiency, services, and financial accessibility. Based on this argument, the following hypothesis is proposed.

H₄: Fintech adoption is positively associated with MSME performance.

2.6 Research Framework

Based on the theoretical and empirical reviews, this study proposes that accounting information systems, financial inclusion, financial literacy, and fintech adoption are associated with MSME performance. However, these relationships may not be uniform because each resource has a different level of usability and conversion requirements. Financial inclusion and fintech adoption may provide direct operational benefits, whereas accounting information systems and financial literacy may require deeper behavioral implementation and managerial routines before improving performance.

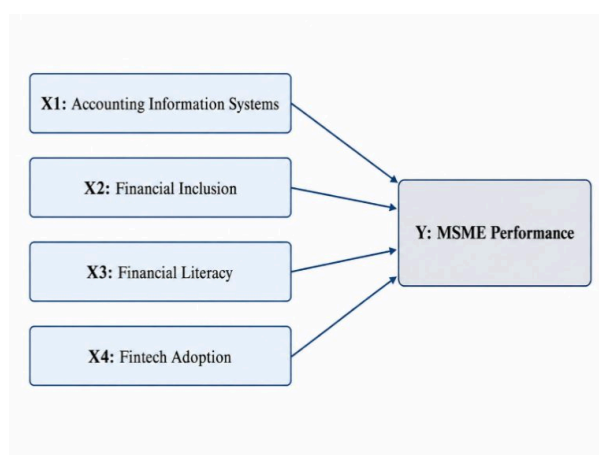


Figure 1. Research framework

Figure 1 shows the proposed relationship between accounting-oriented resources, digital financial capabilities and MSME performance. The framework assumes that each independent variable is associated with MSME performance, but the strength and direction of the relationship may vary depending on the capability conversion process.

3. Research Methodology

3.1 Research Design

This study employed a quantitative, explanatory survey design. A quantitative approach was appropriate because the study aimed to test the statistical relationships between accounting information systems, financial inclusion, financial literacy, fintech adoption, and MSME performance. An explanatory design was used to examine whether the independent variables explain the variation in MSME performance. The survey method was selected because the study collected primary data from MSME owners and managers using structured questionnaires. This was not an experimental, simulation-based, or review-based study. This was a field survey study conducted in a real MSME

context. The unit of analysis was individual MSME owner-managers, because they are directly involved in business operations, financial decision-making, and performance evaluation.

3.2 Research Location

The study was conducted in South Purwokerto, Banyumas Regency, Central Java, Indonesia. South Purwokerto was selected because it represents a semi-urban business environment where MSMEs increasingly encounter digital financial services, banking access, digital payments, and basic accounting tools. However, the level of accounting discipline, managerial routines, and financial reporting practices may vary across MSMEs in Indonesia. Therefore, this location was relevant for examining the capability conversion gap between accounting and digital financial resources and MSME performance.

3.3 Population and Sample

The study population consisted of 1,923 MSMEs in South Purwokerto in 2024. The population included 1,921 microenterprises, one small enterprise, and one medium enterprise. These figures were reported in Data dan Informasi Kabupaten Banyumas 2025 by Dinas Komunikasi dan Informatika Kabupaten Banyumas ([Dinkominfo, 2025](#)). This composition indicates that the empirical context was overwhelmingly dominated by microenterprises. Nevertheless, the term MSMEs is retained because it follows the official classification used in regional data sources.

The minimum sample size was estimated using Slovin's formula because the population size was known. The Formula 1 is as follows:

$$n = \frac{N}{1 + Ne^2} \quad (1)$$

where n is the minimum sample size, N is the population size, and e is the margin of error. With a population of 1,923 MSMEs and a margin of error of 10 percent, the minimum sample size was calculated as follows:

$$n = \frac{1,923}{1 + 1,923(0.10)^2} = \frac{1,923}{20.23} = 95.05 \quad (2)$$

Formula 2 shows that the minimum required sample size was approximately 95 respondents. However, this study collected and analyzed 150 valid questionnaires to improve data adequacy and strengthen the regression analysis. The final sample size was considered sufficient because the model involved four independent variables and one dependent variable.

3.4 Sampling Technique

This study used purposive sampling because the research required respondents with direct knowledge of business financial decisions and sufficient exposure to accounting or digital financial resources. Random sampling was not used because not all MSME actors in the population had relevant experience with bookkeeping, banking services, digital payments or fintech facilities. Respondents were selected based on three criteria: First, respondents had to be MSME owners or managers directly involved in financial decision-making. Second, their businesses had to be operating for at least one year. Third, they had to have used or at least been exposed to basic financial or digital business tools, such as bookkeeping applications, banking services, digital payments, or fintech facilities. These criteria ensured that the respondents were able to evaluate accounting information systems, financial inclusion, financial literacy, FintTech adoption, and business performance in relation to the study objectives.

3.5 Data Collection

Primary data were collected using structured questionnaires distributed online and offline. The questionnaire comprised items measuring accounting information systems, financial inclusion, financial literacy, fintech adoption, and MSME performance. All items were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Likert scale was used because it enabled respondents to indicate the degree of agreement with each statement and allowed the data to be analyzed quantitatively. Before the main survey, the questionnaire was pilot-tested on 30 MSME respondents to assess the item clarity and preliminary instrument quality. The wording was contextualized to the daily financial and digital practices of semi-urban Indonesian MSMEs. In the final dataset, item validity was assessed using Pearson item-total correlations, and internal consistency was evaluated using Cronbach's alpha. These procedures were used to assess the adequacy of the measurement instruments before hypothesis testing.

3.6 Variable measurement

The operational definitions and indicators as shown in Table 1 were adapted from previous research. Accounting information systems were measured using system quality, information reliability, and system usability (Ngo, 2023; Zohry & Al Dhubaibi, 2024). Financial inclusion was measured through access to financial services, the use of financial products, digital financial access, and usage behavior (Al-Shami et al., 2024; Johri et al., 2024). Financial literacy was measured by knowledge of financial principles, budgeting practices, and risk awareness (Gosal & Nainggolan, 2023; Hasan et al., 2024). Fintech adoption was measured using trust, perceived ease of use, perceived usefulness, and usage intensity (Edo et al., 2024; Krah et al., 2024; Nurqamarani et al., 2024).

Table 1. Operational definition of variables

Variables	Operational definition	Main indicators	Main references
Y: MSME Performance	The perceived financial and operational outcomes achieved by MSMEs in running their businesses are discussed.	Revenue growth, profit margin, customer retention, efficiency	(Kurniasari & Lestari, 2024; Susanti et al., 2023; Zuhroh et al., 2025)
X ₁ : Accounting Information Systems	The extent to which MSMEs use accounting information systems or digital accounting tools to support recording, reporting, and managerial decision-making is examined.	System quality, information reliability, system usability	(Ngo, 2023; Zohry & Al Dhubaibi, 2024; Zuhroh et al., 2025)
X ₂ : Financial Inclusion	The extent to which MSMEs can access and use formal financial services through physical and digital channels is limited.	Access to financial services, use of financial products, digital financial access, usage behaviour	(Al-Shami et al., 2024; Zuhroh et al., 2025)
X ₃ : Financial Literacy	The owner-manager's ability to understand and apply financial knowledge in business decision-making.	Knowledge of financial principles, budgeting practices, risk awareness	(Gosal & Nainggolan, 2023; Hasan et al., 2024; Kumar M.V et al., 2024)
X ₄ : Fintech Adoption	The extent to which MSMEs adopt and use fintech services in business transactions and financial activities is examined.	Trust in fintech platforms, perceived ease of use, perceived usefulness, usage intensity	(Edo et al., 2024; Firmansyah et al., 2023; Krah et al., 2024; Nurqamarani et al., 2024)

MSME performance was measured using perceived revenue growth, profit margin, customer retention, and operational efficiency (Lestari et al., 2024; Susanti et al., 2023). The final instrument contained 60 items: 15 AIS items, 15 financial inclusion items, 15 financial literacy items, 6 fintech adoption items, and 9 MSME performance items. Table 2 reports the indicator allocation and representative items for each construct. The complete questionnaire is provided as a separate supplementary file for editorial and reviewer examination. The SPSS dataset labels the X4 composite

as Financial Technology; the manuscript reports the construct as Fintech Adoption to match its operational definition.

Table 2. Measurement instrument, indicators, and representative items

Variables and items	Indicator and item allocation	Representative item	Main References
Accounting Information Systems (X_1) (15 items)	System quality ($X_{1.1}$ - $X_{1.5}$); information reliability ($X_{1.6}$ - $X_{1.10}$); and system usability ($X_{1.11}$ - $X_{1.15}$).	“The financial recording system used in my business is easy to operate.”	(Ngo, 2023; Zohry, 2024 ; Zuhroh et al., 2025)
Financial Inclusion (X_2) (15 items)	Access to financial services ($X_{2.1}$ - $X_{2.4}$), use of financial products ($X_{2.5}$ - $X_{2.8}$), digital financial access ($X_{2.9}$ - $X_{2.12}$), and usage behavior ($X_{2.13}$ - $X_{2.15}$).	“I have easy access to banks, cooperatives, or other formal financial institutions.”	(Al-Shami et al., 2024 ; Johri et al., 2024 ; Zuhroh et al., 2025)
Financial Literacy (X_3) (15 items)	Financial knowledge ($X_{3.1}$ - $X_{3.5}$); budgeting practices ($X_{3.6}$ - $X_{3.10}$); and risk awareness ($X_{3.11}$ - $X_{3.15}$).	“I understand the importance of separating personal and business finances.”	(Gosal, 2023 ; Hasan et al., 2024 ; Kumar et al., 2024)
Financial Technology Adoption (X_4) (6 items)	Trust in fintech platforms ($X_{4.1}$ - $X_{4.2}$); perceived ease of use ($X_{4.3}$ - $X_{4.4}$); perceived usefulness ($X_{4.5}$), and usage intensity ($X_{4.6}$).	“Financial technology helps my business complete transactions more efficiently.”	(Edo et al., 2024 ; Krah et al., 2024 ; Nurqamarani et al., 2024)
MSME Performance (Y) (9 items)	Revenue growth (Y_1 - Y_2); profit margin (Y_3 - Y_4); customer retention (Y_5 - Y_6); and operational efficiency (Y_7 - Y_9).	“My business revenue or turnover has increased compared with the previous period.”	(Kurniasari, 2024; Susanti et al., 2023 ; Zuhroh et al., 2025)

3.7 Data Analysis Technique

Data were analyzed using IBM SPSS Statistic version 25. The analysis consisted of descriptive statistics, instrument validity and reliability tests, common method bias assessment, classical assumption tests, and multiple linear regressions. Descriptive statistics were used to describe the minimum, maximum, mean, and standard deviations of each variable. Instrument validity was assessed using item-total correlation, and reliability was assessed using Cronbach alpha. Common method bias was assessed using Harman single-factor test. Classical assumption tests included normality, heteroscedasticity, and multicollinearity. Multiple linear regression was used because this study examined the simultaneous statistical relationships between four independent variables and one dependent variable. The regression model Formula 3 is expressed as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e \quad (3)$$

where Y represents MSME performance, X_1 represents accounting information systems, X_2 represents financial inclusion, X_3 represents financial literacy, X_4 represents fintech adoption, α represents the constant, β_1 - β_4 represent the regression coefficients, and e represents the error term. Because the study used cross-sectional and self-reported questionnaire data, the results were interpreted as statistical associations rather than definitive causal relationships.

4. Results and Discussions

4.1 Respondent Profile

A total of 150 valid questionnaires were analyzed in this study. All respondents were MSME owners or managers directly involved in business financial decision-making. All respondents had operated their businesses for at least one year and had used or had at least been exposed to basic financial or

digital business tools. The broader population structure shows that South Purwokerto MSMEs are overwhelmingly dominated by micro-enterprises.

Table 3. Respondent profile and eligibility criteria

Characteristics	Category	Frequency	Percentage (%)
Valid respondents	MSME owners/managers	150	100.0
Business operation period	At least 1 year	150	100.0
Exposure to financial or digital business tools	Yes	150	100.0
Empirical business context	Micro enterprises	1.921	99.90
Empirical business context	Small enterprises	1	0.05
Empirical business context	Medium enterprises	1	0.05

Table 3 shows that the sample met the study's eligibility criteria. The population context also indicates that the findings primarily reflect the conditions of micro-enterprises. This condition is important for interpretation because micro-enterprises often have simpler organizational structures, limited managerial separation, informal financial management practices, and weaker accounting routines than larger firms. Therefore, the findings should be understood within the context of semi-urban micro-dominated MSMEs rather than generalized to all small and medium enterprises.

4.2 Descriptive Statistics

Descriptive statistics were used to describe the general tendency of respondents' answers to the questions. The results are shown in Table 4.

Table 4. Descriptive statistics of variables

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Y: MSME Performance	150	27	43	36.66	3.899
X ₁ : Accounting Information Systems	150	47	73	62.23	5.620
X ₂ : Financial Inclusion	150	47	70	61.97	5.925
X ₃ : Financial Literacy	150	48	69	61.11	5.001
X ₄ : Fintech Adoption	150	17	29	24.35	2.866
Valid N (listwise)	150				

Table 4 shows that all the variables had relatively high mean scores. This indicates that the respondents generally perceived positive conditions regarding accounting information systems, financial inclusion, financial literacy, fintech adoption, and MSME performance. The high mean score for X₁ suggests that many MSMEs already recognize or use certain forms of accounting tools or accounting-related procedures. The high mean score of X₂ indicates that the respondents generally had access to formal financial services. The high mean score for X₃ suggests that respondents perceived themselves as having adequate financial knowledge. Meanwhile, the high mean score for X₄ indicates that fintech use was already present in business activities. However, descriptive statistics only show the general tendency of responses and do not explain the direction or significance of the relationships among variables. Therefore, regression analysis was required to test the hypotheses and determine whether these resources were statistically associated with MSME performance.

4.3 Instrument Quality and Common Method Bias

The instrument quality in Table 5 was assessed before hypothesis testing. Pearson item-total correlations were compared with an r-table value of 0.160 (n = 150; $\alpha = 0.05$). All Accounting Information Systems, Financial Inclusion, Fintech Adoption, and MSME Performance items exceeded this threshold value. Fourteen of the fifteen Financial Literacy items exceeded the threshold, while X_{3.9} had an item-total correlation of 0.012. The Financial Literacy scale remained internally consistent

(Cronbach's alpha = 0.771), and $X_{3.9}$ represented the budgeting-practice dimension of the original instrument; therefore, the item was retained. Therefore, findings involving Financial Literacy are interpreted cautiously. All construct-level Cronbach's alpha values were above 0.70. Harman's single-factor test was conducted because all variables were collected from the same respondents using a cross-sectional questionnaire.

Table 5. Instrument validity, reliability, and common method bias

Construct	Number of items	Item-total correlation range	Cronbach Alpha	Decision
Accounting Information Systems (X_1)	15	0.249-0.768	0.849	Reliable; all item-total correlations above r-table
Financial Inclusion (X_2)	15	0.176-0.780	0.856	Reliable; all item-total correlations above r-table
Financial Literacy (X_3)	15	0.012-0.694	0.771	Reliable ($\alpha = 0.771$); one item below r-table; interpret cautiously
Financial Technology Adoption (X_4)	6	0.521-0.828	0.769	Reliable; all item-total correlations above r-table
MSME Performance (Y)	9	0.503-0.745	0.812	Reliable; all item-total correlations above r-table
Common method bias	60 items	Harman first factor = 31.25%	Harman first factor = 31.25%	Below 50% threshold; common method bias is unlikely to be dominant

4.4 Regression Model Feasibility

The feasibility of the regression model was evaluated using Analysis of Variance (ANOVA) and model summary outputs. The results are shown in Table 6.

Table 6. Regression model feasibility

Indicator	Value
F-Value	562.685
Sig.	0.000
R	0.969
R Square	0.939
Adjusted R Square	0.938
Std. Error of the Estimate	0.972

Table 6 shows that the regression model was statistically significant ($F = 562.685$, $p < 0.001$). Because the model contains four independent variables, adjusted R Square, rather than unadjusted R Square, is used as the principal explanatory measure. The Adjusted R Square value of 0.938 indicates that the four predictors jointly account for 93.8 percent of the observed variation in perceived MSME performance. This value is unusually high for survey-based social research and must be interpreted with caution. This may partly reflect the conceptual proximity among accounting, financial, digital, and perceived-performance constructs, as suggested by several relatively high VIF values. Harman's single-factor test showed that the first unrotated factor accounted for 31.25 percent of the total variance, below the commonly used 50 percent threshold. This result reduces, but does not eliminate, concerns about common method bias. Accordingly, the findings were treated as statistical associations rather than causal effects.

4.5 Classical Assumption Tests

Before hypothesis testing, classical assumption tests were performed. The tests included normality, heteroscedasticity, and multicollinearity tests. A summary is presented in Table 7.

Table 7. Classical assumption summary

Assumption	Indicator	Result	Interpretation
Normality	P-P plot	Residual points follow the diagonal line	Normality assumption met
Heteroscedasticity	Scatterplot	Residuals are randomly distributed	No heteroscedasticity detected
Multicollinearity	X_1 : Tolerance = 0.134; VIF = 7.490	Tolerance > 0.10; VIF < 10	Acceptable under the VIF < 10 criterion; relatively high VIF
Multicollinearity	X_2 : Tolerance = 0.185; VIF = 5.394	Tolerance > 0.10; VIF < 10	Acceptable under the VIF < 10 criterion; relatively high VIF
Multicollinearity	X_3 : Tolerance = 0.211; VIF = 4.749	Tolerance > 0.10; VIF < 10	Acceptable
Multicollinearity	X_4 : Tolerance = 0.164; VIF = 6.113	Tolerance > 0.10; VIF < 10	Acceptable under the VIF < 10 criterion; relatively high VIF

Table 7 shows that all tolerance values exceeded 0.10, and all VIF values were below the conventional threshold of 10. Therefore, the regression model met the minimum multicollinearity requirements. However, the VIF values for Accounting Information Systems, Financial Inclusion, and Financial Technology exceeded 5. Accordingly, the signs and magnitudes of the regression coefficients should be interpreted with caution.

4.6 Regression Results and Hypotheses Testing

The results of the multiple linear regression are presented in Table 8.

Table 8. Regression results and hypothesis testing

Hypothesis	Variables	B	Beta	t-value	p-value	Decision
H_1	X_1 : Accounting Information Systems	-0.087	-0.125	-2.238	0.027	Not supported: significant opposite direction
H_2	X_2 : Financial Inclusion	0.297	0.451	9.513	<0.001	Supported
H_3	X_3 : Financial Literacy	-0.201	-0.258	-5.784	<0.001	Not supported: significant opposite direction
H_4	X_4 : Fintech Adoption	1.256	0.923	18.270	<0.001	Supported

Based on Table 8, the estimated regression equation is as follows:

$$Y = 5.349 - 0.087X_1 + 0.297X_2 - 0.201X_3 + 1.256X_4 + e \quad (4)$$

Formula 4 shows that Financial Inclusion (X_2) and Fintech Adoption (X_4) have positive regression coefficients, whereas Accounting Information Systems (X_1) and Financial Literacy (X_3) have negative coefficients. Based on the standardized coefficients, Fintech Adoption has the largest positive coefficient in the model ($\beta = 0.923$), followed by Financial Inclusion ($\beta = 0.451$). Because all hypotheses were formulated in a positive theoretical direction, the positive and significant coefficients of Financial Inclusion and Fintech Adoption support H_2 and H_4 . In contrast, although Accounting Information Systems and Financial Literacy are statistically significant, their negative coefficients are contrary to the hypothesized positive directions; therefore, H_1 and H_3 are not supported. Given the relatively high VIF values for several predictors, the signs and magnitudes of the coefficients should be interpreted with caution. Overall, the asymmetric relationships are consistent with the capability

conversion gap perspective, suggesting that resource availability or adoption may not translate into improved performance unless resources are effectively embedded in managerial and operational routines.

4.7 Discussion

4.7.1 Capability Conversion Gap in Semi-Urban MSMEs

The asymmetric regression results are consistent with the capability conversion gap. Financial Inclusion and Fintech Adoption have positive and significant relationships with MSME performance, supporting H_2 and H_4 , while Accounting Information Systems and Financial Literacy have significant negative coefficients and do not support H_1 and H_3 . Because several VIF values are relatively high, these coefficients should be interpreted cautiously and not as evidence that AIS or financial literacy is inherently detrimental to the model. This pattern suggests that access or ownership alone is insufficient. Transaction-oriented resources can provide immediate benefits for payments, liquidity, and continuity, whereas accounting- and knowledge-based resources require disciplined use in bookkeeping, monitoring, and decision-making processes. This interpretation is consistent with studies showing that digital resources create value when integrated into organizational routines ([Hokmabadi et al., 2024](#); [Kareem et al., 2024](#); [Susanti et al., 2023](#)).

The capability conversion gap is especially relevant in the micro-dominated MSME context. Micro-enterprises often have limited managerial structures, informal financial practices, and weak separation between personal and business finances. Under such conditions, fintech tools and formal financial access may be directly useful because they support transactions, payments, liquidity, and the continuity of operations. Meanwhile, accounting systems and financial literacy require discipline, interpretation, and repeated use before they can influence a firm's performance. Therefore, the findings show that the performance value of accounting and digital financial resources depends not only on their availability but also on their usability, contextual fit, and integration into business routines. This distinction is particularly relevant in micro-dominated semi-urban settings, where managerial structures and financial practices remain informal. Consequently, the value of accounting and digital resources depends on usability, contextual fit, and routine integration.

4.7.2 Accounting Information Systems and MSME Performance

Accounting Information Systems have a significant negative partial coefficient after the other predictors are considered. Although prior research generally links AIS with information quality, control, and performance ([Gyamera et al., 2023](#); [Kareem et al., 2024](#); [Magboul et al., 2024](#); [Ngo, 2023](#); [Zohry & Al Dhubaibi, 2024](#)), this coefficient does not imply that it is harmful. This may indicate that adoption remains administrative or compliance-oriented and should be interpreted cautiously, given the relatively high VIF values. MSME owners may use accounting tools without applying the information to budgeting, cash flow monitoring, cost control, profit evaluation, or planning.

This supports the distinction between system adoption and AIS capability, the latter of which requires accounting information to be embedded in managerial routines. Related studies emphasise that accounting systems generate benefits when supported by digital innovation, managerial readiness, integration, and effective use ([Maryanti et al., 2026](#); [Sampaio & Silva, 2025](#); [Zuhroh et al., 2025](#)). For micro-enterprises, systems may initially increase administrative demands. Therefore, practical mentoring, simplified reporting, and bookkeeping discipline are required to convert AIS into decision-useful capabilities.

4.7.3 Financial Inclusion and MSME Performance

Financial Inclusion has a positive and significant relationship with MSME performance, consistent with evidence that formal and digital financial access supports business operations and financing ([Hasanudin & Panigfat, 2023](#); [Johri et al., 2024](#); [OJK, 2025](#)). Formal services help MSMEs receive payments, save funds, access working capital, pay suppliers, manage their liquidity, and build transaction histories. In semi-urban areas, these direct operational functions can reduce financial frictions and improve traceability, making it easier to convert inclusion into performance benefits

(Al-Shami et al., 2024). Thus, financial inclusion operates not only as access but also as a practical capability that supports continuity, flexibility, and resilience.

4.7.4 Financial Literacy and MSME Performance

Financial Literacy has a significant negative partial coefficient, contrary to H_3 and studies that generally report positive relationships between financial behavior and MSME outcomes (Gosal & Nainggolan, 2023; Hasan et al., 2024; Kumar M.V et al., 2024). The results should be interpreted cautiously because the measure is self-reported, and several predictors have relatively high VIF values. One explanation is the knowledge-practice gap: owners may understand budgeting, cash flow, credit, and risk but fail to apply this knowledge consistently.

Therefore, financial literacy programs should emphasize practical routines, including transaction recording, budgeting, cash-flow monitoring, and separating personal from business finances (Kurniasari & Lestari, 2024). A second possibility is that more financially literate owners assess performance more critically because they recognize risks, inefficiencies, and cash flow weaknesses. Therefore, the negative coefficient should not be read as evidence that financial literacy is harmful but as an indication that knowledge requires behavioral conversion before measurable benefits appear.

4.7.5 Fintech Adoption and MSME Performance

Fintech Adoption has the largest positive coefficient, supporting studies that associate digital payments and financial technologies with MSME efficiency, responsiveness, innovation, and performance (Edo et al., 2024; Irianto & Chanvarasuth, 2025; Kilay et al., 2022; Nugraha et al., 2022; Nurgamarani et al., 2024). Its benefits are immediate because fintech directly supports faster payments, customer convenience, lower cash handling, and transaction recording. These advantages require less organizational restructuring than AIS and less abstract knowledge than financial literacy. This interpretation is consistent with the evidence on fintech adoption and online payment systems in emerging economies (Firmansyah et al., 2023; Krah et al., 2024; Nahar, 2022). Fintech records may also support bookkeeping and cash flow monitoring when integrated with accounting routines.

4.7.6 Theoretical and Practical Implications

The study uses the capability conversion gap to explain why accounting and digital financial resources have asymmetric relationships with performance. Transaction-oriented resources may yield direct benefits, whereas accounting- and knowledge-based resources require stronger behavioral implementation and routine integration. For policymakers, digitalization programmes should combine access to fintech, banking, and accounting applications with structured mentoring on transaction recording, cash flow monitoring, profit evaluation, and separation of personal and business finances. Financial institutions and fintech providers can support conversion by offering understandable transaction summaries, cash flow dashboards, bookkeeping features, credit-readiness tools, and user-friendly reports. MSME programs should also prioritize bookkeeping clinics, simple budgeting templates, and practice-based financial literacy rather than knowledge transfer alone. These measures can transform digital transaction data and financial knowledge into useful decision-making managerial capabilities.

5. Conclusion

5.1 Conclusions

This study found that Financial Inclusion and Fintech Adoption are positively associated with MSME performance, supporting H_2 and H_4 . Accounting Information Systems and Financial Literacy have significant negative coefficients in the multivariate model; therefore, H_1 and H_3 are not supported. Given the relatively high VIF values, these coefficients should not be interpreted as evidence that AIS or financial literacy is inherently harmful to the poor. The capability conversion gap explains that resources generate benefits only when they are converted into managerial routines. Transaction-oriented resources appear easier to convert, whereas accounting systems and financial knowledge require disciplined implementations. Practically, MSME programmes should combine digital access and literacy with mentoring, bookkeeping, cash flow monitoring, and the integration of fintech records into accounting practices.

5.2 Research Limitations

This study is limited by its cross-sectional design and reliance on self-reported data, which restricts causal interpretation and may introduce perception or social desirability bias. The capability conversion process may also develop over time and cannot be fully captured in a single survey. The sample was dominated by micro-enterprises in one semi-urban location; therefore, generalization to larger firms or other settings should be cautious. The model also examined only direct relationships and did not include potential mediators or moderators, such as bookkeeping discipline, information quality, digital readiness, mentoring, business age, or government support. Finally, several predictors had relatively high VIF values, which may affect the coefficient stability. Future studies should examine the negative AIS and Financial Literacy coefficients using refined measurement models, discriminant validity assessments, and alternative specifications.

5.3 Suggestions and Directions for Future Research

Future research should test mediating mechanisms such as bookkeeping discipline, accounting information quality, financial decision quality, cash flow practices, and digital readiness, as well as moderators including business scale, owner education, digital experience, mentoring, government support, and industry type. Longitudinal designs can show how capability conversion develops after sustained system use or mentoring. Objective indicators, including sales, profits, financial statements, transaction histories, and loan records, should complement the perceived performance measures. Comparative studies across urban, semi-urban, and rural areas and across micro, small, and medium enterprises would clarify how infrastructure, financial access, digital readiness, and business scale influence capability conversion.

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Author Contributions

The authors contributed to the research process through various roles. ES and AAO were responsible for conceptualization, while the methodology and instrument development were conducted by ES and GBK. The investigation and data collection were carried out by ES, whereas GBK contributed to data curation and formal analysis. Validation was performed by AAO and GBK, and the literature review was conducted by ES and AAO. ES prepared the original draft of the manuscript, while AAO and GBK were responsible for writing review and editing. Project administration was managed by ES. All authors contributed to the interpretation of the findings, revision of the manuscript in response to reviewer comments, approval of the final version, and accountability for the integrity of the research work.

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