

Financial Literacy, Governance Mechanisms, and Innovation Capability in Explaining SME Performance: The Moderating Role of Organizational Culture

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ABSTRACT

Small and medium-sized enterprises (SMEs) play a vital role in regional economic development; however, their ability to achieve sustainable performance is often influenced by internal capabilities and governance practices. Financial literacy and SME governance are considered important factors in enhancing innovation capability, which may subsequently improve business performance. Organizational culture may also strengthen or weaken the effectiveness of innovation capability in driving performance outcomes. This study aims to examine the effects of financial literacy and SME governance on innovation capability and SME performance. It also investigates the moderating role of organizational culture in the relationship between innovation capability and SME performance. The study employed a quantitative research design involving SMEs in the Special Region of Yogyakarta, Indonesia. Using a purposive sampling technique, data were collected from 176 SME owners or managers. The data were analyzed using Structural Equation Modeling (SEM) with SmartPLS software to test the proposed relationships among variables. The results reveal that financial literacy and SME governance have positive and significant effects on innovation capability. SME governance also exerts a positive and significant direct influence on SME performance. However, financial literacy does not significantly affect SME performance directly. Furthermore, innovation capability does not have a significant impact on SME performance. The findings also indicate that organizational culture does not significantly moderate the relationship between innovation capability and SME performance. This study highlights the importance of strengthening financial literacy and implementing effective governance practices to enhance innovation capability among SMEs. The absence of a moderating effect of organizational culture suggests that other contextual factors may play a more critical role in translating innovation capability into superior performance. These findings provide valuable insights for SME practitioners and policymakers in designing strategies to improve SME competitiveness and sustainability.

Keywords: Financial Literacy, Innovation Capability, Organizational Culture, Performance, Sme Governance

1. INTRODUCTION

Small and Medium Enterprises (SMEs) have a strategic role in the national economy, particularly as key contributors to employment generation and local economic development. In the Special Region of Yogyakarta (DIY), the MSME sector serves as a fundamental pillar of the regional economy, making substantial contributions to the Gross Regional Domestic Product (GRDP) and expanding job opportunities. Data from the Yogyakarta Cooperatives and SMEs Office indicate a consistent annual increase in the number of SMEs. However, persistent challenges related to financial management practices, innovation capacity, and organizational governance continue to hinder improvements in business competitiveness and long-term sustainability (Resmi et al., 2022).

One of the key determinants affecting employee innovation and organizational performance is financial literacy. Financial literacy refers to the capacity of individuals or business owners to comprehend, manage, and make informed financial decisions that contribute to long-term business sustainability. According to the Otoritas Jasa Keuangan (OJK), the level of financial literacy among SMEs in Indonesia is still relatively low, particularly in terms of financial planning, debt management, and understanding formal financial products and services (Resmi et al., 2023). These limitations impact SMEs' ability to efficiently allocate resources, manage cash flow, and invest in innovation. With good financial literacy, SMEs can conduct strategic planning, optimize working capital, and make appropriate investment decisions to support innovation activities and increase business productivity (Al-shami et al., 2024).

Alongside financial literacy, the implementation of good governance is equally vital in enhancing the effectiveness of SME management. Good governance encompasses the establishment of a well-defined organizational structure, a clear allocation of roles and responsibilities, transparency in financial administration, and the consistent application of accountability principles (Rehman et al., 2024). The implementation of good governance enables more efficient decision-making processes, fosters a professional work culture, and increases trust between business owners, employees, and external stakeholders. On the other hand, weak governance can lead to internal conflict, operational inefficiencies, and reduced employee motivation (Ferraro et al., 2026).

Innovation capability constitutes a fundamental element in sustaining the long-term viability and competitive advantage of SMEs. Within an increasingly dynamic business environment, the capacity to generate, assimilate, and execute novel ideas becomes essential in responding to evolving market demands and rapid technological advancements. For SMEs operating in the Special Region of Yogyakarta (DIY)—which primarily operate in the creative, culinary, and craft sectors—this capability is particularly significant in navigating competitive pressures and fostering sustainable growth. Innovation capability depends not only on the availability of financial resources but also on sound financial literacy and a governance system that supports creative processes and data-driven decision-making. Effective innovation can increase efficiency, expand markets, and ultimately strengthen employee performance through increased productivity, job satisfaction, and motivation (Hafeez et al., 2025).

Performance in the SMEs context is a crucial indicator of organizational success. Highly motivated employees, adequate competencies, and a conducive work environment will positively contribute to increased productivity and output quality. However, many SMEs in DIY face challenges in optimally managing human resources due to limited managerial capacity and performance appraisal systems. Therefore, a holistic approach is needed that links financial literacy and governance as factors influencing improved employee performance, both directly and through strengthening innovation capabilities.

Organizational culture reflects the values, norms, and beliefs shared by organizational members and serves as a guide for behavior. A robust organizational culture reinforces the linkage between managerial determinants—such as financial literacy and governance—and organizational outcomes, including innovation capability and overall performance (Lu et al., 2023). An organizational culture that is open to change, collaborative, and learning-oriented will strengthen the influence of financial literacy on innovative decision-making. Similarly, an organizational culture that upholds transparency and accountability can strengthen the effectiveness of governance implementation in improving employee motivation and performance (Limaj et al., 2016).

This concept of organizational culture moderation is particularly interesting in the context of SMEs in DIY, where most enterprises still operate as family-based organizations with informal management systems. This condition presents significant challenges in fostering an adaptive work culture, especially amid rapid digital transformation and intensifying global competition. The findings of this study are expected to offer empirical insights that enrich the SMEs

management literature and provide a foundational reference for formulating policies and designing mentoring programs for SMEs in DIY.

In addition to theoretical contributions, this research has significant practical implications. For SMEs, the findings may provide a foundation for enhancing awareness regarding the critical role of financial literacy and sound governance practices in improving business performance (Liu et al., 2025). For local governments and financial institutions such as Bank Indonesia and the Financial Services Authority (OJK), the results can provide input in designing financial empowerment and education programs more focused on strengthening SMEs' innovation capabilities. More importantly, the study finds that organizational culture negatively moderates the relationship between innovation capability and SME performance, indicating that stronger organizational culture may reduce the positive impact of innovation on firm outcomes. This unexpected finding suggests that highly embedded cultural norms can limit organizational flexibility and constrain the effective commercialization of innovations. The study contributes to the SME literature by offering a more nuanced understanding of the contingent role of organizational culture in innovation-driven performance and provides practical implications for balancing cultural stability with innovation adaptability (Westman et al., 2021).

This study offers a novel conceptual insight by proposing innovation capability as a strategic mechanism that converts financial knowledge and governance quality into sustainable business performance. Rather than viewing financial literacy and governance mechanisms merely as independent predictors of performance, this research positions them as organizational resources that enhance a firm's capacity to generate, adopt, and implement innovations (Bugandwa et al., 2025). Furthermore, this study extends the resource-based view and dynamic capability perspective by demonstrating that organizational culture serves as an important contextual condition that strengthens or weakens the effectiveness of innovation capability in improving SME performance. In doing so, the research moves beyond a simple mediation framework and introduces a moderated mediation perspective, highlighting how organizational culture influences the translation of organizational resources into innovation-driven performance outcomes.

The study contributes to the SME literature in three important ways. First, it develops a more comprehensive explanatory model that integrates financial literacy, governance mechanisms, innovation capability, and organizational culture within a single framework. Second, it provides empirical evidence from Indonesian SMEs, a context that remains underrepresented in innovation and governance research. Third, it demonstrates that organizational culture is not merely an internal characteristic but a strategic enabler that amplifies the performance benefits derived from innovation capability. Therefore, the novelty of this study lies not only in confirming the effects of financial literacy and governance mechanisms on SME performance but also in explaining how and under what conditions these effects occur through innovation capability and organizational culture.

Most prior studies have primarily focused on examining the direct relationship between financial literacy and financial performance or business sustainability. Furthermore, empirical evidence remains scarce regarding the integration of mediation and moderation effects within a single analytical framework, particularly in the context of creative SMEs operating in developing economies. The creative sector possesses unique characteristics, including high dependence on intangible assets, knowledge-based activities, and innovation-driven competitiveness, which may alter the way financial knowledge is transformed into business performance. Despite the strategic contribution of creative SMEs to regional economic development in Yogyakarta, existing studies have predominantly focused on either financial literacy, governance practices, or innovation capability separately, without examining their interconnected effects.

To address this gap, the present study develops and tests a simultaneous moderated mediation model in which innovation capability mediates the relationship between financial literacy and SME performance, while governance mechanisms moderate the effect of financial

literacy on innovation capability. By focusing on creative SMEs in Yogyakarta, this study contributes to the SME literature by providing a more comprehensive explanation of how financial knowledge is converted into performance outcomes under different governance conditions. Furthermore, SME research in Indonesia predominantly concentrates on major industrial hubs such as West Java or East Java, while SMEs in DIY exhibit distinctive characteristics—particularly their strong orientation toward the creative economy, education, and cultural sectors—necessitating a re-evaluation of these relationships.

1.1. Literature Review and Hypothesis Development

1.1.1. The Influence of Financial Literacy on Innovation Capability

Within the dynamic landscape of SMEs, innovation capability represents a fundamental determinant of competitiveness and long-term business sustainability. It denotes an organization's capacity to generate novel ideas, develop improved products or services, and effectively respond to shifts in the business environment. One key factor that contributes to enhancing innovation capability is the financial literacy of entrepreneurs. Financial literacy refers to the extent to which individuals possess the knowledge, skills, and confidence necessary to manage both personal and business finances effectively in order to attain financial well-being (Resmi et al., 2022). Good financial literacy helps entrepreneurs make more rational economic decisions, manage risks, and optimally utilize financial resources (Liu et al., 2025)

Previous studies indicate that financial literacy is positively associated with entrepreneurial capability and the quality of strategic decision-making. Entrepreneurs who possess a high level of financial literacy demonstrate a stronger ability to interpret financial statements, assess the financial consequences of innovation initiatives, and manage external financing sources effectively. This supports the innovation process because investment decisions in developing new products or technologies often require a deep understanding of the financial implications (Chen et al., 2025). Based on the theoretical and empirical arguments presented, financial literacy can be regarded as a crucial determinant in strengthening entrepreneurs' innovation capabilities.

H1: Financial literacy positively and significantly contributes to the development of innovation capability.

1.1.2. The Influence of SMEs Governance on Innovation Capability

SMEs governance is a set of mechanisms, structures, and processes designed to direct and control business activities so that they run efficiently, transparently, and sustainably. Good governance encompasses strategic planning, clear division of roles and responsibilities, financial accountability, and data-driven, participatory decision-making. In the SMEs context, the application of good governance principles is essential for creating an internal environment conducive to innovation (Zahir & Bougadir, 2025).

Several previous studies have shown that good governance practices positively influence an organization's ability to innovate (Garcia-perez-de-lema et al., 2017). For example, a transparent and accountable governance system can increase trust among team members and business partners, ultimately strengthening organizational learning and the exploration of new ideas (Westman et al., 2021). Moreover, adaptive governance allows SMEs to adjust their innovation strategies more effectively and promptly. Consequently, the stronger the application of governance principles within SMEs, the greater their capacity to formulate and execute innovation initiatives.

H2: SMEs governance positively and significantly contributes to the development of innovation capability.

1.1.3. The Influence of Financial Literacy on SME Performance

Financial literacy refers to an individual's capacity to comprehend fundamental financial concepts, effectively manage income, engage in sound financial planning, and make informed decisions regarding investment and financing (Bugandwa et al., 2025). Good financial literacy enables individuals to allocate resources efficiently, avoid financial mistakes, and improve long-term economic well-being.

Previous research has shown that financial literacy positively impacts business performance. A good understanding of financial concepts enables entrepreneurs to avoid costly decisions, improve financial planning skills, and optimize the use of business capital. Accordingly, higher levels of financial literacy among SMEs are associated with improved business performance, reflected in both financial outcomes—such as increased profitability and revenue growth—and non-financial outcomes, including enhanced operational efficiency and long-term business sustainability (Appiah-kubi et al., 2024; Raymond et al., 2019).

H3: Financial literacy positively and significantly contributes to the development of SME performance.

1.1.4. The Influence of SMEs Governance on SME Performance

SMEs governance refers to a framework of principles, structures, and procedures designed to guide and oversee business operations to ensure they are conducted effectively, efficiently, and ethically. The adoption of sound governance practices in SMEs incorporates key dimensions of transparency, accountability, responsibility, independence, and fairness, which are aligned with the principles of Good Corporate Governance (GCG) (Abidur et al., 2025). Various previous studies have shown that the implementation of good governance positively impacts organizational performance, both financially and non-financially, contributing to increased innovation and business competitiveness (Musah et al., 2025).

H4: SMEs governance positively and significantly contributes to the development of SME performance.

1.1.5. The Influence of Innovation Capability on SME Performance

Innovation capability can be defined as an organization's capacity to generate, absorb, and execute novel ideas in the form of products, processes, or business models that create added value for both customers and the firm. This capability encompasses the effective management of resources, the development of new knowledge, and the practical application of innovative outcomes within routine organizational activities (Zhang et al., 2025).

Several previous studies have shown that innovation capability plays a crucial role in improving SME performance. SMEs possessing robust innovation capabilities are generally more responsive to shifts in the external environment and better positioned to develop highly competitive products or services. Through innovation, SMEs can enhance production efficiency, broaden their market reach, and increase customer satisfaction. Furthermore, innovation capability helps SMEs identify new market opportunities and respond to consumer needs more quickly than competitors. Innovation capability represents the firm's ability to develop new products, services, processes, or business models in response to market changes. Financially literate SME owners are more likely to identify investment opportunities and allocate resources toward innovation activities. Likewise, effective governance mechanisms can create an environment that supports experimentation, knowledge sharing, and innovation-oriented strategies. Consequently, innovation capability serves as an important organizational competence that contributes directly to improved SME performance (Zahir & Bougadir, 2025).

H5: Innovation capability positively and significantly contributes to the development of SME performance.

1.1.6. Innovation Capability on SME Performance Moderated by Organizational Culture

Innovation capability refers to an organization's capacity to effectively utilize and integrate its resources and knowledge in order to generate, refine, and apply novel ideas that create customer value and strengthen competitive advantage. In the context of SMEs, innovation capability encompasses not only the creation of new products but also innovations in processes, marketing, and business models that are more efficient and adaptive to changes in the external environment (Marcilla-vigo & Donet, 2025). The stronger an SME's innovation capability, the greater its opportunity to improve business performance, both financially and non-financially. The moderating effect of organizational culture revealed an unexpected finding. Instead of strengthening the relationship between innovation capability and SME performance,

organizational culture was found to weaken this relationship. This result suggests that not all forms of organizational culture necessarily facilitate the transformation of innovative capabilities into superior business outcomes (Saunila & Ukko, 2025).

Organizational culture functions as a moderating variable that shapes the magnitude of the relationship between innovation capability and SME performance. A culture that fosters and encourages innovation enables the effective implementation of new ideas, thereby maximizing organizational outcomes and overall firm performance. However, if the organizational culture is not conducive, the innovative potential of SMEs may not be fully utilized (Handley & Molloy, 2025).

H6: Organizational culture moderates the influence of innovation capability on SME performance.

2. METHOD

2.1. Methodological Approach

This study employs a quantitative approach to investigate the relationships among variables through numerical measurement and statistical analysis techniques. The data were collected from SME respondents using a Likert-scale questionnaire designed to assess financial literacy, governance practices, innovation capabilities, organizational culture, and SME performance (Sekaran, 2016). The operationalization of each variable is described as follows:

Financial Literacy (X_1): Measured based on the level of understanding, attitudes, and behavior of SME actors in managing finances, including aspects of basic financial knowledge, debt management, savings, investment, and financial planning.

SMEs Governance (X_2): Describes the extent to which SMEs apply good governance principles such as transparency, accountability, responsibility, and fairness in business management.

Innovation Capability (Y_1): Refers to the internal capabilities of SMEs in managing resources, product innovation, marketing, and adapting to changes in the business environment.

SME Performance (Y_2): Measured from financial dimensions (profitability, sales growth) and non-financial dimensions (customer satisfaction, innovation, and business sustainability).

Organizational Culture (Z): Conceptualized as a moderating variable that can either amplify or diminish the effects of financial literacy, governance practices, and organizational capabilities on SME performance. Core cultural values such as collaboration, achievement orientation, and adaptability are considered to enhance the effectiveness of governance mechanisms and capability development in driving superior organizational performance.

2.2. Population Scope and Sample Criteria

The population of this study comprised all SMEs located in the Special Region of Yogyakarta. A purposive sampling technique was applied, with specific criteria including SMEs that have been operating for a minimum of two years, possess a simple organizational structure, and maintain basic financial records. The required sample size followed the general SEM guideline of 5–10 times the number of indicators. Given that this study employed 27 indicators, the minimum recommended sample ranged from 150 to 300 respondents (Hair et al., 2016). The final sample consisted of 176 SMEs.

2.3. Data Analysis Techniques

In this study, the data were analyzed using the Structural Equation Modeling (SEM) approach with the support of Partial Least Squares (PLS) software. PLS represents a variance-based SEM technique that enables the simultaneous examination of latent constructs, their observed indicators, and measurement errors. This method is considered robust and flexible, as it can accommodate various types of data scales, operates with minimal distributional assumptions, and is suitable for research involving relatively small sample sizes (Sugiyono, 2017).

Partial Least Squares (PLS) can also be employed to examine whether relationships among latent variables exist or do not exist. The primary objective of PLS is to assist researchers in estimating latent variable scores that can be utilized for predictive analysis purposes (Febrian et

al., 2020). The parameter estimates generated through the PLS approach can be classified into three main categories (Indarto, 2024): (1) weight estimates utilized to generate latent variable scores; (2) path estimates describing the relationships among latent variables and the links between latent variables and their respective indicator blocks; and (3) mean values and location parameters of both indicators and latent variables. The evaluation of the PLS model is conducted by examining the outer model and the inner model.

3. RESULTS AND DISCUSSION

In line with the research issues and the necessity of hypothesis testing, this study employs a quantitative analytical approach that applies statistical formulas and computational procedures to examine the proposed relationships. The primary analytical method utilized is the Structural Equation Modeling–Partial Least Squares (SEM-PLS) technique. Prior to conducting the SEM-PLS analysis, the data were first subjected to validity and reliability testing to ensure the robustness and consistency of the measurement instruments. The questionnaire was distributed to 176 UKM respondents in the Special Region of Yogyakarta from August to October 2025.

3.1. Pilot Testing (Validity Test Results)

Pilot testing is conducted before the main data collection to evaluate whether the questionnaire items are understandable, valid, and reliable. The validity test was carried out using item analysis by correlating each individual item score with the total variable score. The Pearson correlation method was employed with a significance level set at 0.05 (5%). An item was considered valid if the calculated r-value exceeded the r-table value or if the significance value was ≤ 0.05 . Based on the number of trial respondents of 176 people, the degree of freedom (df) was 174. At a significance level of 5%, the r table value was 0.250. An item statement is declared valid if the calculated r value is greater than the r table (0.250) and has a positive correlation. The detailed results of the validity test are presented in Table 1.

Table 1. Validity Test Results

Variable	Item	Pearson Correlation	Significance	r table	Result
Financial Literacy	FL1	0.535	0.000	0.250	Valid
	FL2	0.553	0.000	0.250	Valid
	FL3	0.627	0.000	0.250	Valid
	FL4	0.625	0.000	0.250	Valid
	FL5	0.819	0.007	0.250	Valid
SMEs Governance	GOV1	0.535	0.000	0.250	Valid
	GOV2	0.582	0.000	0.250	Valid
	GOV3	0.424	0.000	0.250	Valid
	GOV4	0.488	0.000	0.250	Valid
	GOV5	0.600	0.000	0.250	Valid
Organization Culture (Z)	OC1	0.480	0.000	0.250	Valid
	OC2	0.459	0.000	0.250	Valid
	OC3	0.398	0.000	0.250	Valid
	OC4	0.488	0.000	0.250	Valid
	OC5	0.601	0.000	0.250	Valid
Innovation Capability (Y1)	CI1	0.504	0.000	0.250	Valid
	CI2	0.486	0.000	0.250	Valid
	CI3	0.394	0.000	0.250	Valid
	CI4	0.604	0.009	0.250	Valid
	CI5	0.670	0.005	0.250	Valid

Variable	Item	Pearson Correlation	Significance	r table	Result
Performance (Y2)	CI6	0.464	0.030	0.250	Valid
	PER1	0.685	0.023	0.250	Valid
	PER2	0.395	0.000	0.250	Valid
	PER3	0.448	0.000	0.250	Valid
	PER4	0.336	0.002	0.250	Valid
	PER5	0.686	0.000	0.250	Valid
	PER6	0.709	0.000	0.250	Valid

Source: Researcher's processing of primary data (2025).

3.2. Reliability Test Results

Reliability indicates the degree to which an individual provides consistent and stable responses to measurement items across time. A higher reliability coefficient reflects greater consistency in respondents' answers. When the Cronbach's Alpha coefficient exceeds 0.60, the questionnaire items are considered to demonstrate acceptable internal consistency, indicating that the instrument is reliable. The results of the reliability analysis are presented in Table 2.

Table 2. Reliability Analysis Results

Variable	Cronbach's Alpha Score	Reliability Result
Financial Literacy	0.795	Reliable
SMEs Governance	0.770	Reliable
Organization Culture	0.757	Reliable
Innovation Capability	0.705	Reliable
Performance	0.795	Reliable

Source: Researcher's processing of primary data (2025).

3.3. Model Validity

Validity testing of reflective indicators is conducted by examining the correlation between individual item scores and their respective construct scores. In reflective measurement models, an indicator is expected to vary consistently with changes in other indicators within the same construct. Data analysis employing the SEM-PLS approach involves two main stages to evaluate the overall model fit (Tjahjono, 2021).

3.3.1. Convergent Validity and Discriminant Validity

The convergent validity of a reflective measurement model is evaluated by examining the correlation between item scores and their respective construct scores, as estimated through PLS analysis. A reflective indicator is deemed reliable when it demonstrates a loading factor greater than 0.70 on its associated construct. However, in the early stages of scale development, loading values ranging from 0.50 to 0.60 are still considered acceptable. Furthermore, discriminant validity is achieved when each indicator exhibits a higher loading on its intended latent variable compared to its loadings on other latent variables within the model. The outcomes of the data analysis assessing both convergent and discriminant validity are presented in Table 3.

Table 3. Results of Convergent and Discriminant Validity Testing

	X1	X2	Y1	Y2	Z
X1.1	0.813	0.195	0.167	0.129	0.101
X1.2	0.860	0.227	0.253	0.163	0.148

	X1	X2	Y1	Y2	Z
X1.3	0.879	0.242	0.208	0.164	0.140
X1.4	0.905	0.294	0.253	0.255	0.206
X1.5	0.876	0.223	0.138	0.215	0.201
X2.1	0.088	0.789	0.369	0.200	0.257
X2.2	0.271	0.848	0.156	0.369	0.534
X2.3	0.275	0.883	0.185	0.367	0.514
X2.4	0.298	0.823	0.173	0.344	0.497
X2.5	0.240	0.721	0.063	0.264	0.393
Y1.1	0.223	0.171	0.886	0.159	0.091
Y1.2	0.181	0.165	0.891	0.166	0.088
Y1.3	0.262	0.207	0.932	0.171	0.120
Y1.4	0.278	0.290	0.820	0.222	0.165
Y1.5	0.017	0.170	0.749	0.102	0.086
Y1.6	0.065	-0.035	0.731	0.065	0.023
Y2.1	0.119	0.235	0.259	0.786	0.225
Y2.2	0.234	0.353	0.154	0.877	0.253
Y2.3	0.151	0.380	0.126	0.938	0.248
Y2.4	0.180	0.314	0.144	0.827	0.232
Y2.5	0.168	0.246	0.111	0.849	0.142
Y2.6	0.205	0.181	0.150	0.701	0.131
Z1	0.066	0.308	0.308	0.150	0.707
Z2	0.140	0.528	0.063	0.301	0.887
Z3	0.179	0.521	0.114	0.267	0.901
Z4	0.224	0.477	0.084	0.226	0.819
Z5	0.233	0.346	0.059	0.111	0.700

Source: Researcher's processing of primary data (2025). Bold values indicate the highest loading for each indicator.

Based on the results of the outer model evaluation, all indicators demonstrate loading factor values above 0.60. Furthermore, each indicator exhibits the highest loading on its associated latent variable compared to its loadings on other latent variables. These findings indicate that the measurement model achieves adequate discriminant validity, confirming that each construct is empirically distinct and well represented by its indicators. Discriminant validity refers to the extent to which a construct is truly distinct from other constructs in a model. The HTMT criterion evaluates discriminant validity by comparing the correlations between indicators across different constructs (heterotrait-heteromethod correlations) with the correlations among indicators within the same construct (monotrait-heteromethod correlations).

Table 4. HTMT criterion evaluates discriminant validity

	X1	X2	y1.	y2.	z
X1					
X2	0.792				
y1.	0.837	0.836			

y2.	0.760	0.540	0.851		
z	0.786	0.774	0.823	0.807	
z x y1.	0.810	0.698	0.798	0.869	0.793

Source: Researcher's processing of primary data (2025).

The HTMT values among all constructs ranged from 0.540 to 0.869, which were below the recommended threshold of 0.90. Therefore, the results indicate that discriminant validity was established, suggesting that each construct measures a distinct concept.

3.3.2. Composite Reliability and Average Variance Extracted (AVE)

After collecting data from the actual research sample, validity and reliability are re-evaluated as part of the measurement model assessment. The assessment of validity and reliability can also be evaluated using Composite Reliability (CR) and Average Variance Extracted (AVE) values. A construct is considered reliable when its composite reliability exceeds 0.70 and its AVE value is greater than 0.50. The results for all examined variables are presented in Table 5.

Table 5. Composite Reliability and Average Variance Extracted (AVE) Analysis

	Cronbach's Alpha Coefficient	Composite Reliability	Average Variance Extracted (AVE)
X1 (Financial Literacy)	0.803	0.878	0.714
X2 (SMEs Governance)	0.787	0.859	0.761
Y1 (Innovation Capability)	0.788	0.823	0.724
Y2 (Performance)	0.776	0.873	0.792
Z (Organization Culture)	0.783	0.856	0.759

Source: Researcher's processing of primary data (2025).

Referring to Table 5, all constructs can be considered reliable. This is evidenced by composite reliability values exceeding 0.70 and AVE values above 0.50, in accordance with the recommended threshold criteria.

Inner Model

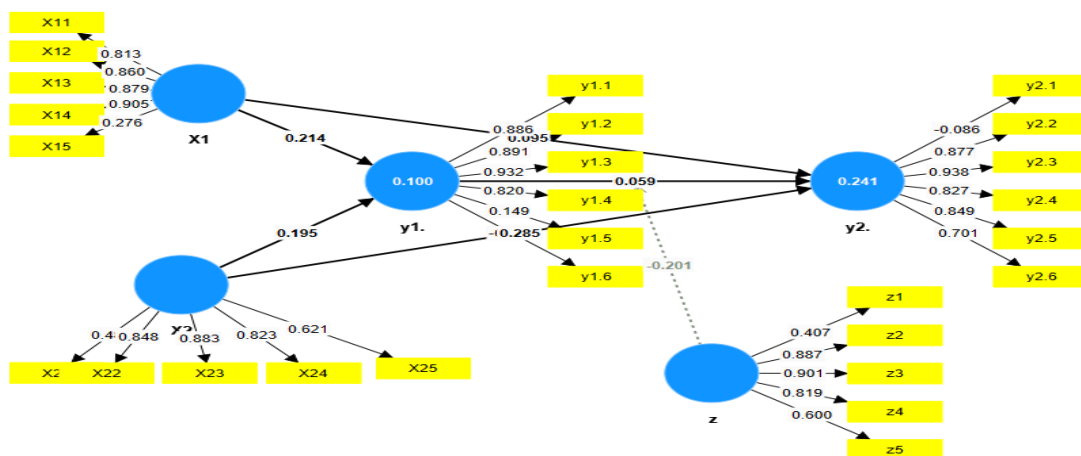


Figure 1. Structural Model

Source: Researcher's processing of primary data (2025).

3.4. Inner Model and Hypothesis Testing

The significance of the estimated parameters offers valuable insights into the relationships among the study variables. Hypothesis testing is conducted based on the values reported for the inner weights in the output. The structural model results and hypothesis test findings are presented in Table 6.

Table 6. Hypothesis Testing Results

Path	Original Sample (O)	Sample Mean (M)	Std. Deviation (STDEV)	T-Statistics (O/STDEV)	P-Values
X1 → Y1 (H1)	0.214	0.226	0.077	2.780	0.005*
X1 → Y2 (H3)	0.095	0.097	0.073	1.316	0.188
X2 → Y1 (H2)	0.195	0.193	0.106	1.945	0.045*
X2 → Y2 (H4)	0.285	0.284	0.109	2.605	0.009*
Y1 → Y2 (H5)	0.059	0.060	0.078	0.759	0.448
Z → Y2	0.114	0.118	0.101	1.127	0.260
Z × Y1 → Y2 (H6)	-0.201	-0.184	0.069	2.900	0.004*

Source: Researcher's processing of primary data (2025). *Significant at $p < 0.05$.

Table 7. R-square adjusted Result

	R-square	R-square adjusted
y1.	0.510	0.500
y2.	0.563	0.541

Source: Researcher's processing of primary data (2025).

The coefficient of determination (R^2) was used to assess the predictive accuracy of the structural model. The results indicate that the R^2 value for Innovation Capability (Y1) is 0.500, meaning that 50.0% of the variance in innovation capability can be explained by the exogenous variables included in the model. Meanwhile, the R^2 value for SME Performance (Y2) is 0.541, indicating that 54.1% of the variance in SME performance is explained by the predictor variables and mediating constructs in the model. According to the commonly accepted criteria in PLS-SEM, these values suggest a moderate explanatory power, demonstrating that the proposed model has satisfactory predictive capability in explaining both innovation capability and SME performance.

This study employed a one-tailed significance test with a critical t-value of 1.6612 ($\alpha = 0.05$) because all hypotheses were developed based on strong theoretical foundations and prior empirical evidence that predicted directional relationships among the constructs. According to the guidelines for Partial Least Squares Structural Equation Modeling (PLS-SEM), a one-tailed test is appropriate when the direction of the hypothesized effect is specified a priori and supported by theory. Therefore, path coefficients were considered statistically significant when the t-statistic exceeded 1.6612 at the 5% significance level. This approach is consistent with established PLS-SEM practices for testing directional hypotheses.

3.4.1. The Role of Financial Literacy in Enhancing Innovation Capability

According to the results presented in Table 6, financial literacy exerts a positive influence on innovation capability, with a path coefficient of 0.214, a t-value of 2.780, and a p-value of 0.005. Since the t-value exceeds the critical value of 1.6612, financial literacy significantly enhances innovation capability, supporting H1.

Financial literacy refers to the capacity of individuals or entrepreneurs to comprehend, oversee, and make informed financial decisions in order to attain their economic objectives (Haq et al., 2025). SMEs that possess strong financial literacy are generally more capable of recognizing economic opportunities, handling risks, and directing resources toward initiatives that can enhance their competitiveness (Afdawaiza et al., 2025).

Innovation capability depends not merely on creativity but also on the capacity to effectively leverage available resources, particularly financial ones. A strong grasp of financial literacy is essential in establishing a strategic basis for the innovation process (Zheng et al., 2025). By having solid financial knowledge, entrepreneurs can evaluate the viability of innovative concepts, estimate the potential risks and returns of investing in innovation, and allocate resources for research, development, and the implementation of new technologies (Nguyen et al., 2025a).

3.4.2. The Role of SMEs Governance in Enhancing Innovation Capability

According to Table 6, the effect of SMEs governance on innovation capability is reflected by a path coefficient of 0.195, a t-value of 1.945, and a p-value of 0.045. Since the t-value exceeds the critical t-value of 1.6612, SMEs governance has a positive and statistically significant impact on innovation capability, supporting H2.

SMEs governance refers to a system of mechanisms, structures, and processes aimed at guiding, controlling, and sustaining business operations through transparent, accountable, and efficient management practices (Ichim & Vid, 2025). Within SMEs, effective governance goes beyond mere administrative adherence; it also encompasses the capacity of owners and managers to make strategic choices that foster long-term value creation (Afsar et al., 2023). Strong governance allows SMEs to utilize their limited resources effectively, reduce potential risks, and enhance internal coordination, forming the basis for fostering innovation capabilities.

3.4.3. The Impact of Financial Literacy on SME Performance

According to Table 6, financial literacy has a path coefficient of 0.095 on performance, with a t-value of 1.316 and a p-value of 0.188, which is below the critical t-value of 1.6612. This indicates that financial literacy does not significantly influence performance, contradicting H3. From a theoretical perspective, higher financial literacy is expected to enhance decision-making quality, cash management, investment practices, and cost control, ultimately contributing positively to SME performance (Reilly, 2025). However, empirical evidence shows that the influence of financial literacy on SME performance is not always substantial (Hwang et al., 2025). Empirical studies indicate that despite entrepreneurs having strong financial knowledge, external elements like the business climate, regulatory frameworks, market dynamics, and technological resources continue to play a major role in determining business success. Consequently, financial literacy may not be fully leveraged due to its limited application in the daily operations of SMEs (Dash & Mohanta, 2025).

Moreover, the prevalent intuition-driven decision-making culture among Indonesian SMEs may hinder the full application of financial knowledge in strategic management. Put differently, possessing high financial literacy does not necessarily lead to effective financial practices in business operations. Consequently, the link between financial literacy and SME performance tends to be weak or negligible (Nguyen et al., 2025b).

3.4.4. The Impact of SMEs Governance on SME Performance

According to Table 6, the influence of SMEs governance on performance has a path coefficient of 0.285, a t-value of 2.605, and a p-value of 0.009, which exceeds the critical t-value of 1.6612. These findings suggest that governance exerts a positive and significant impact on performance, supporting H4.

SMEs governance encompasses a set of mechanisms, principles, and managerial practices implemented to guide and control organizational operations in a manner that is effective, efficient, transparent, and accountable (Ferraro et al., 2026). Effective governance encompasses a well-defined organizational framework, allocation of duties, decision-making processes, and

monitoring of business activities (Imjai et al., 2025). By adhering to the principles of transparency and accountability, entrepreneurs can guarantee that all business decisions are guided by data-driven and rational analysis rather than mere intuition. Additionally, robust governance fosters trust among business owners, employees, suppliers, and customers, thereby promoting more stable and enduring business relationships (Saunila & Ukko, 2025).

3.4.5. The Impact of Innovation Capability on SME Performance

According to Table 6, the influence of innovation capability on performance yields a path coefficient of 0.059, accompanied by a t-value of 0.759 and a p-value of 0.448, which is below the critical t-value of 1.6612. This finding suggests that innovation capability does not significantly impact performance, contrary to H5.

In the context of SMEs, innovation capability is generally regarded as a crucial element for sustaining competitiveness in dynamic market environments (Falahat et al., 2020). However, several studies indicate that innovation capability does not consistently exert a significant influence on the performance of SMEs, particularly among small-scale enterprises with constrained resources, limited capital, and restricted access to technology (Huiping & Ao, 2025). Under these circumstances, innovations frequently fail to reach their full potential because of limited managerial backing, a basic organizational framework, and insufficient technological adoption capacity (Giordino et al., 2025). Consequently, innovation often fails to produce substantial performance gains and can occasionally lead to extra expenses for SMEs. Moreover, in numerous SMEs in developing areas, the business focus remains on survival rather than growth fueled by innovation (Merín-rodrig et al., 2025).

3.4.6. The Impact of Innovation Capability on SME Performance Moderated by Organizational Culture

The results in Table 6 indicate that the impact of innovation capability on SME performance, with organizational culture as a moderating factor, yields a path coefficient of -0.201, a t-value of 2.900, and a p-value of 0.004. Although the t-value exceeds the critical threshold, the negative sign indicates a suppressing moderation effect: organizational culture weakens, rather than strengthens, the relationship between innovation capability and performance. This finding provides partial support for H6 but in the opposite direction.

While innovation capability is theoretically regarded as a key driver of sustainable competitive advantage, its effect on SME performance frequently exhibits inconsistency (Ren et al., 2015). Multiple studies suggest that innovation alone may not directly enhance performance, especially in the absence of supportive organizational factors (Alegre & Merín-rodrig, 2025). Organizational culture serves as an important contextual element that can either enhance or diminish the link between innovation capability and performance (Jie et al., 2025). Within Indonesian SMEs, organizational culture is frequently shaped by family-oriented values, rigid hierarchies, and a focus on short-term profits, which can hinder the effective implementation of innovation (Nadhira et al., 2025). A negative organizational culture may lead to resistance to change, poor coordination, and limited commitment to executing innovation initiatives, thereby weakening or nullifying the impact of innovation capability on performance (Escobar-castillo et al., 2025).

4. CONCLUSIONS AND SUGGESTION

The findings of this study reveal that financial literacy and SMEs governance exert a positive and significant influence on innovation capability. However, financial literacy does not have a significant impact on performance, whereas governance positively and significantly affects performance. Innovation capability alone does not influence performance, nor does it significantly affect performance when moderated by organizational culture. Rather, organizational culture appears to weaken the relationship between innovation capability and performance within the SME context.

This research provides valuable insights into the interplay between financial literacy, SMEs governance, innovation capability, and SME performance, taking into account the potential moderating effect of organizational culture. Nevertheless, several limitations should be acknowledged. First, the lack of effect of financial literacy on SME performance may be attributed to respondents' characteristics, as many are still in the early stages of acquiring financial management knowledge, limiting the practical application of such knowledge in day-to-day business operations.

Second, the non-significant effect of innovation capability on performance suggests that SME innovations may not be focused on enhancing value creation or aligned with market-oriented business strategies. Third, the moderating influence of organizational culture on the relationship between innovation capability and performance was found to be significant but negative, indicating that current organizational values and norms in DIY SMEs tend to suppress rather than reinforce the impact of innovation on performance. This may reflect insufficient internalization of an adaptive and collaborative work culture within SMEs.

Additionally, the study's methodological constraints including reliance on cross-sectional data restrict the ability to capture longitudinal changes in financial behavior, governance, and innovation. Moreover, the relatively limited sample size and regional concentration of respondents further limit the generalizability of the findings to SMEs in other regions with differing characteristics. Future research is recommended to employ longitudinal designs and expand to multiple regions in Indonesia to improve the generalizability of findings. For institutions such as the Financial Services Authority (OJK) and Bank Indonesia, the results suggest that financial literacy programs should be redesigned to focus not only on increasing financial knowledge but also on strengthening entrepreneurs' ability to translate financial understanding into innovation and business growth strategies. Collaborative programs involving universities, business associations, and financial institutions could provide more comprehensive support through financial education, digital finance adoption, and innovation-oriented business coaching.

This study contributes to the SME innovation and performance literature by providing a more nuanced understanding of the roles of financial literacy, governance, innovation capability, and organizational culture. Consistent with resource-based and capability-based perspectives, the findings confirm that financial literacy and SME governance serve as important antecedents of innovation capability. However, the results challenge the commonly held assumption that innovation capability automatically translates into superior organizational performance. More importantly, the negative moderating effect of organizational culture suggests that culture does not always function as a reinforcing mechanism in the innovation-performance relationship. Contrary to the dominant view in prior studies that organizational culture strengthens the effectiveness of innovation activities, this study demonstrates that certain cultural characteristics may constrain the conversion of innovation capability into tangible performance outcomes. These findings extend existing theory by highlighting the contingent nature of organizational culture and emphasizing that cultural alignment, rather than the mere presence of a strong culture, is critical for realizing the performance benefits of innovation. As such, this research advances the SME innovation-performance literature by showing that organizational culture can operate not only as an enabling factor but also as a potential inhibitor under specific organizational conditions.

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