

FINANCIAL LITERACY AS A MEDIATOR OF STRATEGIC AGILITY AND THE SUSTAINABILITY OF WEST JAVA BATIK ARTISANS

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Abstract

This study examines the effects of strategic agility on the business sustainability of batik artisans in West Java and evaluates the mediating role of financial literacy. The research objects were batik micro, small, and medium-sized enterprises located in Bandung, Tasikmalaya, Garut, and Cirebon that had adopted or begun adopting digital marketing. An explanatory quantitative design was employed using primary data collected through a five-point Likert-scale questionnaire from 96 respondents selected through purposive sampling. The relationships among the variables were analyzed using partial least squares structural equation modeling with SmartPLS. The findings indicate that strategic agility has a positive and significant effect on financial literacy ($\beta = 0.344$; $p = 0.001$) and business sustainability ($\beta = 0.349$; $p < 0.001$). Financial literacy also has a positive and significant effect on business sustainability ($\beta = 0.326$; $p < 0.001$). Furthermore, financial literacy significantly mediates the relationship between strategic agility and business sustainability, with an indirect effect of $\beta = 0.178$ and $p = 0.015$, indicating partial mediation. These results demonstrate that the business sustainability among batik enterprises depends not only on their capacity to respond adaptively to market and technological changes but also on their ability to translate strategic responses into sound budgeting, pricing, financing, cash-flow, and risk-management decisions. The study highlights the importance of integrating strategic-agility development with financial-literacy programs for batik MSMEs.

Keywords: strategic agility, financial literacy, business sustainability, batik artisans, MSMEs

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1. Introduction

The batik industry constitutes an important component of Indonesia's creative economy because of its economic, social, and cultural significance. Batik is not merely traded as a commercial product; it also represents national identity, traditional craftsmanship, and a source of livelihood for local communities. The Ministry of Industry of the Republic of Indonesia reported that the batik and batik-product industries absorb up to 200,000 workers. This substantial employment contribution indicates that the sustainability of the batik industry is closely associated with household income stability, job creation, and the preservation of traditional skills (Kemenperin, 2024).

The business sustainability among batik enterprises should not be understood solely as their ability to maintain sales and generate short-term profits. It also encompasses their capacity to ensure production continuity, provide social benefits to workers and local communities, preserve cultural values, and mitigate environmental impacts arising from the use of raw materials, water, energy, dyes, and waste-disposal processes (Gunawan et al., 2022). Accordingly, the business sustainability among batik enterprises needs to be examined through an integrated perspective that incorporates economic, social, cultural, and environmental dimensions (Muafi & Sugarindra, 2023).

Despite its strategic importance, the batik industry, which is largely composed of micro, small, and medium-sized enterprises, continues to face numerous constraints. These challenges include limited access to capital, inadequate financial management, low levels of technology adoption, restricted market access, fluctuations in raw-material prices, and changes in consumer preferences. Batik enterprises are also increasingly expected to produce innovative designs, adopt more efficient production processes, and implement environmentally responsible business practices (Gunawan et al., 2022). Nevertheless, many batik enterprises remain insufficiently prepared to manage materials, energy, water, products, and waste in accordance with green-industry principles. These conditions demonstrate that the sustainability of the batik industry is strongly influenced by business owners' capacity to respond to market changes, technological developments, regulatory requirements, and environmental demands (Kusumawardani et al., 2024).

These challenges are particularly relevant in West Java, which has a substantial ecosystem of micro, small, and medium-sized enterprises. The

number of MSMEs in West Java was projected to increase from 6,644,548 units in 2022 to 7,055,660 units in 2023, representing growth of approximately 5.83%. In the same year, the number of MSMEs classified under the batik category was projected to reach 16,425 business units. These figures indicate that batik enterprises occupy a meaningful position within West Java's MSME structure. However, the growing number of business actors also intensifies competition, increases pressure for innovation, accelerates changes in market preferences, and creates a greater need for business-model adaptation (West Java Office of Cooperatives and Small Enterprises, 2026).

The development of the batik industry in several areas of West Java also requires substantial capacity strengthening. Batik enterprises in Sukabumi and Cianjur, for example, require improvements in design development, digital marketing, financial management, pricing, product certification, business assistance, and market access. Although batik-industry development programs may generate economic and social benefits, the continuity of these benefits depends on sustained financing support, appropriate policies, and consistent improvements in business-management capacity (Rahmawati & Panjaitan, 2025).

These challenges indicate that batik-enterprise sustainability cannot be achieved solely by relying on production skills and cultural value. Artisans need the capacity to identify environmental changes, understand customer requirements, respond to technological developments, and promptly adjust their business strategies. This capability is commonly referred to as strategic agility, which denotes an organization's capacity to interpret environmental changes, make timely strategic decisions, and reconfigure resources according to emerging needs.

For MSMEs, strategic agility enables business owners to adjust their products, business processes, marketing channels, partnerships, and resource allocation when confronted with uncertainty. Research on SMEs in emerging economies has demonstrated that strategic agility helps firms transform technological capabilities, market information, and business networks into strategic actions that enhance business performance (Adomako et al., 2022). Other studies have shown that strategic agility can strengthen the utilization of social capital and support innovation and SME performance (Aisjah et al., 2023). In the context of small businesses in Bandung, the capacity to implement

strategic change has also been associated with business resilience and growth (Johan et al., 2024).

Among batik artisans in West Java, strategic agility may be reflected in their ability to adjust motifs to customer preferences, develop diversified batik-based products, use digital marketing, establish partnerships with government institutions and local communities, and modify production patterns in response to changing demand. However, the capacity to make strategic changes does not automatically result in business sustainability. Every decision to develop a new product, purchase equipment, expand into new markets, replace raw materials, or increase production capacity has financial consequences.

Rapid strategic responses without appropriate financial planning may result in cash-flow shortages, excessive debt, pricing errors, unproductive asset purchases, or uncontrolled expansion. Therefore, the effectiveness of strategic agility depends on the business owner's ability to understand and manage the financial implications of each decision. This ability is closely associated with financial literacy.

In a business context, financial literacy extends beyond knowledge of savings, credit, and banking products. It includes the ability to separate personal and business finances, maintain transaction records, prepare budgets, manage cash flow, calculate production costs, determine appropriate selling prices, understand financial risks, evaluate investments, and select suitable financing sources. Business owners with stronger financial literacy are more capable of using financial information as the basis for rational and accountable decision-making.

The importance of financial literacy is reflected in the gap between financial literacy and financial inclusion in Indonesia. The 2024 National Survey of Financial Literacy and Inclusion reported a financial literacy index of 65.43%, compared with a financial inclusion index of 75.02% (OJK & BPS, 2024). In 2025, the financial literacy index increased to 66.46%, whereas the financial inclusion index reached 80.51%. Consequently, the gap between financial literacy and financial inclusion widened from 9.59 percentage points in 2024 to 14.05 percentage points in 2025 (OJK & BPS, 2025).

This situation indicates that broader access to financial services has not necessarily been accompanied by an equivalent capacity to understand the

costs, benefits, obligations, and risks associated with financial products. In the MSME context, the use of credit, digital financial services, and external financing without adequate understanding may lead to inappropriate financial decisions. For batik artisans, limited financial literacy may prevent adaptation and expansion decisions from producing sustainable outcomes, even when they are capable of identifying market changes.

Research involving MSMEs in the Citarum River Basin found that financial literacy was influenced by an understanding of basic financial concepts and knowledge of financial products and services. This finding is geographically relevant because the Citarum River Basin constitutes one of West Java's major areas of economic and MSME activity (Raharja & Kostini, 2020). Other research on Indonesian MSMEs has shown that financial literacy positively affects business sustainability, both directly and through strengthened supply-chain practices (Hamdana et al., 2022). Financial literacy has also been associated with improved financial performance and MSME sustainability (Miswanto et al., 2024).

Within the batik industry, financial literacy has been shown to contribute to business sustainability by supporting employment creation, profitability, cultural preservation, transparent governance, and the integration of economic, social, and environmental interests. However, previous findings concerning its mediating role remain inconsistent. Financial literacy was found to mediate the relationship between risk attitude and business sustainability but did not mediate the relationship between intellectual capital and the sustainability of batik MSMEs (Idris et al., 2023).

These inconsistent findings suggest that the mediating role of financial literacy may depend on the characteristics of the antecedent variable. In the relationship between strategic agility and business sustainability, financial literacy may function as a mechanism that translates adaptive capacity into economically viable business decisions. Batik artisans with strong strategic agility are likely to monitor markets more actively, evaluate product opportunities, adopt new technologies, establish new networks, and modify their business models. These activities require an understanding of costs, cash flow, capital requirements, risk, and financing consequences.

When artisans possess adequate financial literacy, strategic information can be translated into more appropriate budgeting, investment, financing,

pricing, and business-control decisions. Conversely, in the absence of adequate financial literacy, strategic agility may lead only to reactive changes that are not supported by sound financial calculations. Strategic agility therefore provides the capacity to change, while financial literacy helps ensure that such changes remain financially viable and sustainable.

Several research gaps remain evident in the existing literature. First, research on strategic agility among MSMEs has largely focused on business performance, innovation, growth, and competitive advantage, whereas its relationship with multidimensional sustainability remains relatively underexplored (Adomako et al., 2022). Second, studies of sustainability in the batik industry have mainly examined institutional barriers, green-industry readiness, green logistics, absorptive capacity, and circular-economy implementation (Gunawan et al., 2022). However, limited attention has been given to how financial-management capability translates strategic agility into sustainability outcomes (Kusumawardani et al., 2024).

Third, studies examining the mediating role of financial literacy in the batik industry remain limited and have generated different findings depending on the nature of the antecedent variable (Idris et al., 2023). Fourth, studies simultaneously examining strategic agility, financial literacy, and sustainability among batik artisans in West Java are also limited. This research context is important because West Java has a large MSME population, diverse batik production centers, varied cultural characteristics, and a dynamic competitive environment.

Based on these empirical phenomena and research gaps, the study entitled “Financial Literacy as a Mediator of Strategic Agility and the Sustainability of West Java Batik Artisans” is important to undertake. The novelty of this study lies in positioning financial literacy as a mediator of the relationship between strategic agility and sustainability, examining batik artisans in West Java as its empirical context, and conceptualizing sustainability as a multidimensional construct encompassing economic, social, cultural, and environmental dimensions.

This study aims to examine the effect of strategic agility on the sustainability of batik artisans in West Java, analyze the effect of strategic agility on financial literacy, investigate the effect of financial literacy on sustainability, and assess the mediating role of financial literacy in the relationship between

strategic agility and business sustainability. The findings are expected to extend the literature on strategic capabilities and MSME sustainability and to provide a basis for developing programs that strengthen business adaptability, financial management, access to financing, and sustainable investment among batik artisans in West Java.

Dynamic Capability Theory

Dynamic Capabilities Theory explains an organization's ability to identify environmental changes, capitalize on opportunities, and reconfigure resources to remain competitive in a dynamic business environment. This theory views a company's success as determined not only by the possession of resources but also by the ability to develop, integrate, and update those resources in line with changes in the market, technology, and competition (Valdez-Juárez & Castillo-Vergara, 2021). In this study, strategic agility represents the dynamic ability to respond to change, while financial literacy serves as a supporting capability that ensures the adaptation process results in sound financial decisions that support business sustainability (Adomako et al., 2022).

Strategic Agility

Strategic agility is a company's ability to quickly understand changes in the environment, make sound strategic decisions, and reallocate resources to capitalize on opportunities or address threats. This ability is reflected in strategic sensitivity to changes, unified leadership in decision-making, and resource flexibility in implementing strategic adjustments (Adomako et al., 2022). Among batik artisans in West Java, strategic agility can be measured by their ability to identify changes in consumer preferences, develop products, utilize digital technology, adjust production, build partnerships, and implement strategic changes in response to market conditions (Johan et al., 2024).

Financial Literacy

Financial literacy refers to the knowledge and ability of business owners to understand financial concepts and use financial information to make sound business decisions (Raharja & Kostini, 2020). For MSMEs, financial literacy encompasses an understanding of basic financial concepts and financial products, the ability to record transactions, prepare budgets, manage cash flow, calculate costs, set prices, and select appropriate sources of financing (Hamdana

et al., 2022). In this study, the financial literacy measurement items were adapted from previous studies. The construct was operationalized through financial knowledge, financial management and record-keeping, financial planning, cash-flow control, credit and risk management, and investment and financing decision-making capability. The indicators were modified to reflect the operational characteristics of batik MSMEs in West Java (Idris et al., 2023).

Business Sustainability

Business sustainability is a company's ability to maintain operations, create value, and grow its business over the long term without neglecting the interests of stakeholders and environmental conditions (Nogueira et al., 2023). Based on the Triple Bottom Line approach, business sustainability is achieved through a balance between economic performance, social responsibility, and environmental protection—or the aspects of profit, people, and planet (Gunawan et al., 2022). In the batik industry, this concept can be expanded to include a cultural dimension that encompasses the sustainability of profits and production, the well-being of workers and the community, the efficient use of resources and waste management, as well as the preservation of batik motifs, skills, and cultural identity (Muafi & Sugarindra, 2023).

Financial Literacy sebagai Variabel Mediasi

Strategic agility encourages batik artisans to respond to market changes through product development, the use of technology, network expansion, increased production capacity, and changes in business models—all of which have financial implications (Hamdana et al., 2022). Financial literacy serves to translate these adaptive decisions into budget planning, cost calculations, working capital management, pricing, financing choices, and risk control so that strategic changes can yield economically viable results (Idris et al., 2023). Therefore, financial literacy is positioned as a mediating mechanism that explains how the strategic ability to respond to change can lead to the sustainability of batik artisans' businesses (Adomako et al., 2022).

The Effect of Strategic Agility on Business Sustainability

Strategic agility enables business actors to recognize market changes, make timely decisions, and reallocate resources in response to emerging opportunities and threats (Adomako et al., 2022). Empirical evidence indicates that strategic agility enhances MSME performance, facilitates flexible resource

utilization, and contributes positively to business sustainability (Alfarajat, 2023). Therefore, the greater the strategic agility possessed by batik artisans, the stronger their ability to maintain the economic, social, cultural, and environmental sustainability of their businesses (Sugangga et al., 2026).

H1: Strategic agility has a positive effect on the business sustainability of batik artisans in West Java.

The Effect of Strategic Agility on Financial Literacy

Strategic agility requires business actors to continuously monitor market changes, evaluate strategic alternatives, calculate resource requirements, and assess the risks and consequences associated with business decisions. The learning processes accompanying strategic adjustments may encourage business owners to improve their understanding of costs, cash flow, working capital, investment, financing, and financial risk, although direct empirical evidence concerning this relationship remains limited (Atanassova et al., 2025). Theoretically, the more actively batik artisans engage in opportunity sensing and resource reconfiguration, the greater their need and motivation to acquire and apply financial knowledge in business decision-making (Adomako et al., 2022).

H2: Strategic agility has a positive effect on the financial literacy of batik artisans in West Java.

The Effect of Financial Literacy on Business Sustainability

Financial literacy enables business actors to understand financial information and apply it to transaction recording, budgeting, cash-flow management, pricing, debt control, and financing decisions. Stronger financial literacy allows MSMEs to allocate resources more efficiently, control financial risks, maintain liquidity, and sustain operational activities when facing changes in the business environment (Hamdana et al., 2022). In the batik industry, financial literacy has been shown to positively affect business sustainability by supporting profitability, business growth, employment creation, good governance, and the alignment of economic, social, and environmental interests (Idris et al., 2023).

H3: Financial literacy has a positive effect on the business sustainability of batik artisans in West Java.

The Mediating Role of Financial Literacy

Strategic agility encourages batik artisans to introduce changes in products, technologies, markets, production processes, and resource allocation, yet each change requires careful assessment of costs, capital requirements, risks, and expected economic benefits. Financial literacy can function as a mechanism that translates strategic responses into more appropriate budgeting, investment, financing, pricing, and cash-flow control decisions, thereby enabling those changes to be sustained over time. Previous research has found that financial literacy mediates the effect of risk attitude on the sustainability of batik MSMEs but does not mediate the effect of intellectual capital, indicating that its mediating role between strategic agility and sustainability requires further theoretical and empirical examination (Idris et al., 2023).

H4: Financial literacy positively mediates the effect of strategic agility on the business sustainability of batik artisans in West Java.

2. Research Method

Measurement Instrument and Questionnaire Development

The measurement instruments used in this study were adopted and adapted from previous empirical studies related to strategic agility, financial literacy, and business sustainability. The adoption process was conducted to ensure that each measurement item represented the theoretical construct and had been previously validated in similar research contexts.

The strategic agility construct was measured using indicators adapted from previous research by (Adomako et al., 2022), which conceptualizes strategic agility through the ability of firms to identify environmental changes, respond quickly to market dynamics, and reconfigure resources to address emerging opportunities and threats. The indicators were adjusted to reflect the characteristics of batik artisans in West Java, particularly regarding product adaptation, digital marketing adoption, partnership development, and business process adjustment.

The financial literacy construct was measured using indicators adapted from (Idris et al., 2023), (Raharja & Kostini, 2020), and (Hamdana et al., 2022). The adaptation focused on financial knowledge, financial record-keeping, budgeting, cash-flow management, cost calculation, pricing decisions, financing

decisions, and risk management. The wording of several items was modified to make them more understandable for batik artisans while maintaining the original theoretical meaning.

The business sustainability construct was adapted from the sustainability measurement approach used by (Gunawan et al., 2022), (Muafi & Sugarindra, 2023), and (Nogueira et al., 2023), which incorporates economic, social, and environmental dimensions. Considering the cultural characteristics of the batik industry, several items were adjusted by incorporating the preservation of batik craftsmanship and cultural values as part of sustainability.

Tabel 1. Measurement Indicators and Sources

Construct	Indicators	Source
Strategic Agility	Ability to identify market changes; respond to customer preferences; adjust products; adopt digital technology; reconfigure resources	(Adomako et al., 2022); (Johan et al., 2024)
Financial Literacy	Financial knowledge; financial record keeping; budgeting; cash flow management; pricing; financing; risk management	(Idris et al., 2023); (Hamdana et al., 2022)
Business Sustainability	Economic sustainability; social responsibility; environmental practices; cultural preservation	(Gunawan et al., 2022); (Muafi & Sugarindra, 2023)

Data source: Data Processed, 2026

Before the main data collection, the questionnaire was pre-tested with a small group of batik entrepreneurs who met similar characteristics to the research respondents. The pre-test aimed to evaluate the clarity, relevance, and comprehensibility of the measurement items. Feedback from the pre-test participants was used to refine the wording of several questionnaire statements before distributing the final questionnaire to the research sample.

All measurement items were assessed using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The final measurement model was subsequently evaluated through validity and reliability testing using Partial Least Squares Structural Equation Modeling (PLS-SEM).

Sampling Procedure and Respondent Selection

The respondents were selected using purposive sampling based on predetermined criteria relevant to the research objectives. The sampling process targeted batik micro, small, and medium enterprises operating in West Java, particularly in Bandung, Tasikmalaya, Garut, and Cirebon, which are recognized as important batik production centers. Respondents were approached through local batik entrepreneur communities, business networks, and MSME-related institutions that facilitated access to potential participants.

The respondents included business owners or managers who were directly involved in strategic decision-making, financial management, and operational activities of batik enterprises. To ensure alignment with the research model, respondents were required to meet several criteria: (1) operating a batik-related business in West Java, (2) having business experience sufficient to evaluate strategic and financial decisions, and (3) already adopting or beginning to adopt digital marketing activities.

The sampling frame in this study did not exclusively represent formally registered batik enterprises. It included both registered MSMEs and small-scale batik business owners operating in community-based or informal business settings. This approach was adopted because a considerable proportion of Indonesian MSMEs operate outside formal registration systems, while still contributing significantly to local economic activities (Raharja & Kostini, 2020).

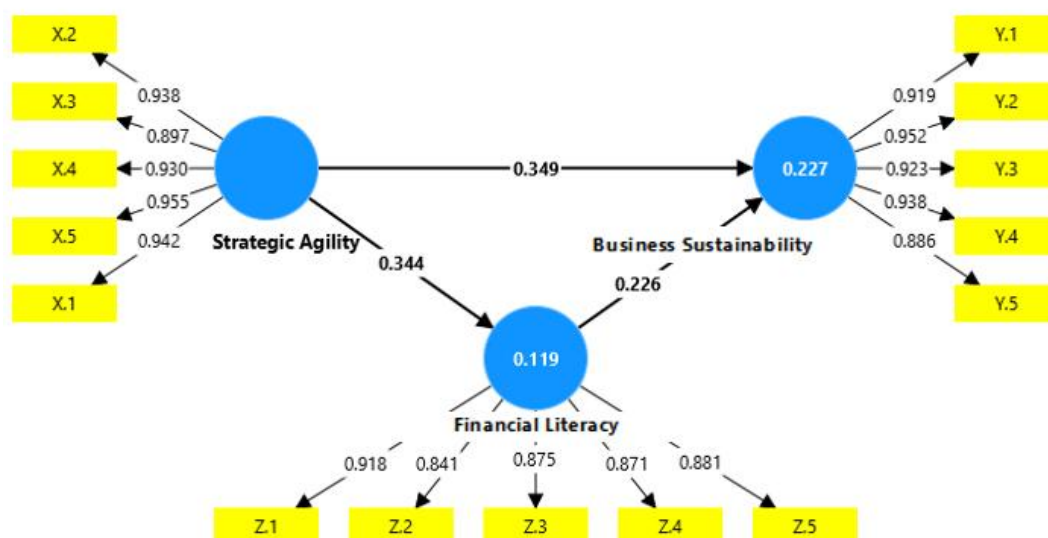
Because this study employed purposive sampling rather than probability sampling, potential sampling bias should be considered. The selection criteria requiring digital marketing adoption may have resulted in greater representation of batik entrepreneurs with higher technological readiness, stronger business orientation, and greater access to information networks. Consequently, batik artisans with limited digital capability or less formal business practices may be underrepresented. Therefore, the findings should be interpreted within the characteristics of the selected respondents and cannot be fully generalized to all batik artisans in West Java. Future studies may apply probability sampling or broader sampling frames to improve representativeness and external validity (Hair et al., 2022).

3. Result and Discussion

Development of the SEM Model

The Structural Equation Modeling (SEM) model presented below was generated using SmartPLS 3.0 software:

Figure 1. SEM Model



Source: SmartPLS 3.0 processing results, 2026

Results of the Outer Model Assessment

1) Results of the Convergent Validity Assessment

a. Convergent Validity Based on Outer Loading Values

Table 2. Results of Outer Loading Values

	Financial Literacy	Business Sustainability	Strategic Agility
X.2			0.938
X.3			0.897
X.4			0.930
X.5			0.955
Y.1		0.919	
Y.2		0.952	
Y.3		0.923	
Y.4		0.938	
Y.5		0.886	

	Financial Literacy	Business Sustainability	Strategic Agility
Z.1	0.918		
Z.2	0.841		
Z.3	0.875		
Z.4	0.871		
Z.5	0.881		
X.1			0.942

Source: SmartPLS 4.0 processing results, 2026.

Since all outer loading values exceed 0.70, every questionnaire item used to measure the research variables is considered valid.

b. Convergent Validity in the form of Average Variance Extracted

Tabel 3. AVE Value

	Average variance extracted (AVE)
Financial Literacy	0.770
Business Sustainability	0.853
Strategic Agility	0.870

Source: SmartPLS 4.0 processing results, 2026

All variables meet the validity criteria, as their AVE values exceed 0.5.

2) Results of the Discriminant Validity Assessment

a. Discriminant Validity Assessment Using the Fornell-Larcker Criterion

Tabel 4. Fornell-Larker Criterion Value

	Financial Literacy	Business Sustainability	Strategic Agility
Financial Literacy	0.877		
Business Sustainability	0.346	0.924	
Strategic Agility	0.344	0.427	0.933

Source: SmartPLS 4.0 processing results, 2026

The square root of the AVE for variable X, Strategic Agility, is 0.933. This value is higher than its correlations with the other variables, which are 0.000.

For variable Z, Financial Literacy, the square root of the AVE is 0.877. This value exceeds its correlations with the other variables, recorded at 0.346 and 0.344.

Meanwhile, the square root of the AVE for variable Y, Business Sustainability, is 0.924. This value is also higher than its correlation with the other variable, which is 0.427.

b. Discriminant Validity in the form of Cross Loading

Tabel 5. Cross Loading Value

	Financial Literacy	Business Sustainability	Strategic Agility
X.2	0.347	0.320	0.938
X.3	0.196	0.422	0.897
X.4	0.331	0.413	0.930
X.5	0.315	0.393	0.955
Y.1	0.310	0.919	0.415
Y.2	0.353	0.952	0.400
Y.3	0.312	0.923	0.434
Y.4	0.297	0.938	0.389
Y.5	0.325	0.886	0.323
Z.1	0.918	0.332	0.303
Z.2	0.841	0.185	0.185
Z.3	0.875	0.349	0.280
Z.4	0.871	0.321	0.419
Z.5	0.881	0.278	0.251
X.1	0.395	0.434	0.942

Source: SmartPLS 4.0 processing results, 2026

Since each indicator's cross-loading value on its intended construct is greater than its correlation with the other constructs, all indicators used in this study can be considered to have satisfactory discriminant validity.

3) Reliability Assessment Results

a. Evaluation of Construct Reliability Using Cronbach's Alpha

Tabel 6. Cronbach's Alpha Value

	Cronbach's alpha
Financial Literacy	0.926
Business Sustainability	0.957
Strategic Agility	0.963

Source: SmartPLS 3.0 processing results, 2026

The Cronbach's Alpha value is greater than 0.60, which indicates that the questionnaire demonstrates acceptable reliability.

b. Evaluation of Construct Reliability Using *Composite Reliability*

Tabel 7. Composite Reliability Value

	Composite reliability (rho_a)	Composite reliability (rho_c)
Financial Literacy	0.948	0.944
Business Sustainability	0.960	0.967
Strategic Agility	0.969	0.971

Source: SmartPLS 4.0 processing results, 2026

The Composite Reliability value exceeds 0.60, demonstrating that the questionnaire instrument has achieved an acceptable level of reliability.

Results of the Inner Model Assessment

Tabel 8. Nilai R-Square

	R-square	R-square adjusted
Financial Literacy	0.119	0.109
Business Sustainability	0.227	0.210

Source: SmartPLS 4.0 processing results, 2026

The influence of Strategic Agility on Financial Literacy is 47.0%, while the remaining 53.0% is influenced by factors beyond the variables examined in this study. Furthermore, Strategic Agility contributes 57.0% to Business Sustainability, whereas the remaining 43.0% is attributed to other exogenous factors not included in the research model.

Hypothesis Test Results

1) Results of Direct Effect Hypothesis Testing

Tabel 9. Path Coefficients Direct Effect Values

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Financial Literacy -> Business Sustainability	0.326	0.233	0.115	3.528	0.000
Strategic Agility -> Financial Literacy	0.344	0.351	0.101	3.409	0.001
Strategic Agility -> Business Sustainability	0.349	0.350	0.099	3.523	0.000

Source: SmartPLS 4.0 processing results, 2026

a. Results of the Direct Effect Test of Strategic Agility on Financial Literacy

The analysis results indicate that Strategic Agility has a positive effect on Financial Literacy, as shown by the Original Sample value of 0.344, representing an influence of 34.4%. The significance test shows that the T Statistics value is 3.409, which is greater than the threshold value of 2.00. Furthermore, the P value of 0.001 is lower than 0.05, indicating that the relationship is statistically significant. Therefore, Hypothesis (H1) is accepted.

b. Results of the Direct Effect Test of Strategic Agility on Business Sustainability

The test results reveal that Strategic Agility positively influences Business Sustainability, with an Original Sample value of 0.349, indicating a positive effect of 34.9%. The obtained T Statistics value of 3.523 exceeds the required value of 2.00, demonstrating that the effect is significant. In addition, the P value of 0.000 is below the significance level of 0.05. Thus, Hypothesis (H2) is accepted.

c. Results of the Direct Effect Test of Financial Literacy on Business Sustainability

The results demonstrate that Financial Literacy has a positive impact on Business Sustainability, with an Original Sample value of 0.326, indicating an effect of 32.6%. The T Statistics value of 3.528 is higher than 2.00, confirming that the relationship is significant. The P value of 0.016 is also below 0.05, which confirms that Hypothesis (H3) is accepted.

2) Results of the Indirect Effect Hypothesis Testing

Tabel 10. Path Coefficients Values Indirect Effects

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Strategic Agility -> Financial Literacy -> Business Sustainability	0.178	0.081	0.048	3.021	0.015

Source: SmartPLS 4.0 processing results, 2026.

The mediation analysis shows that financial literacy significantly mediates the relationship between strategic agility and business sustainability. The indirect effect of strategic agility on business sustainability through financial literacy is positive and significant, with an Original Sample value of 0.178, T Statistics value of 3.021, and P value of 0.015. These results indicate that financial literacy plays an important role in translating strategic agility into sustainable business outcomes.

The finding reinforces the perspective of Dynamic Capability Theory, which emphasizes that organizational adaptation requires not only the ability to recognize environmental changes but also the capability to reconfigure resources effectively. Strategic agility provides the capacity to respond to changes, while financial literacy represents a supporting capability that enables entrepreneurs to allocate resources and make financially sustainable decisions ((Teece, 2007); (Adomako et al., 2022)).

The mediation type was further assessed by comparing the direct and

indirect effects. The direct effect of strategic agility on business sustainability remained significant ($\beta = 0.349$; $p < 0.001$), while the indirect effect through financial literacy was also significant ($\beta = 0.178$; $p = 0.015$). Therefore, financial literacy functions as a partial mediator rather than a full mediator because strategic agility continues to influence business sustainability even without the presence of financial literacy.

$$VAF = \frac{\text{Indirect Effect}}{\text{Total Effect}}$$

$$VAF = \frac{0.178}{0.349 + 0.178}$$

$$VAF = 0.337$$

The effect size of the mediation was evaluated using the Variance Accounted For (VAF) value. The VAF calculation resulted in a value of 33.7%, indicating that approximately one-third of the total effect of strategic agility on business sustainability operates through financial literacy. This value confirms the existence of partial mediation, as the indirect effect explains a meaningful but not dominant proportion of the relationship between strategic agility and business sustainability (Hair et al., 2022).

From a managerial perspective, these findings indicate that strategic agility alone is insufficient to guarantee sustainable business development. Batik artisans may successfully identify market changes, develop new products, adopt digital marketing, and modify business strategies; however, these adaptive actions require adequate financial capabilities to generate sustainable outcomes. Financial literacy enables entrepreneurs to translate strategic responses into effective budgeting, cost control, pricing decisions, cash-flow management, financing choices, and risk management. Therefore, strengthening financial literacy should be integrated with strategic capability development programs to improve the long-term sustainability of batik MSMEs.

4. Conclusion

This study concludes that strategic agility contributes positively to the business sustainability of batik artisans in West Java, both directly and through the mediating role of financial literacy. The empirical results demonstrate that

strategic agility has a positive and significant effect on financial literacy ($\beta = 0.344$; $p = 0.001$) and business sustainability ($\beta = 0.349$; $p < 0.001$). Furthermore, financial literacy positively influences business sustainability ($\beta = 0.326$; $p < 0.001$). The indirect effect of strategic agility on business sustainability through financial literacy is also significant ($\beta = 0.178$; $p = 0.015$), indicating that financial literacy partially mediates the relationship between strategic agility and business sustainability.

These findings indicate that batik artisans with stronger strategic agility tend to have better sustainability outcomes when supported by adequate financial literacy. Strategic agility enables entrepreneurs to respond to changes in their business environment, while financial literacy helps them evaluate and manage the financial consequences of strategic decisions through budgeting, cost management, cash-flow control, and financing decisions. Therefore, strengthening both strategic capability and financial literacy may support the business sustainability among batik enterprises in West Java.

The practical implications of this study are directed toward stakeholders involved in batik-enterprise development in West Java, including local government agencies, batik associations, and business-support organizations. Development programs may consider integrating strategic capability development with financial-literacy training to improve the decision-making capacity of batik entrepreneurs. However, such recommendations should be interpreted within the context of batik MSMEs in West Java and should not be generalized to all MSMEs without further empirical validation.

This study has several limitations. The cross-sectional design, purposive sampling approach, self-reported questionnaire data, and geographical focus on selected batik-producing areas in West Java limit the generalizability of the findings. Future research may examine broader populations, apply probability sampling approaches, and include additional variables such as digital capability, innovation capability, access to finance, and institutional support to improve understanding of MSME sustainability determinants.

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