

An Integrative SMESCO-Based Model of Entrepreneurial Orientation, Innovation, Sustainable Competitive Advantage, and MSME Performance

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Abstract

This study examines how entrepreneurial orientation and innovation affect MSME performance through sustainable competitive advantage among MSMEs registered in the SMESCO ecosystem. The research responds to inconsistent empirical findings on whether entrepreneurial orientation and innovation improve performance directly or through competitive mechanisms. Its novelty lies in testing an integrative SMESCO-based model that positions sustainable competitive advantage as a mediator in a structured SEM-PLS framework. A quantitative explanatory design was applied using a survey of 100 MSME owners and managers selected through purposive quota sampling. Data were collected using a five-point Likert questionnaire and analyzed with SmartPLS 4. The results show that entrepreneurial orientation has a positive and significant effect on performance. Innovation also has a positive and significant effect on performance and sustainable competitive advantage. Sustainable competitive advantage positively affects performance, but it does not significantly mediate the effect of entrepreneurial orientation and innovation on performance. These findings indicate that innovation is the most important driver for strengthening MSME outcomes, while long-term competitiveness requires more structured product differentiation, brand development, quality consistency, and customer retention strategies. Practically, SMESCO-assisted MSMEs need to convert innovative activities into measurable market value and sustainable strategic positioning.

Keywords

Entrepreneurial Orientation, Innovation, MSME Performance, SMESCO, Sustainable Competitive Advantage

INTRODUCTION

Micro, Small and Medium Enterprises (MSMEs) play a strategic role in the Indonesian economy because they contribute to output creation, employment absorption, income distribution, and community-based economic resilience. Data from the Ministry of Finance show that Indonesian MSMEs reached 64.2 million business units, contributed 61.07% of gross domestic product, absorbed around 117 million workers, and accounted for 60.4% of national investment (Directorate General of Treasury of the Ministry of Finance of the Republic of Indonesia, 2024). These figures show that MSME performance is not only relevant to individual business owners, but also to national economic resilience and welfare distribution.

Despite their large contribution, MSMEs still face structural and managerial constraints. Market competition, changing consumer preferences, limited managerial capacity, weak technology adoption, and low product differentiation often reduce business growth. These conditions require MSME actors to develop entrepreneurial orientation, strengthen innovation,

and build advantages that competitors cannot easily imitate. Previous studies indicate that entrepreneurial orientation, innovation, and competitive advantage can improve SME performance, particularly in competitive and dynamic markets (Kiyabo & Isaga, 2020; Yaskun et al., 2023). Fang et al. (2022) also found that entrepreneurial orientation, social media use, and innovation capability support SME performance through competitive mechanisms.

This study focuses on MSMEs registered in or connected with SMESCO Indonesia. SMESCO was selected because it supports MSME development through product promotion, market access, capacity building, and business networking. According to SMESCO-related data, 104,667 MSMEs are registered in the ecosystem, consisting of micro, small, and medium business units. This institutional setting provides a relevant empirical base because registered MSMEs usually receive access to promotion, market linkage, and capacity-strengthening programs.

MSME performance in this study refers to business achievements reflected in sales growth, profit improvement, customer growth, market expansion, productivity, and business sustainability. Performance depends not only on external market conditions, but also on internal capabilities. Entrepreneurial orientation reflects the tendency of MSME actors to innovate, take risks, act proactively, compete aggressively, and exercise autonomy in decision-making. From the Resource-Based View perspective, entrepreneurial orientation can be treated as an intangible capability that helps firms identify opportunities and convert them into performance (Kiyabo & Isaga, 2020; Ha et al., 2021).

Innovation is another important capability for improving MSME performance. Innovation includes new products, process improvement, marketing renewal, service development, and digital technology utilization. It allows MSMEs to adjust to customer needs, improve operational efficiency, expand promotion channels, and create stronger market value. Iqbal et al. (2021) linked entrepreneurial orientation with innovation performance, while Fu et al. (2021) showed that innovation capability affects SME performance depending on the external environment.

Sustainable competitive advantage is positioned as a mediating variable because it explains how entrepreneurial orientation and innovation can be converted into stronger business outcomes. In MSMEs, sustainable competitive advantage can appear in product uniqueness, consistent quality, competitive prices, brand image, customer loyalty, and market adaptability. Arsawan et al. (2020) found that knowledge sharing and innovation culture support sustainable competitive advantage in SMEs. Mostafiz et al. (2022) also emphasized the connection between entrepreneurial orientation, competitive advantage, strategic knowledge capability, and business performance.

Recent studies still report inconsistent results. Kiyabo and Isaga (2020) found that competitive advantage mediates the relationship between entrepreneurial orientation and SME performance. Yaskun et al. (2023) showed that entrepreneurial orientation and competitive advantage affect Indonesian MSME performance, while innovation does not always have a direct impact. Saputra et al. (2025) found that innovation affects business performance through competitive advantage. Aswar et al. (2025) also confirmed that competitive advantage can intervene in the relationship between entrepreneurial orientation and sustainable business performance. These different findings create an empirical gap that requires further testing in a different institutional context.

The research gap lies in the limited number of studies that simultaneously test entrepreneurial orientation and innovation on MSME performance with sustainable competitive advantage as a mediator in the SMESCO ecosystem. Earlier studies have mostly examined culinary MSMEs, chips MSMEs, mobile coffee businesses, pesantren-based business units, or MSMEs in specific local areas (Aswar et al., 2025; Devi et al., 2025; Saputra et al., 2025; Tantriana & Bramayudha, 2025). Therefore, this study contributes by testing an integrative model among MSMEs that are connected with a national MSME development institution.

The scientific urgency of this study is grounded in the need to clarify whether entrepreneurial behavior and innovation directly improve MSME performance or whether their effects depend on sustainable competitive advantage. This distinction is important for strengthening the RBV-based explanation of MSME performance. If internal capabilities only improve performance when

translated into competitive advantage, MSME development programs must focus on building long-term strategic positioning. If they also work directly, capacity-building programs can prioritize immediate entrepreneurial and innovation practices.

This study differs from previous research in three ways. First, it uses SMESCO-connected MSMEs as the empirical object. Second, it integrates entrepreneurial orientation and innovation as exogenous variables, sustainable competitive advantage as a mediator, and MSME performance as the final outcome. Third, it applies SEM-PLS to test both direct and indirect relationships. The research questions examine whether entrepreneurial orientation and innovation affect MSME performance, whether both variables affect sustainable competitive advantage, whether sustainable competitive advantage affects performance, and whether it mediates the relationship between internal capabilities and performance.

The objectives are to analyze the effect of entrepreneurial orientation on MSME performance, examine the effect of innovation on MSME performance, test the effect of entrepreneurial orientation and innovation on sustainable competitive advantage, analyze the effect of sustainable competitive advantage on MSME performance, and evaluate the mediating role of sustainable competitive advantage. The study is expected to enrich MSME entrepreneurship and strategic management literature and provide practical input for SMESCO-assisted MSMEs and MSME development institutions .

THEORETICAL BASIS AND HYPOTHESIS DEVELOPMENT

Resource-Based View (RBV)

The Resource-Based View (RBV) is used as the grand theory in this study. RBV explains that firm performance can be strengthened through valuable, rare, inimitable, and non-substitutable resources. In MSMEs, internal resources do not only consist of physical assets, capital, and technology, but also managerial capability, entrepreneurial orientation, innovation capability, market knowledge, and customer relationships. RBV is relevant because this study examines how entrepreneurial orientation and innovation can support performance directly and through sustainable competitive advantage.

Entrepreneurial orientation can be understood as an intangible capability embedded in strategic behavior. MSME actors who are innovative, proactive, risk-taking, competitively aggressive, and autonomous tend to be better at recognizing market opportunities. Kiyabo and Isaga (2020) confirm that entrepreneurial orientation can function as an intangible resource that forms competitive advantage and improves SME performance. This argument supports the use of RBV because business performance is determined by the way internal capabilities are managed and converted into market value.

Innovation is also consistent with RBV because it enables firms to create new value. Product innovation, process innovation, marketing innovation, service innovation, and digital technology utilization can help MSMEs respond to customer needs and market changes. Arsawan et al. (2020) explain that innovation culture and knowledge sharing can improve sustainable competitive advantage in SMEs. Therefore, RBV provides a theoretical basis for explaining why entrepreneurial orientation and innovation may produce stronger performance when they are transformed into competitive advantages .

MSME Performance

MSME performance refers to business achievement that indicates the success of MSME actors in managing business activities. Performance includes financial aspects, such as sales and profit growth, and non-financial aspects, such as customer growth, market expansion, productivity, and business sustainability. A broad performance measure is needed because many MSMEs still have limited formal financial records.

Kiyabo and Isaga (2020) measured SME performance through business growth, including sales, assets, employment, and owner welfare. Yaskun et al. (2023) placed MSME performance as an outcome of market orientation, entrepreneurial orientation, innovation, and competitive

advantage. In this study, performance is measured using sales improvement, profit improvement, customer growth, market expansion, business productivity, and business sustainability.

Entrepreneurial Orientation

Entrepreneurial orientation is the strategic tendency of business actors to innovate, take risks, act proactively, compete aggressively, and make autonomous decisions. This orientation describes how entrepreneurs identify opportunities, create value, and respond to market uncertainty. In MSMEs, entrepreneurial orientation is important because many strategic decisions depend directly on owners or managers.

Prior research shows that entrepreneurial orientation contributes to stronger SME performance. Kiyabo and Isaga (2020) found that entrepreneurial orientation improves SME performance through competitive advantage. Ha et al. (2021) showed that entrepreneurial orientation is related to SME performance through better knowledge management processes. Anzules-Falcones et al. (2023) also emphasized that entrepreneurial orientation, innovation capacity, and flexibility are important for strengthening SMEs.

Innovation

Innovation is the ability of MSMEs to develop new value through product, process, marketing, service, and digital technology renewal. Innovation is not limited to creating new products. It also includes improving work methods, packaging, promotion, customer service, and digital channels. MSMEs that innovate can better adjust products to market needs, improve operational efficiency, and expand customer reach.

Iqbal et al. (2021) found that entrepreneurial orientation is connected with innovation performance in SMEs. Fu et al. (2021) showed that innovation capability is related to SME performance, although the effect may depend on the external environment. Saputra et al. (2025) found that innovation improves competitive advantage and that competitive advantage supports MSME business performance. These findings indicate that innovation can influence both performance and competitive positioning.

Sustainable Competitive Advantage

Sustainable competitive advantage refers to the ability of MSMEs to maintain a superior position over competitors over time. This advantage appears when MSMEs offer value that is different, consistent, and difficult to imitate. In MSMEs, it can be reflected in product uniqueness, product quality, competitive prices, brand image, customer retention, and market adaptation.

Arsawan et al. (2020) stated that knowledge sharing and innovation culture can develop sustainable competitive advantage in SMEs. Mostafiz et al. (2022) explained that entrepreneurial orientation, competitive advantage, and strategic knowledge management capability are interconnected in strengthening business performance. Otache (2024) found that competitive advantage plays an important role in the relationship between innovation capability, strategic flexibility, and SME performance. In this study, sustainable competitive advantage is positioned as a mediator because it can explain how internal capabilities become stronger business results.

Previous Studies and Critical Synthesis

Previous studies show mixed findings on the relationship between entrepreneurial orientation, innovation, competitive advantage, and MSME performance. Kiyabo and Isaga (2020) found that competitive advantage mediates the effect of entrepreneurial orientation on SME performance. Yaskun et al. (2023) found that entrepreneurial orientation and competitive advantage affect Indonesian MSME performance, while innovation does not always have a direct effect. Fang et al. (2022) demonstrated that entrepreneurial orientation, social media, and innovation capability affect SME performance through mediated and moderated relationships.

Recent Indonesian studies also support the need for a mediating model. Saputra et al. (2025) found that innovation affects competitive advantage and that competitive advantage affects MSME business performance. Aswar et al. (2025) showed that competitive advantage mediates

entrepreneurial orientation and sustainable business performance among chips MSMEs. Devi et al. (2025) found a mediating role of competitive advantage in mobile coffee businesses. Tantriana and Bramayudha (2025) reported a similar mechanism in pesantren-based business units. However, these studies were conducted in specific sectors or local settings. This study extends the discussion by testing an integrative model among SMESCO-connected MSMEs

Framework and Hypotheses

The research framework explains the relationship between entrepreneurial orientation, innovation, sustainable competitive advantage, and MSME performance. Entrepreneurial orientation and innovation are treated as independent variables because they represent internal capabilities. Sustainable competitive advantage is treated as a mediating variable because it can bridge the effect of internal capabilities on performance. MSME performance is the dependent variable reflected in sales growth, profit improvement, customer growth, market expansion, productivity, and business sustainability.

This model follows the RBV perspective. Entrepreneurial orientation and innovation are intangible capabilities that can support stronger market positioning. When these capabilities produce product uniqueness, quality consistency, competitive prices, brand image, customer loyalty, and market adaptability, MSMEs may achieve better performance (Kiyabo & Isaga, 2020; Arsawan et al., 2020; Yaskun et al., 2023).

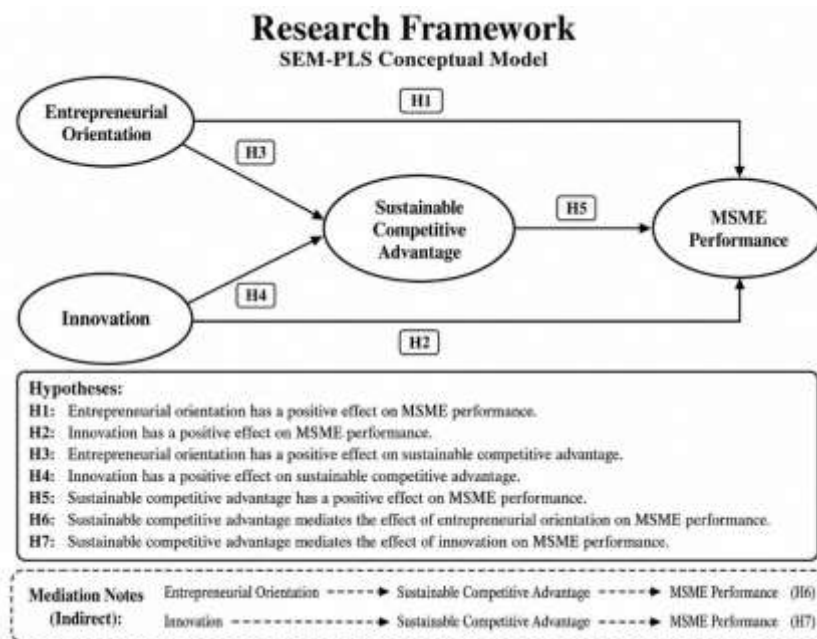


Figure 1. Research Framework

Grounded in the theoretical framework and the preceding discussion, the research hypothesis is proposed as follows:

- H1: Entrepreneurial orientation has a positive effect on MSME performance.
- H2: Innovation has a positive effect on MSME performance.
- H3: Entrepreneurial orientation has a positive effect on sustainable competitive advantage.
- H4: Innovation has a positive effect on sustainable competitive advantage.
- H5: Sustainable competitive advantage has a positive effect on MSME performance.
- H6: Sustainable competitive advantage mediates the effect of entrepreneurial orientation on MSME performance.
- H7: Sustainable competitive advantage mediates the effect of innovation on MSME performance.

RESEARCH METHODOLOGY

This study uses a quantitative explanatory approach. This approach was selected because the study aims to test causal relationships among entrepreneurial orientation, innovation, sustainable competitive advantage, and MSME performance. Data were collected through a structured survey using a closed-ended questionnaire. The survey method is appropriate because the data were obtained directly from MSME actors based on their business experience and perceptions.

The population consists of MSME actors registered as SMESCO Indonesia partners. Based on SMESCO data, the operational population includes 104,667 business units, consisting of 97,928 micro businesses, 6,163 small businesses, and 576 medium businesses. This number was used as the operational population because it reflects the current SMESCO ecosystem and is more relevant than the older onboarding figure of 101,154 MSMEs reported on May 1, 2024 (SMESCO Indonesia, 2026).

The final sample consisted of 100 respondents. The sample size was justified using SEM-PLS requirements rather than relying only on the 10% margin of error in the Slovin formula. Hair et al. (2021) explain that SEM-PLS can be used for predictive models with small to medium samples when the model structure and statistical power are adequate. The sample also satisfies the ten-times rule because the largest number of structural paths directed at an endogenous construct is three. Therefore, a minimum of 30 observations is required, and the sample of 100 respondents exceeds this minimum. This justification strengthens the methodological basis while acknowledging that a larger sample would improve generalizability.

The sampling technique was purposive sampling with quota representation by business category. The sample consisted of 93 micro business respondents, six small business respondents, and one medium business respondent. This composition reflects the dominance of micro businesses in the SMESCO population while still allowing representation from small and medium categories.

Respondents were selected using the following criteria: they were MSME owners or managers, registered in the SMESCO ecosystem, actively operating their business, had operated for at least one year, used offline marketing, online marketing, or both, and were willing to complete the questionnaire. These criteria ensured that respondents had sufficient business experience to answer the research items.

The instrument was a closed-ended questionnaire using a five-point Likert scale. A score of 1 indicates strongly disagree, 2 indicates disagree, 3 indicates neutral, 4 indicates agree, and 5 indicates strongly agree. The questionnaire was developed based on the indicators of each construct and was reviewed to ensure clarity, construct relevance, and suitability for MSME respondents.

Table 1. Operational Definition of Variables

Variables	Definition Operational	Indicator	Scale
Entrepreneurial Orientation (X1)	The attitude and ability of MSME actors to run a business innovatively, take risks, respond proactively to opportunities, compete aggressively, and make autonomous business decisions.	Business innovativeness, risk-taking, proactive attitude toward market opportunities, competitive aggressiveness, and autonomy in business decision-making.	Likert 1–5
Innovation (X2)	The ability of MSMEs to create renewal in products, work processes, marketing, services, and digital technology use to support business development.	Product innovation, process innovation, marketing innovation, service innovation, and digital technology utilization.	Likert 1–5

Variables	Definition Operational	Indicator	Scale
Sustainable Competitive Advantage (Z)	The ability of MSMEs to create superior value consistently compared with competitors through product uniqueness, quality, competitive prices, brand image, customer loyalty, and market adaptation.	Product uniqueness, product quality, competitive price, brand image, customer retention, and market adaptation.	Likert 1–5
MSME Performance (Y)	Business achievement reflected in sales improvement, profit improvement, customer growth, market expansion, productivity, and the ability to survive and grow.	Sales improvement, profit improvement, customer growth, market expansion, business productivity, and business sustainability.	Likert 1–5

Source: Data processed by the authors, 2026

Data were analyzed using Partial Least Squares Structural Equation Modeling (SEM-PLS) with SmartPLS 4. SEM-PLS was selected because it can test predictive models with several latent constructs, reflective indicators, and direct and indirect relationships. It is also suitable for small to medium sample sizes and does not require strict normal data distribution (Hair et al., 2021).

All constructs were specified as reflective constructs because the indicators were treated as manifestations of the latent variables. Changes in entrepreneurial orientation, innovation, sustainable competitive advantage, and MSME performance are expected to be reflected in changes in their respective indicators. Therefore, indicator reliability, convergent validity, discriminant validity, and internal consistency reliability were assessed before testing the structural model.

Common method bias was controlled procedurally and statistically. Procedurally, respondents were informed that there were no right or wrong answers, items were arranged in simple language, and the questionnaire avoided leading statements. Statistically, Harman's single-factor test was used as an additional diagnostic assessment. The first unrotated factor did not dominate the total variance and remained below the 50% threshold, indicating that common method bias was not a serious threat to the data.

Non-response bias was assessed by comparing early and late respondents based on demographic profiles and construct mean patterns. The comparison did not show meaningful differences between the two groups. This result indicates that the responses were reasonably stable and that non-response bias did not substantially affect the analysis.

The outer model evaluation covered outer loading, Average Variance Extracted (AVE), Fornell-Larcker criterion, Heterotrait-Monotrait Ratio (HTMT), Cronbach's alpha, and composite reliability. The inner model evaluation covered R-square, adjusted R-square, Q-square, f-square, path coefficient, and bootstrapping. A hypothesis was accepted when the t-statistic was greater than 1.96 and the p-value was lower than 0.05 at the 5% significance level (Hair et al., 2021).

RESEARCH RESULT

This study used data from 100 SMESCO MSME actors. The respondents consisted of owners, managers, and owner-managers. The sample was dominated by micro businesses, which is consistent with the structure of MSMEs registered in the SMESCO ecosystem. Most respondents used a combination of offline and online sales media, making the data relevant for evaluating marketing innovation, digital technology use, competitive advantage, and business performance.

Table 2. Respondent Characteristics

Characteristic	Dominant Category	Frequency	Percentage
Gender	Male	52	52.0%
Age	25–34 years	37	37.0%
Last education	Senior high school/vocational school	42	42.0%
Position in business	Owner	52	52.0%
Length of business operation	3–5 years	31	31.0%
Type of business	Culinary	37	37.0%
Business category	Micro	93	93.0%
Sales media	Offline and online	48	48.0%
Digital platform	Social media	44	44.0%

Source: Data processed by the authors, 2026

The characteristics indicate that the majority of respondents are active business operators who manage their businesses independently. The dominance of micro-enterprises and the use of social media as the primary digital platform suggest that digital innovation and marketing strategies have become important aspects in the development of SMESCO's MSMEs.

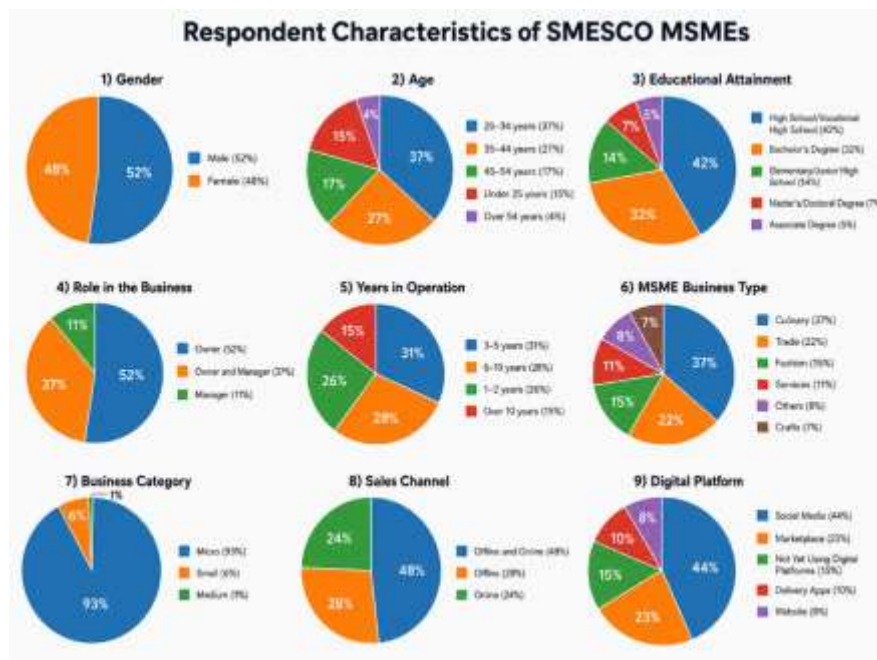


Figure 2. Respondent Data

The descriptive statistics show that the average values of all constructs are above 3.80. This indicates that respondents generally agreed with the statements in the questionnaire. MSME performance recorded the highest mean value of 4.072, indicating that respondents perceived their businesses as developing in terms of sustainability, productivity, market expansion, and customer growth. Sustainable competitive advantage had a mean value of 3.975, showing that MSME

actors have started to build competitiveness through product quality, business image, competitive prices, and market adaptation.

Table 3. Descriptive Statistics of Constructs

Construct	Mean	Std. Dev.	Min.	Max.
Entrepreneurial Orientation	3.816	0.561	2.429	5.000
Innovation	3.879	0.578	2.000	5.000
Sustainable Competitive Advantage	3.975	0.547	2.727	4.818
MSME Performance	4.072	0.541	3.000	5.000

Source: Data processed by the authors, 2026

The outer model evaluation was conducted to test construct validity and reliability. The initial model contained 44 indicators. After evaluating outer loadings, the final model retained 30 indicators. Indicators with loading values below 0.70 were eliminated gradually because they did not meet convergent validity requirements. The elimination was conducted based on statistical criteria and substantive consideration. The removed indicators represented items that overlapped with stronger indicators or did not adequately reflect respondent perceptions in the SMESCO MSME setting. Therefore, the elimination process did not remove the conceptual meaning of each construct.

Table 4. Retained and Eliminated Indicators

Construct	Retained Indicators	Eliminated Indicators
Entrepreneurial Orientation	X1.2, X1.3, X1.4, X1.7, X1.8, X1.9, X1.10	X1.1, X1.5, X1.6
Innovation	X2.1, X2.2, X2.3, X2.5, X2.6, X2.9, X2.10	X2.4, X2.7, X2.8
Sustainable Competitive Advantage	Z2, Z3, Z4, Z5, Z6, Z7, Z8, Z9, Z10, Z11, Z12	Z1
MSME Performance	Y4, Y5, Y7, Y11, Y12	Y1, Y2, Y3, Y6, Y8, Y9, Y10

Source: Data processed by the authors, 2026

The Fornell-Larcker and HTMT results confirm discriminant validity. The square root of AVE for each construct is higher than the correlations between constructs in the same row and column. The HTMT values are also below the threshold of 0.90. These results show that each construct has a clear conceptual distinction and can be used in the structural model .

Table 5. Discriminant Validity of Fornell-Larcker and HTMT

Construct	Fornell-Larcker				HTMT				Decision
	EO	INV	SCA	MSMEP	EO	INV	SCA	MSMEP	
Entrepreneurial Orientation	0.719	0.444	0.428	0.475	1.000	0.521	0.491	0.591	Fulfilled
Innovation	0.444	0.717	0.681	0.643	0.521	1.000	0.778	0.796	Fulfilled

Construct	Fornell-Larcker				HTMT				Decision
	EO	INV	SCA	MSMEP	EO	INV	SCA	MSMEP	
Sustainable Competitive Advantage	0.428	0.681	0.715	0.575	0.491	0.778	1.000	0.687	Fulfilled
MSME Performance	0.475	0.643	0.575	0.724	0.591	0.796	0.687	1.000	Fulfilled

Source: Data processed by the authors, 2026

All constructs have Cronbach’s alpha and composite reliability values above 0.70. The AVE values are also above 0.50. These results indicate that the instrument meets convergent validity and internal consistency reliability requirements.

Table 6. Construct Reliability and Validity

Construct	Number of Items	Cronbach’s Alpha	Composite Reliability	AVE	Decision
Entrepreneurial Orientation	7	0.844	0.882	0.517	Fulfilled
Innovation	7	0.841	0.880	0.514	Fulfilled
Sustainable Competitive Advantage	11	0.904	0.920	0.512	Fulfilled
MSME Performance	5	0.772	0.846	0.524	Fulfilled

Source: Data processed by the authors, 2026

The R-square value of sustainable competitive advantage is 0.483, meaning that 48.3% of its variation can be explained by entrepreneurial orientation and innovation. The R-square value of MSME performance is 0.481, indicating that 48.1% of performance variation can be explained by entrepreneurial orientation, innovation, and sustainable competitive advantage. Both values indicate a moderate explanatory ability. The Q-square values of 0.452 and 0.442 are greater than zero, showing that the model has predictive relevance.

Table 7. R-square and Q-square

Endogenous Construct	R-square	Adjusted R-square	Q-square	Interpretation
Sustainable Competitive Advantage	0.483	0.472	0.452	Moderate
MSME Performance	0.481	0.464	0.442	Moderate

Source: Data processed by the authors, 2026

The f-square results show that innovation has the largest effect on sustainable competitive advantage with a value of 0.580. This means that innovation is the dominant driver of competitive positioning among SMESCO MSMEs. Innovation also has a medium effect on MSME performance. Entrepreneurial orientation and sustainable competitive advantage have small effect sizes, indicating that their practical contribution exists but is more limited than innovation

Table 8. F-square Effect Size

Predictor	Endogenous Construct	F-square	Effect Size
Entrepreneurial Orientation	Sustainable Competitive Advantage	0.038	Small
Innovation	Sustainable Competitive Advantage	0.580	Large
Entrepreneurial Orientation	MSME Performance	0.062	Small
Innovation	MSME Performance	0.166	Medium
Sustainable Competitive Advantage	MSME Performance	0.043	Small

Source: Data processed by the authors, 2026

In Figure 3, the algorithm strengthens the evaluation of the inner model as follows:

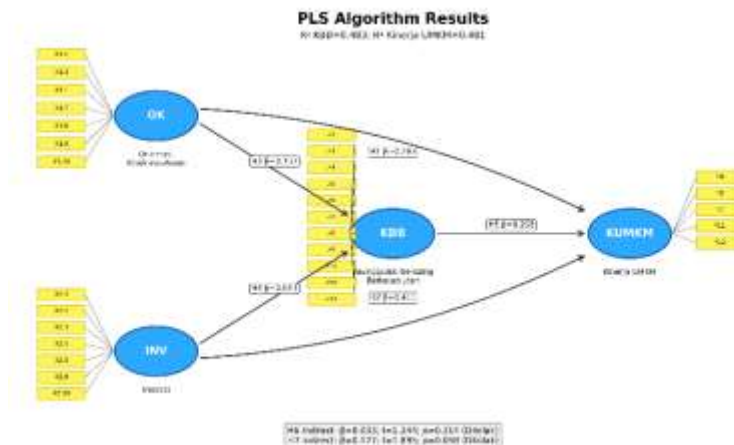


Figure 3. PLS Algorithm Results
Source: Data processed by the authors, 2026

Based on the bootstrapping results presented in Figure 4, the path coefficient analysis reveals the following findings. H1 is accepted because entrepreneurial orientation has a positive and significant influence on MSME performance, with $t = 2.611$ and $p = 0.009$. H2 is accepted because innovation has a positive and significant influence on MSME performance, with $t = 3.967$ and $p = 0.000$. H3 is rejected, as the p-value is 0.078 ($p > 0.05$). H4 and H5 are accepted, as their p-values are below 0.05. However, H6 and H7 are rejected because the mediation influence is not yet statistically significant

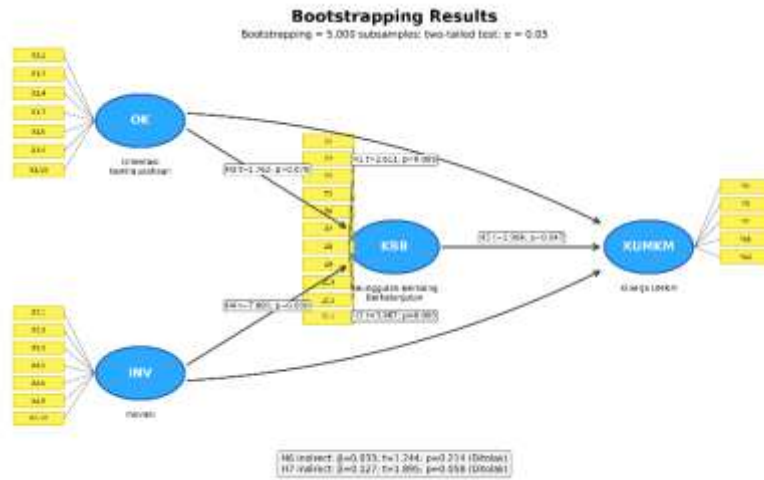


Figure 4. Bootstrapping Results

Source: Data processed by the authors, 2026

The path coefficient results show that H1, H2, H4, and H5 are accepted because their p-values are below 0.05. H3, H6, and H7 are rejected because their p-values are above 0.05. These findings indicate that entrepreneurial orientation directly affects MSME performance, innovation directly affects both performance and sustainable competitive advantage, and sustainable competitive advantage directly affects performance. However, sustainable competitive advantage does not significantly mediate the effect of entrepreneurial orientation and innovation on performance.

Table 9. Path Coefficient and Bootstrapping

Hypothesis	Path	Coefficient	T Statistics	P Values	Decision
H1	Entrepreneurial Orientation → MSME Performance	0.203	2.611	0.009	Accepted
H2	Innovation → MSME Performance	0.411	3.967	0.000	Accepted
H3	Entrepreneurial Orientation → Sustainable Competitive Advantage	0.157	1.762	0.078	Rejected
H4	Innovation → Sustainable Competitive Advantage	0.611	7.881	0.000	Accepted
H5	Sustainable Competitive Advantage → MSME Performance	0.208	1.984	0.047	Accepted
H6	Entrepreneurial Orientation → Sustainable Competitive Advantage → MSME Performance	0.033	1.244	0.214	Rejected
H7	Innovation → Sustainable Competitive Advantage → MSME Performance	0.127	1.895	0.058	Rejected

Source: Data processed by the authors, 2026

DISCUSSION

The SEM-PLS results show that entrepreneurial orientation has a positive and significant effect on MSME performance. The coefficient value of 0.203, t-statistic of 2.611, and p-value of 0.009 indicate that stronger entrepreneurial orientation improves business outcomes. This finding

means that MSME actors who are more proactive, willing to take risks, competitive, and autonomous in decision-making are more capable of increasing sales, expanding customers, and sustaining business operations. The finding supports Kiyabo and Isaga (2020), Ha et al. (2021), and Yaskun et al. (2023). From the RBV perspective, entrepreneurial orientation functions as an intangible capability that supports business performance.

Innovation also has a positive and significant effect on MSME performance. The coefficient value of 0.411, t-statistic of 3.967, and p-value of 0.000 indicate that innovation contributes strongly to business improvement. Product renewal, process improvement, marketing innovation, service development, and digital technology utilization help MSMEs reach customers, improve value, and strengthen business growth. This finding supports Iqbal et al. (2021), Fu et al. (2021), Tong et al. (2022), and Saputra et al. (2025). In the SMESCO context, innovation becomes important because many MSMEs already combine offline and online sales channels.

Entrepreneurial orientation does not have a significant effect on sustainable competitive advantage. The coefficient value of 0.157, t-statistic of 1.762, and p-value of 0.078 indicate that H3 is rejected. This finding differs from Kiyabo and Isaga (2020) and Mostafiz et al. (2022). The result suggests that entrepreneurial attitudes do not automatically become product uniqueness, quality consistency, brand image, or customer loyalty. In SMESCO MSMEs, entrepreneurial orientation may still operate at the behavioral level, such as courage, initiative, and willingness to compete. It needs to be translated into structured strategies before it can create sustainable competitive advantage.

Innovation has a positive and significant effect on sustainable competitive advantage. The coefficient value of 0.611, t-statistic of 7.881, and p-value of 0.000 indicate that innovation is the strongest determinant of competitive advantage in this model. This result supports Arsawan et al. (2020), Saputra et al. (2025), and Otache (2024). Innovation can create differentiated products, more efficient processes, adaptive marketing, and services that better match customer needs. These outputs are more visible in the market than entrepreneurial intention alone, so they are more likely to form sustainable competitive advantage.

Sustainable competitive advantage has a positive and significant effect on MSME performance. The coefficient value of 0.208, t-statistic of 1.984, and p-value of 0.047 show that MSMEs with stronger product uniqueness, stable quality, competitive prices, positive brand image, and loyal customers tend to have better performance. This finding supports Yaskun et al. (2023), Saputra et al. (2025), and Aswar et al. (2025). The result strengthens the RBV argument that valuable and difficult-to-imitate advantages can support better business outcomes.

The mediation test shows that sustainable competitive advantage does not mediate the effect of entrepreneurial orientation on MSME performance. The indirect effect value of 0.033 with a p-value of 0.214 indicates that entrepreneurial orientation works more strongly through the direct path. This result may occur because proactive and risk-taking behavior can immediately affect daily business decisions, such as product offering, pricing, promotion, and customer handling, without first forming a stable competitive position.

Sustainable competitive advantage also does not significantly mediate the effect of innovation on MSME performance at the 5% level. However, the p-value of 0.058 is close to the significance threshold. This pattern suggests that innovation has an immediate effect on performance, while the formation of sustainable competitive advantage requires a longer process. Product or marketing innovation can improve sales quickly, but customer loyalty, brand image, and market adaptation need consistency over time. Future studies with larger samples and longitudinal designs may provide a stronger test of this indirect relationship.

The practical implication is that SMESCO-assisted MSMEs should not only encourage entrepreneurial behavior, but also convert it into concrete strategic programs. These programs may include product differentiation, brand identity development, quality standardization, customer database management, digital marketing consistency, and service improvement. Innovation should remain a priority because it shows the strongest effect on both performance and sustainable competitive advantage. For SMESCO and MSME development institutions, the

findings suggest that training programs should focus on measurable innovation output and long-term competitive positioning.

CONCLUSION

This study proves that entrepreneurial orientation and innovation have positive effects on MSME performance. Innovation is the strongest factor because product renewal, process improvement, marketing innovation, service development, and digital technology utilization directly strengthen business development. Sustainable competitive advantage also has a positive effect on MSME performance, although its contribution is smaller than innovation.

The study also finds that entrepreneurial orientation does not significantly affect sustainable competitive advantage. Sustainable competitive advantage is not proven to mediate the effect of entrepreneurial orientation and innovation on MSME performance. These results indicate that entrepreneurial attitudes and innovation activities do not automatically create long-term competitive strength. MSME actors need to convert both into concrete strategies, such as product differentiation, brand strengthening, quality consistency, and customer loyalty management.

The academic contribution of this study lies in strengthening the RBV-based explanation of MSME performance in the SMESCO ecosystem. Entrepreneurial orientation and innovation can be treated as internal capabilities, but their effect on sustainable advantage depends on how these capabilities are structured and implemented. The study also contributes by showing that innovation has a stronger practical role than entrepreneurial orientation in shaping competitive advantage among SMESCO MSMEs.

The practical implication is that SMESCO MSME actors need to place innovation as a central business development strategy. Product innovation, digital promotion, customer service improvement, and online platform utilization should be carried out consistently to support sales growth, market expansion, and business sustainability. Entrepreneurial orientation should be supported by brand strategy and market positioning so that it can produce stronger competitive value.

The limitation of this study lies in the use of 100 respondents from SMESCO-connected MSMEs and the use of perception-based survey data. Future research should expand the sample across regions, increase the number of respondents, and use longitudinal data to test the formation of sustainable competitive advantage over time. Future studies can also include digital literacy, marketing capability, market orientation, institutional support, and digital transformation as additional variables.

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