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# MSME Performance and Internal Capabilities: Managerial, Entrepreneurial, and Sustainability Perspectives

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**Abstract**

**Research aims:**

This study examines the effects of gender, managerial skills, entrepreneurial behavior, and corporate sustainability on MSME performance in a post-pandemic urban context.

**Design/Methodology/Approach:**

A quantitative approach was applied using survey data from 336 MSME owners in Pekanbaru, Indonesia. The data were analyzed using Partial Least Squares–Structural Equation Modeling to test the proposed relationships.

**Research findings:**

Managerial skills, entrepreneurial behavior, and corporate sustainability positively and significantly affect MSME performance. Gender shows no significant effect, indicating that performance is driven more by internal capabilities than demographic characteristics.

**Theoretical contribution/Originality:**

This study extends the Resource-Based View by distinguishing strategic capabilities from contextual attributes and integrating multiple internal factors into a unified model. It also clarifies inconsistent findings in prior research within a post-pandemic setting.

**Practitioner/Policy implication:**

The findings highlight the importance of strengthening managerial competencies, encouraging entrepreneurial behavior, and integrating sustainability practices. MSME policies should focus on capability development rather than demographic factors.

**Research limitation/Implication:**

The study is limited to a single urban area and excludes external variables. Future research should include broader contexts and additional factors to improve generalizability.

**Keywords:** MSME performance, managerial skills, entrepreneurial behavior, corporate sustainability, resource-based view

## Introduction

Micro, Small, and Medium Enterprises (MSMEs) constitute a fundamental pillar of regional and national economic development due to their role in employment creation, income distribution, and local economic resilience. In Indonesia, MSMEs contribute significantly to gross domestic product and have demonstrated relative adaptability amid economic fluctuations and external shocks (Achmad, 2020). Despite their strategic importance, MSME performance exhibits substantial heterogeneity, indicating that business success is not

determined solely by external conditions but is strongly influenced by internal characteristics and organizational capabilities.

Following the post-pandemic economic recovery, MSMEs face structural challenges that extend beyond public health disruptions. Rising raw material and energy costs, increasing logistics expenses, shifts in consumer behavior, and intensified competition driven by accelerated digitalization have reshaped the business environment (Sarbiani, 2022; Afrinaldi et. Al, 2022). Under these conditions, MSME performance can no longer be adequately captured by short-term financial indicators alone, as long-term survival increasingly depends on adaptive capacity and strategic resilience.

Prior studies emphasize that MSME performance reflects a combination of financial and non-financial dimensions. Financial indicators such as sales growth, transaction volume, and profitability remain important, yet they must be complemented by non-financial aspects, including customer satisfaction, customer loyalty, and business reputation (Pramestiningrum & Iramani, 2020). These non-financial dimensions play a critical role in sustaining competitiveness and long-term business continuity, particularly in highly competitive urban markets (Giantari et al., 2021). However, existing studies often treat these dimensions separately and fail to integrate them into a comprehensive performance framework that reflects long-term sustainability outcomes.

A growing body of literature has examined internal determinants of MSME performance, including owner gender, managerial skills, entrepreneurial behavior, and corporate sustainability orientation. Gender, understood as a socio-cultural construct shaping managerial preferences and decision-making patterns, has been shown to influence MSME performance through differences in access to resources and business networks (Herawati et al., 2020; Indiworo, 2017; Rofiq & Edward, 2019); Prasetyo et.al (2023). However, other studies report insignificant gender effects, suggesting that managerial competence and financial decision-making capabilities outweigh demographic attributes in determining business performance (Walczak & Pienkowska-Kamieniecka, 2018). This inconsistency indicates that gender may function as a contextual variable rather than a direct determinant of performance

Managerial skills represent a core internal capability that enables MSME owners to effectively perform planning, organizing, decision-making, and controlling functions within their businesses (Ekaputri et al., 2018). Empirical evidence generally indicates that stronger managerial skills enhance MSME performance by improving resource efficiency, strategic responsiveness, and operational effectiveness, particularly in competitive environments (Abdillah et al., 2019; Fahmi et al., 2020). However, some studies report non-significant findings, suggesting that managerial skills alone may not generate performance advantages without complementary strategic capabilities.

Entrepreneurial behavior, encompassing innovativeness, risk-taking, and proactiveness, is also widely recognized as a driver of MSME performance (Apriyanti et al., 2021). While numerous studies document a positive association between entrepreneurial behavior and MSME performance (Haryanti et al., 2019; Lisa, 2019), other findings indicate that entrepreneurial behavior does not automatically translate into superior performance when not supported by adequate managerial capacity and operational systems (Komaludin & Wahid, 2017).

More recently, corporate sustainability has emerged as an important framework for understanding long-term MSME performance. Corporate sustainability refers to the integration of economic, social, and environmental dimensions to ensure business continuity and value creation over time (Hammer, 2002). Although several studies report that sustainability-oriented practices enhance MSME resilience and performance (Ambarwati et al., 2020; Budiarto et al., 2021). Others find insignificant effects, particularly when MSMEs prioritize short-term survival over strategic integration of sustainability principles (Kumalasari & Haryono, 2019).

Despite the growing literature, three critical gaps remain. First, prior studies predominantly examine these variables in isolation rather than within an integrated capability-based framework. Second, inconsistencies in empirical findings indicate the absence of a clear theoretical explanation linking internal capabilities to MSME performance under dynamic environmental conditions. Third, limited research explicitly situates MSME performance within the post-pandemic restructuring context, particularly in urban emerging economies.

This study addresses these gaps by integrating gender, managerial skills, entrepreneurial behavior, and corporate sustainability into a unified analytical model grounded in the Resource-Based View (RBV). Unlike prior studies, this research explicitly conceptualizes managerial skills, entrepreneurial behavior, and sustainability as heterogeneous internal capabilities with potential VRIN (valuable, rare, inimitable, and non-substitutable) characteristics, while positioning gender as a contextual attribute influencing capability deployment rather than as a strategic resource.

Grounded in the Resource-Based View (RBV), which posits that sustainable competitive advantage arises from valuable, rare, and inimitable internal resources (Wernerfelt, 1984), this study conceptualizes managerial skills, entrepreneurial behavior, and corporate sustainability as strategic capabilities that enable MSMEs to generate superior performance outcomes. By incorporating a multidimensional performance construct and situating the analysis within a post-pandemic urban MSME context, this study offers a more nuanced explanation of how internal capabilities interact to drive performance.

Accordingly, this study aims to examine the effects of gender, managerial skills, entrepreneurial behavior, and corporate sustainability on MSME performance in Pekanbaru City, Indonesia. The study contributes to the literature by providing an integrated capability-based model, clarifying inconsistent empirical findings, and extending RBV through the differentiation of capability types in MSME contexts.

## **Conceptual Framework and Hypothesis Development**

### **The Effect of Gender on MSME Performance**

From the Resource-Based View (RBV), firm performance is primarily driven by the possession and effective deployment of valuable organizational capabilities rather than by demographic characteristics per se (Wernerfelt, 1984). Owner-related attributes are relevant within RBV only to the extent that they influence the formation, utilization, and coordination of strategic capabilities. Accordingly, gender should not be conceptualized as a strategic resource in itself, but rather as a contextual attribute that may shape managerial behavior, decision-making patterns, and the enactment of internal capabilities within MSMEs.

Prior studies indicate that female MSME owners often demonstrate more cautious financial behavior, stronger cash flow discipline, and a higher commitment to business continuity, particularly in micro and small-scale enterprises. Empirical evidence from Herawati et al. (2020), Lestari et. al (2023) and Pathak & Emah (2017) shows that women entrepreneurs tend to apply accounting practices more consistently and adhere to structured operational routines, which may indirectly support firm stability and performance. These findings suggest that gender-related differences may influence how managerial and operational capabilities are exercised, rather than functioning as direct performance determinants.

Nevertheless, the empirical literature reports mixed and inconclusive findings regarding the direct relationship between gender and MSME performance. Several studies find no significant effect, emphasizing that performance outcomes are more strongly driven by capability-based factors such as managerial competence, entrepreneurial skills, experience, and access to resources, rather than gender differences alone (Kusnindar, 2019; Musoli, 2021; Walczak & Pienkowska-Kamieniecka, 2018). Such inconsistencies imply that the influence of gender is highly context-dependent and contingent upon institutional, cultural, and organizational settings.

In the Indonesian MSME context where businesses are predominantly family-based, informal, and owner-managed gender remains an empirically relevant variable, particularly given the dual roles frequently assumed by female entrepreneurs as business owners and primary financial decision-makers. While RBV emphasizes capabilities as the fundamental source of competitive advantage, examining owner gender provides insight into contextual conditions that may shape the deployment of these capabilities. Therefore, this study empirically examines the relationship between owner gender and MSME performance without treating gender as a strategic resource. Based on these arguments, the following hypothesis is proposed:

*H1: Owner gender has a significant effect on MSME performance.*

### **The Effect of Managerial Skills on MSME Performance**

Managerial skills constitute a key intangible resource within the Resource-Based View framework, as they enable firms to coordinate and deploy internal resources effectively (Wernerfelt, 1984). These skills reflect the ability of MSME owners to perform core managerial functions, including planning, organizing, directing, and controlling business operations. Given the limited access to capital and external support commonly faced by MSMEs, managerial skills become a critical determinant of business performance and continuity.

Prior empirical research consistently demonstrates a positive relationship between managerial skills and MSME performance. Ahmad & Ahmad (2021) emphasize that managerial skills not only directly influence performance outcomes but also enhance resource utilization efficiency through strategic planning and operational alignment. MSMEs managed by individuals with strong managerial competencies are better positioned to respond adaptively to environmental uncertainty and competitive pressures.

Furthermore, managerial skills are closely associated with decision-making quality, human resource management, cost control, and responsiveness to business risks and opportunities. Abdillah et al. (2019) and Haryanti et al. (2019) show that MSME owners with higher managerial capability tend to achieve superior performance by aligning internal strengths with

external market conditions. This evidence reinforces the argument that managerial skills function as an internal mechanism linking resources to performance outcomes.

Although some studies report non-significant effects, such inconsistencies are often attributed to limited firm size, homogeneous samples, or low variation in managerial capability among respondents. Overall, the prevailing consensus in the literature supports the strategic importance of managerial skills in enhancing MSME performance, particularly in dynamic and competitive environments. Accordingly, the following hypothesis is formulated:

*H2: Managerial skills have a positive effect on MSME performance.*

### **The Effect of Entrepreneurial Behavior on MSME Performance**

Entrepreneurial behavior reflects an individual's orientation toward business management, encompassing innovativeness, risk-taking propensity, proactiveness, and opportunity recognition. Within the RBV perspective, entrepreneurial behavior is conceptualized as a dynamic capability that enables MSMEs to adapt, innovate, and sustain performance amid environmental change (Wernerfelt, 1984). Such capabilities are particularly crucial for MSMEs operating under resource constraints and market uncertainty.

Empirical evidence indicates that entrepreneurial behavior significantly contributes to MSME performance by stimulating innovation, market expansion, and operational efficiency. Studies by Apriyanti et al. (2021), Akbar et al. (2021), dan Lisa (2019) demonstrate that entrepreneurial-oriented MSMEs are more proactive in exploiting market opportunities and responding to competitive challenges. Entrepreneurial behavior also shapes the mindset of MSME owners in dealing with uncertainty and performance volatility.

Moreover, strong entrepreneurial behavior enables MSMEs to optimize limited resources through creativity and strategic flexibility. This argument aligns with McClelland (1967) view that entrepreneurial characteristics represent critical psychological drivers of business success. Consequently, MSMEs managed by individuals with high entrepreneurial behavior are expected to exhibit superior performance compared to firms that adopt passive or reactive strategies. Based on these arguments, the following hypothesis is proposed:

*H3: Entrepreneurial behavior has a positive effect on MSME performance.*

### **The Effect of Corporate Sustainability on MSME Performance**

Corporate sustainability in the MSME context refers to a firm's ability to maintain long-term economic performance while managing social and environmental responsibilities. Business sustainability extends beyond short-term profit generation and encompasses the capacity to manage resources efficiently, stabilize revenue streams, and adapt to evolving business environments. For MSMEs, sustainability orientation is increasingly recognized as a strategic necessity rather than a normative objective.

From an RBV standpoint, sustainability is viewed as the outcome of superior resource management and the development of inimitable organizational capabilities (Wernerfelt, 1984). Empirical studies by Su et al. (2022) and Tshiaba et al. (2021) demonstrate that sustainability-oriented MSMEs benefit from enhanced innovation, knowledge accumulation, and entrepreneurial capability, which ultimately improve business performance. Firms with a

strong sustainability orientation are better equipped to withstand economic shocks and competitive pressures.

Additionally, Kaban & Safitry (2020) argue that business performance and sustainability are mutually reinforcing, as strong performance provides the foundation for long-term continuity, while sustainability practices enhance resilience and strategic flexibility. Thus, corporate sustainability functions not only as a long-term objective but also as an internal mechanism that strengthens MSME performance. Based on this reasoning, the following hypothesis is formulated:

*H4: Corporate sustainability has a positive effect on MSME performance.*

## **Research Methodology**

### **Research Design, Location, and Time Frame**

This study adopts a quantitative approach with an explanatory research design aimed at examining the causal relationships between gender, managerial skills, entrepreneurial behavior, corporate sustainability, and MSME performance. An explanatory design is appropriate because it allows hypothesis testing through inferential statistical analysis and provides empirical evidence regarding the direction and magnitude of relationships among constructs (Hair et al., 2019). The quantitative approach ensures objectivity and replicability in assessing behavioral and managerial factors affecting MSME performance.

The research was conducted among MSME owners operating in Pekanbaru City, Riau Province, Indonesia. Pekanbaru covers an area of approximately 632.3 km<sup>2</sup> and recorded 105,445 active MSMEs in 2022, according to the Pekanbaru City Office of Cooperatives and MSMEs. This location was selected due to the strategic role of MSMEs in the regional economy and the relatively rapid growth of micro and small enterprises, which provides a relevant context for examining performance determinants.

### **Population and Sampling Technique**

The population of this study comprises all active MSMEs operating in Pekanbaru City. Given the large population size and practical limitations related to time and resources, a probability sampling technique was employed to ensure representativeness. Specifically, simple random sampling was applied so that each MSME had an equal probability of being selected as a research respondent.

The sample size was determined using the Slovin formula with a margin of error of 5 percent, which is commonly applied in large-population survey research (Yamane, 1967). Based on a total population of 105,445 MSMEs, the calculation yielded a minimum sample size of 398.49, which was rounded up to 399 respondents. However, due to field constraints, a total of 336 valid questionnaires were successfully collected and analyzed.

Although the Slovin formula suggested a minimum of 399 respondents, the final sample of 336 exceeds the recommended minimum sample size for PLS-SEM analysis based on statistical power considerations. Prior methodological literature confirms that PLS-SEM remains robust with smaller samples, particularly when the model complexity is moderate and indicator

loadings are satisfactory (Hair et al., 2019). Therefore, the final sample size is considered adequate and methodologically acceptable for hypothesis testing in this study.

### **Type and Source of Data**

This study relies on primary data collected directly from MSME owners. Primary data were selected because they provide firsthand information regarding respondents' perceptions, behaviors, and managerial practices related to the constructs under investigation. Such data are considered more accurate and contextually relevant for testing behavioral and organizational relationships in MSME settings.

### **Data Collection Technique**

Data were collected using a structured questionnaire administered to MSME owners through both offline (printed questionnaires) and online platforms (Google Forms). The use of mixed distribution modes was intended to enhance response rates and accommodate differences in digital access and literacy among respondents. This approach aligns with established practices in survey-based MSME research in emerging economy contexts (Hair et al., 2019). All measurement items were evaluated using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), which is appropriate for capturing respondents' perceptions and facilitating the estimation of latent constructs in PLS-SEM analysis.

### **Operational Definitions and Measurement of Variables**

This study includes one dependent variable and four independent variables. All constructs were measured using reflective indicators, except for gender, which was treated as a dummy variable, as the indicators are assumed to reflect the underlying latent constructs (Hair et al., 2019).

MSME performance was defined as the ability of MSMEs to generate sustainable economic and non-economic value. It was measured using financial indicators (sales growth, transaction volume, and profit growth) and non-financial indicators (customer satisfaction, customer loyalty, and brand equity), following (Giantari et al., 2021).

Gender was operationalized as a demographic characteristic of MSME owners and coded as a dummy variable, with 1 representing male owners and 0 representing female owners (Gnambs, 2021).

Managerial skills refer to the capability of MSME owners to plan, coordinate, control, and adapt business resources effectively. This construct was measured using indicators related to communication, decision-making, problem-solving, strategic planning, human resource management, and environmental adaptability (Haryanti et al., 2019).

Entrepreneurial behavior reflects the orientation of business owners toward innovation, proactiveness, and risk-taking. It was measured using indicators of self-confidence, result orientation, risk-taking propensity, leadership, originality, and business vision, as proposed by (Lisa, 2019).

Corporate sustainability was defined as the integration of economic, social, and environmental dimensions to ensure long-term business continuity. This construct was measured using

indicators of environmental responsibility, economic viability, social responsibility, and integrated sustainability practices, based on (Hammer, 2002).

### **Data Analysis Technique**

The data were analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM) with the assistance of WarpPLS version 8.0. This approach was selected due to its suitability for estimating complex structural models with multiple constructs and its robustness when applied to moderate sample sizes without requiring multivariate normality assumptions (Hair et al., 2019; Sarstedt et al., 2020). PLS-SEM is particularly appropriate for exploratory and prediction-oriented research, making it well aligned with the objectives of this study.

The analysis procedure began with descriptive statistics to summarize respondent characteristics and to examine the distribution of responses across all measurement indicators. Subsequently, the measurement model was evaluated to assess construct validity and reliability. Convergent validity was examined using outer loadings and Average Variance Extracted (AVE), with threshold values exceeding 0.70 and 0.50, respectively, while discriminant validity was assessed using the Fornell–Larcker criterion and cross-loadings. Construct reliability was evaluated through composite reliability and Cronbach’s alpha, both required to exceed the minimum value of 0.70 (Sarstedt et al., 2020).

After the measurement model satisfied all validity and reliability criteria, the structural model was assessed by examining the coefficient of determination ( $R^2$ ), path coefficients, and the significance of hypothesized relationships. Hypothesis testing was conducted using a bootstrapping procedure to generate standard errors and p-values. Hypotheses were considered supported when the corresponding p-values were below the 0.05 significance level, consistent with established PLS-SEM guidelines (Hair et al., 2019; Sarstedt et al., 2020).

### **Data Collection and Response Rate**

Data were collected through a structured questionnaire distributed to MSME owners in Pekanbaru City using both online and printed formats to accommodate varying levels of digital access among respondents. All measurement items were assessed using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), in line with standard practices in behavioral and management research (Hair et al., 2019). The use of mixed distribution modes was intended to enhance participation and improve response quality.

A total of 399 questionnaires were distributed during the data collection period. Of these, 364 questionnaires were returned, resulting in a response rate of approximately 91 percent. After screening for incomplete or inconsistent responses, 28 questionnaires were excluded from further analysis.

Consequently, 336 valid questionnaires were retained and used in the final analysis, yielding an effective response rate of 84 percent. This sample size exceeds the minimum requirements for PLS-SEM analysis and is considered adequate for ensuring statistical power and representativeness. The high response rate indicates strong engagement from respondents and supports the reliability of the empirical findings.

## Results

### Respondent Characteristics and Analytical Method

This study examines the effects of gender, managerial skills, entrepreneurial behavior, and corporate sustainability on MSME performance in Pekanbaru City using the Partial Least Squares–Structural Equation Modeling (PLS-SEM) approach with WarpPLS version 8.0. Out of 399 questionnaires distributed, 336 were deemed valid for analysis after data completeness checks and the removal of extreme outliers, ensuring data quality and robustness of the estimation results. This sample size exceeds the minimum requirement for PLS-SEM and is considered adequate for structural model estimation (Hair et al., 2019).

In terms of respondent characteristics, female MSME owners constituted the majority of the sample (52.1%), indicating strong female participation in local entrepreneurial activities. The dominant age group was 26–35 years (30.7%), followed by 17–25 years (28.6%), suggesting that MSMEs in Pekanbaru are largely managed by young and early-career entrepreneurs. Regarding business experience, most respondents had operated their businesses for 1–5 years (45.5%), while the highest proportion of educational attainment was senior high school (51.2%), followed by undergraduate education (26.2%).

### Measurement Model Evaluation

#### *Convergent Validity and Construct Reliability*

The evaluation of the measurement model began with an assessment of convergent validity and construct reliability. As reported in Table 1, all retained indicators exhibited outer loading values greater than 0.70 after the elimination of indicators that did not meet the recommended threshold. This indicates that each indicator adequately represents its corresponding latent construct.

**Table 1. Convergent Validity and Construct Reliability Results**

Variable	AVE	Cronbach's Alpha	Composite Reliability
MSME Performance	0.612	0.884	0.908
Managerial Skills	0.587	0.903	0.918
Entrepreneurial Behavior	0.601	0.876	0.902
Corporate Sustainability	0.569	0.861	0.893

Source: WarpPLS 8.0

Furthermore, all constructs demonstrated Average Variance Extracted (AVE) values exceeding 0.50, confirming that the constructs explain more than half of the variance of their indicators (Sarstedt et al., 2020). Composite reliability and Cronbach's alpha values for all constructs were above 0.70, indicating satisfactory internal consistency and reliability. Collectively, these results confirm that the measurement model meets established validity and reliability criteria.

#### *Discriminant Validity*

Discriminant validity was assessed using the Fornell–Larcker criterion to ensure that each construct is empirically distinct. The results, as reported in Table 2 show that the square root of the AVE for each construct is greater than its correlations with other constructs. This indicates that each latent variable shares more variance with its own indicators than with other constructs in the model.

**Table 2. Discriminant Validity Assessment (Fornell–Larcker Criterion)**

Variable	MSME Performance	Managerial Skills	Entrepreneurial Behavior	Corporate Sustainability
MSME Performance	<b>0.782</b>	0.421	0.398	0.455
Managerial Skills	0.421	<b>0.766</b>	0.512	0.486
Entrepreneurial Behavior	0.398	0.512	<b>0.775</b>	0.467
Corporate Sustainability	0.455	0.486	0.467	<b>0.754</b>

Source: WarpPLS 8.0

These findings confirm that the constructs possess adequate discriminant validity and capture distinct theoretical concepts without significant overlap. Therefore, the measurement model demonstrates sufficient discriminative power to proceed with structural model evaluation (Sarstedt et al., 2020).

### Structural Model Evaluation

The structural model was evaluated to assess overall model fit and the plausibility of the hypothesized causal relationships among latent variables. The goodness-of-fit indices reported in Table 3 indicate that the Average Path Coefficient (APC), Average R-squared (ARS), and Average Adjusted R-squared (AARS) are all statistically significant at the 5 percent level. These results suggest that the proposed model has adequate explanatory capability.

**Table 3. SEM-PLS Model Fit Indices**

Indicator	Value	Criteria
APC (Average Path Coefficient)	0.213 ( $p < 0.001$ )	Significant
ARS (Average R-squared)	0.344 ( $p < 0.001$ )	Significant
AARS (Average Adjusted R-squared)	0.336 ( $p < 0.001$ )	Significant
AVIF (Average Variance Inflation Factor)	1.892	$\leq 3.3$

Source: WarpPLS 8.0

Furthermore, the Average Variance Inflation Factor (AVIF) value is below the recommended maximum threshold of 3.3, indicating the absence of multicollinearity issues among the predictor constructs. Collectively, these indices confirm that the structural model is statistically sound and suitable for hypothesis testing (Sarstedt et al., 2020).

### Coefficient of Determination

The coefficient of determination ( $R^2$ ) for MSME performance is 0.344, indicating that 34.4 percent of the variance in MSME performance can be explained jointly by gender, managerial skills, entrepreneurial behavior, and corporate sustainability. This level of explanatory power is considered moderate and acceptable in management and behavioral research contexts. The remaining 65.6 percent of the variance is attributable to other factors not included in the model (Sarstedt et al., 2020).

### Hypothesis Testing Results

The results of hypothesis testing are summarized in Table 4. The findings indicate that gender does not have a statistically significant effect on MSME performance ( $\beta = -0.031$ ;  $p = 0.214$ ), leading to the rejection of Hypothesis 1. This suggests that MSME performance in Pekanbaru is not determined by the gender of business owners.

**Table 4. Hypothesis Testing Results**

Hypothesis	Structural Relationship	Path Coefficient	p-value	Decision
H1	Gender → MSME Performance	-0.031	0.214	Rejected
H2	Managerial Skills → MSME Performance	0.287	< 0.001	Supported
H3	Entrepreneurial Behavior → MSME Performance	0.241	0.002	Supported
H4	Corporate Sustainability → MSME Performance	0.309	< 0.001	Supported

Source: WarpPLS 8.0

In contrast, managerial skills ( $\beta = 0.287$ ;  $p < 0.001$ ), entrepreneurial behavior ( $\beta = 0.241$ ;  $p = 0.002$ ), and corporate sustainability ( $\beta = 0.309$ ;  $p < 0.001$ ) all exhibit positive and statistically significant effects on MSME performance, supporting Hypotheses 2, 3, and 4. These results highlight the critical role of managerial capability, entrepreneurial orientation, and sustainability practices in enhancing MSME performance.

## Discussion

### Effect of Gender on MSME Performance

The findings indicate that gender does not have a statistically significant effect on MSME performance in Pekanbaru City. This result suggests that performance differences among MSMEs are not driven by the gender of business owners but are more strongly influenced by managerial and strategic capabilities. In practice, MSME outcomes depend on how effectively resources are managed rather than on demographic attributes.

From the Resource-Based View (RBV) perspective, this finding reinforces the argument that competitive advantage is derived from the effective deployment of valuable and inimitable internal resources, such as knowledge, skills, and experience, rather than inherent personal characteristics. When professional management practices are consistently applied, gender becomes less relevant in explaining performance variation.

Empirically, this result is consistent with Setyorini (2018), who reported no significant performance differences between male- and female-led MSMEs. However, it contrasts with the findings of Rofiq & Edward (2019) and Herawati et al. (2020), which identified gender-related performance gaps in specific settings. These inconsistencies indicate that the effect of gender on MSME performance is highly contextual and contingent on environmental conditions, sectoral characteristics, and the degree of managerial professionalism.

### Effect of Managerial Skills on MSME Performance

This study confirms that managerial skills have a positive and significant effect on MSME performance. Strong competencies in planning, coordination, control, and adaptability enable MSME owners to allocate resources more efficiently and respond effectively to market

dynamics. As a result, managerial capability emerges as a critical driver of improved business outcomes.

Within the RBV framework, managerial skills constitute strategic intangible resources that are difficult to imitate and play a central role in transforming inputs into performance outcomes. MSMEs with higher managerial competence are better positioned to reduce operational uncertainty, enhance efficiency, and capitalize on emerging opportunities, thereby achieving sustainable competitive advantages.

This finding aligns with prior empirical evidence reported by Komaludin & Wahid, (2017) and Haryanti et al. (2019) which emphasizes the importance of managerial competence in enhancing MSME performance. Consequently, strengthening managerial capacity remains a fundamental strategy for improving competitiveness and ensuring long-term sustainability among MSMEs.

### **Effect of Entrepreneurial Behavior on MSME Performance**

The results show that entrepreneurial behavior has a positive and significant influence on MSME performance. Innovativeness, risk-taking propensity, proactiveness, and opportunity recognition enable MSMEs to pursue growth opportunities and enhance competitiveness in dynamic markets. Firms that actively engage in entrepreneurial actions tend to achieve superior performance outcomes.

From an RBV perspective, entrepreneurial behavior represents a dynamic capability that allows firms to reconfigure resources and adapt continuously to environmental changes. Innovation and creativity generated through entrepreneurial orientation serve as key mechanisms through which MSMEs build and sustain competitive advantages, particularly under conditions of uncertainty and intense competition.

This finding is consistent with previous studies by Akbar & Wahab, (2021), Ekaputri et al. (2018), and Irawan et al. (2018) which document a significant relationship between entrepreneurial behavior and MSME performance. However, the divergence from Komaludin & Wahid, (2017) suggests that the effectiveness of entrepreneurial behavior may depend on contextual factors, such as owner motivation and whether the business is opportunity-driven or inherited as a family enterprise.

### **Effect of Corporate Sustainability on MSME Performance**

The findings demonstrate that corporate sustainability has a positive and significant effect on MSME performance. Integrating economic, social, and environmental considerations into business operations not only supports long-term viability but also enhances short-term performance through improved efficiency, stakeholder trust, and market legitimacy.

Within the RBV framework, corporate sustainability can be interpreted as a value-creating strategic capability that strengthens long-term competitive positioning. MSMEs that embed sustainability principles into their operational practices are more likely to develop strong stakeholder relationships, enhance organizational reputation, and increase resilience to environmental and market uncertainties. These advantages ultimately translate into superior performance outcomes.

This result supports the findings of Ambarwati et al. (2020) and Budiarto et al. (2021) who reported a positive association between sustainability practices and MSME performance. In contrast, differences with Kumalasari & Haryono (2019) indicate that the effectiveness of sustainability strategies depends on MSME owners' readiness to commit to long-term investments and adopt a growth-oriented strategic mindset.

## Conclusion

This study examines the influence of gender, managerial skills, entrepreneurial behavior, and corporate sustainability on MSME performance in Pekanbaru City using PLS-SEM with data from 336 respondents. The findings reveal that gender does not significantly affect MSME performance, indicating that demographic characteristics are less relevant than internal capabilities in determining business outcomes. In contrast, managerial skills, entrepreneurial behavior, and corporate sustainability exert significant positive effects, emphasizing that intangible resources and sustainability-oriented strategies are key drivers of MSME competitiveness and long-term performance in emerging economy contexts.

This study provides integrated theoretical and practical implications for MSME research and policy in emerging economies. The findings reinforce the resource-based view (RBV) by confirming that MSME performance is primarily driven by intangible resources—namely managerial skills, entrepreneurial behavior, and sustainability-oriented strategies—rather than demographic attributes such as gender. From a policy and practical standpoint, the results suggest that MSME development programs in Indonesia, particularly those led by government agencies and business incubators, should prioritize capability-building initiatives focused on managerial competence, innovation orientation, and the strategic adoption of corporate sustainability practices. These findings indicate that sustainability should be positioned not as a compliance requirement, but as a performance-enhancing strategic investment that strengthens MSME competitiveness and long-term resilience.

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### CONFLICTS OF INTEREST

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