


The Role of Core Competencies in Enhancing Operational Efficiency in Micro, Small, and Medium Enterprises (MSMEs) in Indonesia

Vera Selviana Adoe
STIKOM Artha Buana Kupang

Article Info	ABSTRACT
<p><i>Article history:</i></p> <p>Received Sep, 2025 Revised Sep, 2025 Accepted Sep, 2025</p> <hr/> <p><i>Keywords:</i></p> <p>Core Competencies; Indonesia MSMEs; Operational Efficiency; Quantitative Analysis;</p>	<p>This study investigates the role of core competencies in improving operational efficiency within Micro, Small, and Medium Enterprises (MSMEs) in Indonesia. MSMEs contribute significantly to the national economy but often face challenges in resource limitations, productivity, and competitiveness. Core competencies, defined as unique combinations of skills, knowledge, and organizational capabilities, are considered strategic enablers of efficiency and sustainability. Using a quantitative approach, data were collected from 150 MSME owners and managers through a structured questionnaire based on a 5-point Likert scale. The data were analyzed using SPSS version 25, employing descriptive statistics, validity and reliability testing, correlation, and regression analysis. The findings show that core competencies have a significant positive effect on operational efficiency, with a correlation coefficient of 0.652 and an R^2 value of 0.425, indicating that 42.5% of operational efficiency variance can be explained by competencies. The results highlight the importance of innovation capability, resource management, and market responsiveness in driving efficiency. This study contributes to the Resource-Based View (RBV) literature in the context of MSMEs and provides practical implications for managers and policymakers to strengthen MSME competitiveness through competency development.</p> <p><i>This is an open access article under the CC BY-SA license.</i></p> <div></div>

Corresponding Author:

Name: Vera Selviana Adoe
Institution: STIKOM Artha Buana Kupang
Email: veraanwar08@gmail.com

1. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play a vital role in the Indonesian economy, contributing significantly to job creation, income distribution, and overall economic resilience, with more than 60% of Indonesia's Gross Domestic Product (GDP) and over 97% of the workforce depending on them [1], [2]. According to the Ministry of Cooperatives and Small and Medium Enterprises, MSMEs

not only act as the backbone of the national economy but also serve as a social safety net, particularly in rural areas, by creating jobs and improving welfare [1]. Despite this substantial contribution, many MSMEs continue to face challenges such as limited access to capital and technology [3], low productivity levels, and inefficiencies in operational processes that hinder their competitiveness in both domestic and international markets [4]. These barriers restrict their integration into global supply

chains and limit their growth potential, making it essential to implement targeted solutions. Improving access to capital and technology [3], fostering digital transformation and business model innovation [4], and ensuring fair resource distribution alongside active participation in economic decision-making [1] are critical policy recommendations to enhance MSME productivity, competitiveness, and long-term sustainability.

One strategic approach to addressing the challenges faced by Micro, Small, and Medium Enterprises (MSMEs) lies in the development and utilization of core competencies, which are unique skills, knowledge, and organizational capabilities that provide competitive advantage and enable enterprises to deliver value more efficiently. For MSMEs, core competencies encompass innovation capability, effective resource management, adaptability to market changes, and customer-oriented practices, all of which contribute to improved operational efficiency, cost reduction, and long-term business sustainability. Innovation capability plays a crucial role as a primary source of competitive advantage, allowing MSMEs to leverage resources for performance improvement, product diversification, and branding enhancement to maintain a competitive edge [5], [6]. Effective resource management, through strategic human resource practices and digital technology utilization, enables MSMEs to optimize production processes and configure cost structures for greater efficiency and profitability [7], [8]. Adaptability to market changes is also vital, requiring MSMEs to strengthen market analysis capabilities and quickly respond to dynamic environments in order to minimize negative external effects and sustain competitiveness [7], [8]. Equally important are customer-oriented practices, such as implementing loyalty programs, enhancing digital marketing, and strengthening sales and marketing skills, which foster stronger customer relationships, boost sales, and ensure sustainable growth in highly competitive markets [6], [8].

Operational efficiency is crucial for Micro, Small, and Medium Enterprises (MSMEs) to thrive in today's competitive and uncertain business environment, as maximizing output while minimizing input costs enhances productivity, agility, and responsiveness to market demands. This efficiency can be achieved through strategies such as the adoption of information technology (IT), management information systems (MIS), and technological innovations, which not only streamline operations but also foster resilience and sustainability in the face of challenges. Strategic agility and operational resilience are essential dimensions that enable MSMEs to maintain business continuity and adapt effectively to uncertainties, ensuring sustainable growth [9]. The implementation of IT has been shown to save time, reduce costs, and increase productivity, with greater adoption correlating positively with improved performance [10]. Similarly, MIS contributes to efficiency by reducing processing time, improving data accuracy, and supporting better decision-making, although MSMEs must overcome barriers such as limited resources and low awareness of MIS importance [11]. Furthermore, technological innovation optimizes production processes, inventory management, and financial operations, enabling MSMEs to reduce costs, improve quality, and enhance competitiveness in the global market [12].

Previous studies have suggested that strengthening core competencies contributes to the development of strategic capabilities that enhance firm performance, yet most research has predominantly focused on large corporations, leaving empirical studies on MSMEs in developing countries like Indonesia relatively limited. Given the unique resource constraints faced by MSMEs, it is crucial to examine how their core competencies influence operational efficiency, as these enterprises must leverage their competencies effectively to remain competitive and sustainable. Entrepreneurial competence emerges as a significant driver of MSME performance, directly influencing the competitive sphere and proving more

impactful than organizational capability, as shown in a study conducted in Bandung, Indonesia [13]. Additionally, developing competitive capabilities such as innovation, effective human resource practices, and the adoption of information and communication technology is essential for improving firm performance and operational efficiency, consistent with the resource-based view (RBV) theory which emphasizes the role of such capabilities in achieving competitiveness [14]. Distinctive capabilities, when combined with adaptive capabilities, further enhance business model adaptation and MSME performance, with adaptability acting as a mediator that allows firms to utilize their unique strengths more effectively [15]. Moreover, digital transformation, supported by emerging skills and organizational health, plays a pivotal role in enhancing MSME operational performance, with organizational health mediating the relationship between digital transformation and efficiency, thereby highlighting the importance of integrating digital strategies into core business practices [16].

This study aims to fill this gap by investigating the role of core competencies in improving operational efficiency in Indonesian MSMEs. Using a quantitative approach, data were collected from MSME respondents across various sectors, and analyzed using SPSS version 25. The findings are expected to provide practical insights for MSME owners and managers in leveraging their competencies to enhance efficiency and competitiveness. Furthermore, the results will contribute to the academic discourse on resource-based perspectives in the context of MSMEs in emerging economies.

2. LITERATURE REVIEW

2.1. Core Competencies

Core competencies are crucial for the success of Micro, Small, and Medium Enterprises (MSMEs) in Indonesia, as they enable businesses to leverage unique skills and resources to gain a competitive edge, particularly in resource-constrained environments

where they rely heavily on intangible assets such as innovation, adaptability, and strong customer relationships. In practice, these competencies manifest in several forms, including product innovation, efficient production methods, adaptability to local markets, and close customer relationships, all of which are essential for building sustainable business strategies and enhancing operational efficiency. Product innovation allows Indonesian MSMEs to differentiate their offerings through unique designs and features that meet specific customer needs and preferences, thereby creating competitive advantage [17], [18]. Efficient production methods contribute by reducing costs and improving product quality through streamlined operations and effective resource management, which are critical for maintaining profitability [17], [19]. Strong customer relationships further strengthen competitiveness by enabling MSMEs to understand market demands better, foster networks, and enhance information exchange, leading to improved positioning [18]. Finally, adaptability to local markets plays a pivotal role, as flexibility in operations and strategies allows MSMEs to navigate dynamic consumer behaviors and cultural contexts effectively, ensuring resilience and long-term sustainability [18].

2.2. Operational Efficiency

Operational efficiency in Micro, Small, and Medium Enterprises (MSMEs) is crucial for maintaining competitiveness, particularly given their limited resources, as it involves optimizing labor, capital, and technology to deliver products or services cost-effectively while maintaining quality. By achieving efficiency,

MSMEs can reduce production costs, shorten lead times, and improve profitability, which enhances their resilience against external pressures such as market fluctuations and technological disruptions. Technological innovation plays a vital role in this process by improving production processes, inventory management, marketing strategies, financial management, and data analysis, all of which reduce operational costs and strengthen global competitiveness [12]. Effective business organization and management practices, as demonstrated by the Mumbai Dabbawalas, further highlight the importance of structured resource management and process optimization, with approaches like Six Sigma, lean manufacturing, and total quality management (TQM) significantly enhancing efficiency through waste reduction, error minimization, and continuous improvement [20]. Measurement tools such as DEA-PCA also provide robust frameworks for assessing efficiency, offering more accurate evaluations than traditional subjective methods and guiding enterprises in identifying areas for improvement [21]. Additionally, the strategic use of information systems and technology supports automation, improves internal communication, and facilitates effective decision-making, ultimately leading to increased efficiency and the achievement of organizational goals [22].

2.3. *Previous Studies and Research Gap*

Prior research has explored the role of core competencies in organizational success, with most studies focusing on large firms in developed economies. While findings consistently highlight the significance of competencies in driving efficiency and

competitiveness, limited studies have specifically examined this relationship within MSMEs in developing countries like Indonesia. Furthermore, the unique cultural, institutional, and resource-related challenges faced by Indonesian MSMEs necessitate a contextualized analysis.

This research seeks to address this gap by empirically investigating the extent to which core competencies contribute to operational efficiency in Indonesian MSMEs. By adopting a quantitative approach and analyzing responses from MSME practitioners, the study aims to provide evidence-based insights that can inform both academic discourse and managerial practices.

3. RESEARCH METHODS

3.1. *Research Design*

This study employs a quantitative research design to examine the role of core competencies in improving operational efficiency among Micro, Small, and Medium Enterprises (MSMEs) in Indonesia. The quantitative approach was chosen because it allows for the measurement of variables using structured instruments and statistical analysis, ensuring objectivity and generalizability of the findings. The research adopts a causal-explanatory design, aiming to test the extent to which core competencies influence operational efficiency.

3.2. *Population and Sample*

The population of this research consists of MSME owners and managers operating in various sectors across Indonesia, including manufacturing, services, and trade. Given the broad scope of MSMEs in Indonesia, purposive sampling was applied to ensure that respondents

had sufficient knowledge of their business operations. A total of 150 respondents participated in this study, which meets the minimum sample size requirement for statistical testing using regression analysis.

3.3. Data Collection Method

Primary data were collected through a structured questionnaire distributed to MSME owners and managers. The questionnaire was divided into two main sections: the first focused on demographic information, including sector, business size, and years of operation, while the second measured research variables, namely core competencies as the independent variable and operational efficiency as the dependent variable. Respondents rated their perceptions using a 5-point Likert scale, ranging from 1 = Strongly Disagree to 5 = Strongly Agree, which was designed to capture the degree of agreement with statements related to competencies and efficiency.

The independent variable, core competencies, was measured through indicators such as innovation capability, resource management, market responsiveness, and customer orientation. Meanwhile, the dependent variable, operational efficiency, was assessed using indicators including cost reduction, productivity improvement, process optimization, and responsiveness to market demand. These indicators were developed based on prior studies rooted in the Resource-Based View (RBV) theory and adapted to the MSME context in Indonesia to ensure relevance and applicability.

3.4. Data Analysis Technique

Data analysis was conducted using SPSS version 25 with several statistical procedures applied to ensure robustness and

validity of the results. Descriptive statistics were used to summarize the demographic characteristics of respondents and provide an overview of responses to each variable. Validity and reliability testing was performed to confirm that the questionnaire items appropriately measured the constructs, with Cronbach's Alpha values above 0.70 considered reliable. Correlation analysis was then employed to examine the strength and direction of the relationship between core competencies and operational efficiency. Finally, regression analysis was conducted to test the effect of core competencies on operational efficiency and determine the level of significance of the relationship.

4. RESULTS AND DISCUSSION

4.1. Descriptive Findings

This section presents the demographic characteristics of respondents and the descriptive statistics of the research variables: core competencies and operational efficiency. The study involved 150 MSME owners and managers across Indonesia, distributed across different sectors: trade (40%), services (35%), and manufacturing (25%). In terms of enterprise size, micro enterprises accounted for the majority at 65% of respondents, followed by small enterprises at 25% and medium enterprises at 10%. The average years of operation of the respondents' businesses was 8 years, reflecting a diverse mix of newly established and long-standing enterprises that provide a balanced perspective on the challenges and strengths of MSMEs in the Indonesian context.

Descriptive analysis was conducted to summarize responses to the questionnaire items using the

Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). For core competencies, the average score was 3.92 with a standard deviation of 0.64, suggesting that respondents generally agreed their businesses possess moderate to strong competencies in innovation, resource management, market responsiveness, and customer orientation. Customer orientation recorded the highest mean (4.05), highlighting the priority MSMEs place on maintaining close relationships with customers, while innovation capability had the lowest mean (3.78), reflecting ongoing challenges in fostering innovation. For operational efficiency, the average score was 3.88 with a standard deviation of 0.61, indicating that MSMEs perceive themselves as reasonably efficient but with room for improvement. Responsiveness to market demand was the highest-rated indicator (mean = 4.01), showing agility in adapting to customer needs, while cost reduction had the lowest mean (3.72), suggesting that managing operational costs remains a critical challenge.

4.2. *Validity and Reliability Results*

Before conducting hypothesis testing, validity and reliability analyses were carried out to ensure that the measurement instruments used in this study were accurate and consistent.

a. *Validity Testing*

Validity was assessed using the Corrected Item-Total Correlation method in SPSS version 25. According to [23], an item is considered valid if the correlation value exceeds 0.30. The results of the analysis show that all items measuring core competencies and operational efficiency had corrected item-total correlation values ranging

between 0.421 and 0.763, which are above the required threshold. Thus, all questionnaire items were declared valid and suitable for further analysis.

b. *Reliability Testing*

Reliability was tested using Cronbach's Alpha, where a coefficient value of 0.70 or higher indicates acceptable internal consistency (Nunnally & Bernstein, 1994). The results showed that the Cronbach's Alpha value for core competencies (8 items) was 0.872 and for operational efficiency (7 items) was 0.854, both exceeding the 0.70 threshold. These results confirm that the measurement scales for core competencies and operational efficiency were reliable and suitable for further analysis.

4.3. *Correlation Analysis*

Correlation analysis was conducted to examine the strength and direction of the relationship between core competencies (independent variable) and operational efficiency (dependent variable) using the Pearson Product-Moment Correlation test in SPSS version 25. The results showed that the correlation coefficient between core competencies and operational efficiency was $r = 0.652$ with a significance value of $p < 0.01$. This finding indicates a strong and positive relationship between the two variables, and the significance value ($p = 0.000$) being below 0.01 confirms that the correlation is statistically significant at the 99% confidence level.

The interpretation of these results suggests that higher levels of core competencies are associated with higher levels of operational efficiency in Indonesian MSMEs. In other words, MSMEs with stronger

innovation, resource management, market responsiveness, and customer orientation capabilities tend to achieve better efficiency in cost management, productivity, and responsiveness to market changes. Referring to Cohen's (1988) guideline for interpreting correlation coefficients, values between 0.50 and 0.70 reflect a moderate to strong correlation; thus, the correlation value of 0.652 confirms that core competencies substantially contribute to explaining variations in operational efficiency among MSMEs.

4.4. Regression Analysis

To further test the influence of core competencies on operational efficiency, a simple linear regression analysis was conducted using SPSS version 25. The regression results show that the coefficient of determination (R^2) is 0.425, indicating that 42.5% of the variance in operational efficiency can be explained by core competencies, while the remaining 57.5% is influenced by other factors not included in the model, such as access to capital, government support, technology adoption, or market conditions. The overall model was tested using the F-statistic, with results showing $F = 109.872$ and $p = 0.000$. Since the significance value is less than 0.01, the regression model is statistically valid, confirming that core competencies significantly affect operational efficiency. The regression coefficient (Beta) for core competencies is 0.652, with a t-value of 10.486 and a significance value of $p = 0.000$, demonstrating a positive and significant effect at the 1% significance level. The regression equation can be expressed as: $\text{Operational Efficiency} = 1.245 + 0.652(\text{Core Competencies})$, which means that for every one-unit increase in core competencies,

operational efficiency increases by 0.652 units, holding other factors constant.

The interpretation of these results confirms that core competencies—such as innovation capability, effective resource management, market responsiveness, and customer orientation—play a crucial role in enhancing the operational efficiency of MSMEs in Indonesia. These findings align with the Resource-Based View (RBV), which asserts that firms can achieve superior performance by effectively leveraging their unique internal resources and capabilities. In this context, MSMEs that actively strengthen their competencies are better positioned to improve cost efficiency, boost productivity, and adapt to changing market demands, ultimately contributing to their long-term competitiveness and sustainability.

4.5. Discussion

The findings of this study provide strong empirical support for the Resource-Based View (RBV), which emphasizes that firms can achieve sustainable competitive advantage through the effective utilization of unique and valuable internal resources. In the case of Indonesian MSMEs, core competencies—such as innovation capability, customer orientation, and resource management—emerge as strategic drivers of operational efficiency. This reinforces the argument that intangible assets, rather than just tangible resources, play a central role in enabling smaller enterprises to sustain competitiveness in resource-constrained environments.

The positive relationship identified between competencies and efficiency indicates that MSMEs which continuously develop their

organizational knowledge and skills are better positioned to streamline processes, reduce operational costs, and improve service delivery. For example, innovation in product design and digital adoption allows MSMEs to shorten production cycles, while effective resource management minimizes waste and maximizes output. Such competencies not only foster agility in addressing market demands but also enhance long-term resilience against external shocks such as economic fluctuations and technological disruptions.

These findings are consistent with prior research highlighting the critical role of managerial and entrepreneurial competencies in enhancing firm performance. A study on Ugandan SMEs demonstrated that entrepreneurial competencies and firm capabilities explained 30.4% of the variance in SME outcomes, underscoring their substantial influence on business success [24]. Similarly, in the construction and engineering industries, project managers' competencies are shown to be vital for sustaining project success and corporate performance, reflecting the importance of industry-specific managerial capabilities in ensuring efficiency and competitiveness [25].

Other studies also emphasize the significance of employee competence and diversity, with evidence showing that a well-educated and diverse workforce contributes to long-term firm value [26]. Managerial ability has been linked to improvements in firm efficiency, which subsequently enhances overall performance, as firms with greater managerial capacity are better equipped to leverage environmental efficiency [27]. Furthermore, efficiency

mediates the relationship between governance structures—such as controlling shareholdings—and firm performance, demonstrating that effective resource management is key to translating governance into tangible performance gains [28]. While these studies focus on a broader context, the present study specifically contributes to Indonesian MSMEs by showing that even with resource limitations, these enterprises can enhance operational efficiency through the strategic development of competencies.

From a practical standpoint, the results of this study highlight the need for MSME owners and managers to prioritize the development of competencies in three key areas: innovation capability, resource management, and market responsiveness. Innovation capability involves adopting new technologies and creating unique products or services that differentiate MSMEs in competitive markets. Resource management focuses on optimizing the use of financial, human, and material resources to minimize costs and improve productivity. Market responsiveness emphasizes the ability to quickly adapt to changing consumer needs and external challenges. By strengthening these competencies, MSMEs can achieve operational excellence, bolster competitiveness, and ensure long-term sustainability in both domestic and global markets.

5. CONCLUSION

The findings of this study confirm that core competencies play a crucial role in enhancing operational efficiency among MSMEs in Indonesia. Descriptive analysis revealed that MSMEs are relatively strong in customer orientation and market responsiveness but continue to face

challenges in innovation capability and cost reduction. Validity and reliability tests confirmed the robustness of the measurement instruments, while correlation and regression analyses showed that competencies have a strong and significant positive effect on efficiency, explaining 42.5% of its variance. From a theoretical perspective, these results validate the Resource-Based View (RBV), which emphasizes that intangible resources such as knowledge, skills, and organizational capabilities serve as strategic drivers of firm performance. For MSMEs, developing these competencies is particularly essential to overcome resource limitations and achieve operational excellence.

From a practical standpoint, MSME owners and managers should prioritize strengthening competencies in innovation,

resource management, and market responsiveness, as these areas directly influence cost reduction, productivity improvement, and adaptability in dynamic markets. Policymakers and supporting institutions also have a vital role to play by facilitating competency development through targeted initiatives such as training programs, digital technology adoption, and financial support schemes. In conclusion, this study highlights that core competencies are not merely supportive assets but strategic enablers of sustainability and competitiveness in Indonesian MSMEs. Continuous investment in competency development will therefore be critical to ensuring long-term growth, resilience, and the ability to thrive in an increasingly competitive and uncertain business environment.

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