Management Analysis Journal 14 (3) (2025)

http://maj.unnes.ac.id

EXAMINING BUSINESS PERFORMANCE OF INDONESIAN MSMES: DYNAMIC CAPABILITIES THAT MATTERS

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Article Information

History of article:
Accepted July 2025
Approved August 2025
Published September 2025

Keywords:
Dynamic Capabilities, Sensing Capability, Learning Capability, Integrating and Coordinating Capability, Business Performance

Abstract

The study aims to examine the influence of various dimensions of DC—sensing, learning, and integrating/coordination capabilities—on the business performance of Micro, small, and medium-sized enterprises (MSMEs), as well as the potential moderating effect of firm scale. MSMEs are integral to Indonesia's economic framework. However, their resilience is challenged by economic crises and the COVID-19 pandemic, which emphasized the importance of dynamic capabilities (DC) in adapting to volatile environments. Using a quantitative approach, data were collected via questionnaires from 51 Indonesian MSMEs. Findings indicate that learning and integrating/coordination capabilities significantly enhance business performance, while sensing capability does not. Firm scale shows no moderating effect, suggesting uniform strategies across micro, small, and medium enterprises. This study enhances the existing DC theory by elucidating the specific contributions of its dimensions within resource-limited environments and offers practical recommendations for MSME managers to focus on skill enhancement and operational effectiveness to achieve sustained growth.

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e-ISSN 2502-1451

INTRODUCTION

The significance of micro, small, and medium-sized enterprises (MSMEs) in the expansion of the Indonesian economy is substantial. In 2023, the number of MSMEs surpassed 66 million, which they contribute roughly 61% of the country's Gross Domestic Product (GDP), amounting to IDR 9,580 trillion, and employ approximately 117 million workers, accounting for an overwhelming 97% of the country's workforce (Indonesian Chamber of Commerce and Industry, 2024). The history of the Indonesian economy recognizes the role of MSMEs in confronting various challenges. During the monetary crisis of 1998, MSMEs acted as a national economic buffer and continued to support the country's economic stability. However, at present, the MSME sector is the most susceptible to the economic crisis triggered by COVID-19. This is because these businesses rely heavily on the quick turnover of cash from the sale of their products (Fitriasari, 2020).

According to the Central Bureau of Statistics in Indriastuti and Kartika (2022), the COVID-19 pandemic has had a detrimental impact on a significant proportion of micro, small, and medium-sized enterprises (MSMEs), with 82.9% being negatively affected. The pandemic has led to a decline in sales, which in turn has resulted in a decrease in business profits for many MSMEs. The negative impact of this phenomenon on the Indonesian economy cannot be overstated. It is imperative, therefore, to identify ways in which MSMEs can maintain their business performance and, if possible, expand their scale, which would ultimately benefit the Indonesian economy. The burden of economic crisis and unforeseeable pandemics have inevitably led to significant disruptions for businesses. To find a solution to this problem lies

in the development of dynamic capabilities (Dejardin et al., 2022).

Dynamic capability is a concept that various corporations have endeavored to develop in order to sustain their leading edge within their respective industries. The objective of the dynamic capabilities concept is to address the question of how companies can attain and preserve a competitive edge in the face of swift technological shifts (Peteraf et al., 2013). Dynamic capabilities are derived from the Resource-Based View, which builds upon the notion that organizations ought to create a process of learning in order to adjust to environmental changes. This process encompasses the organization's capacity to integrate, develop, and reconfigure both its internal and external abilities in response to rapidly shifting circumstances (Hernández-Linares et al., 2020). However, the majority of the literature on dynamic capabilities primarily focuses on their implementation within larger corporations. Consequently, some may contend that dynamic capabilities are more advantageous for companies of larger size.

In the current era, most industries have become higher in velocity, resulting in a blurring of industry structure, it is crucial for management to possess the dynamic capabilities necessary to effectively steer the company through such changes, where dynamic capabilities take on a different nature. They are straightforward, hands-on, and unpredictable procedures that depend on swiftly developed fresh knowledge and iterative execution to yield adaptable, yet unforeseeable results (Eisenhardt & Martin, 2000). The term "dynamic" pertains to the process of continually updating one's skills to adapt to the rapidly evolving business environment. In situations where timing is crucial, technological advancements are occurring rapidly, and the future competition and markets are challenging to predict, it is necessary to provide innovative solutions (Indriastuti & Kartika, 2022). The following characteristics are necessary not only for large corporations, but also for MSMEs. Despite the fact that MSMEs have limited resources, it is crucial for their managers to prioritize strategic planning to ensure the success and growth of their business (Rodrigues et al., 2021). Given the current economic climate, it is especially important for MSMEs to possess these qualities, as they serve as the backbone of the Indonesian economy during times of crisis.

Micro businesses are often excluded from research on strategic management. Many researchers believe that micro businesses are too small to engage in strategic planning and therefore lack the necessary capabilities, such as dynamic capabilities, to do so. MSMEs can greatly benefit from possessing dynamic skills, as they enable organizations to effectively respond to the challenges posed by a competitive and ever-changing business environment, leading to growth, innovation, and long-term success (Putritamara et al., 2023). The following abilities are critical for effectively managing the challenging circumstances, fostering innovation, and adjusting to market fluctuations in emerging nations like Indonesia. Organizations with robust dynamic capabilities can develop and implement strategies that not only ensure immediate success but also create a solid foundation for long-term stability (Susiang, 2024).

Based on the discussion above, in this study, the authors aim to examine the effect of dynamic capabilities towards business performance of Indonesian MSMEs. In addition, as most literature mostly considered dynamic capabilities as a unidimensional construct, often disregarding the individual influence of each dimension and the potential counteracting effects of each sub-dimension (Hernández-Linares et al., 2020; Pavlou & Sawy, 2011), this study will also seek to examine each construct component of dynamic capabilities' effects towards business performance of MSMEs to further scrutinize which component of dynamic capabilities are most needed for MSMEs and whether all of the dynamic capabilities components are equally important for MSMEs or not. Moreover, this research also investigates the moderating influence of firm scale on the impact of dynamic capabilities on MSMEs' business performance, with the aim of determining whether business practitioners should develop distinct strategic plans for micro businesses as opposed to SMEs. Therefore, this study provides empirical findings of the exploration of the multidimensional nature of dynamic capabilities and its effect on MSMEs' business performance, as well as differentiated strategic perspectives for MSMEs' based on their firm scale. The next sections of the paper are followed by literature review, hypotheses developments, research method, results, discussions, and conclusion.

LITERATURE REVIEW

Dynamic capabilities

The dynamic capabilities perspective is rooted in Schumpeter's (1934) concept of innovation-driven competition, which posits that competitive advantage stems from the creative destruction of existing resources and the formation of new operational capabilities through innovative recombination (Pavlou & Sawy, 2011). There are two main streams of dynamic capabilities by Teece and Pisano (1994) and Eisenhardt and Martin (2000), while the construct of dynamic capabilities was founded by Teece in the 1990s, Eisenhardt has one of the largest seminal contribution to the concept of DC (Peteraf et al., 2013). Teece (2017) asserts that

dynamic capabilities, which are supported by organizational routines and management skills, refer to a company's capacity to combine, establish, and transform its internal competencies in response to, or in certain situations, initiate changes in the business environment. Teece (2017) posited that dynamic capabilities are contingent on the design and operation of business models, which in turn depend on a firm's capabilities. The development, improvement, and execution of business models are outcomes of advanced dynamic capabilities, referred to as sensing, seizing, and transforming capabilities. The highest order capabilities are those that top management should concentrate on, as they lead to sustainable competitive advantage.

On the other hand, according to Eisenhardt and Martin (2000), dynamic capabilities are characterized by the organizational and strategic routines through which companies acquire new configurations of resources to adapt to the emergence, collision, division, evolution, and demise of markets (Dejardin et al., 2022). They challenged that dynamic capabilities' quest for firms' sustainable competitive advantage as the concept of being dynamic means to adapt and change in the unpredictable and rapid environmental changes that we are facing today (Pavlou & Sawy, 2011; Peteraf et al., 2013). Eisenhardt and Martin (2000) posit that dynamic capabilities involve strategic and organizational processes such as product development, alliances, and strategic decision-making that generate value in dynamic markets. They can enhance existing resource configurations for long-term competitive advantage, which is based on RBV's leverage logic, however, they are more frequently build new resource configurations for temporary advantage, which is based on the logic of opportunity.

Overall, based on the two main big streams of dynamic capabilities, there are common existing features among effective dynamic capabilities, however, this does not imply that any particular dynamic capability is exactly alike across firms (Peteraf et al., 2013). This study uses the concept of 'dynamic capabilities' that "refers to the ability of a firm to integrate, develop, and reconfigure its internal and external competencies to respond effectively to fast changing environments" (Abu-Rumman et al., 2021). The pursuit of dynamic capabilities to be developed in a business / organization is to ensure they are able to compete within the ever- and rapid-changing environment, by which they must be proactively identify and respond to opportunities and threats arisen, as well as adapt their routines to capture value and obtain competitive advantage.

Dimensions of Dynamic Capabilities

Dynamic capabilities are a multidimensional construct and in this study, the researchers adopt the proposed dimensions of dynamic capabilities by Pavlou and Sawy (2011): sensing capability, learning capability, integrating capability, and coordinating capability. Sensing capability is defined as "the ability to spot, interpret, and pursue opportunities in the environment" (Hernández-Linares et al., 2020; Pavlou & Sawy, 2011). Sensing capability compels firms to gather the latest market data, adapt to diverse market conditions, and align internal resources with external demands. Accessing current market information, understanding customer preferences, service procedures, and customer insights are essential for innovation and are strategically crucial for sensing (Priyono & Hidayat, 2022).

Learning capability is defined as the ability to revamp existing operational capabilities with new knowledge (Pavlou & Sawy, 2011). Once firms recognize potential environmental changes, the next step is determining how to address them and capture arising opportunities. This stage is the learning stage, it involves transforming the insights gained during the seizing phase into concrete actions, while also accounting for the risks associated with incomplete information from the earlier stage (Priyono & Hidayat, 2022; Teece, 2007). Learning enables new production opportunities to be identified as well as tasks to be performed better, more quickly, and more efficiently (Teece et al., 1997).

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The last two capabilities of dynamic capabilities are integrating and coordinating capabilities. Integration endeavors to promote a comprehensive, common understanding and sense-making, whereas coordination focuses on harmonizing individual tasks and activities (Pavlou & Sawy, 2011). The main difference between integrating and coordinating capabilities is that coordination is the one focusing to facilitate the reconfiguration of operational capabilities which has been done in the integration stage. In Pavlou and Sawy (2011), integration and coordinating capabilities are recognized as different capabilities. Pavlou and Sawy (2011) adopted dynamic capabilities from Galunic and

Eisenhardt (2001) by which integration and coordination capabilities are separated in larger-scaled firms. However, this study combines integration and coordination capabilities as stated by Teece et al. (1997). The primary focus of this research is the MSME sector, which typically possesses more limited resources than larger firms. As a result, MSMEs must be highly adept at allocating job responsibilities to their personnel. This necessitates the efficient integration and coordination of various tasks.

Business Performance

The significance of business performance management is plainly visible in the numerous recommendations presented for enhancing performance by previous studies. The extensive research on firm restructuring and organizational change highlights the interest in organizational / firm / business performance, adjustment, and durability (Venkatraman & Ramanujam, 1986). The subject of MSME performance has been extensively studied, yet there is no consensus on how it should be measured due to the informality that is a major challenge for MSMEs (Shah & Ahmad, 2019). Typically, performance is assessed based on the perception of the owners regarding improvements in sales figures, profitability levels, growth in assets, and expansion of the customer base, among other factors (Abu-Rumman et al., 2021).

Based on the literature by Smith and Reece (1999), "business performance is defined as the operational ability to satisfy the desires of the company's major shareholders, and it must be assessed to measure the organization's achievements". According to Venkatraman and Ramanujam (1986), The strategic management perspective of a firm is reflected in its business performance, and it is an integral part of the broader concept of organizational effectiveness. Hansen and Wernerfelt (1989) stated that In the field of business performance, the existing literature and research can be divided into two primary schools of thought: the first, rooted in the economic tradition, highlights the significance of external market factors in determining firms' success; the second, grounded in the behavioral and sociological paradigm, posits that internal organizational factors and their compatibility with the environment are the primary determinants of success. There are numerous approaches to evaluating a company's business performance, as this performance is multifaceted and depends on the specific subject matter under consideration (Udriyah et al., 2019), namely business performance is both financial and non-financial performance. According to Venkatraman and Ramanujam (1986), financial performance is assumed to reflect the achievement of the company's economic goals, examined by indicators such as sales growth, profitability (reflected by ratios such as return on investment, return on sales, and return on equity), earnings per share, and so on. Whereas, operational performance, or also known as non-financial performance, can be measured by market share, new product introductions, product quality, marketing effectiveness, manufacturing value added, and other measures of technological efficiency in the business performance domain.

Hypotheses Development

Dynamic Capabilities and Business Performance

Based on the literatures of dynamic capabilities discussed above, dynamic capabilities should have a big impact on business performance by altering the bundle of resources, operational procedures, and competencies, which in turn, influence the firm's financial outcomes. This helps smaller-scaled businesses to be able to choose the correct strategies to focus on, that show which core competencies must be developed internally while other competencies can be obtained from the outside (Rodrigues et al., 2021). To better understand the multidimensional nature of dynamic capabilities and its impact on performance while emphasizing the importance of utilizing these capabilities effectively to gain a competitive edge and achieve superior results (Hernández-Linares et al., 2020).

Previous studies have found dynamic capabilities to be significantly affecting SMEs' performance (Abu-Rumman et al., 2021), however this previous study acknowledged dynamic capabilities as a unidimensional variable. They found that SMEs must be capable of recognizing and responding to changing situations and challenges that arise in a volatile environment. This requires them to be flexible and adaptable in their approach, as well as to be able to capture value in order to maintain a competitive edge. A recent study by Dejardin et al. (2022) found from 209 SMEs in Portugal during the Covid 19 in 2020 that dynamic capabilities have significant influence on business performance, whereby sensing, conceptualizing (similar to learning capability),), coproducing and orchestrating (similar to integrating and coordinating capabilities), and scaling and stretching capabilities each have significant effect on performance. Whereas other studies (Rokhanawati et al., 2024; Simanjuntak & Pasaribu, 2023) found otherwise, dynamic capabilities as a unidimensional variable does not have significant direct effect towards business performance. This poses a research gap. Therefore, this study examines the effect of each dimension of dynamic capabilities towards MSME's business performance.

Upon further examination of each dimension of the dynamic capabilities, sensing capability emerges as a crucial factor in enhancing the business performance of Micro, Small, and Medium Enterprises (MSMEs) by enabling them to identify and respond to market changes and opportunities effectively. A study by (Wong & Ngai, 2023) highlights that MSMEs with strong sensing capabilities are better positioned to integrate innovation and market intelligence into their operations, which drives competitiveness and performance. Specifically, a study by Anom and Safii (2022) found that sensing capability enables MSMEs to anticipate market demands and trends, thereby facilitating the development of products with comparative advantages, particularly in industries such as ethnic product development where market distinctiveness is crucial. In addition, in an emerging market, a firm's ability to sense market trends enables businesses to perform exploratory and exploit innovation activities , which subsequently impact its overall performance (Ngo et al., 2019).

Learning capability constitutes a critical determinant in the business performance of Micro, Small, and Medium Enterprises (MSMEs). Learning is a strategic capability that is challenging for competitors to replicate; a high learning capability contributes to superior business performance (Hernández-Linares et al., 2020). This capability facilitates these enterprises' adaptation to environmental changes, innovation processes, and operational improvements within a dynamic market environment. Research by Santoso et al. (2024) indicates that learning orientation, which is similar to learning capability that focuses on acquiring and using new knowledge for business operations, in the long run enhances MSME performance. Additionally, learning capability helps MSMEs navigate market dynamism, allowing them to replace outdated business models and respond to market fluctuations effectively (Wójcik-Karpacz et al., 2023). Consequently, cultivating a robust learning capability is imperative for MSMEs to maintain competitive advantage and achieve sustained business growth.

The integrating and coordinating capabilities are fundamental for enhancing the business performance of MSMEs by facilitating effective resource management and operational optimization across diverse functional areas. The value generated by integrating and coordinating capabilities is unique and supposedly cannot be replicated in the market (Teece, 2007); consequently, this integration leads to enhanced business performance as it provides a competitive advantage for firms. A research by Liestyana et al. (2024) indicates that Integrating capabilities, such as collaboration and coordination with suppliers and customers directly enhances operational performance, agility, responsiveness, and overall efficiency, thereby improving business outcomes. Another study also found that integrating and coordinating which are parts of dynamic capabilities are effective in increasing market performance (Cahyaningati et al., 2023), which is a part of business performance. In summary, integrating and coordinating capabilities are pivotal for MSMEs to maintain competitiveness and overall business performance.

Therefore, the hypotheses proposed in this study are as follows:

H1: Sensing capability will significantly affect MSMEs' business performance.

H2: Learning capability will significantly affect MSMEs' business performance.

H3: Integrating and coordinating capabilities will significantly affect MSMEs' business performance.

The Moderating Role of Firm Scale

According to Dejardin et al. (2022), market instability varies that affects the significance of dynamic capabilities according to specific instabilities in correspondence of firm sizes. Therefore, researchers should investigate behaviors that assist MSMEs in addressing diverse challenges and improving performance relative to the difference in firm scale. Using the perspective of RBT, the bigger the scale of the firm, the stronger the effect of dynamic capabilities to help improve business performance.

Larger organizations typically possess greater resource availability, including financial, human, and technological assets, compared to their smaller counterparts. This enhanced resource base enables them to allocate more substantial investments towards the development and implementation of dynamic capabilities, such as advanced technological infrastructure or complex organizational processes, to utilize these resources more efficiently. Conversely, smaller enterprises tend to exhibit higher levels of agility and flexibility relative to larger organizations with more intricate organizational structures when making strategic decisions. This characteristic allows them to swiftly implement changes and adapt to market fluctuations, rendering dynamic capabilities more impactful in driving performance enhancements. Nevertheless, smaller firms may lack the extensive resources that large organizations possess, potentially limiting the full potential of their dynamic capabilities. In conclusion, firm scale moderates the relationship between dynamic capabilities and business performance by influencing the efficacy with which an organization can deploy these capabilities.

Therefore, another set of hypotheses are proposed as follows and the research model is presented in Figure 1:

H4a:Firm scale significantly moderates the relationship between sensing capability towards MSMEs' business performance.

H4b: Firm scale significantly moderates the relationship between learning capability towards MSMEs' business performance.

H4c: Firm scale significantly moderates the relationship between integrating and coordinating capabilities towards MSMEs' business performance.

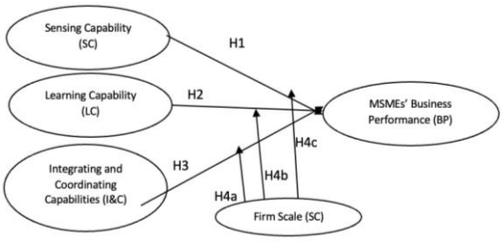

Figure 1. Research Model

METHODS

This research is classified as quantitative research, which utilizes a questionnaire for data collection. According to (Sekaran & Bougie, 2016), the quantitative data analysis method is a process of examining and analyzing numerical data from a representative sample, the resulting data then provides an explanation for a phenomenon to answer research questions. The questionnaire was distributed to respondents using a Google Form to ensure easy access and convenience for the respondents. To ensure relevant responses, the respondents for this research are required to currently own an MSME or be actively employed in an MSME at the time of their participation to ensure the relevance of their responses.

The questionnaire consists of questions covering three key variables namely sensing capability, learning capability, and integrating and coordinating capabilities. Each question item was adapted from (Hernández-Linares et al., 2020), (Giantaria et al., 2022), and (Dinas Koperasi Bojonegoro, 2024) to ensure the accuracy and relevance of the variables being measured. For the measures of firm scale, this study refers to Dinas Koperasi Bojonegoro (2024), micro enterprises are defined as productive businesses owned by individuals or sole proprietorships that meet the criteria defined by law, with a maximum asset value of Rp50,000,000.00 and a maximum annual turnover of Rp300,000,000.00. Moreover, small enterprises are defined as independent, productive economic ventures owned by individuals or entities that are not subsidiaries or branches of medium or large businesses, with assets ranging from more than Rp50,000,000.00 to Rp500,000,000.00, and an annual turnover between Rp300,000,000.00 and Rp2,500,000,000.00. Meanwhile, medium Enterprises, which are also independent, have assets between Rp500,000,000.00 and Rp10,000,000,000.00, with annual turnover ranging from Rp2,500,000,000.00 to Rp50,000,000,000. These criteria ensure that this research targets the exact participants, aligning with the research objectives. The items of each variable are presented in Table 1.

The population of this study comprises owners, successors, managers, or employees of MSMEs in Indonesia across various industries. This demographic was selected due to the researchers' focus on business studies, with a particular emphasis on MSME operations. This investigation employed purposive sampling techniques, a non-probability sampling method wherein data is collected from specific individuals or groups based on deliberate and logical selection criteria relevant to the study (Sekaran & Bougie, 2016). This approach enables the researcher to focus on individuals or groups that best align with the study's objectives. Furthermore, this research utilizes the G-Power method to determine the minimum sample size. G-power has several factors, such as effect size and power. The smaller the effect size, the higher the sample size required. While power can reduce type II errors, a good number range for power is 0.8-0.9. In this research, we used an effect size of 0.2 and a power of 0.85, the result is that our minimum sample size is 48. From the total of 67 populations collected, the researchers used 51 samples for the final data because some data had to be removed because they had a high standard deviation. The result of the GPower is shown in Figure 2.

From the distributed questionnaire, the authors successfully gathered responses from 67 participants. However, the final data used for analysis consisted of 51 respondents. Next, statistical analysis was conducted using SmartPLS 3 as a computer program to analyze the relationship between the latent variables. PLS was chosen because it effectively handles the analysis of these variable relationships and is suited for analyzing data with small sample sizes. Demography of the respondents were analyzed using Microsoft Excel, whereas the validity and reliability of the outer model, as well as the inner model were analyzed using PLS.

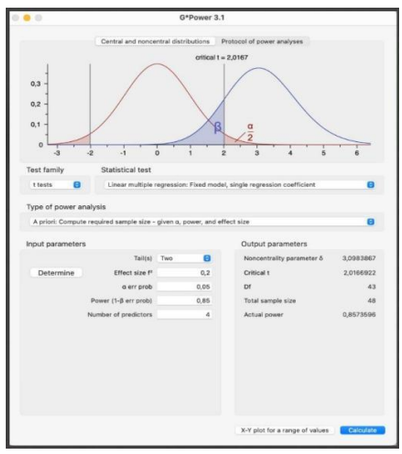

Figure 2. G-power Result

Table 1. Variable Questionnaire Items

Variables	Items	Source
Sensing Capability	We frequently scan the environment to identify new business opportunities.	(Hernández-Linares et al., 2020)
	We periodically review the likely effect of changes in our business environment on customers.	
	We often review our product development efforts to ensure they are in line with what the customers want.	
	We devote a lot of time implementing ideas for new products.	
	We devote a lot of time implementing ideas for improving our existing products.	
Learning Capability	We have effective routines to identify new information and knowledge.	
	We have effective routines to value new information and knowledge.	
	We have effective routines to import new information and knowledge.	
	We have adequate routines to assimilate new information and knowledge.	
	We are effective in transforming existing information into new knowledge.	
	We are effective in utilizing knowledge into new products.	
	We are effective in developing new knowledge that has the potential to influence product development.	
Integrating and Coor-dinating Capability	We are forthcoming in contributing our individual input to the group.	
	We have a global understanding of each other's tasks and responsibilities	
	We are fully aware who in the group has specialized skills relevant to our work	
	We are fully aware who in the group has specialized knowledge relevant to our work	
	We carefully interrelate our actions to each other to meet changing conditions	
	Group members manage to successfully interconnect their activities.	
	We ensure that the output of our work is synchronized with the work of others.	
	We ensure an appropriate allocation of resources (e.g., information, time, reports) within our group.	
	Group members are assigned to tasks commensurate with their task-relevant knowledge and skills.	
	We ensure that there is compatibility between group members expertise.	
	We ensure that there is compatibility between work processes.	
	Overall, our group is well coordinated.	
Business Performance	Our business experienced an increase in sales	(Giantaria et al., 2022)
	Our business experienced an increase in business transactions	
	Our business experienced an increase in profit	
	Our business experienced an increase in customer satisfaction	
	Our business experienced an increase in customer loyalty	
	Our business experienced an increase in brand equity	

Firm Scale	Our company's annual revenue is below Rp 300 million	(Dinas Koperasi Bojonegoro, 2024)
	Our company's annual revenue is between Rp 300 million and Rp 2.5 billion	
	Our company's annual revenue is between Rp 2.5 billion and Rp 50 billion	

RESULT AND DISCUSSION

Respondents' Profile

This research relies on primary data originating from a questionnaire distributed by researchers. The data that was successfully collected consisted of 67 responses. However, necessary due to deviations from the normal distribution, as indicated by normality tests. Following this data refinement process, the final useable dataset comprised 51 responses for analysis.

Based on the data in the table, the majority of respondents are business owners, representing 52.94% of the total sample. Most of the companies are well-established, with over 54.90% having been in operation for more than five years. The industries are diverse, with the top three being Accommodation and Food and Beverage Provision (19.61%), Wholesale and Retail Trade (17.65%), and Arts, Entertainment, and Recreation (11.76%). In terms of scale, the companies are well-distributed within the MSME sector, with annual revenues ranging from below Rp 300 million to up to Rp 50 billion.

Table 2. Descriptive Statistics (51 Respondents)

Items		**Amount**	**Percentage**
Position	Owner	27	52.94%
	Manager	7	13.73%
	Employee	15	29.41%
	Successor	2	3.92%
Establishment	< 1 year	5	9.80%
	1 - 3 years	13	25.49%
	3 - 5 years	5	9.80%
	> 5 year	28	54.90%
Industry	Agriculture, Forestry, and Fisheries	1	1.96%
	Manufacturing Industry	3	5.88%
	Electricity, Gas, Steam/Hot Water, and Cold Air Supply	1	1.96%
	Construction	2	3.92%
	Wholesale and Retail Trade; Repair and Maintenance of Motor Vehicles and Motorcycles	9	17.65%
	Transportation and Warehousing	1	1.96%
	Accommodation and Food and Beverage Provision	10	19.61%
	Information and Communication	2	3.92%
	Financial and Insurance Activities	2	3.92%
	Real Estate	3	5.88%
	Education	3	5.88%
	Arts, Entertainment, and Recreation	6	11.76%
	Other Service Activities	5	9.80%
	Household Activities as Employers; Goods and Services Production Activities by Households for Their Own Use	3	5.88%

Scale	Annual revenue below Rp 300 million per year	21	41.18%
	Annual revenue Rp 300 million - Rp 2.5 billion per year	16	31.37%
	Annual revenue Rp 2.5 billion - 50 billion per year	14	27.45%

Measurement Model Validity and Reliability

Internal consistency is used to assess reliability, taking into consideration the relationships between the observed items' variables, and it is typically assessed using composite reliability metrics. These metrics must be larger than 0.70 but less than 0.95, as noted by Hair et al. (2019). In addition to internal consistency, the percentage of indicator fluctuation that can be explained by the latent variable is referred to as indicator reliability. The outer loading value for this should be higher than 0.70. However, if composite reliability and AVE (Average Variance Extracted) are to improve, indicators with outside loadings ranging from 0.40 to 0.70 must be removed. Furthermore, convergent validity, which assesses the degree of agreement between associated indicators of the same construct, is determined by the AVE. To achieve convergent validity, the AVE value must be more than 0.5.

The result shows that all indicators (outer loading) exceed 0.7, indicating that all indicators are suitable to be used in this research and can proceed to the next test. As it is shown on the AVE column, all of the variables have reached the minimum acceptable AVE value of 0.5. This means all variables used in this research are valid. In the last column, show the results of the reliability test that would be used to determine internal consistency. Composite reliability values for each variable exceed 0.7 but are less than 0.95. This shows that all of the variables utilized are reliable.

Table 3. Validity and Reliability Test Result

Variable	Item	Outer Loading	Average Variance Extracted (AVE)	Composite Reliability
Business Performance (BP)	BP 1	0.83	0.559	0.882
	BP 2	0.896		
	BP 3	0.761		
	BP4	0.714		
Learning Capability (LC)	LC 1	0.784	0.589	0.909
	LC 2	0.8		
	LC 3	0.725		
	LC 4	0.816		
	LC 5	0.763		
	LC 6	0.801		
Integrating and Coordinating Capability (I&C)	CDC 2	0.74	0.533	0.931
	CDC 3	0.733		
	CDC 4	0.722		
	CDC 5	0.77		
	CDC 6	0.754		
	IC 2	0.734		
	IC 3	0.806		
	IC 4	0.859		
	IC 5	0.787		
Sensing Capability (SC)	SC 2	0.755	0.532	0.849

Table 4. Fornell-Larcker Criterion

Variable	BP	FS	I&C	LC	SC
BP	0.748				
FS	0.2	1			
I&C	0.642	0.112	0.73		
LC	0.66	0.172	0.647	0.768	
SC	0.465	0.011	0.543	0.689	0.729

Fornell-Lacker Criterion table shows the results of the Fornell-Larcker Criterion. Based on the data presented above, the square root of AVE of the latent variable is greater than the correlation with other factors. These findings confirm that the variables used in this research are valid.

Table 5. Path Coefficients and Hypothesis Testing Results

Hypothesis	Path	Path Coefficients	T-Values	P-Values	Note
1	SC → BP	-0.037	0.186	0.853	Not Significant
2	LC → BP	0.382	1.811	0.071	Significant*
3	I&C → BP	0.394	2.853	0.005	Significant**
4	Firm Scale (Moderating Effect) → BP	0.09	0.85	0.396	Not Significant

*Significant at 10% of error

**Significant at 5% of error.

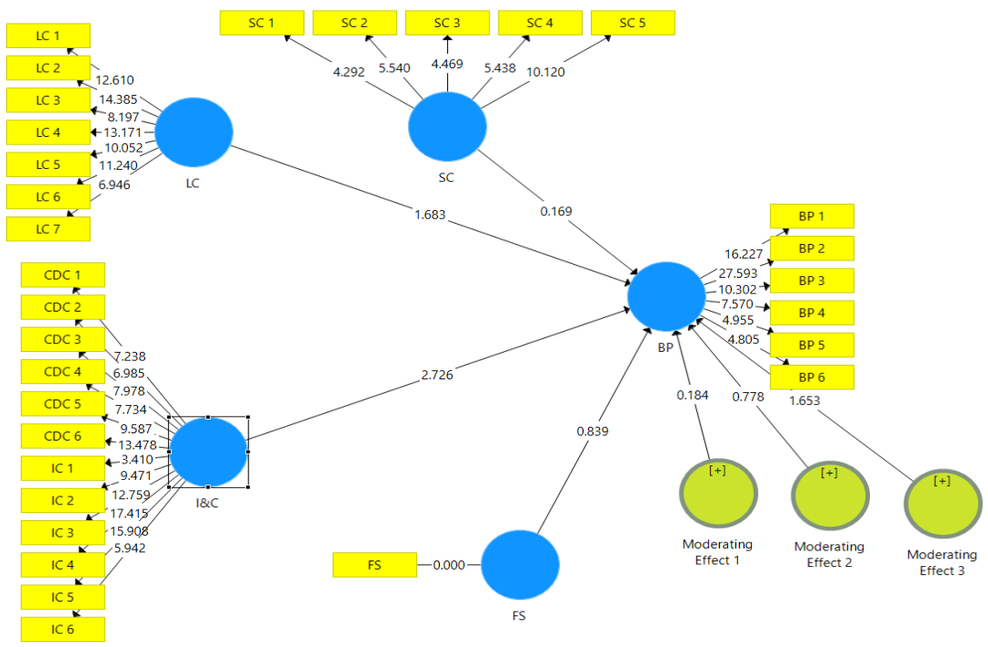

Figure 3. Bootstrapping Result

Based on Figure 3 and Table 5, the path coefficients and hypothesis testing results show that there are two accepted and two rejected hypotheses. The result of hypothesis 1 is not supported, where sensing Capability towards Business Performance has a path coefficient of -0.037, t-value 0.186, and p-value 0.853. Hypothesis 2 is supported, whereby Learning Capability towards Business Performance has a path coefficient of 0.382, t-value 1.811, and p-

value 0.071; indicates a significant effect at 10% error. Hypothesis 3 result shows that Integrating and Coordinating Capability towards Business Performance has a path coefficient of 0.394, t-value 2.853, and p-value less than 0.05; it indicates a significant effect at 5% error. Finally, hypothesis 4 is not supported, whereby the result shows that the moderating effect of Firm Scale towards Business Performance has a path coefficient of 0.09, t-value of 0.85, and p-value of 0.396.

Table 6. R-square and adjusted R-square

Variable	R-square	R-square adjusted
BP	0.563	0.492

The R-square value of Business Performance is 0.563; this indicates that Business Performance (56.3%) can be explained using the variables mentioned above, which are Firm Scale, Learning Capability, Integrating and Coordinating Capability, and Sensing Capability. While the other 43.7% might be explained by other factors that are not included in this study's research. From these results, it can be stated that the R-square values of Business Performance are moderate since the value of Business Performance exceeded 0.50. Moreover, the significant independent variables are able to affect (49.2%) Business Performance.

Table 7. Effect Size (F-square)

Variable	BP
BP	
FS	0.018
I&C	0.196
LC	0.085
SC	0.001

The table indicates that the effect between Firm Scale and Business Performance is no effect (0.018), the effect between Integrating and Capability and Business Performance is medium effect (0.196), the effect between Learning Capability and Business Performance is small effect (0.085), and the effect between Sensing Capability and Business Performance is no effect (0.001).

The table indicates that the effect between Firm Scale and Business Performance is no effect (0.018), the effect between Integrating and Capability and Business Performance is medium effect (0.196), the effect between Learning Capability and Business Performance is small effect (0.085), and the effect between Sensing Capability and Business Performance is no effect (0.001).

Table 8. Predictive Relevance Test Result (Q^2)

	SSO	SSE	Q^2 (=1-SSE/SSO)
BP	306,000	224,198	0.267
FS	51,000	51,000	
I&C	612,000	612,000	
LC	357,000	357,000	
SC	255,000	255,000	

The results will only appear for each endogenous variable. Based on the results in the table, it shows that Business Performance has (Q^2) 0.267, meaning that the research model has a sufficient and a medium predictive relevance for predicting Business Performance.

Sensing Capability in Indonesian MSMEs' Business Performance

Sensing Capability towards Business Performance is indicated to have a not significant effect in the context of Indonesian MSMEs. This result can be explained by several factors. First, the scale category of MSMEs in Indonesia is not the same as the other countries, which in Indonesia's case the MSMEs are considered smaller, especially compared to developed countries. In Indonesia, MSMEs exist solely to seek profits to meet their daily needs and do not have the necessary resources to think about sustainable business development. The lack of human resources ability to accurately identify trends and markets in Indonesia makes it even worse. An increased level of informativeness plays an important role in increasing the level of difficulty in analyzing long-term trends and patterns entering Indonesia. Most MSMEs still have difficulty distinguishing between long-term trends and fad trends. Moreover, Too much information can cause stress and mental fatigue which may result in less than ideal decisions as proposed by Meyer (1998). Furthermore, without the proper method or tools to filter and analyze information, MSMEs face difficulties in distinguishing between long-lasting trends and

short-lived fads due to information overload, particularly in fast-paced technological and market environments (Eppler & Mengis, 2019; Kovacs et al., 2023), MSMEs are more susceptible to following trends that may not fit their business model well.

Particularly in the food and beverage industry, cafes are a big and widespread trend, but it is not uncommon for those who run cafe businesses to experience losses. This is because there are still many of them who have not been able to scan the environment in depth and detail to explore opportunities in the cafe business; besides that, they also do not devote much time to exploring new ideas and innovations to develop their products and services (Sulistyo, 2020). MSME managers and owners may find it challenging to prioritize when bombarded with vast amounts of market information, leading to less effective decisions. With an abundance of data coming from social media and digital sources, MSMEs often struggle to identify trends that will provide long-term value. This can lead to strategic missteps, where businesses invest in trends that quickly fade, resulting in financial losses and operational disruptions (Simanjuntak & Pasaribu, 2023; Sugiyarti & Ardyan, 2017). This issue is more pronounced for MSMEs, which may lack dedicated resources for trend analysis and data forecasting. Therefore, this research concluded that sensing capability in Indonesian MSMEs does not have much influence towards the company's dynamic capabilities, particularly on a micro and small MSME scale. This research supports the research result by Wijaya et al. (2022). Sensing capability is still very lacking among our respondents, most of whom are micro MSMEs, in contrast to the reality in large companies, which always develop dynamic capabilities that affect their business performance (Susanto & Hasan, 2021).

Furthermore, most of the MSME respondents have been established for 3-5 years, which means they are companies that has just started right before the Covid-19 pandemic hits. With the inevitable negative impacts of the Covid-19 pandemic to the global economic and supply chain, MSMEs have been struggling to survive (Sharma & Rai, 2023). Working capital is one of their challenges to be able to actualize the sensed trend changes in the market, thus making it difficult and/or they have to set aside the sensing part to focus on obtaining financial stability to survive. Overall, this finding adds another perspective to the dynamic capabilities theory that sensing capabilities does not have a significant impact in Indonesian MSMEs as they have constraints to properly implement it.

Learning Capability in Indonesian MSMEs' Business Performance

Learning Capability towards Business Performance is indicated to have a significant effect at an error rate of 10%. This is because MSMEs in Indonesia have limited human resources. Many MSMEs do not yet have structured departments or task divisions, therefore the limited employees are required to perform a variety of roles within the business to be able to operate the business. With human resources being forced to be able to do many things, automatically their learning abilities will play an important role in their skill development, which will later influence Business Performance (Sari & Sari, 2022). Even so, the significant 10% error rate can be based on the financial capabilities of most MSMEs not being strong enough to facilitate resources for learning and experimenting. Different from large companies, which can provide sufficient human resources to do these things (Budiharseno, 2017).

In this context, an example can be taken from the food and beverage industry. MSMEs often struggle to enhance the skills of their employees (e.g., cooks or production staff) due to financial constraints that prevent hiring professional trainers (Kurniawati, 2018). Without these learning opportunities, employees are less able to innovate new products or improve their skills, which can directly affect business performance (Soeprapto & Arifin, 2021). This becomes an urgent problem especially when the MSMEs are trying to meet market demands for innovative products or when scaling the business. Therefore, the error rate can be attributed to the insufficient learning capacity of employees, which hinders the ability of MSMEs to compete with larger firms that have better-trained, specialized human resources (Tambunan, 2019).

On the other hand, some MSMEs, especially in the retail industry, have successfully used learning capabilities to enhance business performance. Several new retail businesses in particular are more adaptable and open to technology (Setiawan, 2020). They are adapting more by utilizing technology for digitalization to improve business efficiency, prevent human error, and ultimately meet consumer demands more effectively (Purwana et al., 2017). The positive impact of learning in these businesses further supports the idea that learning capability is a significant factor in improving business performance (Kusuma, 2021).

In the creative industry case, learning capability influences business performance can be seen in the rapid adaptation of digital tools and creative software by MSMEs. Many small creative agencies, such as design studios, advertising firms, or small content creators, often face limitations in human resources and financial capabilities. This would limit their ability to invest in continuous learning. However, their ability to continuously adapt to new digital trends and improve their skills can significantly increase their competitiveness and business performance. This

would help them enhance their competitiveness in the fast-changing market. (Junaidi & Anggraeni, 2020; Widodo & Mulyadi, 2018).

This research contributes to dynamic capability theory by showing how learning ability helps MSMEs to notice, take advantage of, and adjust their resources in response to evolving market conditions. Dynamic capability theory says that businesses need to continuously adapt and adjust their resources to stay competitive. For MSMEs, having strong learning abilities helps them sense new opportunities, like new technologies or trends, take action by improving their products or processes, and change their operations to stay competitive. As a result, MSMEs with good learning skills are better able to handle change and improve their business performance, which supports the dynamic capability theory (Ambrosini & Bowman, 2009; Teece, 2007).

Integrating and Coordinating Capabilities in Indonesia MSMEs' Business Performance

The ability to Integrate and Coordinate shows a significant influence on Business Performance. This happens because many MSMEs can integrate and coordinate each of their operational activities efficiently. These capabilities ensure that different functional areas in the business activities (particularly the operational area) are aligned, ultimately leading to more efficient internal processes (Behl et al., 2022). Coordination in business operations usually includes people who sell, people who produce, and people who distribute services or products (Cheng, Fan, & Dagestani, 2023). By streamlining these operational areas, MSMEs can achieve higher operational efficiency. The ability to integrate and coordinate these functions internally can determine their capacity to adapt and thrive in the competitive market. When MSMEs successfully implement these capabilities efficiently, it can encourage their business performance to increase. (Zhou & Benton, 2007). Essential actions to achieve effective integration and coordination include clear understanding and delegation of each individual responsibility, the abilities of the businesses internally to ensure optimal resource allocation, compatibility between the businesses internally or in work processes, and collaborative initiative actions to address dynamic changes (Tomaskova et al., 2021).

For instance, in the food and beverage industry, businesses with well-organized coordination within their team can deliver better customer service. This efficiency not only affects higher customer satisfaction but also leads to an increase in overall business performance (Chavez et al., 2017). On the other hand, if a business has poor coordination, the customer service will be hampered and can potentially cause a diminished market reputation. Therefore, integrating and coordinating capabilities can be considered important for business performance. Moreover, the retail industry also has a similar experience. The integration across inventory management, sales, and customer service will promote smooth operations (Setyoko & Ranjani, 2023). These will encourage good team dynamics, leading to improved sales efficiency, higher customer retention rates, and an increase in business performance (Costa, 2022).

With the indication of a significant effect of integrating and coordinating on business performance, it shows that the company's ability to integrate and coordinate contributes to the dynamic capability theory which is considered capable of providing a competitive advantage for the company in facing market uncertainty and dynamics (Tang & Tang, 2012). This study contributes to dynamic capability theory by emphasizing the role of integration and coordination as vital functions for achieving competitive advantage. It highlights how these capabilities enable MSMEs to navigate market uncertainties and to easily adapt to dynamic conditions of the market effectively (Guo et al., 2020).

The Moderating Role of Firm Scale in Indonesian MSMEs' Business Performance

The impact of Firm Scale on Business Performance indicates a not significant effect. This primarily happens because most respondents fall under the micro and small MSME categories. This finding also suggests that there are no specific differences between micro, small and medium sized businesses in Indonesia. Businesses in this category are often more focused on their business survival rather than pursuing significant business growth or development. In this context, survival involves managing profits to cover basic living needs rather than reinvesting for business expansion.

The lack of development in this category of MSMEs can be attributed to two key factors. Firstly, many business owners lack the necessary knowledge or skills to scale their operations effectively (Sari & Sari, 2022). This includes the ability to utilize their business' resources and capabilities to improve their skills and performance. Second, some owners are satisfied with their current profits and lack the desire or entrepreneurial mindset and ambition for their business's further growth (Tambunan, 2019). The entrepreneurial mindset has primarily concentrated on the cognitive processes that hinder adaptive thinking when navigating dynamic and uncertain environments (Mitchell et al., 2000). In contrast, large firms often demonstrate this mindset by taking this advantage

to leverage their firm size and capabilities to enhance their business performance (Storey, 1994). Whereas, most MSMEs are still struggling to utilize their firm scale to encourage development. Therefore, the influence of firm scale on business performance in our research indicates an insignificant effect, primarily due to the lack of ability of MSMEs to utilize their business scale and capabilities effectively.

CONCLUSION AND RECOMMENDATION

This research found that not all dimensions of dynamic capabilities have significant effect on Indonesian MSMEs' business performance, whereby only learning capability as well as integrating and coordinating capabilities have significant effect. Indonesian MSMEs' mostly exist for the sole purpose of the owners' source of income to fulfill their needs and have limited resources. Their limited human resources lead to not enough resources to focus on developing certain capabilities, such as sensing capability, which in this era of social media bombards them with various information. The inability to distinguish between long-term and short-term trends led to inaccurate decision-making and forecasting. On the other hand, operational activities that lead to the survival of the business are the MSMEs' main focus, which lead them to develop learning, integrating and coordinating capabilities, and in turn help increase their business performance as they become more effective and efficient in their operations. This research also found that there is no significant moderating effect of firm scale on the effect of dynamic capabilities towards business performance. Therefore, MSMEs' owners are recommended to develop learning, integrating and coordinating capabilities to increase their business performance, then focus on growing their business scale.

This research has several limitations, such as small sample size was reached due to limited time of the research. Thus, there are several recommendations for future research. First, bigger sample size will allow for confirmation and better generalizability. Second, focusing on specific industries might lead to more specific insights on the development of dynamic capabilities for Indonesian MSMEs. Finally, there is opportunity to conduct longitudinal research to find more insight on MSMEs developing dynamic capabilities for their business survival.

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