### Asian Economic and Financial Review

ISSN(e): 2222-6737 ISSN(p): 2305-2147 DOI: 10.55493/5002.v14i8.5148

Vol. 14. No. 8, 563-579.

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URL: www.aessweb.com

# Innovation capability as a survival strategy for MSMEs during the economic recovery from the COVID-19 pandemic

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### **ABSTRACT**

### **Article History**

Received: 28 August 2023 Revised: 6 June 2024 Accepted: 27 June 2024 Published: 8 August 2024

### **Keywords**

Ambidexterity Balanced scorecard Innovation capability Organizational learning Recovery from the COVID-19 pandemic.

### **JEL Classification:**

G18; L25; O3.

This study aims to analyze the effect of organizational learning on organizational performance and innovation ability's moderating variables on the effect of organizational learning on organizational performance. A quantitative approach is used that focuses on hypothesis testing and measurable data and produces generalizable conclusions. The analysis technique used is structural equation modeling (SEM). The contribution of this research is unique because it gives a more specific balanced score card design for micro, small and medium enterprise (MSME) performance to capture dimensions not revealed in existing studies. The results of this study show that organizational learning (exploitation, exploration and ambidexterity) has a positive effect on innovation capability, and vice versa. The theoretical implication of this research is that it offers a broad perspective on how MSMEs function in a pandemic and the tactics they use to overcome adversity and become resilient. Organizational learning and innovation are the two variable components in this study and are utilized as the main drivers of small and medium-sized enterprise (SME) performance. This research has implications for entrepreneurs, as SMEs can apply the findings to enhance their business performance.

Contribution/Originality: This study offers extra value from a non-financial standpoint since it uses a balanced score card to identify performance thoroughly. Furthermore, the government can help ideas surface soon after the outbreak of the COVID-19 pandemic.

# 1. INTRODUCTION

Since early 2020, Covid-19 has harmed almost all MSMEs in Indonesia, and many have gone bankrupt. However, during the Covid-19 economic recovery, measures such as economic growth and an increase in MSMEs' credit scores showed that there were still MSMEs that had survived the pandemic. Even though it is not expected, in the future, another force majeure will emerge that tests the sustainability of MSMEs in a more challenging way. Therefore, the question that needs to be answered immediately is how MSMEs survived the pandemic. Organizational performance as the most important indicator of organizational sustainability is, of course, a major

concern when answering this question based on a review of previous studies, such as Kundu and Gahlawat (2016) and Ferreira and Coelho (2020). Innovation capability has an important role in organizational performance.

Various approaches can be used to measure organizational performance, such as perceptual (surveys) or quantitative (financial reports). In the case of MSMEs' survival against this pandemic, comprehensive organizational performance measurement can provide a more complete picture. The balanced scorecard (BSC) is a performance measurement that utilizes four management perspectives: finance, customers, internal business, and learning and growth. The advantages of the BSC make performance measurement ideal, especially in understanding the survival of MSMEs during a pandemic.

The changes that occurred due to the Covid-19 pandemic resulted in a very fast response (Chi, 2021). The issue of the organizational learning process is the main aspect of this fact.

Organizational learning can be done in two ways, namely by exploration and exploitation (Chi, 2021). Exploitation is more related to getting benefits from known potential through exploration activities, while exploration is usually a process of searching for information as a whole by exploring new things. Both of them can be used as organizational learning techniques. Finally, the combination of exploration and exploitation is called ambidexterity. Ambidexterity is a balanced effort in managing the organization to achieve goals (Benitez, Castillo, Llorens, & Braojos, 2018; Tian, Dogbe, Pomegbe, Sarsah, & Otoo, 2021).

The Covid-19 pandemic requires MSMEs to adapt massively for the survival of their business. Under uncertain and limited conditions, this creates an opportunity for innovation. This effort is a solution to the vulnerability of MSMEs during a pandemic. The use of technology in MSMEs in supporting the production process is applied, for example, in recording financial reports (Hurtado-Palomino, De La Gala-Velásquez, & Ccorisapra-Quintana, 2022; Nakano & Wechsler, 2018). The influence of this technology is large, around 37% on the vulnerabilities of MSMEs.

This study aims to analyze the effect of organizational learning on organizational performance and the presence of innovation ability's moderating variables on the effect of organizational learning on organizational performance. This research closes the gap in the research and aims to offer a more comprehensive understanding of the resilience or survival process of MSMEs when faced with the storm pressure of the Covid-19 pandemic. In addition, this research aims to fill the gaps in previous literature regarding the antecedents of MSMEs' performance measured by the BSC. The changes in performance that occurred due to Covid-19 occurred drastically. Covid-19 resulted in widespread closure of access resulting in limited opportunities for both business and individuals. These problems make the assessment and identification of factors that result in changes in performance very interesting.

The Covid-19 pandemic forced many companies to close, people have lost their jobs, commodity prices have fallen, and people's purchasing power has decreased. In the midst of a pandemic and intense competition in the market, companies in Indonesia are also required to assist in increasing economic growth by maximizing innovation capabilities for managing existing resources. The main goal is to accelerate MSMEs' rise from adversity because they have control over the foundational structure of business in Indonesia, where the majority consists of small and medium businesses. Therefore, the government is seeking various ways to recover the economy from the economic downturn caused by the Covid-19 pandemic. One way to do this is by accelerating MSMEs through innovation capability as a survival strategy in the future. Innovation capability must include aspects of exploration and exploitation as a solid link to improving overall performance through improving the company's internal performance. This effort has tangible results that must be measurable through a performance appraisal as evidence of success in managing MSMEs efficiently and effectively, so that internal decision making can be carried out appropriately and in a timely manner. Performance is the achievement of the implementation of activities in realizing the vision, mission and goals of the organization, so performance appraisal is a fundamental process, especially in difficult times for companies, to rise from adversity.

In this context, it can be analogized that management's success in achieving its performance goals is largely determined by the approach or performance measurement itself, so the BSC is here to meet this need as a

comprehensive performance measurement by addressing the core issues faced by a company. The BSC answers the need for the achievement of financial performance to be supported by a strong backbone of the non-financial performance of vital business functions, namely customer aspects, internal business, growth, and learning. Through the BSC we can trace which non-financial aspects have strongest financial performance contribution and which aspects have the weakest contribution. Therefore, the BSC can be used to detect both crisis and normal situations. This is precisely where the advantage of the BSC lies in its contribution to dissecting innovation strategies with different findings in pandemics and economic recovery. This is supported by Sagala and Siagian (2021) who proved that the BSC leads an efficient and effective forward improvement strategy to help consistently align organizational goals with internal company parties. The results obtained using this method can assist management in making decisions to overcome problems that occur in the company. The results of this study revealed that the financial performance structure experienced a significant increase from the customer perspective which had increased in the pharmaceutical sub-sector before Covid in 2019 and during Covid in 2020. Meanwhile, the internal business and growth and learning perspectives experienced a decline. Management must design appropriate innovation capabilities to overcome the declining conditions in these two aspects to improve company performance in the future. Financial performance must focus primarily on managing production to achieve the desired profit from an internal business perspective by innovating more to create new products in line with consumer needs and on a growth and learning perspective on knowledge transfer and knowledge management. Berg, Madsen, Hvoslef, and Sund (2021) also found that the BSC can be a useful tool for measuring and managing sustainability performance in different situations. This can be done when a company is in a scenario of prosperity, maturity or decline. The BSC is used to describe these conditions and trace the sources of contribution to a company's financial performance. The study also provides insight into patterns of how a global management accounting innovation is adapted and received in local institutional contexts. Previous supporting research was also carried out by Amrina and Shiami (2021) in the green cosmetics industry and Brimelow, Amalathas, Beattie, Byrne, and Dissanayaka (2023) in mental health services also using the BSC to dissect overall performance in their respective companies.

Research is needed on the recovery period from the Covid-19 pandemic that can be used as survival strategies, such as testing the relationship between innovation capability and organizational performance. Innovation capability becomes a reinforcement of organizational learning in creating organizational performance. This study uses a quantitative approach to test hypotheses related to organizational learning (exploitation, exploration and ambidexterity) and innovation capabilities with organizational performance using BSC measurements. The contribution of this research is unique because it presents a more specific "BSC" design for MSME performance to capture dimensions that have not been revealed in existing studies. Thus, this research is useful in providing information to the government and policymakers in MSMEs related to organizational learning and innovation capabilities so that they can make the right decisions and implement effective policies to improve organizational performance as a survival strategy in the future.

Section 2 reviews the related literature and proposes hypotheses, Section 3 describes the construction of the sample and the research model as well as statistical testing, Sections 4 and 5 present the empirical strategies and the main results, and Section 6 concludes.

## 2. LITERATURE REVIEWS

The Covid-19 pandemic limited individual movement, and this had a broad impact on businesses, both large and small (Bai, Quayson, & Sarkis, 2021; Chi, 2021); before Covid-19, MSMEs could buy and sell freely, which was done directly. Bargaining and checking products before buying is commonplace in the market; however, the pandemic created uncertain operational constraints (Siuta-Tokarska, 2021) and this uncertainty resulted in performance fluctuations both financially and non-financially.

Solutions to improve the performance of MSMEs are urgently needed. One possible solution is to adapt to the surrounding environment quickly through organizational learning and developing new products and innovation capabilities (Hermundsdottir & Aspelund, 2022; Khurana, Haleem, Luthra, & Mannan, 2021; Mai, Do, & Phan, 2022). Organizational learning has a different concept exploratively and exploitatively. However, what is interesting is that the use of these two concepts in MSMEs offered balance and helped to reduce the vulnerability of MSMEs during the Covid-19 pandemic.

### 2.1. MSMEs and the Covid-19 Economic Recovery Period

The MSME sector contributes to the progress of a country's local economy through wealth creation, employment and poverty reduction (Rahman, AbdelFattah, Bag, & Gani, 2022). For decades, MSMEs have managed to survive various kinds of crises (Vanderstraeten, Hermans, Van Witteloostuijn, & Dejardin, 2020). However, the Covid-19 pandemic brought a new level of uncertainty and even more complex and unprecedented challenges to the growth and sustainability of MSMEs (Bartik et al., 2020). MSMEs have faced unfavorable implications from Covid-19, namely shortages of goods, transportation blockages, decreased demand for products and services, decreased profits and sales, limited operations, lockdown policies and employee layoffs. One of the important things that must be considered so that MSMEs can survive for the long term is the ability to innovate (innovation capability) (Breier et al., 2021; Hossain, Akhter, & Sultana, 2022).

A balanced approach uses the balanced scorecard to measure overall financial and non-financial performance. The balanced scorecard's learning and growth perspective focuses on employees' learning and development skills. Organizational learning is specifically used as an independent variable in this study because the learning process is the starting point for companies to remain sustainable under any circumstances, even in conditions such as those brought about by Covid-19. Furthermore, organizational learning is seen to statistically determine its impact on organizational performance.

Innovation has been proven to be an important factor in the success of an organization (Oura, Zilber, & Lopes, 2016). Innovation capability is continuously transforming knowledge and ideas into new products, processes, and systems to benefit companies and stakeholders (Lawson & Samson, 2001). The existence of innovation capability allows small companies to compete with larger companies and have access to more resources (Saunila, 2020). Innovation capability is considered one of the actions that SMEs can implement to improve organizational performance (Castela, Ferreira, Ferreira, & Marques, 2018). Innovation capability facilitates a company's efforts to apply the right technology when it develops a new product tailored to market needs, thus eliminating the threat of competition from competitors (Oura et al., 2016). Previous research states that innovation capability positively relates to MSME performance (Merrilees, Rundle-Thiele, & Lye, 2011; Oura et al., 2016; Zhang & Hartley, 2018). Innovation capability is proven to impact MSME performance from financial, strategic, and other aspects related to satisfaction (Oura et al., 2016).

### 2.2. Performance Organization

To achieve organizational goals and create sustainability, an organization must consider variables inside and outside the business. Organizational performance is the most important indicator that needs to be considered by an organization (Özer & Tinaztepe, 2014). Although on a smaller scale, organizational performance is also important for MSMEs. Organizational performance in the context of SMEs is complex and has multiple dimensions (Wolff & Pett, 2006).

MSME survival is the spearhead of business continuity in the future. The success of business sustainability can be measured by the achievement of performance; this study includes the use of a balanced scorecard (BSC), which contains measurements, strategies, and communication tools. All three spearhead the survival of MSMEs, which must adapt quickly, even with minimal capital.

Several previous studies have investigated the factors that influence company performance in SMEs. Dvouletý, Srhoj, and Pantea (2021) used a systematic review approach and found that government grant programs positively impacted the performance of MSMEs. In addition, research has reviewed the roles of other important factors, such as financial literacy and corporate social responsibility (CSR), for MSMEs (Eniola & Entebang, 2016; Ikram et al., 2019).

Various studies investigating organizational performance in both the general and SME contexts have yet to reach a consensus on the metrics used to measure organizational performance (Kundu & Gahlawat, 2016). For example, they use perceptual measures as the basis for assessing organizational performance while other studies use a more integrative approach, where perceptual measurements are based on quantitative metrics (financial reports) (Ikram et al., 2019; Wolff & Pett, 2006). Differences in previous research, both in the scope of the variables studied and the measurement instruments, are not limitations that reduce the importance of investigating the organizational performance variables, especially in the context of SMEs.

The design of innovation capabilities occurs based on the explanation that in an effort to achieve high profits, MSMEs need to use technology in the production process. In this study, performance not only has implications for profit or financial concepts, but also non-financial implications. This is reflected in the BSC model, which will be used as a parameter to determine MSME performance. Previous research used the BSC method to measure organizational performance on innovations (Al-Hakim & Hassan, 2013).

The BSC is a comprehensive measurement tool to see the results of the implementation of the innovation strategy carried out because the BSC uses financial and non-financial perspectives, namely finance, customer, internal business, and learning and growth (Creamer & Freund, 2010).

Previous studies examining the link between innovation capability and organizational performance found that innovation positively affects organizational performance, measured using the BSC simultaneously (Al-Hakim & Hassan, 2013). In post-pandemic conditions, financial performance is difficult to optimize due to the impact of the pandemic, which has made almost all existing businesses vulnerable.

Thus, the use of a non-financial performance perspective is considered important to maintain market share in order to survive and thrive.

### 2.3. Innovation Capability

The role of innovation capabilities in SMEs is crucial. Innovation is said to be closer to creativity. One example of innovation that emerges from SMEs is the creation of new products. The ability to produce new products is not easy. This ability starts from creating a new concept resulting from the modification of an existing concept (Mai et al., 2022; Phuangrod, Lerkiatbundit, & Aujiraponpan, 2017). The two concepts must be combined into a new idea that is used as a strategy for self-defense in competition. In addition, innovation is born from a problem-solving process by generating ideas (El Chaarani, Vrontis, El Nemar, & El Abiad, 2022; El Chaarani & El-Abiad, 2018; Vrontis, El Chaarani, El Abiad, El Nemar, & Yassine Haddad, 2022).

New ideas that emerge from the innovation process will be implemented in the company. This implementation leads to changes in a better direction than before. The emergence of new ideas can be done in several ways, including research and development accompanied by science and the application of technology. Thus, innovation will be used by a company that is embodied in new business ideas and concepts (Chi, 2021).

The ability to innovate was at the forefront when the world was exposed to the Covid-19 pandemic. The pandemic paralyzed almost all business activities due to restrictions on meeting and moving outside the home. If MSMEs continue to maintain their superiority, they must be able to read opportunities in terms of technological capabilities (Escandon-Barbosa & Salas-Páramo, 2022; Hurtado-Palomino et al., 2022; Majali, Alkaraki, Asad, Aladwan, & Aledeinat, 2022).

### 2.4. Organizational Learning

Learning in an organization is a response to problems that have occurred. The learning process is carried out continuously because both small and large problems will be experienced by MSMEs. Especially under the conditions of the Covid-19 pandemic, problems will come and go due to uncertain conditions. The rise from adversity by means of learning continuously has an impact on the speed of thinking and acting to respond to problems. Lessons taken come from outside and within SMEs. Organizational learning is obtained through exploration and exploitation. Exploratory learning is carried out on external factors of SMEs which are then used as evaluation and organizational improvement. An example of exploration is a market experiment. The results of the market experiment will be used as knowledge which is collected and managed to improve the organization. Exploitative learning is refinement from within the organization. An example is MSME managers who take different levels of risks when making decisions. Organizational learning is sometimes not only taken from the side of exploration but also together with exploitation; this concept is called ambidexterity (Benitez et al., 2018; Posch & Garaus, 2020; Tian et al., 2021).

## 2.5. Ambidexterity

Companies can achieve their innovation goals through exploitative, explorative, and ambidextrous learning (Schulze, Heinemann, & Abedin, 2008). Since the industrial revolution, innovation has become one of the most important aspects for companies to provide a competitive advantage (Heffner, 2006). Exploitation means the company realizes innovation with existing knowledge, and exploration embodies innovation with new knowledge or processes (Heffner, 2006). Exploitation focuses on resources (resource-based view), and exploration focuses on organizational learning (knowledge-based view) (March, 1991; Schulze et al., 2008). Some researchers have stated that exploitation and exploration complement each other (Posch & Garaus, 2020). If the two approaches are combined simultaneously, it is called ambidexterity, in which companies pursue short-term growth through exploitation and long-term survival through exploration.

The value of an organization that applies ambidexterity lies in balancing the organization's ability to exploit and explore (Lin & Ho, 2016). If the organization is focused on exploitation or exploration, it will ensure it can achieve its short-term or long-term goals. Companies that apply ambidexterity learning have a greater influence on their innovation performance than applying exploration or exploitation separately (Posch & Garaus, 2020). During Covid-19, conditions were very difficult to predict. Organizational learning is used as a tool to avoid errors from planning and implementing strategies in MSMEs. Exploration, exploitation, and ambidexterity will determine the precise strategy used by MSMEs to survive during the Covid-19 pandemic.

## 2.6. The Influence of Organizational Learning on Innovation Capability

Organizational learning that can be exploitative, explorative, or ambidextrous creates space for academics who focus on human resources to further investigate the relationship between the types of organizational learning and various dimensions within an organization (Benitez et al., 2018; Tian et al., 2021). Previous research has found that these three learning variables have important relationships with various dimensions: manufacturing, knowledge-intensive services, environmental dynamism, munificence, written vision, and research and development (R&D) intensity. Of the various antecedent variables that can be influenced by organizational learning, innovation is intuitively the main focus of various previous studies. The creative industry, for example, demonstrated a relationship between ambidextrous organizational learning and innovation capability. In business circles in China, a relationship was also found between exploitative, explorative, and ambidextrous learning on innovation capability. The consistency of the previous findings indicates that the same relationship may also appear in the scope of SMEs, where learning flexibility or the speed of temporal cycling between exploitative, explorative, and ambidextrous learning is higher (Tian et al., 2021).

In organizational learning, knowledge is formed that results from exploration, exploitation, or both. Organizational learning will generate productivity in SMEs (Tian et al., 2021). This productivity will have an impact on technology as an application tool. This technology functions to optimize learning outcomes, especially in conditions such as the Covid-19 pandemic. Organizational learning activities through exploration, exploitation, and ambidexterity will have an impact on the creation of new solutions or ideas for production improvement (Benitez et al., 2018).

Therefore, this study proposes the following three hypotheses:

H1a: Explorative learning positively influences innovation capability.

H1b: Exploitative learning positively influences innovation capability.

H1c: Ambidextrous learning positively affects innovation capability.

# 2.7. The Effect of Innovation Capability on Organizational Performance

Innovation has been proven to be an important factor in the success of an organization. Innovation capability is the ability to continuously transform knowledge and ideas into new products, processes, and systems for the benefit of a company and its stakeholders (Dabić et al., 2021; Dudic, Dudic, Gregus, Novackova, & Djakovic, 2020). Innovation capability facilitates a company's efforts to apply the right technology when the company develops a new product tailored to market needs and will thus eliminate the threat of competition from competitors (Benitez et al., 2018; McAdam, McConvery, & Armstrong, 2004). Previous research stated that innovation capability positively relates to MSME performance (Chi, 2021; Dudic et al., 2020; Escandon-Barbosa & Salas-Páramo, 2022). The innovation capability of MSMEs is a breakthrough for increasing the performance of the business. Innovation is considered as an advantage and an attraction, especially in uncertain times such as the Covid-19 pandemic (Nakano & Wechsler, 2018). In addition, the ability to innovate creates solutions that are more efficient in production. This has an impact on reducing costs accompanied by increased production, improving the performance of MSMEs. From the explanation above, we propose the following hypothesis:

H2: Innovation capability positively influences organizational performance.

Based on the proposed hypotheses, the concept of this research is depicted in Figure 1.

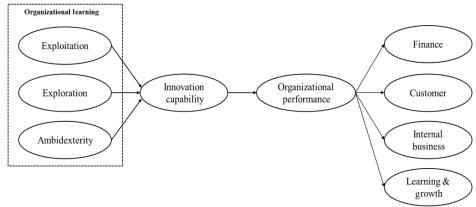


Figure 1. Research concept.

### 3. METHOD

This study uses a quantitative research approach that focuses on hypothesis testing and measurable data and produces conclusions that can be generalized. The quantitative approach allows a study to obtain more objective and measurable results, and the resulting findings can be considered more reliable. In addition, quantitative research was conducted using statistical analysis methods to analyze the relationships between the variables.

The variables used in this study are exploitation, exploration, ambidexterity, innovation capability, and organizational performance, which are measured using the balanced scorecard (BSC) method. The variables were selected based on the fact that, in Indonesia, the main factor for the vulnerability of MSMEs' resilience lies in organizational learning. Meanwhile, innovation is an illustration of adaptation to the Covid-19 pandemic. Innovation that has been materialized and applied to companies is a form of differentiation in the industry that can be used as a competitive advantage. As a result, competitiveness is not included separately in this study. The questions used to interview the respondents are in Table 1. The innovation ability variable is realized by respondents being able to use technology when transacting or operating. The operational definition of each variable was used in this study (Merrilees et al., 2011). Ambidexterity was adopted from Atuahene-Gima and Murray (2007), and the BSC variable was adopted from Dudic et al. (2020).

This research was conducted in Indonesia. All types of businesses can be included in MSME sampling. This study's target sample size is 205 MSMEs spread across the East Java region, which was used because it is the region with the most MSMEs in Indonesia. In addition, East Java MSMEs are included in the digital ecosystem. This is very close to the sample criteria of having innovative business operations. The data was collected by distributing questionnaires to MSME actors after the Covid-19 pandemic. The procedures for data collection are:

- 1. Compile a questionnaire according to the topic under study.
- 2. Search for respondents according to the target population characteristics that have been determined and ask for the willingness of respondents to fill out a questionnaire.
- 3. Distribute questionnaires to respondents online using Google Forms.
- 4. Explain the procedure for filling out the questionnaire.
- 5. Collecting questionnaires that the respondents have filled out.
- 6. Review the questionnaires to determine which are feasible and which are not feasible to produce valid and reliable data that can be used in this study.
- 7. Create data tabulation.

Table 1. Variables and questions.

Variables	Questions	Resource
Organizational learning (Exploration, exploitation, and ambidexterity)	Our efforts utilize knowledge from various sources efficiently and quickly for product development purposes  Our business supports and encourages employees to participate in activities such as product development, innovation process improvement, and new idea generation  Our efforts continuously evaluate the ideas that come from customers, suppliers, etc.  The results of the evaluation will be used for product development activities  Our business can adapt to environmental changes easily by making improvements, enhancements and innovations in a short time  Our efforts have introduced new aspects of processes, products and services compared to the initial strategy  Our business is constantly pursuing new opportunities to continue to grow  We do not only focus on existing products and services, but we also focus on developing new products and services  Our employees are always focused on improving our business processes, products and services  Our employees believe that improving our business processes, products and services is the responsibility of every employee  We believe that improving processes, products and services is more	(Benitez et al., 2018; Tian et al., 2021)
	important than developing new products and services  In our business, uncertainty in business is considered as a challenge  Our efforts focus more on the opportunities for success than	

Variables	Questions	Resource			
	potential failures				
	Our endeavors view failure at doing something new as a learning				
	experience				
	We are always looking for new opportunities related to current				
	business processes				
	Our business is often a pioneer in introducing new products/services				
	We try to be ahead of our competitors in responding to changes in the market/business environment				
	Employees in our business are encouraged to take responsibility for their work				
	Employees at our business should be able to get their job done without too much supervision				
	Employees are encouraged to prioritize their work				
	Revenue from new customers in our business increased				
	Our business is growing				
	The number of our business partners is increasing				
	Our customer satisfaction has increased				
	Our business distribution is fast				
Performance	Currently our products can meet customer desires	(Dudic et al.,			
(BSC)	Our business responds to customer requests quickly	2020)			
	Our business is able to develop products				
	Our business finds it easy to introduce new products to customers				
	Employee satisfaction with our business has increased				
	The pace of new product development by employees at our business has increased				

The structural equation modeling (SEM) technique is used to describe the relationship between the dependent, independent and control variables, as used by Richter, Cepeda-Carrión, Roldán Salgueiro, and Ringle (2016). SEM is used to examine and verify intricate correlations between different variables (Richter et al., 2016). Simultaneous testing of latent (unobserved) and observed (measured) variables is made possible by SEM, which combines factor analysis and multiple regression analysis. Understanding the underlying structure or cause-and-effect correlations between variables is made much easier with the help of SEM (Richter et al., 2016). The software used to process data is SmartPLS. For variable measurement, a 5-point Likert scale is used. This research model uses a latent perspective model to analyze the relationship between different variables and indicators. The difference with previous research is in the variables and constructs used. The variables in this research, namely the innovation, exploitation and exploration ability variables, are the first level constructs. The results of these constructs will make research more interesting because it can show that organizational learning tends more toward exploitation, exploration, or even both (ambidexterity). The organizational performance variable is used as a second level construct.

## 4. RESULTS

## 4.1. Respondent Profiles

Table 2 shows the distribution of respondent profiles used in this study. For the business type category, the provision of accommodation, food and drink (e.g., food stalls, coffee shops) is the largest business (32%). For the type of ownership category, private property is the largest (85%). The average business age is more than three years. For the number of employees category, the average is less than ten people. The business location in the research is in East Java, Indonesia. The largest business distribution is in the Surabaya, Sidoarjo and Kediri areas.

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Table 2. Respondent profiles.

Information	Measurement	Number	Percentage
Type of	Processing industry	31	15%
business	Community, socio-cultural, entertainment, and other individual services	11	5%
	Health services and social activities	5	2%
	Education services	2	1%
	Individual services serving households	16	8%
	Activities whose boundaries are not clear	10	5%
	Construction	1	0%
	Electricity, gas, and water	2	1%
	Provision of accommodation, food, and drink (e.g., food stalls, coffee shops)	65	32%
	Financial intermediary	1	0%
	Wholesale and retail trade (e.g., staple food stores, credit)	47	23%
	Fishery	4	2%
	Agriculture, hunting, and forestry	3	1%
	Real estate, rental businesses, and corporate services	3	1%
	Transportation, warehousing, and communication	4	2%
Ownership	Family	23	11%
type	Partnership	7	3%
	Personal	175	85%
Business age	< 1 year	21	10%
	1–3 years	73	36%
	> 3 years	111	54%
Number of	< 10 people	192	94%
employees	10–20 people	7	3%
	20–50 people	6	3%
Total		205	100%

# 4.2. Statistical Tests

Cronbach's alpha and composite reliability values can be seen in Table 3. The value limit is 0.7. The lowest Cronbach's alpha value is 0.797 for the exploitations construct. Meanwhile, the lowest composite reliability value is innovations capability, with a value of 0.875. This proves that this research has been tested reliably because the minimum requirement for reliability is 0.70 for each construct. Meanwhile, the convergent validity test has been proven to have good results because the AVE values are above 0.5.

**Table 3.** Reliability test (AVE > 0.5; CR > 0.7).

Variables	Cronbach's alpha	rho_A	Composite reliability	Average variance extracted (AVE)
BSC	0.938	0941	0.946	0.596
Moderation effect 2	1.000	1.000	1.000	1.000
Exploitation	0.797	0.804	0.908	0.831
Exploration	0.809	0.8 (Lawson & Samson, 2001)	0887	0.723
Innovation capabilities	0.809	0.818	0.875	0.636

In addition to using the AVE, the parameters used to view convergent validity are outer loading, the results of which are presented in Table 4, which shows that, based on the outer loading parameters, this study has passed the convergent validity test. This is proven by a value of more than 0.7 for each contract. Furthermore, the results of the outer loadings are presented in Figure 2.

Table 4. Convergent validity (Value of loading factor > 0.70).

Variable	Ambidexterity	BSC	Exploitation	Exploration	Innovation capabilities
BSC1		0.727			
BSC10		0.801			
BSC11		0.750			
BSC12		0.757			
BSC2		0.799			
BSC3		0.821			
BSC4		0.823			
BSC5		0.778			
BSC6		0.759			
BSC7		0.747			
BSC8		0.768			
BSC9		0.723			
EP1			0.921		
EP2			0.902		
ER1				0.867	
ER2				0.862	
ER3				0.821	
Exploration*					
exploitation	1.411				0.0
IC1					0.8 (Lawson & Samson, 2001)
IC2					0.739
IC3					0.843
IC4					0.791

Note: \* Combinations between exploration and exploitation demonstrate ambidexterity.

In Table 4, BSC is a measure that describes organizational performance, exploitation (EP) is a measure of organizational learning, exploration (ER) is a measure of organizational learning, and IC is innovation capability. Ambidexterity shows that SMEs carry out organizational learning through both exploration and exploitation. Table 5 shows the inner model (structural model) used to test the research hypothesis. R-squared is an indicator of reliability; the higher the R-squared value, the better the model.

Table 5. R-Squared (0.75 strong; 0.50 moderate; 0.25 weak).

Variable	R-squared	Adjusted R-squared
BSC	0.477	0.474
Innovation capabilities	0.655	0.650

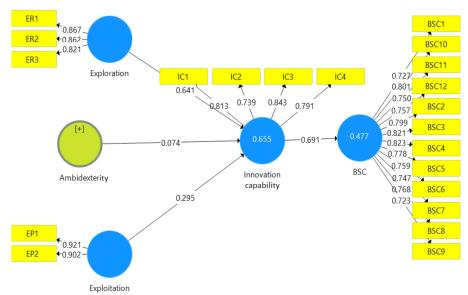


Figure 2. The framework of research results.

Furthermore, to see whether the hypotheses are accepted or rejected, the p-values parameter is used. Based on the results in Table 6, all hypotheses are accepted because the p-values are below 5% (0.05).

Tuble 6.1 value significance test.						
Variables	Original sample (O)	Sample average (M)	Standard deviation (STDEV)	T-statistics ( O/STDEV )	P-value	
Moderation effect -> Innovation capability	0.074	0.062	0.037	2,011	0.046	
Exploitation -> Innovation capability	0.295	0.311	0.074	3,963	0.000	
Exploration -> Innovation capability	0.641	0.622	0.074	8,718	0.000	
Innovation capability -> BSC	0691	0.698	0.037	18,873	0.000	

Table 6. P value significance test

The hypotheses that exploitation and exploration significantly positively affect innovation capability are accepted. Innovation capability has a significant positive effect on performance, as measured using the BSC. This is proven by the t-statistic value, which is > 1.94 with a p-value of < 0.05, so this hypothesis is also accepted.

## 5. DISCUSSION

H1a: Organizational learning (exploration) on innovation capability.

The results of this study indicate that organizational learning has a significant positive effect on innovation capabilities. These results are in accordance with previous research by Benitez et al. (2018) and Tian et al. (2021). The knowledge process reflects the existence of organizational learning which is manifested in the activity of transferring, forming, acquiring, or integrating knowledge (Tian et al., 2021). These activities can later change old behavior and create new conditions and situations (Mai et al., 2022). The result of a business being able to increase organizational learning is a competitive advantage that can be used for business promotion (Eriksson, 2022). In other words, the successful absorption and application of new knowledge by SMEs in terms of product development, product speed, and competitive advantage is an organizational learning process.

MSMEs must support the existence of organizational learning practices, which can be realized through socialization. The hope is that there is a conducive climate for learning from one another. In addition, this practice is the main goal of organizational learning to facilitate the learning process which will later create new positive habits, especially during the uncertain recovery after the Covid-19 pandemic (Inthavong et al., 2023). In terms of exploration, the practice of organizational learning can be described by experiments and interactions. Businesses conduct random experiments until they find new ideas and suggestions for improvement. In addition, finding solutions from various alternatives using different methods and procedures is an example of experimental activity (Mai et al., 2022; Tian et al., 2021). The second example is interaction. The interaction process is where an individual receives, collects, and concludes that there is information to be obtained from other individuals. In uncertain conditions, such as the recovery period after the Covid-19 pandemic, knowledge transfer occurs to solve a business problem. The manifestation of the existence of organizational learning is the development of products and new skills for innovation. Thus, the innovation process is not formed by chance. In other words, innovation requires organizational learning.

H1b: Organizational learning (exploitation) on innovation capability.

The results of this study indicate that organizational learning has a significant positive effect on innovation capabilities. These results are in accordance with previous research (Posch & Garaus, 2020; Tian et al., 2021). Organizational learning forms new patterns from the results of MSMEs' learning processes, which are carried out continuously (Inthavong et al., 2023). If an MSME does not design an organizational learning support pattern, then it will not operate optimally. This results in the business only running in place or static and slow. In terms of exploitation, organizational learning practices can be described by a tendency to take risks in decision making (Mai

et al., 2022; Rass, Jan, Wioleta, & Anna, 2023). The existence of tolerance for uncertainty, such as during the post-pandemic period, and the mistakes made by MSMEs in the past is a form of tendency to take risks. Facilitating learning can occur due to potential errors. Furthermore, commitment and satisfaction are examples of the results of the decision-making process in a business. This becomes a facilitator in organizational learning.

In organizational learning there is a process of change. These changes are the key to innovation (Hermundsdottir & Aspelund, 2022; Phuangrod et al., 2017). Innovation capability can be interpreted as a process of changing technology, resource, managerial and transactional aspects to generate higher profits. In other words, innovation capability is the ability of MSMEs to deal with environmental changes by transforming their resources. Innovation is used as a strategy for business success and to maintain a competitive position, especially during the Covid-19 pandemic recovery.

H1c: Organizational learning (ambidexterity) on innovation capability.

These results are in accordance with previous research by Benitez et al. (2018); Posch and Garaus (2020) and Tian et al. (2021). The use of organizational learning is important to have a role centered on business needs, namely superior competitiveness and intensity among employees when working through exploration and decision making in an effort to provide new ideas (Benitez et al., 2018; McAdam et al., 2004). These ideas then give birth to an innovation that can be used as a new pattern in a business. In addition, innovation capability is considered as a joint action in a business relationship to create conditions for new ideas and products. Innovation capability requires being creative with the resources owned by the business.

Innovation capability shows the willingness of individuals in SMEs to change and produce new products as a form of weapon to survive and beat the competition (Dabić et al., 2021; Khurana et al., 2021). This willingness occurs because of individuals' willingness to learn in a business. Business learning can support the emergence of new and innovative ideas or ideas as a competitive strategy after the Covid-19 pandemic.

H2: Innovation capability on organizational performance.

The results of this study indicate that innovation capability has a significant positive effect on organizational performance. These results are in accordance with previous research, namely (El Chaarani & El-Abiad, 2018). Innovation capability requires the human ability to be creative in producing new ideas and products to meet consumer needs and desires (Hurtado-Palomino et al., 2022). Innovation is used as a means to make changes in business. In addition, innovation is a business response to environmental changes both internally and externally. Furthermore, innovation is used as a tool to change the order of a business which is associated with adaptive ability to environmental changes (Benitez et al., 2018; Chi, 2021). Thus, innovation capability is the spearhead of business in facilitating strategies to realize business goals.

The application of innovation in a business is a strategy used to deal with change and uncertainty both internally and externally. Innovation can also be interpreted as a result of the transformation and exploitation of organizational learning. Innovation is manifested by the speed with which businesses respond to environmental pressures (Rahman et al., 2022). MSMEs are an example of businesses that have the conditions to be able to continuously innovate. Innovation is an important instrument for increasing market share to achieve competitive advantage after the Covid-19 pandemic.

### 6. CONCLUSION

Covid-19 has had a negative impact on almost all MSMEs in Indonesia, and some have gone bankrupt. In the case of MSMEs' survival against this pandemic, the organizational performance measurement in this study through the use of the balanced scorecard (BSC) can provide a more complete picture. This study aimed to determine the effect of organizational learning (exploitation, exploration, and ambidexterity) and innovation capabilities on organizational performance. This research presents these factors as antecedents in the relationship between

innovation capability and organizational performance. The contribution of this research is unique because it presents a more specific BSC design for MSME performance to capture dimensions that have not been revealed in existing studies.

The results of this study are as follows: First, organizational learning (exploitation, exploration, and ambidexterity) positively affects innovation capability. In uncertain conditions, such as the recovery period after the Covid-19 pandemic, knowledge transfer occurs to solve a business problem. The manifestation of organizational learning is the development of products and new skills for innovation.

Second, innovation capability has a positive effect on organizational performance. MSMEs are examples of businesses capable of continuously innovating. Innovation is important for increasing market share to achieve a competitive advantage. To recover from the effects of the pandemic, MSMEs must make decisions quickly and aggressively and employ numerous strategies to beat the competition.

Business performance is highly dependent on the selected strategy, especially for allocating available resources. Entrepreneurs must allocate resources effectively and efficiently to achieve a business vision. The strategy chosen does not only stop at ideas, it must also be implemented immediately. Furthermore, the result of a quickly implemented strategy is increased performance.

The theoretical implication of this research is the consideration of MSME performance, which is used as a strategy for resilience and the ability to overcome adversity. The two variable elements in this study, namely organizational learning and innovation, are used as spearheads in the performance of SMEs. This study can be used as a solution for entrepreneurs and SMEs to improve their business performance. Moreover, this study identifies performance comprehensively through a balanced scorecard, and it has added value from a non-financial perspective. In addition, the government can support the quick emergence of innovations after a crisis. With the existence of MSMEs that greatly contribute to the national economy, this can be used as one of the strategies to revive the economy.

Another implication of this research is that the government can accelerate the recovery of MSMEs from the economic downturn caused by the Covid-19 pandemic through innovation capability as a survival strategy in the future. Business management or MSME owners must design the right innovation capabilities and look at performance not only from a financial perspective, but also from a non-financial perspective. The BSC as a measurement tool can be considered as it has been proven to be suitable for use before, during and after the pandemic.

Funding: This research is supported by the University of Surabaya (Grant number: 099/ST-Lit/LPPM-01/FBE/IX/2022).

**Institutional Review Board Statement:** The Ethical Committee of the University of Surabaya, Indonesia has granted approval for this study.

**Transparency:** The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

**Data Availability Statement:** Upon a reasonable request, the supporting data of this study can be provided by the corresponding author.

**Competing Interests:** The authors declare that they have no competing interests.

**Authors' Contributions:** Wrote the manuscript and conducted experiments, L.I.W.; wrote the manuscript, conducted experiments, and carried out the data analysis, Z.Z.; designed and conducted the experiments, F.S.H.; conducted experiments and data analysis, M.I.; collected data and carried out data analysis, A.P.W. All authors have read and agreed to the published version of the manuscript.

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