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Business sustainability: the role of msme innovation capabilities in Sukabumi

Ce Gunawan[1], Intan Rike Febriyanti[2]
[1,2]Business Administrasion, Institut Manajemen Wiyata Indonesia

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ABSTRACT

MSMEs have an important role in increasing economic growth. The aim of this research is to determine the influence of *innovation capability* on *the business sustainability* of MSMEs in Sukabumi City. The research method used is a quantitative research method using multiple linear regression analysis. The unit of analysis in this research is MSME actors in Sukabumi. The number of samples in this research was 379 MSME actors determined using the Isaac & Michael formula. The sampling technique uses a random sampling method. Data was collected using a questionnaire that had been tested for validity and reliability. Data analysis using SPSS. The research results show that innovation capabilities have a significant impact on the business sustainability of Sukabumi MSMEs

Corresponding Author:

Ce Gunawan,
Business Administrasion,
Institut Manajemen Wiyata Indonesia,
Jl. Masjid No.41-43, Gunungparang, Kec. Cikole, Kota Sukabumi, 43113, Jawa Barat, Indonesia
Email: cegunawan@imwi.ac.id

1. INTRODUCTION

MSMEs development is a top priority for many governments around the world because of the contribution of SMEs in creating job opportunities and developing innovation (ALI et al., 2020). In Indonesia, Micro, Small and Medium Enterprises (MSMEs) have an important role in increasing economic growth. Based on data from the Ministry of Cooperatives and SMEs (2021b), the number of MSMEs currently reaches 64.2 million with a contribution to GDP of 61.07% or worth 8,573.89 trillion rupiah. The contribution of MSMEs to the Indonesian economy includes the ability to absorb 97% of the total existing workforce and can collect up to 60.4% of total investment.

The Coordinating Ministry for Economic Affairs of the Republic of Indonesia said that MSMEs were experiencing a negative impact due to the COVID-19 pandemic. According to the Katadata Insight Center (KIC) report, the majority of MSMEs (82.9%) experienced negative impacts while only a few (5.9%) experienced positive growth. Survey results from several institutions such as BPS, Bappenas and the World Bank show that this pandemic has caused many MSMEs to have difficulty paying loans, electricity and gas bills and employee salaries, and some of them have even been forced to lay off workers. (Kemenko Perekonomian RI, 2021a)MSMEs also experience other obstacles such as difficulties in obtaining raw materials and capital, a decrease in the number of customers, as well as delays in distribution and production. During 2020 there were around 30 million MSMEs that went bankrupt due to Covid-19. In 2019 the number of

MSMEs in Indonesia was 64.7 million. After the Covid-19 pandemic, the number of MSMEs in Indonesia became 34 million in 2020 (Limanseto, 2021)

Business continuity for MSME after the Covid-19 pandemic is needed considering that MSMEs are a sector that is able to reduce levels of inequality, both economic and social, such as increasing people's purchasing power for domestic commodities. The era of adjustment to survive the post-Covid 19 pandemic must be responded to wisely by MSME business, by improving business development strategies, one of which is the ability to innovate (Hanaysha et al., 2022a). Innovation capability is defined as a company's ability to identify new ideas and turn them into new/improved products, services, or processes that benefit the company (Aas & Breunig, 2017).

Innovation exists when a company introduces a new product, service, or process for the purpose of meeting the needs of its stakeholders (Gunawan & Somantri, 2023; Tur-Porcar et al., 2018). Theoretically, the dynamic capabilities perspective develops as an extension of the resource-based view, which states that a company's resources and capabilities represent key assets for building and maintaining its competitive advantage. These forms of innovation include *Product Innovation* , *Process Innovation* , *Service Innovation* and *Marketing Innovation* (Hanaysha et al., 2022a). Every MSME, especially creativity-based MSMEs, must have their own advantages in the form of innovation and creativity.

One of the main problems that hinders the business continuity of MSME players is the ability to innovate (Hanaysha et al., 2022b). The aim of this research is to determine the influence of *innovation capability* on *the business sustainability* of MSMEs in Sukabumi City. The problem approach taken is the management science approach method, in this case innovation and business management; The empirical method uses primary data directly obtained from MSME; and the associative method approach is an approach used to answer the problem formulation quantitatively by looking for the influence between variables. This research will provide implications for MSMEs so they must realize that business sustainability is very important for their companies to gain competitive advantage. Innovation capabilities provide greater value to MSMEs and enable them to meet economic, social and environmental performance.

2. RESEARCH METHOD

The research method in this research is a quantitative method using multiple regression analysis. Instrument testing uses validity tests and reliability tests. Data analysis to prove the hypothesis uses the t test and f test and the coefficient of determination test which previously carried out assumption tests (normality, heteroscedasticity and multicollinearity tests). The analysis process uses SPSS. Data collected using a questionnaire that has been tested for validity and reliability. Population on study is para perpetrator MSMEs Which There is in Sukabumi Which amount 30,428. The number of samples taken was 379 using the *Isaac & Michael formula* with calculation as follows

$$\frac{\lambda^2 . N . P . Q}{d^2 (N - 1) + \lambda^2 . P . Q}$$

s = sample

λ^2 = 3,841 (level error 5%)

N = 30,428

P = 0.5

Q = 0.5

d^2 = 0.5^2 (level value reliability)

Technique taking samples in study This use *random sampling* , based oncriteria MSME actors who are already running their businesses minimum 2 years.

Model research that submitted is as follows:

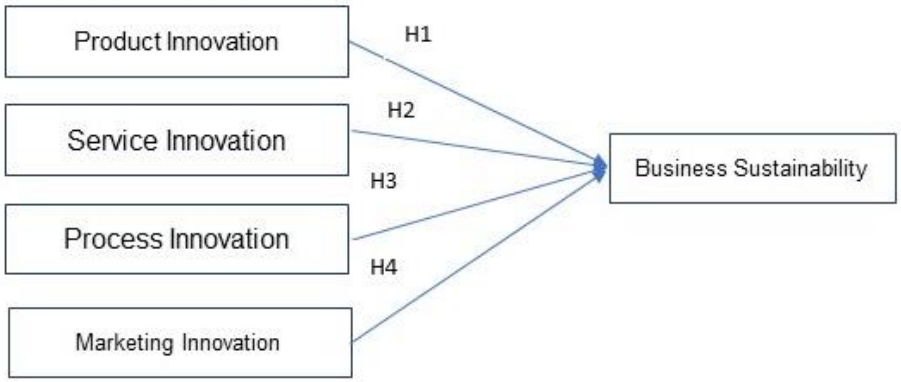

Figure 1 Research Model

Based on the framework above, the following hypothesis can be made in this research

H1 : There is an effect of Product Innovation on Business Sustainability
H2 : There is an effect of Process Innovation on Business Sustainability
H3 : There is an effect of Service Innovation on Business Sustainability
H4 : There is an effect of Marketing Innovation on Business Sustainability

2.1 Variable Operationalization

Operational Variables are a concept that helps explain the characteristics of variables clearly with the aim of determining the measurement scale for each variable under study, so that hypothesis testing can be carried out appropriately. The operational definition of this research variable is presented in table 1 below:

Table 1. Operational Variable *Innovation Capability*

Variables and Concepts		Dimensions		Indicator	Scale
Innovation Capability (X)	1	Product Innovation (X1) (Shakeel Sadiq Jajja et al., 2014)	1	Level of newness and uniqueness of products/services	Ordinal
			2	Customer orientation of new products/services	
			3	Frequency of introduction of new products/services	
			4	Value for customers in products/services	
	2	Process Innovation (X2) (Ndubisi et al., 2015)	1	work practices are constantly updated to increase our productivity constantly	
			2	work practices are constantly updated to increase productivity	
			3	we constantly use technology to improve service quality	
			4	our organization invests heavily in developing new Operating system	
			5	we continuously train our people in emerging industry technologies	
	3	Service Innovation (X3) (R. J. Lin et al., 2010)	1	Imports innovative warranty and maintenance systems for enhancing customer satisfaction	Ordinal
			2	Imports innovative claim clearing procedures and methods for enhancing	

			customer satisfaction.
		3	Imports innovative before-sale or after-sale service methods for enhancing customer satisfaction
		4	Adopts innovative order management and follow-up systems
4	Marketing Innovation (X4) (R. J. Lin et al., 2010)	1	leads innovative pricing methods in markets.
		2	leads innovative pricing methods in markets.
		3	leads innovative promoting methods to markets.
		4	continually enlarges potential demand markets
		5	utilizes advanced CRM systems in markets

Table 2. Operational *Business Sustainability Variables*

Variables and Concepts	Indicator		Items	Scale
Business Sustainability(Khan & Quaddus, 2015)	1.	Economics	We see our micro-firm is providing employment to us and others Our micro-firm's economic performance is at an acceptable level in terms of … Sales growth Income stability Return on investment Profitability	Ordinal
	2.	Social	ensures basic needs Enhances social recognition improves our empowerment provides freedom and control over the course of our own lifestyle is concerned about child labor use.	
	3	Environmental sustainability	Uses utilities produces few wastes and emissions concerned about waste management concerned about hygienic factors.	

3. RESULTS AND DISCUSSIONS

3.1 Validity test

Validity testing is carried out with the aim of finding out whether or not a questionnaire that has been distributed to respondents is valid. The validity test in this study used the *Pearson Correlation method* by correlating each *item score* with the total *item* score. The total *item* score is the sum of all statement/question *items* in a variable. There are two ways to determine whether an *item* is valid or not: If the significance value is <0.05 then *the item* is valid, if the significance value is >0.05 then *the item* is invalid ; If the calculated r value ≥ r table then the *item* is valid, if the calculated r < r table then *the item* is declared invalid.(Gunawan, 2020)

a. Validity of the Innovation Capability Variable

This religiosity variable consists of 1 5 statement *items* . The test results can be seen in table 3 below:

Table 3. Innovation Capability Variable Validity Test Results (X)

No	R count	R table	Information
1	0.445	0.361	VALID
2	0.516	0.361	VALID
3	0.472	0.361	VALID
4	0.532	0.361	VALID
5	0.504	0.361	VALID
6	0.434	0.361	VALID
7	0.632	0.361	VALID

8	0.532	0.361	VALID
9	0.504	0.361	VALID
10	0.419	0.361	VALID
11	0.762	0.361	VALID
12	0.714	0.361	VALID
13	0.651	0.361	VALID
14	0.762	0.361	VALID

Source: Data Processing Results (2023)

It can be seen from the results of the table above that all statement *items* are valid. This conclusion results from a comparison of the calculated r of each *item* with the r table which shows that there is a greater value in the calculated r results of all *items.* It can be seen that there is no calculated r that is lower than the value of r table, namely 0.361, meaning that r calculated ≥ r table so that it can be considered that all *items* in the innovation capability variable are valid.

b. Business Sustainability Variable Validity Test (Y)

This variable consists of 16 statement *items* . The test results can be seen in table 4 below:

Table 4. Business Sustainability Variable Validity Test Results

No	R count	R table	Information
1	0.85	0.361	VALID
2	0.82	0.361	VALID
3	0.82	0.361	VALID
4	0.8	0.361	VALID
5	0.61	0.361	VALID
6	0.59	0.361	VALID
7	0.59	0.361	VALID
8	0.85	0.361	VALID
9	0.86	0.361	VALID
10	0.64	0.361	VALID
11	0.69	0.361	VALID
12	0.5	0.361	VALID
13	0.86	0.361	VALID
14	0.64	0.361	VALID
15	0.69	0.361	VALID
16	0.50	0.361	VALID

Source : Data Processing Results (2023)

According to the results of the table above that all statement *items* are valid. This conclusion results from a comparison of the calculated r of each *item* with the r table which shows that there is a greater value in the calculated r results of all *items.* It can be seen that there is no calculated r that is lower than the value of r table, namely 0.361, meaning that r calculated ≥ r table so that it can be assumed that all *items* in the business sustainability variable are valid.

3.2 Reliability Test Results

Reliability testing is carried out to measure whether a questionnaire is reliable or not. A questionnaire is said to be reliable if a person's answers to the statements submitted remain stable and consistent if the questionnaire is filled in again (Gunawan, 2020). The results of the reliability test can be seen in the table below

Table 5. Reliability Test Results

Variable	Cronbach's Alpha	Required Cronbach's Alpha	Information
Innovation Capability	0.855	0.60	Reliable
Business Sustainability	0.929	0.60	Reliable

Source: Data Processing Results (2023)

A variable will be said to be reliable if the *Cronbach's Alpha value* is > 0.60. In the results of the analysis above, it can be seen that the *Cronbach's Alpha value* of the *Innovation Capability* (X) variable is 0.8 55 so it can be declared reliable. The Business

Sustainability (Y) variable is 0.929 which is also declared reliable. It can be concluded that all instruments are reliable.

3.3 Assumsion Test Results and Hypothesis Testing

a. Normality Results

The normality test is used to determine whether the data studied has a normal distribution or not. The normality test in this study used *the One Sample Kolmogorov-Smirnov test.* With a significance value of 5% or 0.05, if the value of the significance test results is more than 0.05 then the data is normally distributed. However, if the significance test result is less than 0.05 then the data is not normally distributed. The following are the results of the normality test below:

Table 6. Normality Test Results

Kolmogorov Smirnov	Sig	Information
Asymp. Sig. (2-tailed)	,200	Normally distributed

Source: Data Processing Results (2023)

The data results in the table above show that in the *Kolmogorov-Smirnov column* the significance value of Asymp can be seen . *Sig. (2-tailed)* is greater than 0.05, namely 0.200. So it can be concluded that the research data is normally distributed.

b. Multicollinearity Test

The multicollinearity test was carried out to determine whether the regression model found any correlation between the *independent variables* . A good regression model should have no correlation between *independent variables.* However, if correlation occurs then there is a multicollinearity problem. How to determine whether multicollinearity exists or not can be seen from the *variance inflation factor* (VIF) value and tolerance value . With the criteria for a *tolerance value* above 0.1 and a VIF below 10, it can be stated that there is no multicollinearity. Test results can be seen in table 7:

Table 7. Multicollinearity Test Results

Independent variables	Tolerance	VIF	Results
Product Innovation	,416	2,401	There is no Multicollinearity
Process Innovation	,395	2,534	There is no Multicollinearity
Service Innovation	,212	4,708	There is no Multicollinearity
Marketing Innovation	,217	4,606	There is no Multicollinearity

Source: Data Processing Results (2023)

The test results in the table above show that the correlation value between the *independent variables* has the same VIF *output value, namely <10 and the output tolerance value* for each variable also shows a number > 0.1, so it can be concluded that there is no multicollinearity between the *independent variables* . researched.

c. Heteroscedasticity Test

The heteroscedasticity test is carried out to determine whether in the regression model there is an inequality *of variance* from one residual to another observation. Heteroscedasticity shows the spread of independent variables. Random distribution indicates a good regression model, so it is called homoscedasticity or heteroscedasticity does not occur. The results of the heteroscedasticity test in the regression model of this research can be seen in Figure 1 below:

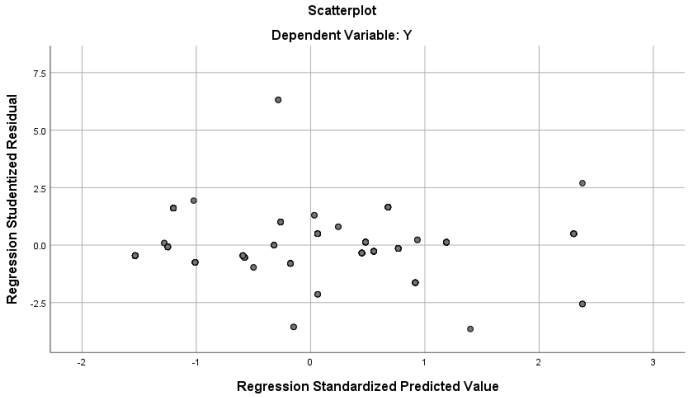

Figure 1. Heteroscedasticity Test Results
Source: Data Processing Results (2023)

Scatter Plot graph above shows that the points on the diagram do not form a clear pattern. The points are spread randomly and spread well above and below the number 0 on the Y axis. So it can be concluded that there is no heteroscedasticity problem in the regression model

d. Hypothesis testing

The t test is used to show how far one *independent variable* partially influences the variation in the *dependent variable.* The following results of the t test that has been carried out can be seen in table 8 below:

Table 8. Partial Test Results (t Test)

Independent variable	t_{count}	Sig	Hypothesis
Product Innovation	8.109	,000	Accepted
Process Innovation	11,822	,000	Accepted
Service Innovation	58,110	,000	Accepted
Marketing Innovation	24,575	,000	Accepted

Source: Data processing (2023)

3.4 Discussion

a. The Influence of *Product Innovation* on *Business Sustainability*

Product innovation is a strategy to bring product progress one step ahead of competing products. According to Kotler and Armstrong (2016) *Product innovation* is the result of various processes that are combined and influence each other. (Kotler, Armstrong, Gary, 2016)This innovation process is carried out by individuals, organizations or companies where the innovation process takes place continuously including the phases of awareness, appreciation, adoption, diffusion and implementation. (Jong et al., 2003). *"Business sustainability* is a form of consistency in business conditions, where sustainability is the process of ongoing business, including growth, development, strategies to maintain business continuity and business development, where all of this leads to the continuity and existence (resilience) of the business. (Cosbey et al., 2007; Mullens, 2018)" *Product innovation* is widely considered to be one of the leading organizational capabilities and is conceptualized in the literature as a company's ability to offer new or improved products that meet the needs of target markets (Hanaysha et al., 2022b). Sharma and Lacey's research (2004)shows that entrepreneurs in successful MSMEs regularly analyze their capabilities and customer perceptions of their products and services, and emphasize on introducing new products from time to time to meet market needs and ensure societal welfare. They also compare their practices with competitors and design relevant marketing strategies. Othman and Sohaib(2016) suggests that *Product innovation* is the main determinant of sustainable development. Additionally, Sipos(2008) states that companies can build and maintain their

competitiveness through *product innovation* which is characterized by advanced technology and contemporary production methods. To remain competitive, companies must produce products that can be recycled and use environmentally friendly materials to minimize environmental emissions. *Product innovation* capabilities are needed to improve business performance and competitive advantage (Eggert et al., 2014). Product Innovation has a positive relationship with company sustainability (Rauter et al., 2019).

b. The Influence of *Process Innovation* on *Business Sustainability*

Process innovation It has been recognized as an important strategy for achieving business goals. *Process innovation* occurs when a company is able to design and apply new methods or technology to carry out business activities in an efficient manner. The main goal of *Process innovation* is to minimize production costs across all units or items, improve product or service quality, and ensure higher customer satisfaction (Gunday et al., 2011). The company focuses on *process innovation* to ensure speed of service delivery and provide added value to customers through the implementation of efficient systems and applications (Lawson & Samson, 2001). *Process innovation* that complies with government regulations can increase environmental sustainability. This view is in line with Rauter et al.(2019) which explains that *Process innovation* allows entrepreneurs to achieve better sustainability for their businesses.

c. The Influence of Service Innovation on Business Sustainability

Service Innovation is an important organizational strategy that needs to be considered (Ibrahim et al., 2018). Service Innovation is defined as an organization's ability to provide new or improved services and adopt new approaches to best serve customers to maintain business in the long term. Service innovation exists when a company can introduce original or new ideas that can improve the service delivery process and support customers. In previous literature, customer service (Hanaysha et al., 2022b) and service innovation have been considered as significant capabilities to enable companies to improve their performance and enhance business reputation (Eggert et al., 2014; Hanaysha et al., 2022b; L. Lin, 2013). In general, previous literature proves that innovation is a valuable strategy for improving company performance and achieving business sustainability (Gunday et al., 2011). This view is in line with research results that service innovation influences business sustainability

d. The Influence of Marketing Innovation on Business Sustainability

Marketing innovation is an important type of innovation that has a significant impact on business growth. Marketing innovation is described in the literature as a company's ability to develop effective marketing programs to create products or services that meet market needs, corporate goals, and social welfare. Marketing innovation is also conceptualized by previous studies (Gunday et al., 2011) as the ability to design contemporary marketing approaches that drive customer value based on price, marketing communication tools, marketing channels, product development, and product packaging. Marketing innovation can be formed when a company expands its current market, positions its products and services in a different way in customers' minds, and uses effective means to reach and attract customers. Marketing innovation requires companies to design attractive pricing strategies, improve the features of their products or services, minimize production costs, use environmentally friendly materials, and maximize customer coverage at lower costs (Kotler & Keller, 2021).

4. CONCLUSION

The aim of this research is to test whether innovation capabilities have a significant impact on the business sustainability of Sukabumi MSMEs. The findings show that all selected innovation capabilities are positively related to business sustainability. The main contribution of this research is to propose an integrated work pattern for MSMEs to gain

sustainable competitive advantage through innovation capabilities. MSMEs must realize that business sustainability is very important for their companies to gain competitive advantage. Innovation capabilities provide greater value to MSMEs and enable them to meet economic, social and environmental performance. In other words, increasing competition in today's dynamic business environment urges companies to focus on innovation practices to create sustainable competitive advantages, because the most effective way a company can ensure its prosperity and survival in the long term is through innovation.

In summary, this research has increased knowledge by providing empirical evidence regarding the relationship between innovation capabilities and business sustainability in small and medium enterprises. This research is expected to pave the way for further theoretical refinement and empirical testing in this significant area of research.

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