

# Strategies For MSMEs To Enhance Business Resilience In Magelang

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## ABSTRACT

This research aims to analyze the Influence of Technology Utilization, Crisis Management, and Product Innovation on Business Resilience in MSMEs in the City of Magelang. The sampling method in this study uses purposive sampling with the Slovin formula, resulting in a total of 385 respondents. This study found that the use of technology has a negative impact on business resilience, while crisis management and product innovation have a positive impact on business resilience.

**Keywords:** *Business resilience, utilization of technology, crisis management, product innovation*

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## I. INTRODUCTION

Post-Covid-19 pandemic In Indonesia, it had a significant impact on employees working in companies, resulting in layoffs (Walton & Nurmandi 2021). The conflicts that occurred highlighted the role of MSMEs in Indonesia in building the economy effectively and being able to contribute to job creation (Maulana et al., 2022). However, post-Covid-19 has caused many MSME actors to experience a decline in sales, leading them to close their businesses (Sailendra, 2022).

Resilience during a crisis The MSMEs are expected to be able to minimize all internal or external obstacles and constraints (Maulana et al. 2022). The obstacles faced by MSMEs are related to cash flow, the procurement of raw materials, and declining market demand. Micro, Small, and Medium Enterprises (MSMEs) must be able to provide solutions to become the saviors of the national economy, and economic growth depends on the resilience of MSMEs when facing a crisis (Paramitha & Suhartini, 2022). Therefore, MSMEs are required to be able to adapt to existing



business developments because businesses that can survive are those that are responsive to the times (Walton & Nurmandi, 2021).

A business to adapt to the times must utilize technology, where MSMEs can enhance communication between sellers and buyers both domestically and internationally (Aswandy & Mariyanti 2022). Technology can change the way sales are conducted, eliminating the need for face-to-face transactions and transforming into a digital system that is still felt today (Sailendra, 2022). However, many entrepreneurs still struggle to understand the utilization of technology, which becomes an obstacle to the development of MSMEs (Dewi 2020).

The strategic role of a business actor is highly needed in situations dealing with threats before, during, and after they occur or are uncertain at any time by implementing crisis management (Ahmad 2020). The ability provided by crisis management to minimize potential losses and damages, protect the interests of employees and stakeholders, and strengthen a company's reputation in facing challenges (Suwandi 2023).

Resilience in a business can be created and enhanced through innovation, such as maintaining performance and updating a product (Putri et al. 2022). A small and medium-sized enterprise (SME) that possesses critical thinking skills and talent or understands all opportunities and conditions from various fields is assuredly more innovative. Once every expertise in renewal has been implemented, it is believed that an SME will achieve the expected success based on a well-prepared plan (Amanda & Nawawi 2022).

Therefore, resilience in MSMEs is indeed necessary as a supporter of the national economy. The resilience of MSMEs can endure with several supporting factors, namely the utilization of technology, crisis management, and product innovation. Each MSME has its own challenges and conflicts, but the impact of Covid-19 a few years ago had a negative effect on MSME actors who were not strong in maintaining their businesses. Therefore, the author is very interested in conducting research and understanding the current situation of SMEs regarding how to sustain their businesses in the Magelang region through the utilization of technology, crisis management, and product innovation.



## II. LITERATURE REVIEW

### **Business Resilience**

Business Resilience is an ability that is ready or adaptive in a situation where an event occurs unexpectedly or is currently happening. Every MSME is required to always be resilient and capable of implementing all solutions or innovative activities for continuous change (Putri et al. 2022). UMKM must be able to assess the situation and detect any readiness that could disrupt business resilience so that they can determine what needs to be planned and implemented to survive the onslaught of conflict (Paramitha & Suhartini 2022). SMEs are highly valued for the economy in Indonesia, serving as a source of income and an expansion of job opportunities that must be maintained (Maulana et al. 2022).

### **Utilization of Technology**

Technology is a tool with strategic capabilities that can be utilized to accelerate work activities; this technology can be in the form of software or hardware (Widiastuti et al. 2020). The utilization of technology is a capability within an organization to identify and develop all processes and products to excel and thereby improve performance (Putri et al. 2022). The role of technology has become very important, giving entrepreneurs the opportunity to grow and accelerate the development of MSMEs by expanding their business networks. The advancement of technology, which is increasingly sophisticated in terms of telecommunications, communication, and collaboration, can be carried out anywhere and even over long distances, facilitating communication between business partners, consumers, and investors (Aswandy and Mariyanti, 2022). Technological capabilities should already be possessed by every MSME, whether it has been established for a long time or is newly founded, for business development and as a hallmark of each MSME's reliability in creating and introducing to consumers (Putri et al. 2022).

### **Crisis Management**



Crisis management is the process by which an organization handles events that disrupt, threaten, endanger, and unexpectedly affect the organization or its stakeholders. In crisis management, systematic decision-making and the formation of special teams to make new decisions and achieve results as quickly as possible are essential (Ahmad 2020). The implementation of crisis management has become one of the necessary steps in maintaining a business. The strategies implemented consist of planning, testing, signaling, communication among employees, documentation, contingency plans, monitoring, and oversight (Rohmah & Arisudhana 2022).

### **Product Innovation**

Product innovation is an idea to add value to a product that has never been created before by an individual or unit in other users. Innovation has the ability to implement creative solutions to problems as well as opportunities to achieve business success and resilience. Innovation can enhance the organization's capacity to create resilience. Resilient MSMEs can always maintain high performance and renew themselves over time through innovation (Putri et al. 2022).

### **III. METHODS**

This research uses a quantitative approach with primary data. The population in this study consists of business actors located in the city of Magelang, totaling 10,585 MSMEs. The sample in the study was conducted using the Slovin method with purposive sampling according to the predetermined criteria, totaling 385 MSME units. Data collection techniques using interviews and Google Forms, The criteria determined:

1. UMKM owners located in the city of Magelang with a minimum of 2 employees
2. MSMEs must have been established for at least 4 years.

### **IV. RESULTS**

**Table 1. Results of the Validity Test**



No	Variabel	Indikator	KMO	Faktor Loading	Ket
1	Pemanfaatan Teknologi	X1.1	0,784	0,723	Valid
		X1.2		0,707	Valid
		X1.3		0,641	Valid
		X1.4		0,730	Valid
		X1.5		0,613	Valid
2	Manajemen Krisis	X2.1	0,675	0,938	Valid
		X2.2		0,929	Valid
		X2.3		0,811	Valid
3	Inovasi Produk	X3.1	0,813	0,645	Valid
		X3.2		0,943	Valid
		X3.3		0,943	Valid
		X3.4		0,956	Valid
4	Business Resilience	Y.1	0,878	0,797	Valid
		Y.2		0,824	Valid
		Y.3		0,841	Valid
		Y.4		0,826	Valid
		Y.5		0,783	Valid
		Y.6		0,528	Valid
		Y.7		0,533	Valid
		Y.8		0,543	Valid
		Y.9		0,534	Valid

Based on Table 1, the validity test can be determined that the research can be considered valid if the factor loading is greater than  $>0.50$ . It can be seen that in Table 1. The results of the validity test show that the KMO value is  $>0.50$ , so the variables of technology utilization, crisis management, product innovation, and business resilience can be considered valid.

**Table 2. Reliability Test Results**

Variabel	Nilai Cronbach Alpha	Ket
Pemanfaatan Teknologi	0,714	Reliabel
Manajemen Krisis	0,872	Reliabel
Inovasi Produk	0,897	Reliabel
Business Resilience	0,871	Reliabel

Based on Table 2. The results of the reliability test can be seen in the Cronbach's alpha value, where all variables have a value greater than 0.70, thus they can be considered reliable.

**Table 3. Results of Multiple Linear Regression Analysis**

Variabel	Business Resilience		
	B	t hitung	Sig.
Constant	22.068		.000
Pemanfaatan Teknologi	.069	.598	.550
Manajemen Krisis	.591	3.109	.002
Inovasi Produk	.333	2.228	.026
F		24.761	
R <sup>2</sup>		.157	

The multiple linear regression equation can be written using the formula:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

$$Y = 22.068 + 0.069X_1 + 0.591X_2 + 0.333X_3 + e$$

- The constant value shows the number 22.068, which means that if the independent variables (technology utilization, crisis management, and product innovation) are equal to 0, then the dependent variable business resilience in MSMEs is positive.
- The regression coefficient value for the technology utilization variable ( $X_1$ ) is 0.069



(positive) and the significance value is 0.550. It can be interpreted that the utilization of technology does not affect business resilience in MSMEs in the city of Magelang.

c. The regression coefficient value of the crisis management variable (X2) is 0.591 (positive) and the significance value is 0.002. It can be interpreted that crisis management has a positive effect on business resilience in MSMEs in the City of Magelang.

d. The regression coefficient value of the product innovation variable (X3) is 0.333 (positive) and the significance value is 0.26. It can be interpreted that product innovation has a positive impact on business resilience in SMEs in the city of Magelang.

**Table 4. Result of R<sup>2</sup> (Koefesien Determinasi)**

Adjusted R Square
.157

Based on Table 4, the R square test result of 0.163 indicates that the variables of technology utilization, crisis management, and product innovation explain 0.157 or 15.7% of the business resilience variable, while the remaining 84.3% is explained by other factors outside this research model.

**Table 5. Result of F**

F	Sig.
24.761	.000 <sup>b</sup>

Based on Table 4, it shows that the significance level is less than 0.05, namely 0.000, Ftabel 2.630, which means the research model used is valid or fit.

#### **Result of t**

Basically, the t-test suggests several independent single variables in addition to the dependent variable. The decision-making criteria in this test that must be met are as follows:

- If the calculated  $t > \text{table } t$  and the significance value  $> \alpha$  (0.05),  $H_a$  is accepted, meaning the independent variable partially affects the dependent variable.
- If  $t \text{ calculated} < t \text{ table}$  and the significance value  $> \alpha$  (0.05)  $H_0$  is accepted, it means



that the independent variable partially does not affect the dependent variable. The t-test shows how much influence one independent variable has individually in explaining the variation of the dependent variable. Based on the table  $df=n-k=381$ , the t-table value obtained is 1.649.

**a. The Influence of Technology Utilization on Business Resilience in MSMEs in Magelang City**

Based on the t-test results, the obtained t-value is 0.598 and the significance value is 0.550. The results show that  $t_{hitung} 0.598 < t_{tabel} 1.649$ , therefore it can be concluded that the variable of technology utilization does not affect business resilience in MSMEs in the City of Magelang.

**b. The Influence of Crisis Management on Business Resilience in MSMEs in Magelang City**

Based on the t-test results, the obtained t-value is 3.109 and the significance value is 0.550. The results indicate that  $t_{observed} 3.109 > t_{table} 1.649$ , thus it can be concluded that the crisis management variable has a positive effect on business resilience in MSMEs in the City of Magelang.

**c. The Influence of Product Innovation on Business Resilience in MSMEs in Magelang City**

Based on the t-test results, the obtained t-value is 2.228 and the significance value is 0.550. The results indicate that  $t_{observed} 2.228 > t_{table} 1.649$ , thus it can be concluded that the product innovation variable has a positive effect on business resilience in MSMEs in Magelang City.

## V. CONCLUSION AND SUGGESTION

This research aims to analyze and test the influence of technology utilization, crisis management, and product innovation on business resilience in SMEs in the city of Magelang. Based on the results of the tests that have been conducted, the conclusion in this research is as follows:

a. t-test results show that  $t_{calculated} 0.598 < t_{table} 1.649$ , so it can be concluded that the variable of technology utilization does not affect business resilience in MSMEs in



Magelang City. This means that as the utilization of technology increases, it will not affect the business resilience of MSMEs in Magelang City.

b. The t-test results show that  $t_{\text{observed}} 3.109 > t_{\text{table}} 1.649$ , so it can be concluded that the crisis management variable has a positive effect on business resilience in MSMEs in Magelang City. This means that the influence of crisis management adopted by MSMEs can enhance business resilience in the city of Magelang.

c. The t-test results show that  $t_{\text{calculated}} 2.228 > t_{\text{table}} 1.649$ , therefore it can be concluded that the product innovation variable has a positive effect on business resilience in MSMEs in Magelang City. This means that the implementation of product innovation carried out in MSMEs in Magelang City can enhance business resilience.

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