

# Analysis of Government Policy on MSME Development and Resilience

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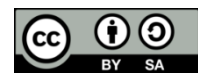
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## ABSTRACT

Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in improving regional economic growth, creating employment opportunities, and strengthening community economic resilience. However, MSME development in Gorontalo Province still faces various challenges, including limited access to capital, low human resource capacity, taxation complexity, and weak adaptation to digital transformation and economic crises. This study aims to analyze the influence of government policy on MSME development and resilience in Gorontalo Province through five main variables, namely tax policy, financing and access to capital, training and capacity development, crisis response policy, and sectoral/specific policy. This study applies a quantitative approach using explanatory research. Research data were collected by distributing questionnaires to 150 MSME actors in Gorontalo Province using purposive sampling. The data were analyzed using multiple linear regression. The results show that financing and access to capital have a positive and significant effect on MSME development and resilience, with a significance value of 0.003 (<0.05). Training and capacity development also have a positive and significant effect, with a significance value of 0.011 (<0.05). Furthermore, crisis response policy and sectoral/specific policy show significant effects, with significance values of 0.018 and 0.027, respectively. Meanwhile, tax policy has a positive but insignificant effect on MSME development and resilience, with a significance value of 0.086 (>0.05). The coefficient of determination shows an R Square value of 0.709, indicating that the research variables explain 70.9% of MSME development and resilience, while the remaining 29.1% is influenced by factors outside this study. This study concludes that adaptive, inclusive, and integrated government policies are essential for improving the competitiveness and sustainability of MSMEs in Gorontalo Province.

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## 1. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are a strategic sector that contributes significantly to national economic growth, employment creation, and community welfare. In Indonesia, MSMEs dominate the national economic structure and serve as the main pillar of

community economic activity, especially in trade, services, and creative industries. However, MSME development currently faces increasingly complex challenges due to global economic changes, digital transformation, and rising business competition. The current phenomenon indicates that many MSMEs still experience difficulties in increasing productivity, expanding markets, and maintaining business sustainability due to limited capital, low human resource capacity, and limited mastery of digital technology. In addition, economic policy changes and post-pandemic global instability have caused many MSMEs to experience declining income and operational disruption. This condition shows that MSMEs remain highly vulnerable to changes in the economic environment and government regulation. Altenburg et al. (2017) explain that the effectiveness of government policy is closely related to the ability of MSMEs to improve competitiveness and business resilience. Meanwhile, Aristovnik & Obadić (2015) emphasize that the quality of governance and public policy is an important factor in creating a business climate that supports sustainable MSME development. Therefore, adaptive and integrated policies are needed so that MSMEs can survive and grow within the dynamics of the modern economy.

One of the main problems still faced by MSMEs concerns the implementation of taxation policy and business regulation. Tax policies implemented by the government aim to increase state revenue and create a more transparent economic system. However, in practice, many MSMEs face difficulties in fulfilling tax obligations due to administrative complexity, limited financial literacy, and low utilization of digital technology. This phenomenon can be seen in the large number of MSMEs that are not yet able to report taxes independently and digitally, thereby increasing compliance costs and reducing business efficiency. Bhalla et al. (2023) state that the implementation of digital tax systems and Goods and Services Tax (GST) creates additional pressure on MSME cash flow due to increased working capital needs and administrative costs. Geeta et al. (2019) also explain that low technological readiness is one of the factors causing taxation policy to be less effective in encouraging MSME growth. On the other hand, the government has provided various incentives such as tax rate reductions, payment relaxation, and tax holidays to improve business sustainability, especially during economic crises (Basri et al., 2023). Nevertheless, the effectiveness of these policies still shows varied results across MSME sectors. This condition indicates an implementation problem in which policies are not fully aligned with MSME needs and characteristics, requiring a deeper evaluation of the impact of government policy on business sustainability.

In addition to taxation issues, limited access to financing and low human resource capacity remain major obstacles in MSME development. Many MSME actors encounter difficulties in obtaining financing from formal financial institutions due to limited collateral, weak credit history, and low financial literacy. Crawford et al. (2024) explain that government support through business credit and financing programs can increase MSME access to capital, but its effectiveness is still influenced by managerial readiness and the adaptive capacity of business actors. Another phenomenon shows that most MSMEs have not optimally utilized digital technology to improve marketing, operational efficiency, and broader market access. Lukonga (2021) states that digital transformation is an important factor in improving MSME productivity and competitiveness in the modern economy. However, low digital competence and entrepreneurial skills prevent many MSMEs from adapting to technological change. This condition is supported by Dixit & Sinha (2021), who explain that training and capacity development programs have a significant influence on productivity improvement and business sustainability. Therefore, strengthening training policy, capacity development, and financing inclusion is an urgent priority for the government in supporting sustainable MSME growth.

The urgency of this research has increased because unstable global economic conditions, changes in consumption patterns, and accelerated digital transformation have created new challenges for MSMEs. The COVID-19 pandemic clearly demonstrated that MSMEs are among the sectors most vulnerable to economic crises due to limited liquidity, weak risk management, and low technological adaptability. The government has issued various crisis response policies, such as stimulus assistance, financing subsidies, credit relaxation, and business digitalization support, to

maintain MSME continuity (Asravor et al., 2025). However, policy implementation still faces obstacles such as inaccurate targeting of assistance, low digital literacy among business actors, and weak sectoral policy coordination. In addition, previous studies generally focused only on one specific policy aspect, such as financing, taxation, or training, separately; therefore, they have not provided a comprehensive picture of policy interconnections in strengthening MSME resilience. The research gap of this study lies in the limited number of studies that simultaneously analyze the influence of tax policy, financing, capacity development, crisis response policy, and sectoral policy on MSME development and resilience within one integrated analytical framework. Most previous studies have also used partial approaches and have not integrated sustainability, digital transformation, and business adaptability into MSME policy analysis.

Based on these phenomena, problems, and research gaps, this study offers novelty by integrating five dimensions of government policy in relation to MSME development and resilience in a comprehensive manner. This study not only analyzes the partial influence of each policy but also evaluates the linkage among taxation, financing, capacity development, crisis response, and sectoral policies in improving MSME sustainability. In addition, this study positions digital transformation and business resilience as key perspectives in analyzing the effectiveness of government policy toward MSMEs in the modern economy. Another novelty lies in the use of a policy synthesis approach based on various empirical findings to produce a more adaptive, integrated, and sector-oriented policy model for MSMEs. Thus, this study is expected to provide theoretical contributions to MSME policy studies and practical recommendations for the government in formulating more effective, inclusive, and sustainable policies to improve MSME competitiveness and resilience at both national and global levels.

## 2. RESEARCH METHOD

This study uses a quantitative approach with explanatory research to analyze the influence of government policy on the development and resilience of Micro, Small, and Medium Enterprises (MSMEs). The quantitative approach was chosen because this study focuses on testing relationships among variables objectively through numerical measurement and statistical analysis. The independent variables in this study consist of tax policy (X1), financing and access to capital policy (X2), training and capacity development policy (X3), crisis response policy (X4), and sectoral/specific policy (X5). Meanwhile, the dependent variable is MSME development and resilience (Y). The study was conducted among MSME actors in Gorontalo Province, particularly in the trade, creative industry, culinary, and service sectors. The research location was selected because MSMEs in Gorontalo continue to grow but still face challenges related to access to capital, digital transformation, and business competitiveness.

The operational definitions of the research variables were formulated to clarify the scope of measurement and to ensure that each indicator was directed toward the research objectives. Tax policy refers to MSME actors' perceptions of tax regulation, tax incentives, ease of administration, and tax literacy support. Financing and access to capital refer to the availability, affordability, and accessibility of government-supported financing schemes, including business credit, interest subsidies, and financial inclusion programs. Training and capacity development refer to government programs that improve entrepreneurial skills, managerial ability, digital literacy, innovation capacity, and marketing competence. Crisis response policy refers to policy interventions provided during economic shocks, including stimulus assistance, credit relaxation, subsidies, and business recovery support. Sectoral/specific policy refers to government programs designed according to the characteristics of each MSME sector, such as cluster development, product promotion, technology assistance, and sector-based market facilitation. MSME development and resilience refer to the ability of MSMEs to improve business performance, maintain operational continuity, adapt to market changes, expand market access, and strengthen long-term sustainability.

The population in this study includes all MSME actors registered with the Office of Cooperatives, MSMEs, Industry, and Trade in Gorontalo Province. This population was selected because registered MSMEs are more identifiable, have clearer business legality, and are more likely to have interacted with government programs or policy interventions. The sampling technique used was purposive sampling with specific criteria, namely MSME actors who had actively operated their businesses for at least two years, had received or experienced the impact of government policy, and were willing to participate as research respondents. Purposive sampling was used because not all MSMEs have the same level of exposure to government policy; therefore, respondents needed to be selected based on their relevance to the research objectives. The number of samples was 150 respondents. The sample size was determined by referring to quantitative research requirements, which suggest a minimum sample size of 5 to 10 times the number of research indicators so that the statistical analysis results are more representative.

The research instrument was a closed-ended questionnaire using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Each variable was measured using several indicators developed based on relevant theories and previous studies on MSME policy. Data collection was carried out by distributing questionnaires directly and online to MSME actors in Gorontalo. In addition to primary data, this study also used secondary data obtained from government reports, publications from Statistics Indonesia (BPS), scientific journals, and other documents relevant to the study. Before being used in the main analysis, the research instrument was tested for validity and reliability to ensure that all statement items could measure the research variables accurately and consistently. The validity test was carried out using Pearson product-moment correlation with a significance value of  $<0.05$ , while the reliability test used Cronbach's Alpha with a minimum value of 0.70. The test results showed that all statement items were valid and reliable; therefore, they were appropriate for use as research instruments.

Before conducting multiple linear regression analysis, the data were tested through classical assumption tests to ensure that the regression model was statistically feasible. The assumption tests included normality, multicollinearity, heteroscedasticity, and autocorrelation tests. The normality test was used to determine whether the residual data were normally distributed. The multicollinearity test was used to examine whether there were strong correlations among independent variables. The heteroscedasticity test was used to determine whether the residual variance was constant, while the autocorrelation test was used to examine whether there was correlation among residuals. After the model met the classical assumptions, multiple linear regression analysis was applied to determine the influence of each government policy variable on MSME development and resilience in Gorontalo. Hypothesis testing was conducted at a significance level of 5% (0.05). If the significance value was less than 0.05, the independent variable was considered to have a significant effect on the dependent variable.

The regression equation model in this study is formulated as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + e$$

Description:

Y	= MSME Development and Resilience
a	= Constant
b1–b5	= Regression Coefficients
X1	= Tax Policy
X2	= Financing and Access to Capital Policy
X3	= Training and Capacity Development Policy
X4	= Crisis Response Policy
X5	= Sectoral/Specific Policy
e	= Error Term

### 3. RESULTS AND DISCUSSION

Before the multiple linear regression analysis was conducted, the regression model was first examined through classical assumption tests. The results of the tests show that the model fulfilled the requirements of normality, multicollinearity, heteroscedasticity, and autocorrelation. Therefore, the data were considered appropriate for further analysis using multiple linear regression.

Table 1. Classical Assumption Test Results

Assumption Test	Statistical Result	Criteria	Conclusion
Normality Test	Asymp. Sig. = 0.200	> 0.05	Normally distributed
Multicollinearity Test	Tolerance = 0.612–0.781; VIF = 1.280–1.635	Tolerance > 0.10; VIF < 10	No multicollinearity
Heteroscedasticity Test	Glejser Sig. = 0.164–0.738	> 0.05	No heteroscedasticity
Autocorrelation Test	Durbin-Watson = 1.934	Between dU and 4-dU	No autocorrelation

The normality test result shows a significance value greater than 0.05, indicating that the residual data were normally distributed. The multicollinearity test shows that all tolerance values were above 0.10 and all VIF values were below 10, which means that there was no multicollinearity among the independent variables. The heteroscedasticity test also shows significance values greater than 0.05, indicating that the regression model did not experience heteroscedasticity. Furthermore, the Durbin-Watson value indicates that the model did not contain autocorrelation. Based on these results, the regression model was statistically feasible for hypothesis testing.

Table 2. Multiple Linear Regression Analysis Results

Independent Variable	Regression Coefficient (B)	t-statistic	Sig.
Constant	4.215	3.104	0.002
Tax Policy (X1)	0.118	1.724	0.086
Financing and Access to Capital (X2)	0.356	3.021	0.003
Training and Capacity Development (X3)	0.287	2.587	0.011
Crisis Response Policy (X4)	0.241	2.392	0.018
Sectoral/Specific Policy (X5)	0.198	2.244	0.027

Based on the results of the analysis, financing and access to capital, training and capacity development, crisis response policy, and sectoral/specific policy have significance values lower than 0.05; therefore, they have a positive and significant effect on MSME development and resilience in Gorontalo Province. Meanwhile, tax policy has a significance value of 0.086 (>0.05), indicating that it does not have a significant effect on MSME development and resilience.

Table 3. Coefficient of Determination Results

Model	R	R Square (R <sup>2</sup> )	Adjusted R Square	Std. Error
1	0.842	0.709	0.694	1.842

The coefficient of determination shows an R Square (R<sup>2</sup>) value of 0.709 or 70.9%. This means that tax policy, financing and access to capital, training and capacity development, crisis response policy, and sectoral/specific policy collectively explain 70.9% of MSME development and resilience. Meanwhile, the remaining 29.1% is influenced by other variables outside the research model, such as market conditions, innovation capability, product quality, business environment, and consumer behavior.

The results show that financing and access to capital have a positive and significant effect on MSME development and resilience in Gorontalo Province. This finding indicates that easier access to financing is a key factor that determines MSME sustainability, especially in increasing production capacity, expanding markets, and maintaining business stability amid increasingly competitive economic conditions. Many MSME actors in Gorontalo still face limited business capital; therefore,

government support through people's business credit, interest subsidies, and financing assistance is highly important for business continuity. This finding is consistent with Crawford et al. (2024), who explain that government financing support has a significant influence on MSME growth and resilience. In addition, Moscalu et al. (2020) emphasize that financial market integration and inclusive financing access can strengthen the resilience of small and medium enterprises in facing economic change. This finding also shows that well-targeted financing policy can improve MSME adaptability to technological development and market change.

Training and capacity development policy also has a positive and significant effect on MSME development in Gorontalo Province. This result indicates that improving human resource capacity through entrepreneurship training, business management, digital marketing, and technological literacy plays an important role in increasing MSME productivity and competitiveness. MSME actors who receive training tend to have better abilities in managing businesses, developing product innovation, and utilizing digital technology in marketing and business operations. This finding is consistent with Dixit & Sinha (2021), who explain that structured training can improve employee competence and business productivity. In addition, Lukonga (2021) states that digital transformation is an important factor in strengthening MSME sustainability in the modern economy. This condition indicates that local governments need to increase the intensity of technology-based training programs so that MSMEs can adapt to the digital economy and improve business competitiveness sustainably.

The crisis response policy variable also shows a positive and significant effect on MSME development and resilience in Gorontalo Province. This indicates that government interventions during economic crises, such as stimulus assistance, credit relaxation, business subsidies, and digitalization support, can help MSMEs survive economic pressure. The COVID-19 pandemic demonstrated that MSMEs are highly vulnerable to declining market demand and supply chain disruption. Therefore, government support is an important factor in maintaining business continuity. This finding is consistent with Asravor et al. (2025), who state that government stimulus has a significant influence on MSME recovery and resilience after a crisis. Gupta & Kumar Singh (2023) also explain that adaptation strategies and crisis policy support can improve MSME resilience in facing economic uncertainty. This finding suggests that crisis response policy should be designed quickly, adaptively, and accurately targeted to strengthen community economic resilience through the MSME sector.

Sectoral or specific policy is also proven to have a significant effect on MSME development and resilience in Gorontalo Province. Sector-based policy is considered more effective because it can adjust to the needs and characteristics of each type of business. MSMEs in the culinary, handicraft, trade, and service sectors have different challenges and needs; therefore, they require more specific policy approaches. Business cluster development programs, technology assistance, local product promotion, and marketing facilitation are forms of support that can improve MSME competitiveness at both local and national levels. This finding is consistent with Nagayya & Tirumala Rao (2013), who explain that a sectoral approach can increase MSME productivity and innovation through collaboration and business network strengthening. In addition, Mohammed Shebeen et al. (2024) emphasize that Industry 4.0-based skill development can improve MSME readiness to face digital transformation. This finding shows that local governments need to strengthen sectoral policies based on regional leading potentials to improve local economic sustainability.

In contrast to the other variables, tax policy shows a positive but insignificant effect on MSME development and resilience in Gorontalo Province. This condition indicates that the tax policy implemented has not fully provided a direct impact on MSME growth. Many MSME actors still perceive the taxation system as a complex administrative burden that requires additional costs in its implementation. In addition, low tax literacy and limited use of digital technology cause some MSMEs to experience difficulties in fulfilling their tax obligations optimally. This finding is consistent with Geeta et al. (2019), who state that GST implementation creates administrative challenges for MSMEs due to limited understanding of technology and digital tax reporting systems.

Monachan et al. (2024) also explain that tax complexity and limited access to tax facilities remain barriers to MSME development. This condition indicates the need for tax regulation simplification and increased tax education for MSME actors so that tax policy can provide a more optimal impact on business development.

The coefficient of determination shows that all government policy variables in this study can explain MSME development and resilience by 70.9%. This value indicates that government policy contributes substantially to MSME sustainability in Gorontalo Province. However, other factors outside the research model also influence MSME development, such as market conditions, innovation capability, product quality, business environment, and consumer behavior. This finding suggests that MSME development is not only influenced by government policy but also requires support from various parties, including financial institutions, the private sector, academics, and the community. Therefore, strengthening multi-stakeholder collaboration is essential in creating a more productive and competitive MSME ecosystem.

This study also shows that digital transformation is strongly related to the effectiveness of government policy in MSME development. MSMEs that are able to utilize digital technology tend to access financing more easily, improve marketing performance, and maintain business continuity amid economic change. This condition indicates that digitalization is an important factor in strengthening MSME adaptability and resilience. Farliana et al. (2023) explain that the digital economy provides great opportunities for MSMEs to improve business efficiency and expand market access. In addition, Ruby et al. (2024) emphasize that technological innovation can improve business sustainability and MSME competitiveness globally. This finding is reinforced by the study "Exploring public sentiment toward Islamic banking apps: A case study of BSI Mobile in Indonesia," which shows that public acceptance of digital financial services is influenced by ease of application use, service quality, and user trust in banking digital technology (Rumra et al., 2025). This condition shows that the success of MSME digital transformation is also influenced by technological readiness and the digital literacy level of business actors in utilizing application-based financial services. Therefore, local governments need to strengthen digital infrastructure and improve technological literacy among MSME actors so that implemented policies can operate more effectively and sustainably.

Overall, the results of this study indicate that the success of MSME development and resilience in Gorontalo Province is strongly influenced by the effectiveness of adaptive, inclusive, and integrated government policies. Financing policy, capacity development, crisis response, and sectoral policy are proven to have a significant impact on MSME sustainability. Meanwhile, taxation policy still requires improvement so that it better aligns with MSME conditions and capabilities. This study strengthens the view that MSME development requires a comprehensive policy approach oriented toward the real needs of business actors. With appropriate policy support, MSMEs in Gorontalo Province have great potential to improve competitiveness, expand markets, and contribute to sustainable regional and national economic growth.

#### 4. CONCLUSION

Based on the research results, it can be concluded that government policy has a substantial influence on MSME development and resilience in Gorontalo Province. The results of multiple linear regression analysis show that financing and access to capital, training and capacity development, crisis response policy, and sectoral/specific policy have positive and significant effects on MSME development. Financing and access to capital is the most dominant factor in improving business sustainability because it helps MSME actors expand their businesses, increase production capacity, and maintain operational stability. In addition, training and capacity development policy improves managerial ability, innovation, and digital adaptation among MSME actors, thereby strengthening business competitiveness. Crisis response policy also plays an important role in maintaining MSME continuity during economic instability through stimulus assistance, subsidies, and business

digitalization support. Meanwhile, sectoral/specific policy improves MSME productivity and competitiveness through approaches based on business sector needs. However, tax policy shows a positive but insignificant effect on MSME development due to obstacles such as complex tax administration, low tax literacy, and limited use of digital technology by business actors. The coefficient of determination of 70.9% indicates that government policy has a strong contribution to MSME development and resilience, while the remaining percentage is influenced by factors outside the study, such as market conditions, product innovation, and the business environment. Therefore, the effectiveness of government policy must continue to be improved through more adaptive, inclusive, and sustainable approaches to strengthen MSME resilience and competitiveness in the digital economy era.

Based on these conclusions, this study provides several recommendations for local governments and related stakeholders. The Government of Gorontalo Province is expected to strengthen MSME financing policies by expanding access to business credit, simplifying financing requirements, and increasing support for MSME-based financial institutions. In addition, the government needs to improve digital and entrepreneurship-based training programs continuously so that MSME actors can adapt to technological developments and global market competition. Crisis response policies should also be designed more quickly, accurately targeted, and integrated to improve MSME resilience in facing future economic uncertainty. In terms of taxation, the government needs to simplify tax administration and increase tax education and literacy for MSME actors so that taxation policy can more effectively support business growth. Local governments are also expected to develop sectoral policies based on regional leading potentials, such as culinary, handicraft, and creative economy sectors, to increase the added value and competitiveness of Gorontalo MSME products. In addition, stronger collaboration among government, academics, the private sector, and the community is needed to build an innovative, productive, and sustainable MSME ecosystem. Future research is recommended to add other variables, such as digital transformation, product innovation, consumer behavior, and business environment, to provide a broader understanding of the factors influencing MSME development and resilience.

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