

THE INFLUENCE OF MICRO AND SMALL INDUSTRIES ON ECONOMIC GROWTH WEST SUMATRA PROVINCE

Imelfina Musthafa^{1*}, Hefrizal Handra², Efa Yonnedi³

¹ Study Program of Agribusiness, Payakumbuh State Agricultural Polytechnic, Indonesia

^{2,3} Faculty of Economics and Business, Andalas University, Indonesia

E-mail: ¹⁾ princejuna101015@gmail.com

Abstract

This research aims to determine the influence of the number of Micro and Small Industries (MSI), the number of MSI workers, and MSI income on the Regional Gross Domestic Product (RGDP) of West Sumatra Province. The analytical method used in this research is descriptive and quantitative analysis method. The sample for this research is the number of MSIs, number of MSI workers, MSI income and MSI RGDP from 2018 to 2020 which comes from the West Sumatra Province Central Statistics Agency consisting of 19 cities/regencies. The results of this research found that simultaneously there was a positive and significant influence of the number of MSIs, the number of MSI workers, and MSI income on the RGDP of West Sumatra Province. Government policy really needs to be implemented to create regulations that make it easier for MSI to grow and develop so that MSI has a large contribution to the RGDP of West Sumatra Province.

Keywords: Number of MSIs, Number of MSI Workers, MSI Income, RGDP

1. INTRODUCTION

Micro small and Medium Enterprises (MSMEs) have a significant impact on economic growth. MSMEs contribute to national GDP and can absorb a large number of low-educated workers, thereby creating job opportunities and improving the overall economy (Khotimah & Surhatono, 2023). The MSME sector is very important for the production of an economy's Gross Domestic Product (GDP), because it requires relatively low funds and can employ cheap labor (G. Putri et al., 2023). MSMEs also play an important role in economic growth, because MSMEs constitute the majority of business organizations and job creation throughout the world (Johan et al., 2022). MSMEs contribute to economic growth in Indonesia and Malaysia by increasing national income and absorbing a large number of workers (Salim et al., 2022). MSMEs have a positive and significant impact on economic growth in Indonesia. MSMEs contribute to GDP and employment, and MSMEs have demonstrated resilience during the economic crisis (Muliadi et al., 2020). MSMEs contribute to economic growth through employment opportunities, industrial production and exports, which contribute to GDP (KM et al., 2023). Overall, the growth and development of MSMEs is critical for economic progress and prosperity, making it a priority for governments and policy makers.

Studies conducted in South Africa, Nigeria, Indonesia, and Pakistan have all found a positive relationship between SMEs and economic growth. In South Africa, factors such as insufficient financial resources, innovation, business management skills and investment in human capital were identified as key factors hindering the contribution of SMEs to economic growth (Flepisi et al., 2023). In Nigeria, SMEs were found to

contribute 61% of GDP growth, highlighting the importance of SMEs in driving economic growth (John, 2021). Likewise, in Indonesia, economic growth coupled with technological innovation was found to increase the productivity of SMEs and improve community welfare (Surya et al., 2021). In Pakistan, SME output was found to have a direct and significant relationship with GDP growth, emphasizing the potential role of SMEs in driving economic growth (Ciurea et al., 2021). These findings highlight the importance of supporting and promoting SMEs to drive economic growth.

MSMEs are an innovation that can be used as a strong foundation for a country, especially Indonesia, which is still at the level of a developing country. It is hoped that MSMEs can play an important role in the economy in the future. Indonesia, looking at the history of Indonesia which has experienced a monetary crisis where MSMEs were able to survive and tended to increase at that time, while many large scale businesses suffered losses and even went bankrupt (Jam'iyatuzzulfiyyah, 2021).

According to the Central Statistics Agency, the number of MSIs from 2018 to 2020 has decreased. This happened because the whole world experienced the Covid19 pandemic outbreak which also had an impact on decreasing the number of MSIs in West Sumatra Province, namely in 2018 there were 108,588 MSIs, in 2019 there were 100,712 and in 2020 there were 94,392 MSIs. The decline in the number of MSIs was due to regulations limiting community activities, namely the implementation of Large-Scale Social Restrictions, so that people's space to carry out economic activities was limited. This research aims to see the influence of the number of MSIs, MSI workforce and MSI income on the RGDP of West Sumatra Province.

2. LITERATURE REVIEW

Schumpeter's theory of economic growth applies to small and medium-sized enterprises (SMEs) in several ways. First, SMEs contribute to job creation and thereby stimulate economic growth in a country (Islam et al., 2021). Second, investment and innovation have a positive impact on SME turnover, which in turn contributes to economic growth (Surya et al., 2021). In addition, economic growth coupled with technological innovation can increase the productivity of SMEs and improve community welfare (Gherghina et al., 2020). In addition, government policies, business capital support, and strengthening human resource capacity have a positive effect on the development of SMEs, which in turn encourages economic growth (John, 2021). SMEs play an important role in local economic development, job creation, innovation, and regional growth, all of which are key factors in Schumpeter's theory of economic growth.

Schumpeter's growth theory, developed by Aghion, Akcigit, and Howitt, focuses on the role of creativity in economic growth. This theory explains various aspects of the growth process, including competition, firm dynamics, firm size distribution, and reallocation across firms and across sectors (Aghion et al., 2015). This emphasizes the importance of innovation and technological progress in driving long-term economic growth (Peretto, 2015). Specifically, the theory suggests that the development of high-quality products that replace low-quality products is a major engine of economic growth. It also highlights the relationship between growth and development institutions, as well as the emergence and impact of long-term technological waves (Aghion et al., 2013).

Overall, Schumpeter's growth theory provides insight into the growth dynamics of small and medium-sized enterprises (SMEs) by emphasizing the role of innovation and creative destruction in driving economic progress.

Role of MSMEs in India's growth and development (Giri, 2014). The government policy to support the growth of MSMEs in India has resulted in the significance of MSMEs in various socio-economic goals such as higher economic growth, employment and exports (Zanjurne, 2018). There is a correlation between the expected growth rate and professional needs and the formation of MSMEs to achieve targeted growth (Kar & Subudhi, 2014). Digitalization of SMEs is also important for economic growth, as it allows them to provide goods and services digitally, reduce waste and fight unemployment (Ciurea et al., 2021). In Ghana, factors such as experience, human capital, and technology significantly influence the growth of SMEs and highlight the importance of SMEs to economic growth (Surya et al., 2021). However, the impact of MSMEs on economic growth can vary depending on factors such as investment credit, interest rates, and other macroeconomic factors (E. Putri et al., 2022).

MSMEs play an important role in absorbing labor and having an impact on economic growth. They are the largest contributors to national GDP and have the ability to absorb large numbers of workers, including those with low levels of education (Khotimah & Surhatono, 2023). In Indonesia, MSMEs have been found to absorb the majority of the workforce, with micro-enterprises alone accounting for 92% of the total workforce (Suhaili & Sugiharsono, 2019). The growth of MSMEs has played an important role in increasing economic growth in developing countries, including Indonesia (Muliadi et al., 2020). The labor intensity of the MSME sector is higher than that of large companies, making it the main source of employment growth (Scarf, 2015).

MSME income has a positive and significant impact on economic growth in the long term (Anuj et al., 2023). The MSME sector contributes significantly to the Indian economy, providing employment opportunities, reducing poverty, and encouraging innovation and entrepreneurship (Jalunggono et al., 2023). It plays an important role in industrialization, regional development, and the fair distribution of national income and wealth (Shekhar & Radha, 2019). Despite the growth potential, the MSME sector faces challenges in the domestic and global markets (Rana, 2018). The government has implemented various policy measures to support and strengthen the MSME sector. By addressing these challenges and implementing strategies to develop the sector's growth potential, the MSME sector can contribute to India's goal of becoming a 20 trillion dollar economy and creating millions of jobs (Singh & Paliwal, 2017).

3. RESEARCH METHODOLOGY

3.1. Research Sample

The sample for this research is the number of MSIs, number of MSI workers, MSI income and RGDP from 2018 to 2020 which comes from the West Sumatra Province Central Statistics Agency consisting of 19 cities/regencies.

3.2. Research design

The analytical method used in this research is descriptive and quantitative analysis method. This study tested the effect of the number of MSI, number of MSI workers, and MSI income on RGDP in the West Sumatra Province.

3.3. Data analysis method

This research data analysis method uses panel data regression equations. The equation for the panel data model using cross section and time series data is:

$$Y = \alpha_0 + \alpha_1 JML_{it} + \alpha_2 TK_{it} + \alpha_3 PND_{it} + e$$

Information:

Y	= RGDP of West Sumatra Province
JML	= Number of MSI
TK	= Number of MSI workers
PND	= MSI income
α_0	= Constant
$\alpha_1, \alpha_2, \alpha_3$	= Regression coefficient
i	= City/Regency
t	= Year
e	= Disturbance error

4. RESULTS AND DISCUSSION

4.1. Panel data model estimation test results

The Chow test and Hausman test are used to determine the most appropriate model for estimating from existing panel data.

4.2. Test Chow

The Chow test is carried out to determine which model is the best between the CEM model and the FEM model. Table 1 is the processing results for the CEM model and FEM model, namely:

Table 1. Chow test to choose between CEM and FEM models

Effects Test	Statistics	df	Prob.
Cross-section F	748.962276	(18.35)	0.0000
Chi-square cross-section	339.509393	18	0.0000

Source: Processed data, 2023

The probability value of 0.0000 from the results of processing table 1 shows that the null hypothesis is rejected while hypothesis one is accepted. This states that the best model of the CEM model and FEM model is the FEM model.

4.3. Hausman test

The Hausman test is carried out to determine which model is the best between the REM model and the FEM model. Table 2 is the processing results for the REM model and FEM model, namely:

Table 2. Housman test to choose between REM and FEM models

Test Summary	Chi-Sq. Statistics	Chi-Sq. df	Prob.
Random cross-section	36.226020	3	0.0000

Source: Processed data, 2023

The probability value of 0.0000 from the results of processing table 2 shows that the null hypothesis is rejected while hypothesis one is accepted. This states that the best model of the REM model and FEM model is the FEM model.

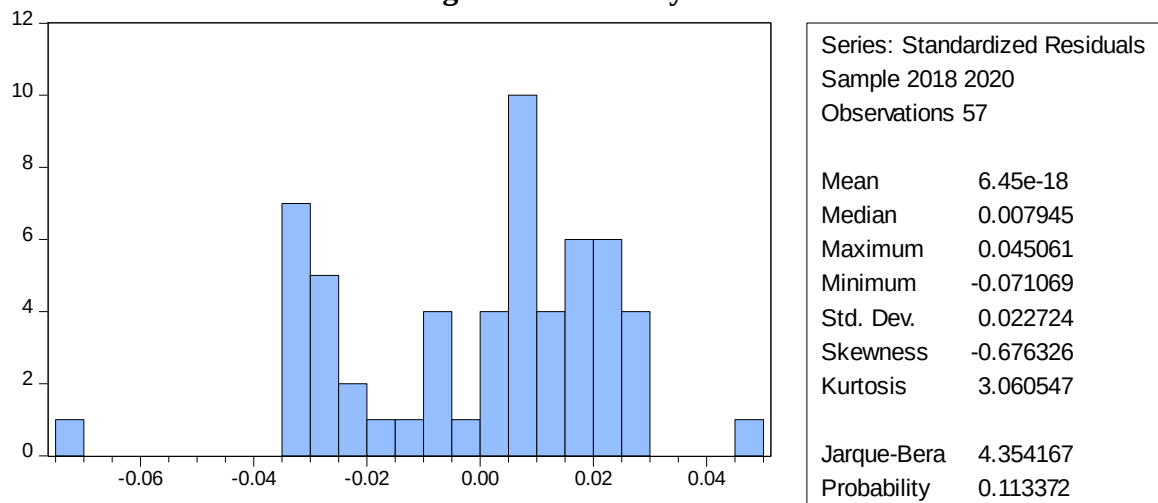
4.4. Test Assumptions

The results of data processing show that the FEM model is the best model of the CEM model and REM model so that the next stage is to test the classical assumptions consisting of normality test, multicollinearity test and heteroscedasticity test.

4.5. Normality test

To see that the data is normally distributed, a normality test can be carried out based on a probability value greater than 5%. The results obtained from data processing from Figure 1 show the probability value is 0.113372, meaning this value is greater than 5%, indicating that the data meets the normality test where the data is normally distributed.

Figure 1. Normality test



Source: Data processed (2023)

4.6. Multicollinearity Test

To see that the data meets the multicollinearity test, the correlation value between independent variables is smaller than 0.8. The results obtained from data processing from table 3 show that the correlation value between independent variables is smaller than 0.8, indicating that there is no multicollinearity.

Table 3. Multicollinearity Test

	Qty	Kindergarten	PND
Qty	1,000000	-0.171984	0.489786
Kindergarten	-0.171984	1,000000	0.124512
PND	0.489786	0.124512	1,000000

Source: Data processed (2023)

4.7. Heteroscedasticity Test

To see the data, there is no heteroscedasticity problem, the probability value is greater than 5%. The results obtained from data processing show a probability value greater than 5% stating that there is no heteroscedasticity in this panel data.

Table 4. Heteroscedasticity Result

Dependent Variable: REABS

Method: Least Squares Panel

Date: 12/07/23 Time: 07:25

Sample: 2018 2020

Periods included: 3

Cross-sections included: 19

Total panel (balanced) observations: 57

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	0.036127	0.031127	1.160612	0.2510
X1	-1.27E-07	4.12E-07	-0.306833	0.7602
X2	-0.002823	0.003659	-0.771498	0.4438
X3	-0.000780	0.001627	-0.479187	0.6338
R-squared	0.024332	Mean dependent var		0.018968
Adjusted R-squared	-0.030895	SD dependent var		0.012255
SE of regression	0.012443	Akaike info criterion		-5.867706
Sum squared resid	0.008206	Schwarz criterion		-5.724334
Log likelihood	171.2296	Hannan-Quinn Criter.		-5.811987
F-statistic	0.440579	Durbin-Watson stat		1.010568
Prob(F-statistic)	0.724930			

4.8. FEM model estimation test results

The results of panel data equation estimation regarding the influence of the number of MSI, MSI workforce, and MSI income on RGDP, can be seen in table 4 below:

Table 5. Estimation results of the Fixed Effect Method (FEM)

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	29.62681	0.085958	344.6676	0.0000
X1	-4.52E-06	3.99E-06	-1.134664	0.2642
X2	0.009266	0.013713	-0.675712	0.5037
X3	0.003230	0.004424	-0.730105	0.4702
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.998983	Mean dependent var	29.53524	
Adjusted R-squared	0.998372	SD dependent var	0.712482	
SE of regression	0.028744	Akaike info criterion	-3.976529	
Sum squared resid	0.028918	Schwarz criterion	-3.187983	
Log likelihood	135.3311	Hannan-Quinn Criter.	-3.670073	
F-statistic	1636.711	Durbin-Watson stat	2.917063	
Prob(F-statistic)	0.000000			

Source: processed data (2023)

The results of data processing from the table for the F test show that the statistical F probability value is 0.000, which is smaller than alpha 5%. states that the independent variables, namely the number of MSIs, the number of MSI workers and MSI income together have a significant influence on the RGDP of West Sumatra Province. The R-Squared model value from the data processing results shows 0.998983, meaning that 99.89% of the RGDP of West Sumatra Province is explained by the number of MSIs, the number of MSI workers and MSI income in the model. The remaining 0.11% is explained by other variables outside the research. The results of this research are in accordance with the results of research conducted by Sidin & Indarti (2020) found that the number of MSMEs and the number of MSME workers had a positive influence together on the contribution of Gross Domestic Product (GDP) with a value of 58.8% and the remaining 41.2% was caused by other factors.

5. CONCLUSIONS

This research shows that simultaneously there is a positive and significant influence on the number of MSIs, the number of MSI workers, MSI income on the RGDP of West Sumatra Province. This means that increasing the number of MSIs, MSI workers and MSI income needs to be carried out through government policies to create regulations that make it easier for MSIs to grow and develop. It is hoped that with a pro-MSI policy, MSI will make a major contribution to RGDP so that economic growth in West Sumatra Province will be better.

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