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The Effect of the Number of MSME Units, MSME GDP, and MSME Exports on Employment in the MSME Sector in Indonesia

Hendricus Lembang [1]*, Romualdus T. P. M. Djanggo [1] , Adelvince Noe Yona [1], dan Sebestina Siman[1]

[1] Universitas Musamus Merauke, Indonesia
Correspondence: hendricuslembang@unmus.ac.id

Abstract: The purpose of this research is to analyze the Effect of the number of UMKM units, UMKM GDP, and UMKM exports on employment in the UMKM sector in Indonesia. The data used are secondary data collected from 2010 to 2019. The data were analyzed using quantitative methods, and multiple linear regression was used with SPSS version 25. The research results show that, to some extent, the variable Number of UMKM Units has a positive and significant influence on labor absorption. UMKM GDP has a negative and significant influence on labor absorption; UMKM exports have a negative, but insignificant, influence on labor absorption. Simultaneously, the number of UMKM units, UMKM GDP, and UMKM exports influence employment in the UMKM sector in Indonesia.

Keywords: UMKM Units, UMKM GDP, UMKM Exports, and Labor Absorption

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1. INTRODUCTION

Rapid population growth in a country, coupled with an increase in the labor force, creates very complex problems. Population issues can affect population growth, the quality of small families, and environmental issues (Sari et al., 2023). A rapidly growing labor force will add to the burden on the economy, namely, the need for job creation. If new job vacancies cannot accommodate the entire workforce, this will lead to unemployment (Agustina et al. 2018). This is because not all areas of society are functioning properly, and development is not evenly distributed across sectors, resulting in a mismatch between available jobs and rapid, dynamic population growth. The formal sector has not been able to optimally accommodate and absorb the continued growth of the workforce, due to the imbalance between workforce growth and the number of available jobs. Therefore, the informal sector plays an important role in solving this problem, including the development of Micro, Small, and Medium Enterprises (MSMEs).

Labor absorption in the Micro, Small, and Medium Enterprises (MSME) sector is the process by which MSMEs employ individuals with various roles and responsibilities in their operations. This level of labor absorption is an important indicator of the contribution of Micro, Small, and Medium Enterprises to job creation in the country's economy. MSMEs have supported economic growth and reduced unemployment at the local level. (Febrianti, 2025) By increasing employment in the MSME sector, better opportunities can be created for the community to find work, increase income, and improve purchasing power. MSMEs are a major contributor to national development. (Nasution, 2024). These businesses are the driving force for achieving overall community welfare. (Afifah et al. 2024).

Micro, small, and medium enterprises (MSMEs) play a crucial role in economic development across various countries, including Indonesia. (Suhada et al. 2024) MSMEs are often considered an important pillar and backbone of the economy. (Akbar et al. 2024) This is because they contribute significantly to job creation and increased community income. Since the economic crisis in Indonesia several years ago, many large businesses have experienced stagnation or inactivity, or even ceased operations. However, the MSME sector weathered the crisis. The role of MSMEs in Indonesia is enormous and has proven to have saved our country's economy during the 1997-1998 economic crisis. Only MSMEs survived, while large companies that were highly advanced before the crisis and even received government support were unable to cope.

Although MSMEs have enormous potential for national economic development, in reality, the MSME sector still has weaknesses or obstacles. These obstacles include promotion, marketing, and capital. (Saputri et al. 2024) These weaknesses are both internal and external. Internal challenges for MSMEs may include limited resource management, such as capital, human resources, and inadequate infrastructure. In addition, time and financial management can also be internal problems. On the other hand, external challenges for MSMEs involve fierce market competition, limited market access, and consumer trends that are often difficult to predict. Access to technology, product innovation, and services are also significant external challenge for MSMEs.

Changes in global economic trends significantly impact employment in the MSME sector. In today's global economy, the dynamics of business competition, technological change, and shifting consumer preferences are increasingly complex. Advances in information and communication technology (ICT) have changed the business landscape, affecting the operational models of micro, small, and medium enterprises and driving changes in the skills required by each worker. In addition, economic globalization has brought new opportunities and challenges for micro, small, and medium enterprises. Along with opening access to international markets, globalization has also increased global competition. MSMEs must compete effectively to maintain or increase their market share, which is linked to their ability to grow and maintain employment (Siman et al. 2024). Therefore, a comprehensive understanding of how MSMEs manage changes in this employment landscape is essential to help MSMEs survive and thrive in a rapidly changing economic era.

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Table 1 Number of MSMEs and Employment Absorption in Indonesia

Year	Number of MSMEs (Units)	MSME GDP (Rp. Billion)	MSME Exports (Rp. Billion)	MSME Employment (people)
2010	52.764.603	1.212.599,30	162.254,52	96.211.332
2011	53.823.732	1 282.571,80	175 894,89	99.401.775
2012	55.206.444	1.369.326,00	187.441,82	101.722.458
2013	56.534.592	1.451.460,20	166.626,50	107.657.509
2014	57.895.721	1.536.918,80	182.112,70	114.144.082
2015	59.262.772	1.650.430,00	185.975,00	123.229.387
2016	61.651.177	5.171.063,60	255.126,15	112.828.610
2017	62.922.617	5.445.565,40	301.629,80	116.678.416
2018	63.913.260	5.721.148,10	293.840,90	116.978.631
2019	65.465.497	5.931.690,00	339.190,00	119.562.843

Source: Ministry of Cooperatives and SMEs and BPS

Table 1 shows that the number of MSMEs has increased year by year from 2012 to 2019, reflecting public interest in current small businesses, unlike labor absorption, which has fluctuated. Labor absorption in 2015 increased, making it the year with the highest MSME labor absorption. The increase in employment was due to several factors, namely 1) improving or stabilizing economic conditions, which enabled MSMEs to grow and expand their businesses and absorb more labor, and 2) increasing market demand for MSME products or services, which may have resulted from changing consumer trends or new market needs, prompting MSMEs to increase production and automatically require more labor. 3) Technological changes and better access to information can help MSMEs become more efficient. For example, using online platforms or other modern technologies can help MSMEs increase their production capacity and ultimately require more workers. In 2016, employment declined due to a drop in demand for MSME products, which reduced production and, consequently, employment.

Based on the above data, MSMEs' GDP has increased every year. The increase in GDP, reflected in greater output, will lead to more people working and higher purchasing power. This increase in people's purchasing power is driven by higher income or wages in the community. High purchasing power increases demand for goods and services, ultimately creating job opportunities. MSME exports refer to the export activities of Micro, Small, and Medium Enterprises (MSMEs). MSME exports can offer significant opportunities for MSMEs to increase sales, expand market reach, and enhance growth and competitiveness in global markets. MSMEs play an important role in economic growth, and exports are one of the strategies to boost the economy. As exports increase, so will the production of goods, requiring more labor. Based on data, MSME exports fluctuate every year, as they are influenced by the demand for exported goods.

2. LITERATURE REVIEW

2.1. Micro, Small, and Medium Enterprises (MSMEs)

According to the Central Statistics Agency, micro enterprises have 1 to 4 employees, small enterprises have 5 to 10 employees, and medium enterprises have 20 to 100 employees.

2.2. MSME Units

The Central Statistics Agency defines an MSME unit as a unit that carries out activities conducted by individuals or households, or by an agency, and has authority determined by the location of the physical building and its area of operation. In general, the growth of business units in a sector increases labor demand.

2.3. Gross Domestic Product (GDP)

Gross Domestic Product (GDP) is the total value of final goods and services produced by every productive sector in a country during a certain period.

2.4. MSME Exports

Exports are trade activities that can increase domestic demand. High output can increase the labor supply, thereby reducing unemployment, breaking the vicious cycle of poverty, and promoting economic development, which in turn drives economic growth.

2.5. Labor Absorption

Labor is the working-age population (15 years or older) who are employed or have a job but are temporarily not working, and who are looking for work. Labor absorption is the acceptance of workers to perform their duties as required, or the situation in which workers are available to fill jobs. Labor absorption is the number of people who can be accommodated to work in a business unit or job vacancy. Labor absorption is a condition in which the population can carry out activities to obtain service rewards or income. Thus, the research hypotheses are:

H1: The number of MSME units affects labor absorption in the MSME sector

H2: MSME GDP affects labor absorption in the MSME sector

H3: MSME exports influence labor absorption in the MSME sector.

H4: The number of MSME units, MSME GDP, and MSME exports simultaneously influence labor absorption in the MSME sector.

3. METHODOLOGY

This study uses quantitative research because it involves numbers and statistical analysis. Quantitative research is a research method based on concrete data. This study was conducted in Indonesia and lasted for approximately two months, from February to March 2024. This study uses secondary data. Secondary data is data obtained indirectly from data collectors or users, for example, through other people or parties (Sugiyono, 2016). The data sources in this study were obtained from the following parties: the Ministry of Cooperatives and SMEs and the BPS.

The dependent variable used in this study is labor absorption. Labor absorption in this study refers to the number of workers employed in the MSME sector in Indonesia from 2010 to 2019, expressed as the total number of individuals. The independent variables in this study are:

a. Number of MSME Units

The number of MSME units comprises several business units that drive the economy. This variable describes the number of MSME units from 2010 to 2019 (in units).

b. MSME GDP

The MSME GDP variable in this study describes MSME GDP by sector, based on

constant prices from 2010 to 2019 (in billions of rupiah).

c. MSME Exports

MSME exports are the total value of goods exported from 2010 to 2019, expressed in rupiah (in billions of rupiah)

To determine the effect of the variables Number of MSME units (X1), MSME GDP (X2), and MSME exports (X3) on employment in Indonesia, a regression equation was used, namely:

$$\mathbf{Y} = \boldsymbol{\alpha} + \boldsymbol{\beta_1 X_1} + \boldsymbol{\beta_2 X_2} + \boldsymbol{\beta_3 X_3} + \mathbf{e}$$

Then, from the above equation, in order to analyze the variables in the equation so that they are linear, the above equation can be derived as follows:

$$\ln\mathbf{Y} = \mathbf{ln}\boldsymbol{\alpha} + \mathbf{ln}\boldsymbol{\beta_1 X_1} + \mathbf{ln}\boldsymbol{\beta_2 X_2} + \mathbf{ln}\boldsymbol{\beta_3 X_3} + \mathbf{e}$$

Y = Employment
α = Constant
X1 = MSME Units
X2 = MSME GDP
X3 = MSME Exports
e = Error Term
β1,β2,β3 = Regression Coefficients for Each Variable
ln = Natural Logarithm

Hypothesis testing in this study began with classical assumption testing, including normality, multicollinearity, and heteroscedasticity tests. The normality test aims to determine whether the dependent and independent variables, both partially and simultaneously, are normally distributed or nearly normal, because a good regression model requires normal data (Ghozali, 2018). The normality test in this study was conducted using a normal probability plot, with the criterion that the data are considered normally distributed if the points do not deviate far from the diagonal line and follow a pattern around the normal line. Furthermore, the multicollinearity test was conducted to assess the presence or absence of correlation among the independent variables in the regression model. A good regression model should not exhibit a strong linear relationship among the independent variables. Multicollinearity was assessed using tolerance and Variance Inflation Factor (VIF) values: there is no multicollinearity if the tolerance value is greater than 0.01 or the VIF value is less than 10 (Rochaety, 2019).

The heteroscedasticity test assesses whether the residual variance differs across observations (Ghozali, 2018). A good regression model is one that does not exhibit heteroscedasticity. The heteroscedasticity test in this study uses the scatterplot method, with the criterion that if the points form a certain regular pattern, such as bulging and then narrowing, then heteroscedasticity occurs. Conversely, if there is no clear pattern and the points are scattered randomly above and below zero on the Y-axis, it can be concluded that the regression model does not experience heteroscedasticity.

4. RESULTS AND DISCUSSION

MSMEs are a key pillar of the Indonesian economy, contributing significantly to employment and economic growth. Therefore, understanding the dynamics of the number

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of MSME units is important as a basis for analysis in this study. The overview of the number of MSME units in Indonesia from 2010 to 2019 is presented as follows.

Table 2: Number of MSME Units

No.	Year	MSME Unit
1	2010	52.764.603
2	2011	53.823.732
3	2012	55.206.444
4	2013	56.534.592
5	2014	57.895.721
6	2015	59.262.772
7	2016	61.651.177
8	2017	62.922.617
9	2018	63.913.260
10	2019	65.465.497

Source: Ministry of Cooperatives and SMEs

The data above shows the growth in the number of MSME units in Indonesia. From 2010 to 2019, the number of MSMEs increased. The lowest number of MSMEs was in 2010, which was 52,764,603. This was because in 2010, access to technology and information was still limited, especially among MSMEs. MSMEs often face obstacles in expanding their market reach and increasing their competitiveness, because the internet was not yet a necessity as it is today. In addition, in 2010, supporting infrastructure businesses such as transportation were not as adequate as they are today. This made the distribution of MSME products more difficult and expensive, especially for companies operating in remote areas, hindering MSME players' ability to expand their businesses and increase the number of business units.

The number of MSMEs has increased every year due to several factors, namely the public's interest in existing small businesses and the growing number of entrepreneurs in MSMEs, resulting in an annual increase. The highest number of MSMEs was in 2019, which was 65,465,496. This was due to government programs that provided training, funding, and technical assistance to MSMEs, as well as to various measures implemented to support MSME growth. This included a series of training programs, more accessible financing, and improved business support infrastructure. In addition, technological developments and expanded internet access have made it easier for SMEs to sell their products online and enter the global market.

The Gross Domestic Product (GDP) of MSMEs is an important indicator for assessing their contribution to the national economy. The GDP of MSMEs reflects the added value generated by all MSME economic activities in a certain period, so it can be used to measure the role and performance of this sector in supporting economic growth. The overview of the GDP of MSMEs in Indonesia from 2010 to 2019 is as follows:

Table 3 GDP of MSMEs

No	Year	GDP of SMEs
1	2010	1.212.599,30
2	2011	1.282.571,80

3	2012	1.369.326,00
4	2013	1.451.460,20
5	2014	1.536.918,80
6	2015	1.650.430,00
7	2016	5.171.063,60
8	2017	5.445.565,40
9	2018	5.721.148,10
10	2019	5.931.690,00

Source: Ministry of Cooperatives and SMEs

The data above shows the annual growth of MSME GDP. It can be seen that MSME GDP has increased every year. In 2010, the MSME GDP was IDR 1,212,599.30, in 2011 it was IDR 1,282,571.80, in 2012 it was IDR 1,369,326.00, and it continues to increase every year. The highest MSME GDP was in 2019, amounting to Rp 5,931,690.00. This increase in GDP was driven by more MSMEs and higher MSME production. The increase in MSME production was driven by rising public demand for MSME goods and services.

The annual increase in GDP was also due to government support. Government support included the launch of various programs to improve MSME access to financial services, such as microbusiness and working capital loans. Among these programs was the People's Business Credit (KUR) program, which provided low-interest loans to MSMEs. This enabled MSMEs to increase their production. The increase in MSME GDP is also influenced by the innovation and creativity of MSME players themselves, as well as by the provision of adequate infrastructure, such as the construction of traditional markets and improved transportation access to rural areas, which help MSME players expand their market reach.

MSME exports in Indonesia are a strategic indicator of MSME competitiveness and ability to penetrate international markets. Export activities not only contribute to increasing foreign exchange reserves but also expand markets and enhance the added value of MSME products. The overview of the number of MSME exports in Indonesia from 2010 to 2019 is as follows:

Table 4 MSME Exports

No.	Year	MSME exports (Rp. billion)
1.	2010	162.254,52
2.	2011	175.894,89
3.	2012	187.1441,82
4.	2013	166.626,50
5.	2014	182.112,70
6.	2015	185.975,00
7.	2016	255.126,15
8.	2017	301.629,80
9.	2018	293.840,90

10.	2019	339.190,00

Source: Ministry of Cooperatives and SMEs

The data above shows the development of MSME exports each year. MSME exports have fluctuated. From 2010 to 2012, MSME exports increased, reaching Rp 162,254.52 in 2010, Rp 175,894.89 in 2011, and Rp 187,441.82 in 2012. This increase in MSME exports was driven by rising demand for MSME products in the global market, as well as greater access through e-commerce platforms and social networks, enabling many MSMEs to reach consumers beyond their usual geographical boundaries.

In 2013, MSME exports declined to Rp 166,626.50 due to major challenges faced by most small and medium-sized enterprises. Although MSME exports had been growing steadily, various external and internal factors led to a significant decline in MSME export performance. One of the main factors behind the decline in MSME exports was global economic instability and a slowdown in global economic growth. After the 2008 global financial crisis, many countries were still in the process of gradual economic recovery. This led to a decline in consumer purchasing power across various export markets, which, in turn, reduced demand for MSME products.

From 2014 to 2017, exports in the Micro, Small, and Medium Enterprises (MSME) sector experienced remarkable growth: IDR 182,112.70 in 2014, IDR 185,975.00 in 2015, IDR 255,126.15 in 2016, and IDR 301,629.80 in 2017. After facing difficulties the previous year, MSMEs bounced back by taking advantage of changes in the market environment and becoming more competitive in global markets. In early 2014, many MSMEs began implementing new, more innovative, market-oriented strategies.

Support from the government and financial institutions, as well as continuous technological developments, helped MSMEs strengthen their business base and open new avenues to export markets. One of the main factors in the increase in MSME exports from 2014 to 2017 was the advancement of information and communication technology.

E-commerce platforms and social networks enable MSMEs to reach consumers worldwide more efficiently and to reduce geographical barriers to international trade. In addition, breakthroughs in logistics and transportation have also facilitated the distribution of MSME products in various export markets. Access to more efficient and affordable shipping services will help reduce operating costs and increase MSMEs' competitiveness in the global market. The active role of the government in promoting international trade and supporting small and medium-sized enterprises is also key to success. The government helps MSMEs improve their ability to do business in the global market through training, coaching, and export promotion programs.

In 2018, employment declined further to Rp. 293,840.90. One of the main factors causing the decline in MSME exports is global economic instability. On the other hand, increasingly fierce competition from large producers and multinational companies also made conditions more difficult for small and medium-sized enterprises. The lack of production scale and access to adequate resources made it difficult for MSMEs to compete on product price and quality, as well as to maintain market share. Despite experiencing a decline in exports in 2018, MSMEs continued to seek solutions and overcome these obstacles. Many MSME players began to adopt new strategies, such as product diversification and quality improvement, so that in 2019, MSME exports increased again

to IDR 339,190.00 billion.

Labor absorption by MSMEs is an important indicator for assessing MSMEs' role in economic development and community welfare in Indonesia. MSMEs are known for providing a large number of jobs and for absorbing workers from various levels of education and skill. The general overview of MSME labor absorption in Indonesia from 2010 to 2019 is presented as follows.

Table 5 MSME labor absorption

No	Year	MSME Employment Absorption (People)
1	2010	96.211.332
2	2011	99.401.775
3	2012	101.722.458
4	2013	107.657.509
5	2014	114.144.082
6	2015	123.229.387
7	2016	112.828.610
8	2017	116.678.416
9	2018	116.978.631
10	2019	119.562.843

Source: Ministry of Cooperatives and SMEs

The data above shows the development of MSME employment in Indonesia. MSME employment increased from 2010 to 2015, namely in 2010 by 96,211,332, in 2011 by 99,401,775, in 2012 by 101,772,458, in 2013 by 107,657,509, in 2014 by 114,144,082, and in 2015 by 123,229,387. At the beginning of 2010, there was a significant change in Indonesia's economic landscape, particularly in the micro, small, and medium enterprise (MSME) sector. Increased economic growth and efforts to encourage the development of small, medium, and micro enterprises were the main drivers of increased employment in this sector. From 2010 to 2015, MSMEs became the backbone of the Indonesian economy, contributing significantly to economic growth and job creation.

Several factors led to increased employment in MSMEs during this period. First, there was government policy support focused on MSME development. The government encouraged MSME growth through various programs, including easier access to capital, skills training, and broader market access. Second, technological developments and increasingly widespread internet access opened up new development opportunities for MSMEs. Third, there was growing public awareness of the importance of supporting local products and small and medium-sized enterprises. This increased demand for MSME products ultimately impacted business growth and employment.

In 2016, Indonesia experienced a significant decline in employment in the micro, small, and medium enterprise (MSME) sector, with 112,828,610 jobs lost. During this period, several factors contributed to the decline in MSME employment, including technological changes and consumer trends. Technological advances have enabled

automation and production efficiency, thereby reducing the need for human labor in several MSME sectors. On the other hand, changes in consumer preferences and lifestyles can shift demand away from traditional MSMEs toward more modern, technology-based sectors.

From 2017 to 2019, Indonesia experienced an increase in labor absorption in the MSME sector. Several key factors can help strengthen this dynamic and create an environment conducive to economic growth and job creation. First, the government continues to focus on MSME development through various policies and programs. These measures help MSMEs to grow and develop sustainably, thereby creating more jobs for the local community. Various e-commerce platforms and social media enable MSMEs to expand their market reach, which ultimately requires more workers to meet the increasing demand.

The normality test in this analysis uses a normal probability plot. If the normal probability plot of the data distribution shows no points far from the normal line and the data distribution follows a pattern near the normal line, then the data is declared to be normally distributed.

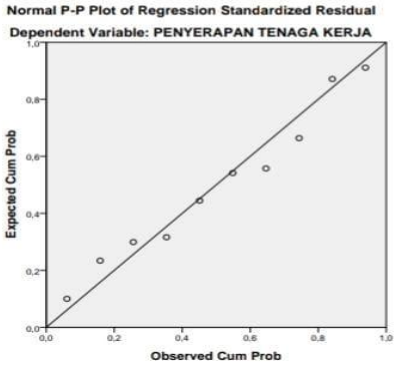

Figure 1 Normality Test Results

Based on the above normality test results using the normal probability plot test. From the normal probability plot graph above, it can be seen that the distribution of data used in this study forms points whose data are scattered around the normal line, so that the regression model can be used to test the hypothesis.

Multicollinearity testing is used to see whether there are disturbances in the research data. Multicollinearity occurs when there is correlation between independent variables. Data in the regression model is declared to have no multicollinearity if it has a VIF (Variance Inflation Factor) value of less than 10 or a tolerance value of greater than 0.01.

Table 6 Multicollinearity Test Results

Variabel	Tolerance	VIF
X1	0.824	5.076
X2	0.749	6.360
X3	0.754	8.617

Based on the results of the multicollinearity test above, it can be concluded that multicollinearity does not occur in the regression model. The tolerance value for the number of MSME units is 0.824, which is greater than 0.01, while the tolerance value for MSME GDP is 0.749, which is greater than 0.1, and the tolerance value for MSME exports

is 0.754, which is greater than 0.1. Furthermore, the VIF value for the number of MSME units variable is 5.076, which is less than 10, the VIF value for the MSME GDP variable is 6.360, which is less than 10, and the VIF value for the MSME exports variable is 8.617, which is less than 10, thus confirming the assumption that the data in this regression model is free from multicollinearity.

The purpose of the heteroscedasticity test is to test whether the regression model experiences differences in the variables from one observation to another. The heteroscedasticity test in this analysis uses a scatterplot.

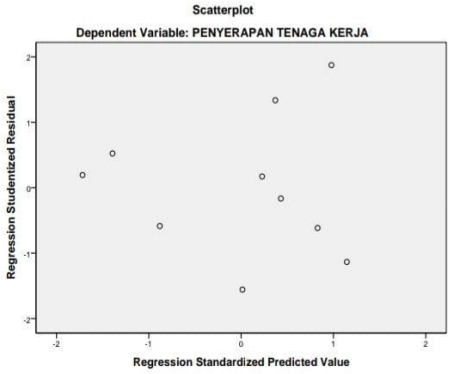

Figure 4.2 Heteroscedasticity Test Results

Based on the data processing results using SPSS 25 as presented in the scatterplot above, it can be seen that the points are scattered randomly and do not form a specific pattern and are scattered above and below zero on the Y-axis. So it can be concluded that the regression model in this study is free from heteroscedasticity.

Multiple linear regression is an analytical tool used to determine whether the independent variable (X) has an effect on the dependent variable (Y).

Table 7. Multiple Linear Regression Analysis Results

Model	B	Std. Error	Beta	t	Sig.
Constant	16.390	0.190	-	86.452	0.000
X1	4.042	0.000	2.104	10.711	0.000
X2	-3.253	0.000	-0.826	-2.747	0.033
X3	-6.833	0.000	-0.530	-1.725	0.135

Based on the results of calculations using SPSS, the coefficient values of the independent variables that influence the dependent variable are as follows: for the number of MSME units (X1) variable, the value is 4.042; for the MSME GDP variable, the value is -3.253; and for the MSME exports variable (X3), the value is -6.833, while the constant value is -16.390.

From the values obtained, the regression model can be entered into the multiple regression equation as follows:

$$Y = -16{,}390 + 4{,}042(X1) - 3{,}253(X2) - 6{,}833\ (X3) + e$$

The regression equation above is interpreted as follows:

1) The constant value (A) of -16.390 indicates that if the variables of the number of MSME units, MSME GDP, and MSME exports are assumed to be 0, then labor absorption will be -16.390.

2) The coefficient value of the number of MSME units variable (X1) of 4.042 indicates that if the number of MSME units increases by 1%, labor absorption will increase by 4.042.
3) The coefficient value of the MSME GDP variable (X2) is -3.253, indicating that if MSME GDP increases by 1%, labor absorption will decrease by -0.083.
4) The coefficient value of the MSME export variable (X3) is -3.253, indicating that if MSME exports increase by 1%, labor absorption will decrease by -3.253.

This test aims to determine whether there is a partial association between the independent and dependent variables in the regression model. The t-test is performed by comparing the t-table with the t-count at a significance level (α = 0.005).Tabel 8 Hasil Uji t

Model	B	Std. Error	Beta	t	Sig.
Constant	16.390	0.190	-	86.452	0.000
X1	4.042	0.000	2.104	10.711	0.000
X2	-3.253	0.000	-0.826	-2.747	0.033
X3	-6.833	0.000	-0.530	-1.725	0.135

Based on the t-test results for the three independent variables, which include the number of MSME units, MSME GDP, and MSME exports. For the number of MSME units variable, the t-value is 10.711, and the t-table value is 2.446, which is obtained from the t-table formula. Furthermore, the significance value is 0.000. If we see that the t-value is > t-table and the significance value is < 0.05, it means that the number of MSME units (X1) has a positive, significant effect on labor absorption (Y) to some extent. Thus, the first hypothesis (Ha) is accepted, and H0 is rejected.

For the MSME GDP variable, the t-value is 2.747, and the t-table value is 2.446, obtained from the t-table formula. Furthermore, the significance value is 0.033. If we look at the t-value > t-table and the significance value < 0.05. This means that the MSME GDP variable (X2) partially has a negative and significant effect on labor absorption (Y). Thus, the second hypothesis is accepted, meaning that Ha is accepted and H0 is rejected.

For the MSME export variable, the t-value is 1.725, and the t-table value is 2.446, obtained from the t-table formula. Furthermore, the significance value is 0.135. If we see that the t-value < t-table and the significance value > 0.05, it means that the MSME export variable (X3) partially affects labor absorption (Y). Thus, the third hypothesis is rejected.

The F-test simultaneously tests the effects of independent variables on dependent variables.

Table 9. F Test Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	0.063	3	0.021	62.962	0.000
Residual	0.002	6	0.000		
Total	0.065	9			

Based on the F test results in the table above, the calculated F value is 62.962, and the table F value is 4.76, which is obtained through the table F formula. The calculated F value is > table F. Furthermore, the significance value is 0.000, where the significance value is < 0.05. Thus, Hα is accepted, and H0 is rejected. It can be concluded that the three

variables, namely the number of MSME units, MSME GDP, and MSME exports, simultaneously affect labor absorption in the MSME sector in Indonesia.

The coefficient of determination indicates how much the independent variables explain or influence the dependent variables in the regression model. To obtain the best coefficient of determination, the adjusted R-squared is used. If the adjusted R square produces a calculation close to 1 (one), it can be concluded that the greater the influence of all independent variables on the dependent variable. Conversely, if the adjusted R square is close to 0 (zero), it can be concluded that the smaller the influence of all independent variables on the dependent variable

Table 10. Determination Coefficient Results

R	R Square	Adjusted R Square	Std. Error	Durbin-Watson	Model
0.984	0.969	0.954	0.01825	1.739	1

The results of the above calculation show a coefficient of determination value of 0.954 based on the adjusted R square value, so it can be concluded that the independent variables can partially explain the dependent variable with an adjusted R square value of 95.4%, and the remaining 4.6% is explained by other variables not examined in this study.

4.1. The Effect of the Number of MSME Units on Employment

According to the t-test results, the number of MSME units has a positive and significant effect, with a coefficient of 4.042 and a significance value of 0.000, on employment in the MSME sector in Indonesia in 2010-2019.

This shows that a 1% increase in the number of MSME units will lead to a 4.042% increase in labor absorption in the MSME sector. This is consistent with the research hypothesis, which posits that the number of MSME units has a direct, positive, and significant effect on labor absorption in the MSME sector in Indonesia.

Increased investment will increase the number of companies. (Kholiani, et al. 2024) An increase in the number of companies will increase output, thereby increasing employment and reducing unemployment. With the addition of new business units, a company will need more workers to carry out its activities, so the number of workers employed will also increase. Therefore, it can be concluded that the number of business units is positively associated with labor absorption.

The results of this study are also in line with previous research conducted by Nursanah Bustam in her study entitled "The Effect of the Number of MSME Units, MSME GDP, and MSME Investment on Labor Absorption in the MSME Sector in Indonesia for the Period 2009-2013," which found that the number of units has a positive and significant effect on labor absorption in the MSME sector in Indonesia.

Therefore, if we look at the economic activities of the Indonesian people, they tend to be small, medium, and medium-scale businesses, which can be a potential sector for employment in the MSME sector. There are also various government programs that support MSMEs, such as the People's Business Credit (KUR) program, which provides low-interest loans to MSMEs, thereby helping them obtain easier, more affordable access to capital. With easier access to capital, MSMEs can purchase the raw materials and technology needed to increase production capacity, thereby requiring more labor.

4.2. The Effect of MSME GDP on Employment

Based on the analysis of MSME GDP variable data, there is a negative and significant effect on employment in the MSME sector in Indonesia, with a coefficient of -3.253 and a significance level of 0.033. This shows that if MSME GDP increases by 1 percent, employment will decrease by 3.253.

In his book "Microeconomics of Unbalanced Growth: The Anatomy of Urban Crisis," Baumol discusses how some economic sectors, particularly the service sector, experience high GDP growth but do not absorb much labor. According to their article, "The Role of Unemployment in the Rise in Alternative Work Arrangements," structural changes in the economy, such as the increased use of technology and automation, can lead to higher economic output without labor absorption.

In this study, MSME GDP negatively affects labor absorption. This occurs because the use of new technology in the production process can increase production efficiency, thereby reducing human labor and enabling the application of more economical, effective, and efficient working methods.

4.3. The Effect of MSME Exports on Employment

Based on the analysis, MSME exports do not affect employment in the MSME sector in Indonesia, with a coefficient of -6.833 and a significance value of 0.135. This is not consistent with the research hypothesis, which posits that MSME exports have a significant effect on employment in the MSME sector in Indonesia.

According to Dani Rodrik in his book "Has Globalization Gone Too Far?", the benefits of exports do not always translate into increased domestic employment. Rodrik argues that globalization and export expansion often lead to increased productivity, reducing the need for labor, especially in manufacturing. In addition, the benefits of exports are not distributed evenly across the economy, so some sectors do not experience employment growth even as exports rise.

This study is in line with a previous research journal conducted by Bu'ulolo et al. in 2019 entitled Analysis of the Effect of the Number of Business Units, Export Value and Economic Growth on Labor Absorption in the MSME Sector in Indonesia, which states that export value has no effect on labor absorption in the MSME sector in Indonesia. In this study, the MSME export variable does not influence employment. An increase in exports is not always directly proportional to an increase in employment. Factors such as increased productivity, the capital-intensive nature of the export sector, and the unequal distribution of profits can contribute to a situation in which exports increase without being matched by an increase in employment.

4.4. The Effect of the Number of MSME Units, MSME GDP, and MSME Exports on Employment

Based on the results of multiple linear regression, the variables number of MSME units, MSME GDP, and MSME exports have a simultaneous effect on employment in the MSME sector in Indonesia. This is evidenced by the F count of 62.962 > F table (4.76) and by the significance table, which shows 0.000 < 0.05; thus, the independent and dependent

variables have a positive and significant effect. Meanwhile, the adjusted R-square is 0.954, indicating that the independent variables explain 95.4% of the variance.

5. CONCLUSION

Based on the results of data processing and analysis in this study, it can be concluded that the number of MSME units partially has a positive and significant effect on employment in the MSME sector in Indonesia. This shows that an increase in the number of MSME units will encourage employment growth, while a decrease in the number of MSME units will result in a reduction in employment in this sector.

Furthermore, MSME GDP has been shown to have a negative and significant effect on MSME employment in Indonesia, indicating that an increase in MSME GDP is not always accompanied by an increase in employment, but rather tends to be associated with a decrease in the number of workers employed. Meanwhile, MSME exports have no significant partial effect on MSME employment in Indonesia, so it can be concluded that changes in MSME export levels have not had a direct impact on the number of workers employed. However, simultaneously, the number of MSME units, MSME GDP, and MSME exports have a significant effect on labor absorption in the MSME sector in Indonesia. This shows that changes in these three variables together affect labor absorption: increases tend to raise it, while decreases can reduce it in the MSME sector.

Based on the discussion outlined in this study, the author offers several suggestions that are expected to be considered by the relevant parties. The government is expected to continue increasing its support for MSME development, particularly through policies to reduce loan interest rates to encourage growth in the number of business units, especially on a small scale, and to increase investment in the MSME sector to expand employment opportunities. In addition, the government is advised to provide tax relief, simplify and accelerate the business licensing process, and strengthen cooperation with banks and other financial institutions to facilitate access to financing and encourage the upgrading of MSME business classes. Furthermore, training and education programs for MSME workers need to be continuously implemented to improve skills, particularly in the use of technology, so that MSMEs can increase productivity and competitiveness. Furthermore, future researchers are advised to expand their research by including additional variables that may affect labor absorption in the MSME sector in Indonesia, thereby making the research results more comprehensive.

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