DETERMINANTS OF LABOR ABSORPTION IN THE MSME SECTOR IN REGENCIES AND CITIES OF WEST JAVA PROVINCE

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ABSTRACT

This study aims This study aims to examine how labor absorption in the Micro, Small, and Medium Enterprises (MSME) sector in West Java Province is influenced by Gross Regional Domestic Product (GRDP), Average Years of Schooling (AYS), and the Regency/City Minimum Wage (RCMW) between 2018 and 2022. A multiple regression analysis was employed as the quantitative method of analysis in this research.The findings reveal that the RCMW significantly enhances labor absorption in the MSME sector. Although some MSMEs face challenges in adjusting to the rising wage costs, the increase in minimum wages ultimately benefits workers' welfare and makes the MSME sector more attractive to employers. Moreover, AYS also has a significant positive impact on labor absorption. Higher education levels among the workforce contribute to improved productivity and enable MSMEs to expand their staff capacity.In contrast, GRDP demonstrates a significant negative impact on labor absorption in the MSME sector. The growth in regional income, predominantly driven by large-scale industrial sectors, tends to favor capital-intensive industries over labor-intensive MSMEs.This study underscores the importance of inclusive policies to support MSMEs. These policies may include adjusting minimum wages in alignment with the region's economic capacity, expanding access to education and training programs, and enhancing MSMEs' capacity development. In doing so, the MSME sector is expected to grow sustainably, increase labor absorption, and make a substantial contribution to the economy of West Java Province.

Keywords: Minimum Wage, Average Years of Schooling, Gross Regional Domestic Product, Labor Absorption, MSMEs

ABSTRAK

Penelitian ini bertujuan untuk mengkaji bagaimana penyerapan tenaga kerja di sektor Usaha Mikro, Kecil, dan Menengah (UMKM) di Provinsi Jawa Barat dipengaruhi oleh PDB, Rata-rata Lama Pendidikan (RLS), dan Upah Minimum (UMK) Kabupaten/Kota antara tahun 2018 dan 2022. Analisis regresi berganda adalah strategi kuantitatif yang digunakan dalam metodologi penelitian. Temuan penelitian menunjukkan bahwa UMK secara signifikan meningkatkan penyerapan tenaga kerja. Meskipun beberapa UMKM merasa sulit untuk beradaptasi dengan kenaikan biaya upah, pertumbuhan UMK menguntungkan kesejahteraan pekerja dan membuat

sektor UMKM lebih menarik bagi pemberi kerja. Selain itu, RLS secara signifikan meningkatkan penyerapan tenaga kerja. UMKM lebih produktif dan memiliki staf yang lebih besar karena untuk meningkatkan pendidikan. Sementara itu, penyerapan tenaga kerja sektor UMKM berdampak negatif secara signifikan oleh PDRB. Pertumbuhan PDRB yang didominasi sektor industri besar lebih menguntungkan sektor padat modal daripada sektor UMKM yang lebih bergantung pada tenaga kerja. Studi ini menyoroti pentingnya kebijakan inklusif untuk mendukung UMKM, seperti penyesuaian UMK yang sesuai dengan daya dukung ekonomi daerah, peningkatan akses pendidikan dan pelatihan, serta dukungan terhadap pengembangan kapasitas UMKM. Dengan demikian, sektor UMKM diharapkan dapat berkembang secara berkelanjutan, menaikkan penyerapan tenaga kerja, dan berkontribusi besar untuk perekonomian Jawa Barat.

Introduction

Building a strong economy is one of the primary goals of developing countries in their pursuit of equitable and sustainable development. A robust economic foundation can accelerate economic growth, generate more employment opportunities, and enhance the quality of human resources. This objective is particularly relevant for Indonesia, which is currently facing the serious challenge of high unemployment rates. Unemployment in Indonesia is driven by several factors, including inadequate workforce skills, limited access to education, and a mismatch between the number of job seekers and labor market demand. In this context, a study by Sinta and Bu (2020) emphasizes that the availability of sufficient job opportunities can serve as a key solution to reducing unemployment while also alleviating poverty. However, generating a substantial number of jobs requires well-targeted policy support. Therefore, strategic sectors such as Micro, Small, and Medium Enterprises (MSMEs) need special attention as viable solutions to strengthen the national economy. MSMEs are not only economic drivers but also serve as crucial instruments in addressing social inequality. With their vast potential, MSMEs are expected to play a vital role as catalysts for promoting inclusive and sustainable development.

MSMEs in Indonesia have immense potential while simultaneously facing significant challenges in contributing to the national economy. According to established criteria, micro-enterprises are defined as businesses with a maximum net asset value of IDR 50 million, while small enterprises include those with net assets ranging from IDR 50 million to IDR 500 million. Conversely, medium enterprises are characterized by having net assets of up to IDR 10 billion. Each category of MSMEs contributes differently to the economy, from job creation to stimulating other sectors within the domestic economic structure. Moreover, MSMEs serve as a key pillar in reducing socio-economic disparities by distributing business activities across various regions. Data shows that MSMEs have a direct impact on improving community welfare, particularly in rural areas. However, the sector continues to face several obstacles, including limited access to financing, suboptimal use of technology, and a lack of professional business management. Therefore, strategies to strengthen MSMEs must involve comprehensive empowerment ranging from financing support and skill development to the adoption of modern technologies. Through this approach, MSMEs are expected to better adapt to global challenges while increasing their contribution to Indonesia's national economy.

According to the Ministry of Cooperatives and Small and Medium Enterprises (2021), Micro, Small, and Medium Enterprises (MSMEs) made a significant contribution to Indonesia's Gross Domestic Product (GDP), amounting to IDR 8,573.89 trillion, or approximately 61.07% of the total GDP. This sector also serves as the largest absorber of labor in the country, accounting for 97% of total employment. These figures highlight the critical role of MSMEs in maintaining economic stability, particularly during crisis periods such as the COVID-19 pandemic. In West Java, the MSME sector plays a vital role, with the number of business units reaching 1,494,723 in 2022 (Ministry of Cooperatives and MSMEs, 2023). However, despite their substantial contribution, unemployment remains a serious issue. Data from Statistics Indonesia (BPS) indicate that the open unemployment rate (OUR) in West Java reached 8.31% in 2022, with the number of unemployed individuals totaling 2.13 million. This indicates that the labor absorption potential of MSMEs has not yet been fully optimized. Therefore, more targeted interventions are necessary to strengthen the MSME sector, including fiscal support, training programs, and the development of a more conducive business ecosystem. Such measures are expected to enhance the sector's contribution to job creation and help reduce unemployment rates in the region.

The unemployment challenge in West Java becomes even more apparent when examining the Open Unemployment Rate (OUR) in greater detail at the regency and city levels. Bogor City recorded the highest OUR at 10.78%, followed by Cimahi City (10.77%), Bogor Regency (10.64%), Bekasi Regency (10.31%), and Karawang Regency (9.87%). In contrast, several regions demonstrated significantly lower unemployment rates, such as Pangandaran Regency (1.56%), Ciamis Regency (3.75%), and Majalengka Regency (4.16%). This disparity reflects an uneven distribution of job opportunities and entrepreneurial prospects across the province. Although MSMEs have played a positive role in reducing unemployment, the sustainability of these business units remains a pressing challenge. Data from Statistics Indonesia (BPS) show that the number of MSME units in West Java fluctuated throughout the 2018–2022 period. A significant decline occurred during the COVID-19 pandemic, which severely affected the overall resilience of the MSME sector. This instability underscores the need to strengthen the foundation of MSMEs through policies focused on business resilience and adaptability to external shocks. Therefore, strategic actions such as improving market access, promoting business digitalization, and enhancing managerial capacity must be prioritized.

Another factor influencing the appeal of the MSME sector as a major source of employment is the policy on the Regency/City Minimum Wage (RCMW). Between 2018 and 2022, the UMK in West Java experienced significant increases in several regions, including Bekasi and Bandung. Although these wage hikes have improved people's purchasing power, they have also placed considerable pressure on MSME operators. The rise in operational costs has often made it difficult for MSMEs to maintain their existing workforce. In some cases, MSMEs have been forced to reduce the number of employees in order to adjust to the heavier financial burden. Therefore, RCMW policies must be designed with careful consideration of the local economic characteristics, ensuring that they do not overly burden small business operators. In addition, incentives such as wage subsidies or tax reductions can help MSMEs survive amid these challenges. Through such an approach, the MSME sector is expected to continue playing its key role as a major absorber of labor and a driving force of the economy.

Education is a key factor in improving the quality of labor in the MSME sector. The average years of schooling in West Java during the 2018-2022 period show significant fluctuations. This instability has a direct impact on the quality of labor available for the MSME sector. Sulistiawati (2012) asserts that improving workforce skills must be supported by the use of modern technology. Thus, training that is integrated with technological advancements

is crucial to improving the productivity of MSMEs. In addition, collaboration between the government and the private sector in providing vocational education can be a solution to meet labor market needs. A skilled workforce not only improves the competitiveness of MSMEs but also helps the sector adapt to dynamic market changes. Efforts to improve the quality of this workforce should be an integral part of the MSME development strategy, so that it can make a greater contribution to the national economy.

Another important indicator reflecting economic growth is the Gross Regional Domestic Product (GRDP). A high GRDP in a region signifies significant potential for creating new jobs and businesses. However, data from the Central Bureau of Statistics (BPS) shows that GRDP in West Java experienced instability between 2018 and 2022. This instability reflects the economic disparity between regions, leading to uneven job creation. Some regions with high GRDP have not been able to absorb labor optimally, while regions with low GRDP face limitations in generating business opportunities. This disparity highlights the need for more effective policies to support inclusive economic growth. Strengthening the MSME sector in areas with low GRDP can be one of the solutions to reduce economic inequality. Furthermore, synergy between the central and regional governments in designing policies that support MSME growth is also essential. With the right approach, MSMEs can become the main driving force for fostering equitable and sustainable economic growth across all regions of Indonesia.

Based on this, the first hypothesis can be proposed as follows:

H1: The minimum wage of the Regency/City has a significant effect on the absorption   of labor work in the MSME sector.

H2: Average years of schooling has a significant effect on the absorption of labor in the MSME sector.

H3: Gross Regional Domestic Product (GRDP) has a significant effect on the absorption of labor in the MSME sector.

Literature Review

Theoretical Review

The labor force is an individual who is of working age and the population is unemployed but trying to find a job, while labor absorption is the number of jobs in a sector that has been filled, as seen from the large number of people working in the sector.

According to classical theory, an economy that relies on market mechanisms will tend to move towards equilibrium. On the contrary, Keynesian policy emphasizes the need for government intervention in addressing labor problems. Keynes (1936) stated that there is no automatic mechanism that ensures the achievement of economic equilibrium at the level of full utilization of the labor force. In practice, the labor market does not always operate according to classical principles. Keynes emphasized that the government has an important role in overcoming unemployment by increasing public spending and providing motivation to companies to increase the number of workers employed.
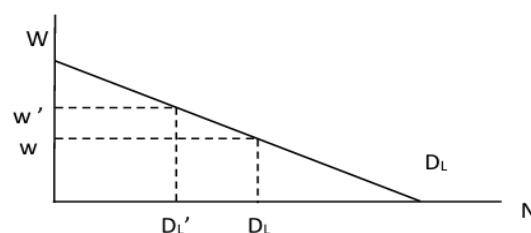

Figure 1: Labor Demand Curve

Information:
D_L: Labor Demand
W: Real wage
N: Number of Workers

The curve above explains the demand for labor. If the wage level is as high as at the point W', then the demand for labor will be slightly equal to the DL', and if the price of labor can increase by DL'.

Mulyadi (2017) said that education functions as a means to avoid poverty and has a main role in development, namely playing a key role in shaping a country's capacity to use the latest technology and develop skills to create sustainable growth and development. The importance of education in improving the economy and community welfare cannot be ignored. Education is considered a key element in our lives, where a person with a level of ability, skills, and higher education tends to have a greater opportunity to achieve a high income if compared to those with a low level (Feriyanto, 2016).

Economic growth measured by constant price GRDP Feriyanto, (2016) said that if economic growth is favorable, the prospects for business activities in the country or region are also likely to improve. Strong economic growth encourages high levels of economic activity, as it can motivate producers to enhance their production capacity by expanding factories. The expansion of factories can promote greater labor absorption.

Empirical Review

Several studies show a positive and significant relationship between the minimum wage and labor absorption. Anggraini (2020) found that in Jambi, the minimum wage has a significant influence on labor absorption through multiple linear regression analysis using BPS data. Wiasih and Karmini (2021) in Bali concluded that wage levels, economic growth, and the number of labor force contribute positively to labor absorption. In addition, Nurichsan and Setyowati (2023) identified that the minimum wage in North Sumatra significantly affects labor absorption in the context of MSMEs. However, other indicators such as HDI do not have the same effect. Research in Takalar Regency by Insana and Mahmud (2021) also corroborates similar findings, where the minimum wage has a significant effect on increasing labor absorption.

On the contrary, some studies reveal that the minimum wage actually has a negative impact on labor absorption. Perdana (2025) in a study in Lampung found that the increase in the minimum wage tends to reduce the capacity of MSMEs to absorb labor due to increasing operational costs. Putri and Soelistyo (2018), who researched the Gerbangkertasusila area reported that the minimum wage and GDP had a negative effect on labor absorption. This phenomenon is often associated with cost pressures experienced by MSMEs, leading to a reduction in the number of workers or stagnation in the creation of new jobs. A similar thing was found by Yasin and Kartini (2023) in Sidoarjo, which showed that the wage The minimum is not significant and even has a negative impact on labor absorption in the industrial sector.

Makna (2018) found that the average years of schooling has a positive influence on labor absorption. The study highlights that an increase in the average years of schooling improves the quality and skills of the workforce, which in turn increases absorption in the labor market. Alamsyah and Effendi (2020) also concluded that the level of education is the dominant factor in influencing labor absorption in South Kalimantan. In addition, Agustin's (2020) research

in Mojokerto Regency shows that the increase in the average years of schooling contributes significantly to the absorption of labor in the MSME sector.

Insana and Mahmud (2021) in Takalar Regency found that the average years of schooling has a positive but not significant influence on labor absorption. The study shows that while education is important, other factors such as job availability and minimum wage play a greater role in determining labor absorption. A similar thing was revealed by Yasin and Kartini (2023), who found that the increase in the average years of schooling is not always directly proportional to the increase in the number of workers absorbed, especially in the industrial sector.

Research by Prayogo and Indira Hasmarini (2022) in Yogyakarta shows that GDP has a positive and significant effect on labor absorption. The study concludes that economic growth, as measured through GDP creates more jobs in the region. Similar results were also found by Perdana (2025) in Lampung, which shows that GDP has a significant influence on increasing labor absorption in the industrial sector. In addition, Suhaili's research (2019) also emphasized that MSMEs that contribute to GDP have managed to absorb most of the workforce in Indonesia, reaching 92%.

Some studies have found that GDP does not necessarily increase labor absorption. Putri and Soelistyo (2018) in the Gerbangkertasusila area found that GDP has a negative effect on labor absorption. This often occurs in areas with high GDP, but focus on the formal sector or large industries that do not contribute directly to job creation in the MSME sector. Research by Ratnasari (2021) also stated that there is an inconsistent relationship between GDP and labor absorption in certain cities.

Data and Research Methods

This research uses quantitative methodology with a focus on numerical analysis that allows testing the relationship between independent and dependent variables in a measurable manner. The quantitative approach was chosen because it is objective and able to provide a numerical description of the effect of certain variables on other variables. Through this method, the research seeks to examine the relationship of variables within a predetermined population framework. The main focus of the research is the MSME sector in West Java Province, covering 27 regencies/cities with a data analysis period from 2018 to 2022. The years 2020 to 2022, which coincide with the COVID-19 pandemic, brought about significant economic disruptions. While these years were marked by economic shocks and sectoral fluctuations, the period was chosen to assess both pre-pandemic and pandemic-era economic dynamics. The selection of this time frame allows the research to capture the broader economic context, including the pandemic's impact, while focusing on the resilience and adaptability of the MSME sector in the face of such challenges. The research location was selected based on the diversity of economic characteristics such as regency/city minimum wage (RCMW), average years of schooling, and gross regional domestic product (GRDP) of each region. This location selection aligns with the research's aim of understanding the factors that influence employment in the MSME sector, as these characteristics are highly relevant to the research objectives.

The research lasted for four months, from September to December 2024. During this time, various stages of research were carried out, including secondary data collection, statistical analysis, and preparation of the final report. The secondary data that became the main source of this research was obtained from the Central Bureau of Statistics (BPS) of West Java Province. The information collected includes details of RCMW, average years of schooling,

GRDP, and labor absorption in the MSME sector. In addition, additional data were obtained from the Ministry of Cooperatives and SMEs to complement information not covered in BPS publications. Data processing was done carefully using statistical techniques to ensure accurate and valid results. Data collection and analysis were conducted in stages, following procedures that had been designed to maintain the reliability of the research results.

This study identifies one dependent variable, namely labor absorption in the MSME sector, and three independent variables, namely RCMW, average years of schooling, and GRDP. The dependent variable, labor absorption, is measured in people and reflects the number of individuals working in the MSME sector in a particular region. Meanwhile, RCMW, one of the independent variables, is measured in millions of rupiah and represents the minimum wage level in each regency/city. The average years of schooling is measured in years, reflecting the average formal schooling level of the people in the region. Meanwhile, GRDP, another independent variable, is expressed in billions of rupiah and reflects the total value of goods and services produced by a region. The measurement of these variables is designed to ensure relevant and representative data to support the analysis of the relationship between variables.

Multiple linear regression analysis was used in this study to understand the quantitative relationship between the independent and dependent variables. The analysis process was conducted using EViews 10 software, which allows data processing with complex statistical models. To accommodate the scale of the data and reduce the impact of heteroscedasticity, a logarithmic equation model was applied. The validity of the regression model was tested through a series of classical assumption tests, including heteroscedasticity, multicollinearity, and normality tests. This approach aims to ensure that the results of the analysis are not affected by violations of fundamental statistical assumptions. Thus, interpretation of the research results can be done more accurately and reliably.

This study uses panel data that combines time series and cross-sectional data. This panel data format was chosen because of its ability to describe variations across regions and across time in one integrated analysis. The time series data covers the period 2018 to 2022, while the cross-regional data covers 27 regencies/cities in West Java Province. By combining these two types of data, the research can provide a more comprehensive understanding of the factors that influence employment in the MSME sector. In addition, the panel data format allows the analysis of relationships between variables by considering temporal and spatial dynamics simultaneously.

The panel data model also allows testing the effect of independent variables on the dependent variable by considering differences in characteristics between regions. This analysis was conducted to understand how factors such as RCMW, average years of schooling, and GRDP affect labor absorption in the MSME sector. The results are expected to provide deeper insights into the role of each variable in supporting the sustainability of the MSME sector. Thus, this study not only aims to identify statistical relationships but also to provide relevant policy implications for the development of the MSME sector in West Java.

Through systematic and data-based analysis, this research is expected to make a real contribution to understanding the dynamics of labor absorption in the MSME sector. The findings of this study are expected to serve as a basis for local governments in designing more effective policies to support the MSME sector. By focusing on strategic variables such as RCMW, average years of schooling, and GRDP, this study can also help identify key factors that influence the success of the MSME sector. Ultimately, this study aims to provide practical recommendations that can be implemented by various stakeholders, including government, businesses, and communities.

The regression model used is logarithmic to capture the scale relationship between the variables. The regression equation model used is:

$$log(LA\_MSME)it = \beta_0 + \beta_1 \, log(RCMW)_{it} + \beta_2 \, (AYS)_{it} + \beta_3 \, log(GRDP)_{it} + \varepsilon_t \qquad (1)$$

This study uses the Average Years of Schooling (AYS) as an indicator of the average years of schooling, the Regency/City Minimum Wage (RCMW) to measure the minimum wage standard, and Gross Regional Domestic Product (GRDP) to reflect regional economic activity. The dependent variable, the amount of labor absorbed, is represented by data on the number of workers in the MSME sector. Before entering the main analysis, classical assumption tests were conducted to ensure the validity of the data. The tests used include a heteroscedasticity test to evaluate the residual variance, a multicollinearity test to ensure there is no strong linear relationship between the independent variables, and a normality test to ensure the normal distribution of the residual data. This data validity is an important first step to ensure that the results of the regression analysis can be interpreted accurately and reliably.

To select the best regression model, this study applies econometric tests that include the Chow test, Hausman test, and Lagrange Multiplier test. The Chow test is used to determine whether the Common Effect (CE) or Fixed Effect (FE) model fits the data better. If the Chow test results indicate that the Fixed Effect model is better, then the next step is to use the Hausman test to compare Fixed Effect with Random Effect (RE). The Hausman test determines whether the Fixed Effect or Random Effect model is more relevant based on the data structure used. If the Random Effect model is superior to the Common Effect model, this is confirmed through the Lagrange Multiplier test. This procedure aims to ensure that the selected model is able to describe the relationship between variables optimally according to the characteristics of the research data.

Hypothesis testing was carried out to evaluate the influence of independent variables on dependent variables, both simultaneously and partially. The F test was used to assess the overall impact of independent variables on dependent variables simultaneously. This test helps understand the extent to which RCMW, AYS, and GRDP collectively affect labor absorption in the MSME sector. Meanwhile, the t-test is used to evaluate the influence of each independent variable individually on the dependent variable. In addition, the determination coefficient (R^2) was calculated to measure the extent to which the regression model was able to account for variations in dependent variables. Models with a value (R^2) close to 1 indicate a high level of prediction. This process provides a comprehensive overview of the relationship between the variables in the study.

This systematic and data-based analysis procedure is expected to reveal a significant relationship between RCMW, AYS, and GRDP with labor absorption. The use of various econometric tests ensures that the model used is not only statistically valid but also able to describe the relationships between variables well. With this approach, the research aims to contribute to the literature on factors affecting the MSME sector. The results of the study can be a valuable input for policymakers in developing strategies to increase labor absorption in this sector. In addition, this study also provides a new perspective on the interaction between education, regional economy, and wage policy on labor market dynamics.

Finding and Discussion

Model Selection Test

Table 1 presents the probability value from the Chow test, which is 0.0000 < 0.05, indicating that the Fixed Effect Model (FEM) is more appropriate than the Common Effect

Model (CEM). Furthermore, the probability value from the Hausman test is also 0.0000 < 0.05, suggesting that the Fixed Effect Model (FEM) is preferable to the Random Effect Model (REM).

Table 1: Result of the model selection test

Test	Probability	Decision
Chow Test	0.0000	Fixed Effect Model
Hausman Test	0.0000	Fixed Effect Model

Classic Assumption test
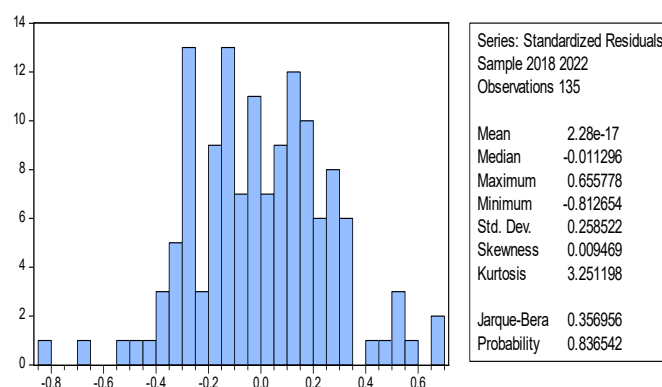
Normality Test

Figure 2: **Normality Test Results**

Figure 2 shows that the probability value of the Jarque-Bera test is 0.356956, which is greater than 0.05. This indicates that, in the selected regression model, the data are normally distributed.

Multicollinearity test

This test is conducted to identify the correlation among independent variables. The data are considered free from multicollinearity if the Centered Variance Inflation Factor (VIF) is less than 10. The following are the results of the multicollinearity test:

Table 2: Result of Multicollinearity Test

Variable	Centered VIF
RCMW	3,178475
AYS	1,598270
GRDP	2,424825

The test results indicate that there is no multicollinearity issue, as the VIF values for the variables are not greater than 10. Therefore, it can be concluded that there is no multicollinearity problem among the independent variables in the regression model.

Heteroscedasticity Test

Table 3: Result of Heteroscedasticity Test

Variable	Coefficient	Probability	Significance
Constants	2,760292	0,3578	0,05
Regency/City Minimum Wage (RCMW)	-0,198596	0,2858	0,05
Average Years of Schooling (AYS)	-0,027598	0,7446	0,05
Gross Regional Domestic Bruto (GRDP)	0.046387	0,132716	0,05

The table shows the probability values of the heteroscedasticity test for each variable: Regency/City Minimum Wage (RCMW) at 0.2858, Average Years of Schooling (AYS) at 0.7446, and Gross Regional Domestic Product (GRDP) at 0.132716. Since all three variables have probability values greater than 0.05, the data in this study is considered to be free from heteroscedasticity problems.

Multiple Linear Regression Analysis

The fixed effect model (FEM) was identified as the most appropriate model for conducting the multiple linear regression analysis.

Table 4: Regression Results Based on the Fixed Effect Model (FEM)

Variable	Coefficient	Std. Error
C	34,5849	8,992736
LOG(RCMW)	4,775943	0,556998
AYS	0,951695	0,254261
LOG(GRDP)	-3,259263	1,051806

The results presented in Table 4 yield the following regression equation:

$$LA\_MSME = 34.5849 + 4.7759 \, log(RCMW) + 0.9517 \, AYS - 3.2593 \, log(GRDP)$$

The interpretation of a regression equation is as follows:

1. Constant Term Results: Based on the results from the multiple linear regression analysis, the constant value obtained is 34.5849. This can be interpreted as the condition where, assuming the variables of the Regency/City Minimum Wage (RCMW), Average Years of Schooling (AYS), and Gross Regional Domestic Product (GRDP) are all zero, the labor absorption in the MSME sector in West Java Province is predicted to be 34.5849.
2. Regency/City Minimum Wage (RCMW) Result: Based on the results of the multiple linear regression analysis, the coefficient value of 4.775943 indicates that for every 1% increase in the Regency/City Minimum Wage (RCMW), labor absorption in the MSME sector increases by 4.7759. This suggests that an increase in MSEs contributes to a significant rise in labor absorption within the MSME sector.
3. Average Years of Schooling (AYS) Results: Based on the results of the multiple linear regression analysis, the coefficient value of 0.9517 indicates that for each additional unit increase in the average years of schooling, labor absorption in the MSME sector increases by 0.9517, assuming other variables remain constant.
4. Gross Regional Domestic Product (GRDP) Results: Based on the results of the multiple linear regression analysis, the coefficient value of -3.2593 indicates that a 1% increase in the Gross Regional Domestic Product (GRDP) tends to decrease labor absorption in the MSME sector by 3.2593, assuming other variables remain constant.

Hypothesis Test

T-Test

Table 5: T-Test Results

Variable	Coefficient	t-statistic	Probability	Conclusion
LOG(RCMW)	4,775943	8,574429	0,0000	Significant
AYS	0,951695	3,742984	0,0003	Significant
LOG(GRDP)	-3,259263	-3,09873	0,0025	Significant

The results are explained in the following discussion:

1. The Effect of RCMW on Labor Absorption in the MSME Sector, the t-statistic for the RCMW variable is 8.574429, with a probability value of 0.0000, which is less than 0.05. This indicates that the RCMW variable has a significant positive effect on labor absorption in the MSME sector in West Java Province.
2. The Effect of Average Years of Schooling (AYS) on Labor Absorption in the MSME Sector, the t-statistic for the Average Years of Schooling (AYS) variable is 3.742984, with a probability value of 0.0003, which is less than 0.05. This suggests that the AYS variable has a significant positive effect on labor absorption in the MSME sector in West Java Province.
3. The Effect of Gross Regional Domestic Product (GRDP) on Labor Absorption in the MSME Sector, the t-statistic for the GRDP variable is -3.09873, with a probability value of 0.0025, which is less than 0.05. This indicates that the GRDP variable has a significant negative effect on labor absorption in the MSME sector in West Java Province.

F-Test

Table 6: F-Test Results

F-Statistic	36,45623
Prob F-Statistic	0,0000

The table shows that the F-statistic value is 36.45623, with a probability (p-value) of 0.000000, which demonstrates that the regression model is used comprehensively and is significant at the 5% confidence level ($p < 0.05$). Therefore, the independent variables in the model—minimum wage (LOG(RCMW)), average years of schooling (AYS), and Gross Regional Domestic Product (LOG(PDRB)) simultaneously have a significant effect on labor absorption in the MSME sector in West Java Province.

Coefficient of determination test

Table 7: Coefficient of determination test results

R-squared	0,909656
Adjusted R-squared	0,884704

The table shows that the R-squared value of 0.909656 indicates that approximately 90,97% of the variation in the dependent variable is explained by the independent variables in the model (LOG(RCMW), AYS, and LOG(GRDP)), after adjusting for the number of variables in the model. This is a high value, suggesting that the model has optimal predictive capability and is able to explain most of the variation in the dependent variable. The remaining 9.03% is explained by factors outside the model.

Discussion

Based on the analysis conducted, this study evaluates the impact of Gross Regional Domestic Product (GRDP), average years of schooling, and Regency/City Minimum Wage labor absorption in the Micro, Small, and Medium Enterprises (MSMEs) sector in West Java Province during the 2018–2022 period. The results of the analysis showed that the three independent variables had a significant relationship with the dependent variable, namely the number of workers absorbed. GDP, although usually expected to have a positive relationship with labor absorption, actually shows a negative impact. On the other hand, MSEs and the average duration of community education have a significant positive influence on the number

of workers absorbed in the MSME sector. These findings provide new insights into the dynamics of economic and social factors affecting the labor market in the region.

The negative impact of GDP on labor absorption can reflect the existence of a labor substitution mechanism with technology or automation, especially in the MSME sector that wants to increase production efficiency. As the value of GDP increases, MSMEs may be more likely to invest in technology than in expanding employment, ultimately reducing the need for labor. On the other hand, higher MSEs significantly increase labor absorption. This may be because MSMEs in areas with high MSEs tend to attract more quality workers who provide higher productivity, thereby encouraging workforce growth.

Higher educational attainment also contributes positively to labor absorption. This shows that increasing the level of community education is able to increase job opportunities in the MSME sector. Workers with higher education tend to have better skills and productivity, which is an important asset for MSMEs in developing their businesses. This education factor also shows the importance of investment in the education sector as one of the strategies to increase the competitiveness of the workforce and support the growth of the MSME sector.

The Effect of the Regency/City Minimum Wage (RCMW) on the Absorption of MSME Sector Labor in West Java Province

From the results of the tests that have been carried out, it is found that the Regency/City Minimum Wage (RCMW) variable has a significant positive effect on the absorption of the MSME sector workforce in West Java Province. The results of this study are in line with the theory that higher wages can attract more workers, but can also lower the demand from employers against labor demand. Where the increase in RCMW in West Java shows a positive impact on labor absorption, although there are some MSMEs that find it difficult to adjust to higher wage costs. This is in line with the theory that higher wages can boost productivity but can also force MSMEs to reduce the number of workers if they cannot afford the cost.

This finding is in line with the results of research by Wiasih and Karmini (2021) which shows that the increase in RCMW in Bali Province increases labor absorption. These results support Mankiw's theory that higher wages can increase worker productivity and attract more labor. Research also conducted by Anggraini et al. (2020) in Jambi Province also showed similar results. The study found that the increase in RCMW had a positive impact on worker welfare and encouraged MSMEs to hire more workers. This result indicates that the increasing RCMW provide incentives for workers to enter the MSME sector. In addition, Prayogo and Hasmarini (2022) in Yogyakarta also found that the increase in RCMW was able to increase the attractiveness of the MSME sector for local workers. They mentioned that a minimum wage policy tailored to the regional economic capacity can increase absorption of labor without interfering with the competitiveness of MSMEs.

However, this positive effect has limitations. MSMEs that have difficulty adjusting to the increase in RCMW can experience a decrease in capacity to absorb labor. This is reinforced by the findings of Perdana (2025) which states that in Lampung, the increase in RCMW increases operational costs, which can reduce the capacity of MSMEs in hiring workers. Economic and social inequality factors between regions also affect these results. Regions with better economic access are able to absorb a higher workforce than less developed areas.

The economic and social gap between regency/cities also affects the impact of the increase in RCMW. Regions with better infrastructure and economic access are better prepared to absorb labor even though wages have increased, while regions with weaker economies will

have difficulty adapting to these changes. This study provides an overview of how wages not only affect labor absorption but also affect the welfare of workers in West Java. With wage increases, the attractiveness of workers will also increase, which then encourages economic growth. However, this positive impact can only be truly felt when MSMEs have enough capacity to adjust to the increased wage policy without having to reduce their workforce.

Therefore, it is important for the West Java government to not only increase RCMW, but also provide financial support and training for MSMEs to be able to adapt to higher labor costs. This support can be in the form of access to capital, financial management training, and skills development for the workforce to increase productivity so that it can offset the increase in wage costs. With these steps, it is hoped that MSMEs in West Java will continue to contribute to the absorption of labor and community welfare without having to be burdened by the minimum wage policy that continues to increase.

The Effect of Average Years of Schooling on the Absorption of MSME Sector Labor in West Java Province

From the data from the test results that have been carried out, it is found that the average years of schooling variable has a significant positive effect on the absorption of the MSME sector workforce in West Java Province. The results of this study show that education plays an important role in improving the quality of the workforce, which indirectly encourages productivity and growth of MSMEs. Education allows the workforce to have better skills and competencies, so that the MSME sector can rely on a more productive and innovative workforce, which can encourage increased labor absorption.

The results of this study are also in line with the employment theory that education plays a key role in avoiding poverty and has a major role in development, namely in shaping a country's capacity to use the latest technology and develop skills to create sustainable growth and development. Where education is important in improving the economy and community welfare. An individual who has a high education will have greater job opportunities because highly educated individuals are considered to have better work abilities and skills.

This result is in line with Agustin's (2020) research which shows that increasing the level of education improves labor skills and productivity of the MSME sector in Mojokerto. Todaro and Smith (2014) also explained that education is the main investment in increasing the capacity of the workforce to adapt to market needs. A study by Alamsyah and Effendi (2020) in South Kalimantan supports this finding by stating that workers with higher levels of education have greater productivity, which directly increases their contribution to the MSME sector. Education also encourages innovations that are relevant to the needs of the local market.

However, these findings are not entirely consistent across multiple contexts. Research by Insana and Mahmud (2021) found that although the average years of schooling has a positive influence, the impact is not significant on labor absorption in Takalar Regency. This can be caused by a mismatch between the skills possessed by the workforce and the needs of the MSME sector, so that higher education does not necessarily make an optimal contribution to the labor market in the MSME sector of Takalar Regency.

The higher the education a person takes, the higher the opportunity to work so that it can increase higher labor absorption. However, to maximize the positive impact, government policies that support the improvement and equitable distribution of access and quality of education are needed. In addition, job training can also be expanded to help high school and university graduates develop skills relevant to the needs of the MSME sector. This support

can make the workforce in West Java better prepared to face competition and to be able to contribute to the growing MSME sector.

Overall, higher education plays a big role in shaping a quality workforce in West Java, which not only helps the growth of the MSME sector but also has a positive impact on economic development and improving community welfare. With the increase in education, the workforce has a greater opportunity to get jobs in the formal sector, which will ultimately increase the absorption of labor in the MSME sector and strengthen the economic foundation.

The Effect of Gross Regional Domestic Product (GRDP) on the Absorption of MSME Sector Labor in West Java Province

From the data from the test results that have been carried out, it is found that the Gross Regional Domestic Product (GRDP) variable has a significant negative effect on the absorption of labor in the MSME sector in West Java Province. This indicates that high economic growth in a region does not always have a positive impact on the absorption of labor in the MSME sector. The results of this study are not in line with the theory that an increase in GDP is always accompanied by an increase in labor absorption. GDP has a negative effect showing that a decrease in GDP can increase labor absorption in West Java. West Java is a capital-intensive area.

From the data that shows negative results, it shows that the increase in West Java's GDP is more reflective of the contribution to larger sectors such as the industrial sector. Where larger sectors such as industry tend to rely less on low-skilled labor and tend to use more technology such as machines for production which are not able to absorb more labor.

Although MSMEs are recognized as important in supporting the economy, the attention paid to large-sector investment causes MSMEs to tend to lag behind in terms of support for development and absorption of the workforce. Therefore, the results of this study show that the increase in GDP does not always correlate positively with the absorption of labor in the MSME sector in West Java, especially due to the factor of sector inequality and government policies that are more supportive of the growth of large industries. This leads to the need for more inclusive economic policies to support the growth of MSMEs and improve inequality so that the MSME sector can be more optimal in absorbing labor amid an increase in GDP in West Java.

Table 1: The Effect of Variables on the Absorption of Labor in the MSME Sector in WestJava

Variable	Influence on Labor Absorption	Significance	Information
Regency/City Minimum Wage	Positive	Significant	The increase in RCMW can attract more workers.
Average Years of Schooling	Positive	Significant	Higher AYS improves workforce skills.
Gross Regional Domestic Product (GRDP)	Negative	Significant	Increasing GRDP benefits the large industrial sector, not MSMEs.

The results of this study are not in line with the findings of Prayogo and Hasmarini (2022) in Yogyakarta, which concluded that increasing GDP creates more jobs. This difference can be explained by the economic structure of West Java, which is dominated by large industrial sectors that are capital-intensive and less dependent on intensive labor than the MSME sector. Putri and Soelistyo (2018) also found that GDP has a negative influence on labor

absorption in the Gerbangkertasusila area. This is associated with the inequality of contribution between the capital-intensive formal sector and the informal sector such as MSMEs. Greater investment in the industrial sector often does not have a direct impact on the MSME sector, resulting in a mismatch between economic growth and increased employment. Research conducted by Ratnasari (2021) in major cities in Indonesia shows that high GDP often reflects growth the formal sector is less dependent on unskilled labor. This region usually prioritizes large investments in technology and production efficiency, so that the contribution of MSMEs to labor absorption is lower.

This study describes more clearly the factors that affect labor absorption in the MSME sector, as well as policy recommendations to encourage this sector to be more optimal in absorbing labor and supporting economic growth in West Java.

Conclusion

Based on research that looks at the influence of GDP, Average Years of Schooling (AYS), and Regency/City Minimum Wage (RCMW) on labor absorption in the MSME sector in West Java Province between 2018 and 2022, it can be said that RCMW have a positive effect on labor absorption in the MSME sector. This shows how the growth of MSMEs can improve employee welfare and attract new workers to the MSME sector. The average length of school also has a good impact on labor absorption, showing the importance of education in improving the quality and proficiency of the workforce in the MSME sector. Meanwhile, GDP is negatively affected by the absorption of labor in the MSME sector. The MSME sector, which is often hampered by limited access to finance and technology, is not significantly impacted by economic growth as measured by GDP, which is more beneficial for key sectors such as industry.

According to the conclusion above, further research should consider additional internal and external factors that may have an impact on labor absorption in the MSME sector. For the government, it is recommended that policies regarding RCMW can be adjusted to the carrying capacity of the regional economy, so that MSMEs can adjust to wage increases without being burdened. In addition, to improve the quality and proficiency of the workforce, it is very important for workers in the MSME sector to have greater access to education and training. In order for the MSME sector to grow sustainably and more effectively in terms of labor absorption, the government is also expected to create a more inclusive GDP policy by considering the contribution of the sector. With the right policies, MSMEs in West Java can continue to grow, increase their capacity, and make a greater contribution to the regional economy.

Declaration

Authors' Contributions

Setia Lestari, Nurul Bariyah, Jamaliah, Yanto, and Wahyudi contributed collaboratively to this research. Setia Lestari and Nurul Bariyah conceptualized the study and designed the methodology. Jamaliah and Yanto were responsible for data acquisition and literature review. Wahyudi conducted statistical analysis and interpretation of the data. Nurul Bariyah coordinated the manuscript writing and correspondence with the journal. All authors reviewed and approved the final manuscript.

Funding Source

Campus (MBKM) Research Program. The funding supported research activities including data collection, analysis, and manuscript preparation.

Informed Consent Statement

Not applicable. This study exclusively used secondary data obtained from publicly available sources, including the Central Bureau of Statistics (BPS) and the Ministry of Cooperatives and SMEs. Therefore, no informed consent or ethical approval was required.

Availability of Data and Materials

All data used in this study are publicly accessible and were sourced from the Central Bureau of Statistics (BPS) of West Java Province and the Ministry of Cooperatives and SMEs. These include statistics on minimum wage, average years of schooling, GRDP, and labor absorption in the MSME sector for the years 2018–2022. Interested readers can access these data through the official BPS websites.

Conflict of Interest

The authors declare that they have no financial, personal, or professional conflicts of interest that could have influenced the research findings or interpretation of the data presented in this paper.

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