

The Impact of Minimum Wages, Gross Regional Domestic Product, and Labor Force Participation Rate on The Employment of Low-Educated Workers in Central Java Province 2019–2024

Azkiya Faiza Zahra; Nenik Woyanti

azkiyafaizazhr@gmail.com; neniwoyanti346@gmail.com

Universitas Diponegoro

Abstract: Central Java is the province with the largest labor force in Indonesia, yet the minimum wage set in this region remains relatively low compared to other provinces on the island of Java. This condition is compounded by the fact that the majority of the labor force in Central Java has a low educational background, namely graduates of junior high school (SMP) or below. On the other hand, Central Java has substantial economic potential, reflected in its continuously increasing Gross Regional Domestic Product (GRDP). This study aims to analyze the effect of the District/City Minimum Wage (UMK), GRDP, and the Labor Force Participation Rate (TPAK) on the employment absorption of low-educated workers in Central Java Province during the period 2019–2024. This study uses cross-sectional data comprising 35 regencies/cities in Central Java combined with time-series data from 2019 to 2024. The method employed is panel data regression using the Fixed Effect Model (FEM), with data processed using EViews 10. The results show that the UMK has a partially negative and significant effect on the employment absorption of low-educated workers, GRDP has no significant partial effect on the employment absorption of low-educated workers, and TPAK has a partially positive and significant effect on the employment absorption of low-educated workers. Simultaneously, UMK, GRDP, and TPAK have a significant effect on the employment absorption of low-educated workers.

Keywords: Labor, Low-Educated, District Minimum Wage, Gross Regional Domestic Product.

Abstrak: Jawa Tengah merupakan provinsi dengan jumlah angkatan kerja terbesar di Indonesia. Namun, upah minimum yang ditetapkan di wilayah ini masih relatif rendah dibandingkan dengan provinsi-provinsi lain di Pulau Jawa. Kondisi tersebut diperparah oleh kenyataan bahwa sebagian besar angkatan kerja di Jawa Tengah memiliki tingkat pendidikan yang rendah, yaitu lulusan Sekolah Menengah Pertama (SMP) atau di bawahnya. Di sisi lain, Jawa Tengah memiliki potensi ekonomi yang cukup besar, yang tercermin dari Produk Domestik Regional Bruto (PDRB) yang terus meningkat.

Penelitian ini bertujuan untuk menganalisis pengaruh Upah Minimum Kabupaten/Kota (UMK), Produk Domestik Regional Bruto (PDRB), dan Tingkat Partisipasi Angkatan Kerja (TPAK) terhadap penyerapan tenaga kerja berpendidikan rendah di Provinsi Jawa Tengah selama periode 2019–2024.

Penelitian ini menggunakan data panel yang menggabungkan data cross-section dari 35 kabupaten/kota di Jawa Tengah dengan data time series selama periode 2019–2024. Metode analisis yang digunakan adalah regresi data panel dengan pendekatan Fixed Effect Model (FEM), sedangkan pengolahan data dilakukan menggunakan perangkat lunak EViews 10.

Hasil penelitian menunjukkan bahwa secara parsial, UMK berpengaruh negatif dan signifikan terhadap penyerapan tenaga kerja berpendidikan rendah. PDRB tidak berpengaruh signifikan secara parsial terhadap penyerapan tenaga kerja berpendidikan rendah, sedangkan TPAK berpengaruh positif dan signifikan secara parsial terhadap penyerapan tenaga kerja berpendidikan rendah. Secara simultan, UMK, PDRB, dan TPAK berpengaruh signifikan terhadap penyerapan tenaga kerja berpendidikan rendah.

Kata kunci: Tenaga Kerja, Pendidikan Rendah, Upah Minimum Kabupaten/Kota, Produk Domestik Regional Bruto.

INTRODUCTION

Indonesia is the world's fourth most populous country, with a population of 283 million in 2024 (World Bank, 2025). This large population is accompanied by a labor force that continues to grow each year. In 2024, Indonesia's labor force reached 152.11 million people, an increase of 4.40 million people, or approximately 2.98 percent, compared to the previous year (BPS, 2024). This continuous growth of the labor force represents both a potential human resource asset and a challenge in providing adequate employment opportunities. If employment growth fails to keep pace with labor force growth, it has the potential to drive an increase in unemployment.

Indonesia's labor market condition also remains dominated by the informal sector. In 2024, only around 42.05 percent of workers were employed in the formal sector, while the majority of the remainder were absorbed into the informal sector (BPS, 2024). Workers in the informal sector generally lack formal employment contracts, do not receive social security protection, and earn relatively low wages. Todaro and Smith (2014) explain that this condition reflects an economy still in a transitional stage—one that is shifting from a pattern dependent on natural resources toward one that is more knowledge- and skill-based. In developing countries, including Indonesia, labor markets tend to be

more sensitive to changes in economic and employment policy, one of which is minimum wage policy (Del Carpio, 2015).

Minimum wage policy can raise workers' wages but may also reduce employment opportunities. Neoclassical theory of competitive markets explains that minimum wages can have a negative effect on employment absorption, particularly for unskilled workers (Borjas, 2013). The determination of minimum wages in developed countries differs from that in developing countries. In developing countries, the labor market is divided into formal and informal sectors. Minimum wage policy can be applied in the formal sector, whereas it cannot be enforced in the informal sector. The implementation of minimum wage policy in the formal sector has the effect of shifting labor from the formal sector into the informal sector or into unemployment (Tridiana, 2018).

Central Java is one of the provinces with the largest working-age population in Indonesia. In 2024, the working-age population in Central Java reached 21.9 million people. However, this substantial labor force potential has not been matched by a high wage level. During the 2022–2024 period, Central Java's Provincial Minimum Wage (UMP) was recorded as the lowest in Indonesia, at Rp2,036,947 in 2024 (Badan Pusat Statistik, 2024). Minimum wage determination in Indonesia is regulated under Law No. 13 of 2021, which stipulates that the minimum wage level is determined based on considerations of inflation, regional economic growth, average wages, and the level of basic needs in each region. The low UMP in Central Java reflects relatively lower productivity and cost of living compared to other provinces; however, it also carries implications for the condition of the workforce in the region.

There are notable differences in the determination of District/City Minimum Wages (UMK) across Central Java. In 2024, the highest UMK levels were held by the City of Semarang, Semarang Regency, and Batang Regency, while the lowest UMK levels were found in Banjarnegara Regency, Karanganyar Regency, and Grobogan Regency (Badan Pusat Statistik, 2024). These differences in UMK across regencies/cities reflect variations in economic conditions and cost of living across regions. This variation demonstrates that the

impact of minimum wage policy on the labor market is unlikely to be uniform across all regions of Central Java, thereby warranting analysis at the regency/city level.

Beyond wage-related issues, the Central Java labor market also displays another characteristic, namely the persistently high proportion of low-educated workers. Based on Sakernas (National Labor Force Survey) data from 2019 to 2024, workers with elementary school (SD) as their highest educational attainment continue to dominate the Central Java labor market, followed by junior high school (SMP) graduates. Referring to the International Standard Classification of Education (ISCED), the groups categorized as low-educated workers include those who have never attended school or have not completed school, SD graduates, and SMP graduates. Overall, low-educated workers still account for more than 60 percent of the total workforce in Central Java, although this proportion shows a declining trend over time.

The gradual decline in the proportion of low-educated workers is consistent with human resource development efforts, whether through expanded access to education or job training. However, the transformation of labor force composition requires considerable time, and low-educated workers will continue to dominate Central Java's labor force in the near term. When labor market policy changes occur, this group tends to be more vulnerable compared to workers with higher levels of education. When firms face cost changes resulting from minimum wage adjustments, they become more selective in recruitment and shift toward hiring more productive workers. Under such conditions, low-educated workers—who generally have lower productivity levels—are the group most at risk of being pushed out of the formal sector.

According to SMERU (2001), there is a negative correlation between minimum wage increases and formal-sector employment opportunities in urban areas, with young and low-educated workers being the most affected group. Alatas and Cameron (2008) similarly show that minimum wage increases affect the employment absorption of female workers, young workers, and low-educated workers. Del Carpio (2015) found that minimum wages have a negative effect

on workers without a high school diploma in Indonesia's manufacturing sector. Meanwhile, Hohberg and Lay (2015) found a positive relationship between minimum wages and employment absorption. Despite these differing views, such findings indicate that minimum wage policy, although intended as a labor protection instrument, in practice has substantial implications for vulnerable groups, including low-educated workers.

However, employment absorption is not determined solely by minimum wage policy. Economic capacity also plays a role in generating employment opportunities. Gross Regional Domestic Product (GRDP) is the indicator used to represent this capacity. Central Java's GRDP growth rate fluctuated over the 2019–2024 period. Prior to the pandemic, Central Java's GRDP growth consistently hovered around 5 percent per year. The COVID-19 pandemic, which struck in 2020, disrupted this trend. Such fluctuations in economic growth directly affect the labor market's capacity to absorb workers, including low-educated workers who are concentrated in sectors that are typically the first to feel the impact of economic shocks, such as manufacturing, construction, and trade.

The size of the labor force reflects the magnitude of labor supply available in the market. Central Java's labor force itself remains dominated by low-educated individuals. As the number of low-educated members of the labor force continues to grow while the formal sector's capacity to absorb this group remains limited, competition for jobs becomes increasingly intense and opportunities for the absorption of low-educated workers become increasingly constrained. Maulidina and Devanto (2018) found that an increase in the labor force has a positive effect on the employment absorption of low-educated workers, whereas Alatas and Cameron (2008) found the opposite effect.

Research on the employment absorption of low-educated workers in Indonesia has been fairly extensive; however, most studies have focused on the national or aggregate provincial level. The variation in economic conditions and minimum wage policy across regencies/cities in Central Java makes a disaggregated analytical approach well-suited to capturing the dynamics occurring on the ground. Based on this background, this study aims to analyze the

effect of the District/City Minimum Wage (UMK), Gross Regional Domestic Product (GRDP), and the Labor Force Participation Rate (TPAK) on the formal-sector employment absorption of low-educated workers across 35 regencies/cities in Central Java during the 2019–2024 period.

LITERATURE REVIEW

Labor Market

The demand for a factor of production depends on the additional revenue a firm obtains by employing one additional unit of that input, known as the marginal revenue product (MRP). For a firm using only a single factor of production, the MRP curve represents the firm's short-run demand curve for that factor. A perfectly competitive firm maximizes profit by purchasing an input (for instance, by hiring labor) up to the point at which the marginal revenue product of the input equals its price (Case and Fair, 2007).

$$MRP_L = w$$

For a perfectly competitive firm using a single factor of production, namely labor, the condition $w = MRP_L$ is analogous to the condition $P = MC$. The firm compares the value of output, reflected in the output price, against the value of the input, reflected in marginal cost.

Workers prefer jobs with high wages, while employers prefer to pay low wages. Labor market equilibrium resolves this conflict between workers and employers and determines the prevailing wage level and quantity of labor employed in the market.

According to Borjas (2013), labor market equilibrium occurs when labor demand meets labor supply to determine the wage level and quantity of employment. Labor markets often have difficulty reaching equilibrium because labor supply and demand are inherently dynamic; nonetheless, the market tends to move toward equilibrium. Once the equilibrium wage (w^*) is determined by the competitive market, each firm will hire labor up to the point where the wage equals MRP_L .

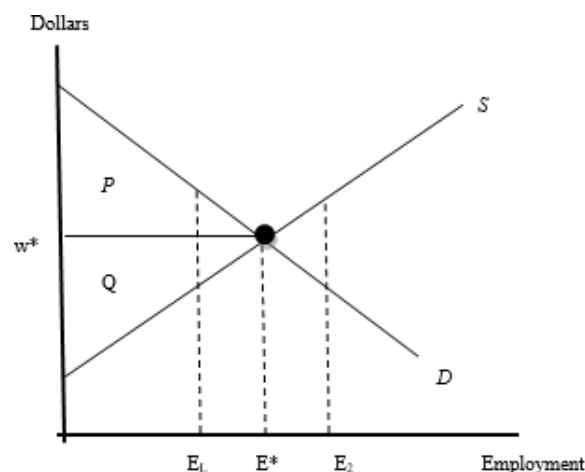


Figure 2. Labor Market Equilibrium Curve

Sumber: Borjas (2013)

The first firm will hire E_1 units of labor, the second firm E_2 units, and so forth. The total quantity of labor hired by all firms in the industry is E^* , which represents the equilibrium quantity of labor. P represents the surplus accruing to firms, and Q represents the surplus accruing to workers. Producer surplus and consumer surplus together constitute the total gains from labor market transactions accruing to the economy.

When a firm uses two factors of production, a change in the price of one input generates both an input substitution effect and an output effect. A wage increase induces the firm to substitute capital for labor, thereby reducing the quantity of labor demanded—this is the substitution effect of a wage increase. A wage increase also raises costs, and higher costs lead to lower output and reduced demand for all inputs, including labor—this is the output effect of a wage increase (Case and Fair, 2007).

Economic Growth Theory

According to Solow, economic growth is influenced by three factors: capital accumulation, labor force growth, and technological progress. The Solow model explains that an economy's output is generated through a combination of

capital and labor, expressed in the production function:

$$Y = f(K, L)$$

where Y is output or national income, K is capital, and L is labor. Solow's model further incorporates a technology term, denoted A , such that the production function can be written as:

$$Y = f(K, AL)$$

This model assumes constant returns to scale, meaning that if all factors of production are increased proportionally, output will also increase proportionally (Todaro and Smith, 2014).

Technology indicates that labor productivity is influenced not only by the quantity of labor but also by the capacity of technology to improve production efficiency. Technological progress can raise output even without any change in the quantity of labor. In the long run, factors of production such as capital and labor are subject to diminishing returns, meaning that each additional unit of capital or labor yields progressively smaller increases in output.

Endogenous growth theory, by contrast, holds that technological progress arises from economic activity itself, rather than originating from outside the system as assumed in the Solow model. Endogenous growth theory further explains that capital encompasses not only physical capital but also human capital and knowledge. The greater the investment in education, training, and technological development, the higher the resulting labor productivity, allowing output to continue increasing (Todaro and Smith, 2014).

Based on this production function, labor is clearly one of the key factors determining the level of output generated by an economy. Accordingly, output and labor exert a mutually reinforcing relationship: growth in output drives increases in employment, while growth in the labor force also contributes to higher output. Growth theory therefore helps explain why regional economic growth, as reflected in GRDP, may be related to employment absorption. When a region's GRDP increases, this may reflect an expansion of production capacity that, in turn, requires additional labor input to sustain the production process.

Human Capital

According to Becker (1993), human capital refers to the entire set of productive capabilities possessed by an individual as a result of investments made in themselves. Human capital is embodied in the individual and cannot be separated from its owner, unlike physical capital such as machinery. Consequently, improving the quality of the labor force requires investment in people, such as education, training, work experience, health, and access to information. Such investments require the sacrifice of time and resources in the present, with the expectation of greater future economic benefits in the form of higher productivity, income, and employment opportunities.

Becker explains that the decision to invest in human capital is based on a comparison between the costs incurred and the expected future benefits, or the rate of return to human capital investment. The higher the expected rate of return, the greater an individual's tendency to invest in education and training. Conversely, if the expected benefits are smaller than the costs incurred, individuals tend not to make such investments.

Educational attainment is one of the primary indicators of human capital quality. Individuals with higher levels of education generally possess greater knowledge, skills, and capabilities, resulting in higher productivity. Conversely, individuals with low educational attainment tend to have lower human capital and, consequently, lower productivity relative to more highly educated workers. This difference in productivity affects individuals' ability to secure employment and to maintain their position in the labor market.

RESEARCH METHODS

This study uses secondary data obtained from the Central Java Provincial Statistics Agency (BPS) covering the period 2019 to 2024, as well as data from the National Labor Force Survey (Sakernas). Data were collected through a literature/documentary study based on published reports. This study employs panel data analysis (pooled data), which combines time-series and cross-sectional data. The analytical method used is linear regression analysis, which

examines the linear relationship between two or more independent variables and the dependent variable, allowing an assessment of whether each independent variable has a positive or negative relationship with the dependent variable. The operational regression equation used in this study is specified as follows:

$$LOGTK_{it} = \beta_0 - \beta_1 LOGUMK1_{it} + \beta_2 LOGPDRB2_{it} + \beta_3 TPAK3_{it} + \varepsilon_{it}$$

Where:

TK: Employment Absorption of Low-Educated Workers

(persons) UMK: District/City Minimum Wage (Rupiah)

TPAK: Labor Force Participation Rate

(percent) β_0 : Constant

$\beta_1 \dots \beta_3$: Estimated

parameters i : *cross*

section

t : *time series*

ε : *error term*

RESULTS AND DISCUSSION

Chow Test

The Chow test is required to determine the best-fitting model between the Common Effect Model (CEM) and the Fixed Effect Model (FEM). The results show that the cross-section chi-square yields a probability value of 0.000. Since this value is below the significance level ($\alpha = 0.05$), H_0 is rejected and H_1 is accepted. Therefore, the Fixed Effect Model (FEM) is the preferred model.

Hausman Test

The Hausman test is conducted to determine the more appropriate model between the Fixed Effect Model (FEM) and the Random Effect Model (REM) for the panel data regression estimation (Gujarati and Porter, 2009). The resulting probability value of 0.0000 is smaller than the significance level ($\alpha = 0.05$). Accordingly, H_0 is rejected and H_1 is accepted, indicating that the Fixed Effect Model (FEM) is appropriate for the regression estimation in this study. Having

determined the most appropriate model through the Chow and Hausman tests, this study concludes that the Fixed Effect Model (FEM) is the correct regression model for the estimation.

Normality Test

The Jarque-Bera (J-B) test, among other methods, is used to determine whether the residuals are normally distributed (Gujarati and Porter, 2009). If the Jarque-Bera probability value exceeds the significance level ($\alpha = 0.05$), the data are considered normally distributed. The normality test yields a Jarque-Bera probability value of 0.718063, which exceeds the significance level ($\alpha = 0.05$). Consequently, the data in this study are normally distributed.

Multicollinearity Detection

Gujarati and Porter (2009) state that a VIF value exceeding 10 indicates a multicollinearity problem within the model. Based on the estimation results, the Centered VIF values are 3.709 for Log UMK, 3.942 for Log GRDP, and 1.639 for TPAK. All Centered VIF values fall below the threshold of 10, indicating that there is no multicollinearity problem among the independent variables in the model.

Heteroskedasticity Detection

Heteroskedasticity in this study is tested using the Glejser test. All probability values for each variable must exceed the significance level ($\alpha = 0.05$) to be considered free of heteroskedasticity. The estimation results show probability values of 0.6059 for LOG UMK, 0.2232 for LOG GRDP, and 0.3425 for TPAK, all of which exceed the significance level ($\alpha = 0.05$). This indicates that the absolute residuals are not significantly affected by the independent variables, satisfying the assumption of homoskedasticity, as the Glejser test regression model shows no evidence of heteroskedasticity.

Autocorrelation Detection

Autocorrelation testing serves to examine whether there is a correlation between the residual at period t and the error at period $t-1$ or earlier (Ghozali, 2018). Based on the Durbin-Watson test, a value of 1.8875 was obtained. The critical values $dL = 1.7382$ and $dU = 1.7990$ were determined at the significance level ($\alpha = 0.05$) with 210 observations ($n = 210$) and 3 independent variables ($k = 3$). The upper-bound calculation yields $4 - dU = 4 - 1.7990 = 2.201$, and $4 - dL = 2.2618$. The Durbin-Watson value falls within the range $dU < DW < 4 - dL$, i.e., $1.7990 < 1.8875 < 2.201$, indicating that there is no autocorrelation problem in the model.

Simultaneous Significance Test (F-test)

If the probability value of the F-statistic is $\leq (\alpha = 0.05)$, H_0 is rejected and H_1 is accepted, indicating that the independent variables jointly have a significant effect on the dependent variable, and vice versa. The F-test results show a probability value for the F-statistic of 0.0000, which is smaller than the significance level ($\alpha = 0.05$). It can therefore be concluded that the independent variables simultaneously have a significant effect on the dependent variable.

Individual Parameter Significance Test (t-test)

The t-test is conducted by comparing the probability value of the t-statistic with the significance level ($\alpha = 0.05$). If the probability value of the t-statistic is smaller than ($\alpha = 0.05$), H_0 is rejected and H_1 is accepted, indicating that the independent variable partially has a significant effect on the dependent variable.

Based on the regression results, the t-test findings of this study are as follows:

1. The UMK variable has a probability value of 0.000, which is smaller than the significance level ($\alpha = 0.05$), meaning H_0 is rejected and H_1 is accepted. The regression coefficient for UMK of -1.163966 indicates that a 1 percent increase in UMK is associated with a 1.16399 percent decrease in the employment absorption of low-educated workers, holding other

variables constant (*ceteris paribus*).\\

2. The GRDP variable has a probability value of 0.5738, which is greater than the significance level ($\alpha = 0.05$), meaning H_0 is accepted. The regression coefficient for GRDP of 0.145471 indicates a positive direction, though the effect is not statistically significant.
3. The TPAK variable has a probability value of 0.0430, which is smaller than the significance level ($\alpha = 0.05$), meaning H_0 is rejected and H_1 is accepted. The regression coefficient for TPAK of 0.008689 indicates that a 1 percentage point increase in TPAK is associated with a 0.008689 percent increase in the employment absorption of low-educated workers, holding other variables constant (*ceteris paribus*).

Coefficient of Determination (R^2)

The coefficient of determination ranges from 0 to 1; the closer the value is to 1, the better the independent variables explain the dependent variable. The estimation results show an Adjusted R-squared value of 0.8712, indicating that the three independent variables in this study—UMK, GRDP, and TPAK—jointly explain 87.12 percent of the variation in the dependent variable, namely the employment absorption of low-educated workers, while the remaining 12.88 percent is explained by other variables outside the model.

DISCUSSION

The regression estimation results show that UMK has a coefficient of -1.164 with a probability value of 0.000. This result indicates that UMK has a negative and significant effect on the employment absorption of low-educated workers; accordingly, H_0 is rejected and H_1 is accepted. A 1 percent increase in UMK is associated with a 1.164 percent decrease in the employment absorption of low-educated workers, *ceteris paribus*. This finding is consistent with SMERU (2001), which states that changes in the minimum wage have a negative and significant impact on vulnerable workers (women, young workers, and low-educated workers) in urban areas. In addition, substantial increases in the

minimum wage can cause losses for small firms, as this group of firms is the least able to absorb increases in cost structure.

Other studies similarly report a negative and significant effect of the minimum wage on the employment absorption of low-educated or low-skilled workers (Del Carpio, 2015; Maulidina & Devanto, 2018; Wen & Sieng, 2023). The negative relationship between UMK and employment absorption may occur when higher wage costs exceed workers' productivity gains, prompting firms to limit recruitment, reduce labor-intensive activities, or adopt labor-saving technologies. This effect may be more pronounced among small firms and labor-intensive industries. However, the impact may vary across firms and sectors, so the negative coefficient reflects an average relationship across regencies/cities in Central Java rather than a uniform employment reduction across all firms.

The regression estimation results show that GRDP has a coefficient of 0.145471 with a probability value of 0.5738. This result indicates that GRDP has no significant effect on the employment absorption of low-educated workers; accordingly, H_0 is accepted. This finding suggests that an increase in output does not necessarily translate into greater employment absorption, particularly for low-educated workers. In other words, the available data do not provide sufficiently strong evidence to conclude that regency/city-level GRDP drives the employment absorption of low-educated workers in Central Java over the 2019–2024 period. The insignificant effect of GRDP may reflect differences in economic structures across regencies and cities in Central Java. Growth in capital- or skill-intensive sectors may increase regional output without substantially expanding employment for low-educated workers, whereas labor-intensive sectors may absorb more workers despite contributing less to GRDP. Therefore, future research could examine sectoral GRDP, investment, and labor intensity to better understand the relationship between economic growth and employment absorption.

Based on Solow's growth theory, one of the determining factors of growth is technological progress. When GRDP growth is driven more by skill-biased technological progress—that is, technology that benefits skilled workers more

than unskilled workers—GRDP growth need not translate into greater employment opportunities for low-skilled workers, even though Solow's theory would, in principle, predict that GRDP growth should expand employment opportunities. Jung et al. (2016) show that when growth is driven predominantly by technological progress, capital investment, or sectors that require skilled labor, an increase in GRDP does not automatically increase the employment absorption of low-educated workers. The estimation results show that TPAK has a coefficient of 0.009 with a probability value of 0.043. This result indicates that TPAK has a positive and significant effect on the employment absorption of low-educated workers; accordingly, H0 is rejected and H1 is accepted. A 1 percentage point increase in TPAK is associated with a 0.9 percent increase in the employment absorption of low-educated workers, *ceteris paribus*.

This result can be understood through Borjas's (2013) labor supply theory, which holds that an individual's decision to work is influenced by the wage level, individual characteristics, and the trade-off between work and leisure. TPAK reflects the proportion of the working-age population that is actively engaged in the labor market, whether employed or seeking employment (Simanjuntak, 1985). This finding is consistent with Maulidina and Devanto (2018), who found a positive effect of the labor force on the employment absorption of low-educated workers. In Central Java, where low-educated workers continue to dominate the composition of the labor force, an increase in TPAK reflects a growing number Of individuals from this group actively seeking employment and, ultimately, being successfully absorbed into the labor market.

CONCLUSION

The analytical method used in this study is panel data regression employing the Fixed Effect Model. Based on the findings discussed above, the following conclusions can be drawn. First, the UMK variable partially has a negative and significant effect on the employment absorption of low-educated workers in Central Java over the 2019–2024 period. Second, the GRDP variable partially has no significant effect on the employment absorption of low-educated workers in

Central Java over the 2019–2024 period.

Third, TPAK partially has a positive and significant effect on the employment absorption of low-educated workers in Central Java over the 2019–2024 period. Finally, UMK, GRDP, and TPAK simultaneously have a significant effect on the employment absorption of low-educated workers in Central Java over the 2019–2024 period. Overall, the findings indicate that employment absorption of low-educated workers in Central Java is associated with labor costs, economic structure, and labor force participation. The results highlight the importance of integrating wage policies with productivity improvements, sectoral economic development, and efforts to expand employment opportunities, as higher labor force participation does not necessarily guarantee employment.

Several recommendations can be offered. First, when the government raises the minimum wage, this policy should be accompanied by improvements in other economic conditions, such as controlling the prices of goods and services, so that minimum wage increases do not place excessive burdens on businesses through higher wage costs. Second, improving the productivity of low-educated workers—through training programs, skills certification, and non-formal education—can raise the marginal productivity of this group, so that increases in the UMK do not automatically undermine their competitiveness. Finally, easily accessible labor market information and job fairs in each regency/city can help translate active labor force participation into actual employment absorption. Local governments can also encourage formal-sector firms to create more job opportunities for workers through fiscal incentives or partnership programs with the business sector.

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