ANALYSIS OF EMPLOYMENT OPPORTUNITY DETERMINANTS IN WEST JAVA: STUDY PERIOD 2010-2023

Nikmatul Khoriyah[1], Ririt Iriani S.[2]
[12]Universitas Pembangunan Nasional "Veteran" Jawa Timur
nikmatulkhoriyahhhh@gmail.com[1], ririt.iriani.ep@upnjatim.ac.id[2]

ABSTRACT

Regional economic development is closely related to the ability of a region to create employment opportunities that support the welfare of its population. This study aims to analyze the effect of Gross Regional Domestic Product (GRDP), population, average length of schooling (RLS), and Provincial Minimum Wage (UMP) on employment opportunities in West Java Province during the period 2010–2023. Using a quantitative approach with time series data analysis, this research applies multiple linear regression with SPSS to test the influence of the independent variables on employment opportunity levels. The classical assumption tests indicate that the regression model is free from problems of normality, multicollinearity, autocorrelation, and heteroscedasticity. The results show that population and average length of schooling have a significant and positive effect on employment opportunities, implying that increasing population drives demand for goods and services which in turn stimulates job creation, while higher education improves workforce skills and competitiveness. Conversely, GRDP and UMP do not show a significant influence on employment opportunities, suggesting that economic growth and wage levels are not automatically aligned with job creation, especially in capital-intensive sectors. The findings of this study provide empirical insight into the determinants of employment opportunities and offer policy recommendations for addressing unemployment and improving labor market absorption in densely populated regions like West Java.

Keywords: Employment Opportunities, GRDP, Population, Average Length Of Schooling, Minimum Wage, West Java, Time Series Regression

INTRODUCTION

Regional economic development is an important foundation in efforts to improve the welfare of society as a whole. It includes the management of human resources, natural resources, capital, and optimal use of technology (Fajri & Iriani, 2022). However, the development process often faces structural and dynamic challenges, including economic sector disparities between regions that widen the social and economic gap between developed and underdeveloped regions. In this context, job creation is a central issue that must be resolved in order to achieve inclusive and equitable development.

One of the crucial problems in current economic development is the low absorption of the labor market for the growth of the workforce which tends to increase significantly every year. West Java, although it is the province with the largest number of job opportunities on Java Island in the last three years, still faces the problem of quite high unemployment. In 2021, the unemployment rate in this province was recorded at 8.8% and although it decreased to 6.32% in 2023, this figure still shows a structural imbalance between the supply and demand of labor (BPS, 2023).

The main factors believed to influence employment opportunities in a region include Gross Regional Domestic Product (GRDP), population, average length of schooling (RLS), and Provincial Minimum Wage (UMP). Regional economic growth reflected in the increase in GRDP should create more jobs. However, not all economic growth is followed by a proportional increase in employment (Harits & Nurhayati, 2024). A large population is also a double-edged sword: on the one hand, it is a potential for abundant labor, but on the other hand, it poses a major challenge if it is not accompanied by adequate growth in employment opportunities (Sahil et al., 2023).
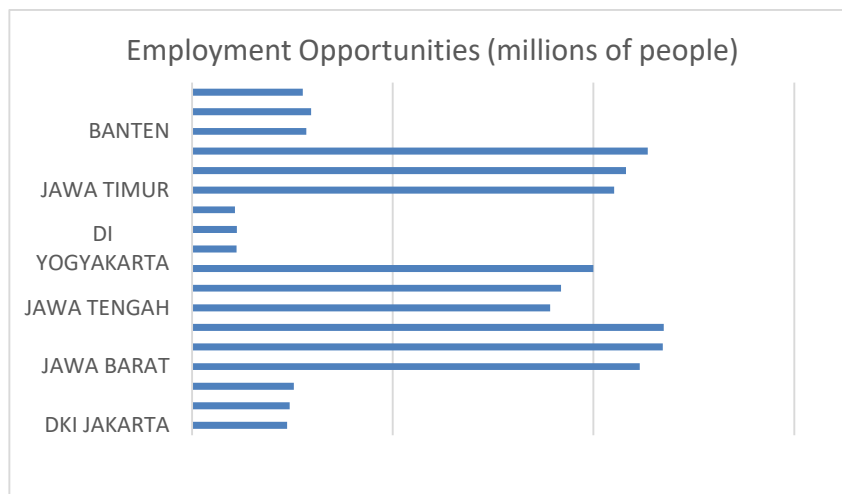
Source: BPS 2021-2023 (Processed Data)

Figure 1 Job Opportunity Data on Java Island

Based on the graph above, it can be seen that the level of employment opportunities in Java Island shows significant differences between provinces. In 2023, West Java Province recorded the highest level of employment opportunities in Java Island, namely 2,350,3598, which has

always increased every year in the last 3 years due to diverse economic activities including manufacturing, trade, and service industries. Despite having high employment opportunities in Java Island, in the last 3 years West Java has faced a high unemployment rate, namely in 2021 it recorded 8.8% and in 2023 it was 6.32%. This inequality phenomenon can be caused by the low quality of human resources so that there is a mismatch between the skills and competencies of the workforce and the needs of the existing labor market. This gap shows that improving the quality of human resources can better meet the demands of the labor market. One factor that needs to be considered is strengthening the skills and competencies of the workforce to support the development of the existing economic sector by improving the education and training system that focuses on acquiring practical skills. In addition, it is important to improve access to information on job opportunities and labor market needs so that the gap between labor supply and demand can be reduced so that unemployment rates can be suppressed. As a result of this development, it is expected that job opportunities will increase, income levels will increase and society will become more prosperous

The level of education, as measured by the RLS indicator, plays an important role in determining the quality of the workforce and the competitiveness of individuals in the labor market. The increase in RLS in West Java from 8.37 years in 2019 to 8.83 years in 2023 reflects progress in access and quality of education. However, the main challenge is the mismatch between graduate skills and labor market needs (Muna et al., 2024). In addition, the UMP which has consistently increased from IDR 1,668,373 in 2019 to IDR 1,986,670 in 2023 also has complex implications. On the one hand, it improves workers' welfare, but on the other hand, it risks reducing the absorption of labor, especially in the small and medium business sector which has limited capital (Nur Wulansari et al., 2021).

Previous studies have discussed the influence of factors such as GRDP, education, and minimum wages on employment opportunities, but they are generally carried out partially, without considering the interaction between variables simultaneously. For example, Nurhardiansyah et al. (2017) and Mandak et al. (2022) only tested the influence of two or three variables on employment opportunities in different regions without taking into account the specific characteristics of the West Java region. In fact, the demographic conditions and economic structure in West Java show their own complexities that require a more integrated analysis.

The main focus of the study in this article is to simultaneously analyze the influence of GRDP, population, average length of schooling, and minimum wages on employment opportunities in West Java Province in the period 2010–2023. This study aims to overcome the limitations of previous studies by using a time series regression model that allows for more comprehensive tracing of long-term dynamics and structural trends.

The original contribution of this article lies in two main aspects. First, in terms of methodology, this article uses a state-of-the-art approach in the form of linear regression analysis with time series data for 14 years, which is rarely used in similar studies at the provincial level. Second, in terms of theory, this article integrates macroeconomic, demographic, and human resource approaches in explaining the dynamics of employment opportunities, by considering simultaneous interactions between key variables. The novelty of this study is demonstrated through empirical findings that explain the complex and nonlinear relationship between economic and social variables on employment availability in densely populated areas such as West Java.

Thus, this article is important academically and practically. Academically, this article adds to the wealth of employment research based on empirical and multidimensional approaches. Practically, the findings of this study can be used as a basis for formulating more adaptive and contextual policies to address unemployment problems and encourage the creation of productive, inclusive, and sustainable employment in West Java Province and other regions with similar characteristics.

LITERATURE REVIEW

Based on the literature review that has been known from various sources in this document, the theoretical framework used in developing the research hypothesis is very comprehensive and rooted in the principles of macroeconomics, microeconomics, and relevant human resource theory in the context of the influence of economic variables on employment opportunities in the West Java region.

First, the theory of human capital (human capital) proposed by Becker and expanded by various related studies is the main foundation in understanding the relationship between education variables and employment opportunities. According to this theory, quality human

resources, whose characteristics can be measured through the average length of schooling, are valuable assets for the economy. Education improves individual competence and skills, so that they have a greater chance of getting decent and productive jobs. Furthermore, investment in education and training is considered a form of investment expenditure, which is expected to produce returns in the form of increased income, productivity, and competitiveness of the workforce.

The results of this theory are supported by empirical studies that show that the higher the level of community education, the better the quality of human resources will be, and thus employment opportunities will also increase. Therefore, the variable of average length of schooling not only reflects the level of education but also describes the capacity of the community to develop human resources that are able to compete at the national and international levels. In other words, the higher the average length of schooling, the greater the possibility that individuals have skills and knowledge that are relevant to the developing economic sector, thus opening up more job opportunities.

Second, the relationship between macroeconomic variables such as Gross Regional Domestic Product (GRDP) and employment opportunities is derived from the theory of economic growth and business cycle theory. GRDP is the main indicator of regional economic activity that includes all output of goods and services produced in a certain period. According to this theory, an increase in GRDP indicates that the economic condition is developing, which is usually followed by an increase in the need for labor to meet market demand. This concept is supported by the theory of labor demand which states that increased demand for goods and services increases the demand for labor in related sectors, so that job opportunities automatically increase.

Furthermore, stable and increasing economic growth will create new industries and expand existing sectors, thus encouraging the creation of new job opportunities. In the context of West Java, this region is known for its fairly dynamic economic activities supported by the industrial, trade, agricultural, and service sectors. Thus, the GRDP variable is one of the main indicators in assessing the potential for job creation in the region.

Third, related to the population variable, demographic and economic theory states that an increase in the number of productive-age population will positively affect the number of

workers and total job opportunities in the region. This is based on the principle of labor quantity which shows that the greater the number of working-age population, the greater the potential for human resources that can be absorbed by the labor market. However, population growth must be balanced with job creation so as not to cause unemployment and social inequality. An increase in the number of productive-age population will expand the labor base, which will directly increase the total available job opportunities, as long as the management is effective and productive.

Conversely, if population growth is not accompanied by an increase in the quality of education and training, it will potentially increase unemployment and reduce the efficiency of the labor market. Therefore, strategic policies need to be focused not only on increasing the number of productive-age population, but also on improving the quality of human resources through adequate education and training.

Fourth, the variable of Provincial Minimum Wage (UMP), which is a representation of labor cost incentives, is correlated with labor demand according to microeconomic principles. The theory states that when the UMP is increased, the cost for companies to employ labor also increases. As a result, companies will adjust by reducing the number of workers, automatically reducing employment opportunities. This phenomenon is known as the negative effect of wage increases that can hinder job creation for new workers or for workers who are still job seekers.

However, it should be noted that there are other effects, namely the substitution effect and the income effect. The substitution effect shows that an increase in wages makes workers more motivated to work more hours because of increased financial rewards, while the income effect can cause workers to choose to reduce working hours on the grounds that their income is sufficient. When wages reach a certain level, the labor supply curve becomes curved backward, known as the backward-bending supply curve, which shows that wage increases do not always have a positive impact on the number of working hours offered. All of these relationships are then used as the basis for developing an empirical model that will be tested statistically through multiple regression analysis. This model aims to measure the simultaneous and partial effects of these variables on the dependent variable, namely employment opportunities in West Java. In general, the proposed mathematical model can be described as follows:

Employment Opportunities (Y) = α + β1 GRDP + β2 Population + β3 Average Years of Schooling + β4 Minimum Regional Wage + ε

Where:

• Y is the dependent variable, namely employment opportunities,

• GRDP, Population, Average Years of Schooling, Minimum Regional Wage are independent variables,

• α is a constant,

• β1, β2, β3, and β4 are regression coefficients that indicate the level of influence of each variable on employment opportunities,

• ε is an error term that accommodates variability not explained by the model.

This analysis is expected to provide a valid empirical picture of the main factors that influence employment opportunities in West Java, as well as provide strategic policy input in order to increase job creation and community welfare in the region.

In the context of public policy, the results of this study are expected to be the basis for formulating programs related to human resource development through improving the quality of education and training, regional economic development through stimulating GRDP, and regulating a balanced minimum wage so as not to hinder job growth.

This broad theoretical framework provides a foundation for research to conduct in-depth analysis and ensure that the results obtained can be interpreted comprehensively, are relevant to the actual economic conditions in West Java, and are able to provide applicable recommendations for related parties in government and the private sector.

RESEARCH HYPOTHESIS (if any)

Hypothesis is a temporary answer to a problem faced in a study that will be tested for its truth after the data is collected and analyzed. In this study, the analysis was carried out by proposing the following assumptions:

1. It is suspected that the Gross Regional Domestic Product (GRDP) variable has a positive effect on employment opportunities in West Java.

2. It is suspected that the population variable has a positive effect on employment opportunities in West Java.

3. It is suspected that the average length of schooling variable has a positive effect on employment opportunities in West Java.

4. It is suspected that the Provincial Minimum Wage (UMP) variable has a negative effect on employment opportunities in West Java.

RESEARCH METHODS

This study uses a quantitative approach. A quantitative approach is a research method that emphasizes the collection and analysis of data in the form of numbers using statistical tools to analyze it. The purpose of this approach is to test hypotheses and explain phenomena objectively and measurably. In addition, data analysis carried out systematically can provide an explanation of certain phenomena (Paramita, R.W.D., Rizal, N., & Sulistyan 2021).

The place of this research was conducted in West Java Province. Because in 2023 this province recorded the highest level of employment opportunities in Java with a consistent increase in the last three years due to the variety of economic activities that created many jobs and the workforce could be well absorbed in the labor market. This research was conducted over a period of 14 years starting from 2010 to 2023.

Secondary data is the type of data used in this study. Secondary data refers to information obtained from various sources including the results of previous research that is relevant to the topic being studied and supporting literature reviews. The data obtained for this study were published by the Central Statistics Agency (BPS) and the West Java Provincial Manpower Office. This study uses a quantitative approach with a time series data regression model analyzed using the SPSS application.

The research methods used in this article should be mentioned clearly and explicitly. This method is written in the descriptive form and should provide a statement regarding the research methodology. As much as possible, this method gives an overview to the reader.

RESULTS OF RESEARCH AND DISCUSSION

1. **Classical Assumption Test Results**

   a. **Normality Test**

   The normality test is carried out using a probability plot that compares the cumulative distribution of residuals with the normal distribution. If the residual distribution meets the normality assumption, the actual data line will be parallel or follow the diagonal line pattern (Ghozali 2021). The following are the results obtained from the normality test:
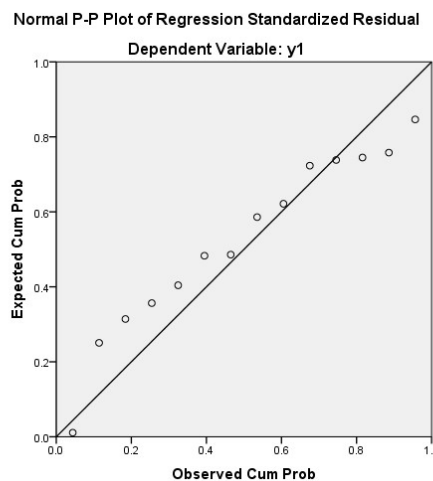
   Based on the image above, in the normality test using P-P Plot where the distribution of data or points has spread around the diagonal axis and follows the direction of the diagonal axis. So it can be said that the regression model meets the assumptions of the normality test.

   b. **Autocorrelation Test**

   In this autocorrelation test, the Durbin-Watson (DW Test) method was used. The autocorrelation test was processed using the SPSS program and in this study the DW Test value was obtained, which was 1.593. In this equation, there are 14 samples (n) and 4 independent variables (k). Then after looking at the Durbin-Watson table, the dL value is 0.6321 and the dU value is 2. 0296. 4-dU is 1.9704 and . 4-dL is 3.3679.
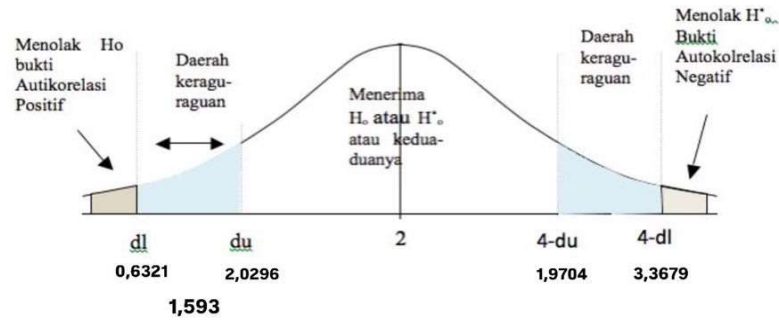
Figure 2 DW curve

Based on the image above, where the DW value is between dL and dU, and it can be seen that the results are in the doubt area. Therefore, a run test is needed to ensure whether or not there is an autocorrelation symptom. Here is the run test:

Runs Test

	Unstandardized Residual
Test Value[a]	.00078
Cases < Test Value	7
Cases >= Test Value	7
Total Cases	14
Number of Runs	7
Z	-.278
Asymp. Sig. (2-tailed)	.781

a. Median

Based on the results of the run test, it is concluded that no autocorrelation symptoms were found because the Asymp. Sig. (2-tailed) value is > 0.05. Then it can be seen if the Asymp. Sig. (2-tailed) value is 0.781 > 0.05. So it can be said that no autocorrelation symptoms were found.

c. **Multicollinearity Test**

The multicollinearity test aims to determine whether there is a correlation between independent variables in the regression model. An ideal regression model should not show any relationship between independent variables. Multicollinearity can be analyzed through tolerance and variance inflation factor (VIF) values. A good model is indicated by a tolerance value of more than 0.1 and a VIF value of less than 10, which indicates no multicollinearity (Ghozali 2021).

| Variable	Tolerance	VIF	information
Population	0.454	2.204	free
Average Years of Schooling	0.195	5.135	free
Provincial Minimum Wage	0.998	1.002	free
Gross Regional Domestic Product	0.138	7.234	free

Source: Processed data, 2025

Based on the results of the multicollinearity test above, it is known that all variables have a Tolerance value > 0.1 and a VIF value < 10. So it can be said that there are no symptoms of multicollinearity.

d. **Heteroscedasticity Test**

The heteroscedasticity test aims to identify whether there is a difference in residual variance between one observation and another in the regression model. A good regression model is a model that shows homoscedasticity or does not experience heteroscedasticity (Ghozali 2021). In this study, the heteroscedasticity test used is the Glejser test method. Where there is no heteroscedasticity if the significance value is > 0.05. However, if the significance value is <0.05, heteroscedasticity occurs.

Model	t	Sig
(Constant)	0.721	0.489
Population	1.014	0.337
Average Years of Schooling	1.159	0.276
Provincial Minimum Wage	-1.690	0.125
Gross Regional Domestic Product	0.171	0.868

Based on the results of the heteroscedasticity test above, it is known that all variables have a significance value of ≥ 0.05. So no symptoms of heteroscedasticity were found.
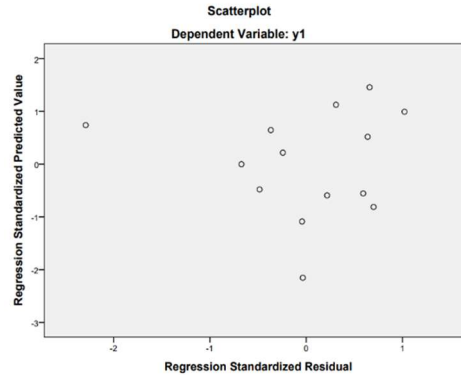
Based on the image above, where there are points spread throughout the graph and do not form a clear pattern. So it can be said that no symptoms of heteroscedasticity were found.

Based on the overall results of the classical assumption test, it is concluded that there are no problems in the research regression model and it has met the requirements for the classical assumption test. So that it can be carried out on the next test, namely the hypothesis test.

2. Multiple Linear Regression Analysis

Model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
1 (Constant)	-.012	.008	-1.383	.200
jp	1.533	.267	5.746	.000
rls	1.302	.322	4.049	.003
ump	.003	.030	.103	.920
pdrb	.037	.085	.433	.675

It is known from the results of the regression test above, where the multiple linear regression equation model is as follows: Employment Opportunities = -0.012 + 0.037PDRB + 1.533JP + 1.302RLS + 0.003UMP + e

Based on the equation model above, it can be explained as follows:

- β_0 = Constant value of -0.012 which means that if all independent variables are considered constant, then Employment Opportunities (Y) will be -0.012.
- β_1 = 0.037 which indicates that GRDP (X1) has a positive effect. Then it can be interpreted that if there is an increase in GRDP of 1 unit, then Employment Opportunities will increase by 0.037.
- β_2 = 1.533 which indicates that Population (X2) has a positive effect. Then it can be interpreted that if there is an increase in Population by 1 person, then Employment Opportunities will increase by 1.533.
- β_3 = 1.302 which indicates that Average Length of Schooling (X3) has a positive effect. Then it can be interpreted that if there is an increase in Average Length of Schooling by 1 unit, then Employment Opportunities will increase by 1.302.
  - β_4 = 0.003 which indicates that Provincial Minimum Wage (X4) has a positive effect. Then it can be interpreted that if there is an increase in the Provincial Minimum Wage by 1 unit, then Employment Opportunities will increase by 0.003.

3. **Hypothesis Test Results**

a. **Determination Coefficient Test (R^2)**

The coefficient of determination (R^2) test is a test used to measure the extent to which a model can explain variations in the dependent variable. The coefficient of determination value ranges from zero to one.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.937ª	0.877	0.823	0.00853

Source: Output SPSS, 2025

From the results above, where the coefficient of determination value of 0.877 or 87.7% shows that the independent variables consisting of PDRB (X1), Population (X2), Average Length of Schooling (X3), and Provincial Minimum Wage (X4) are able to explain the dependent variable, namely the Employment Opportunity variable, by 87.7%. Then the remaining 12.3% is influenced by other variables outside the independent variables.

b. **F Test**

The F test is a test conducted to determine whether all independent variables together (simultaneously) have an influence on the dependent variable in the regression model.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.005	4	.001	16.116	.000^b
	Residual	.001	9	.000		
	Total	.005	13			

a. Dependent Variable: y1

b. Predictors: (Constant), pdrb, ump, jp, rls

Based on the table above, where the F-test results show that the F-count value is 16.116 with an F-table of 3.708. So it is known that F-count > F-table. So it can be said that all independent variables, namely PDRB, Population, Average Length of Schooling, and Provincial Minimum Wage have a simultaneous effect on the dependent variable, namely Employment Opportunities.

c. **t test**

The t-statistic test is a test used to measure the extent to which each independent variable individually influences the variation in the dependent variable.

Variable	t	t tabel	Sig
Population	5.746		0.000
Average Years of Schooling	4.049		0.003
Provincial Minimum Wage	0.103		0.920
Gross Regional Domestic Product	0.433	2,178	0.675

Based on the table above, it can be seen that the t-count value in each independent variable is Gross Regional Domestic Product 0.433; Population of 5.746; Average Length of Schooling 4.049; Provincial Minimum Wage 0.103. Then it can be seen that the t-table value with a significance of 0.05 is 2.178. To see whether or not there is an influence of each independent variable on the dependent variable, then:

- The Effect of PDRB on Employment Opportunities

It is known that the t-count is 0.433 < t-table of 2.178 and the significance level is 0.675 > 0.05. Therefore, it can be said that PDRB does not have a significant partial effect on Employment Opportunities in West Java Province.

- The Effect of Population on Employment Opportunities

It is known that the t-count is 5.746 > t-table of 2.178 and the significance level is 0.000 < 0.05. Therefore, it can be said that the Population has a significant partial effect on Employment Opportunities in West Java Province.

- The Effect of Average Length of Schooling on Employment Opportunities

It is known that the t-count is 4.049 > t-table of 2.178 and the significance level is 0.003 < 0.05. Therefore, it can be said that the Average Length of Schooling has a significant partial effect on Employment Opportunities in West Java Province.

- Provincial Minimum Wage on Employment Opportunities

It is known that the t-count is 0.103 < t-table of 2.178 and the level of significance is 0.920> 0.05. Therefore, it can be said that the Provincial Minimum Wage

does not have a significant partial effect on Employment Opportunities in West Java Province.

ACKNOWLEDGMENTS

CONCLUSIONS AND ADVICE

Based on the results and discussion, it can be concluded that simultaneously the variables studied have different effects on employment events in West Java. Gross Regional Domestic Product (GRDP) does not have a significant effect on employment opportunities, indicating that economic growth reflected in GRDP does not always create jobs directly, especially when the growth is supported by capital-intensive and technology-based sectors. On the other hand, the population variable is proven to have a significant effect on employment opportunities, where an increase in population drives demand for goods and services and drives the growth of the industrial and trade sectors which open up more jobs. Average length of schooling also has a significant effect on employment opportunities, because higher education improves the skills and competitiveness of the workforce in the market, and opens up access to better quality jobs. Meanwhile, the Provincial Minimum Wage variable does not have a significant effect on employment opportunities, indicating that the stripping policy has not become a major factor in labor funding decisions, especially in the small business sector which considers skills and market conditions more.

BIBLIOGRAPHY

Akbar, Syuhada, Alivien Septian Haerisma, and Toto Suharto. 2022. "Analysis of Factors Influencing Employment Opportunities in West Java Province in 2015-2020." *Journal of Economic Development and Village Building* 1 (1): 53–64. https://doi.org/10.59261/jedvb.v1i1.4.

Arifin, Ahmad Syamsul. 2023. "Human Capital Investment: Meningkatkan Daya Saing Global Melalui Investasi Pendidikan." *Jurnal Education and Development* 11 (2): 174–79. https://doi.org/10.37081/ed.v11i2.4672.

Dona, Doni Roma, Aji Sofyan Effendi, and Muliati Muliati. 2018. "Analisis Faktor-Faktor Yang Mempengaruhi Kesempatan Kerja." *Forum Ekonomi* 20 (1): 12. https://doi.org/10.29264/jfor.v20i1.3308.

Fajri, Ahadi Akbar, and Ririt Iriani. 2022. "Pengaruh Kemiskinan Dan Pengangguran Terhadap Pertumbuhan Ekonomi Di Provinsi Bali Tahun 2002-2021." *Ekopem: Jurnal Ekonomi Pembangunan* 4 (2): 53–66. https://doi.org/10.32938/jep.v7i2.2555.

Fara Eka Wahyuni, Fara Eka Wahyuni, Wahyu Hidayat Riyanto, and Setyo Wahyu Sulistyono. 2021. "Analisis Pengaruh Tingkat Pendidikan, Upah Minimum Provinsi Dan Jumlah Industri Terhadap Kesempatan Kerja Di Provinsi Jawa Timur Tahun 1995-2020." *Jurnal Ilmu Ekonomi JIE* 5 (3): 551–62. https://doi.org/10.22219/jie.v5i3.18729.

Ghozali, I. 2018. *Aplikasi Analisis Multivariate Dengan Program IBM SPSS 25 Edisi 9*. (9th ed.). Badan Penerbit Universitas Diponegoro.

———. 2021. *Aplikasi Analisis Multivariate Dengan Program IBM SPSS 26 Edisi 10*. (10th ed.). Badan Penerbit Universitas Diponegoro.

Guna, I Made Prastawa Adi, and Nyoman Yuliarmi. 2021. "Pengaruh Tingkat Pendidikan, Investasi Dan Upah Minimum Terhadap Kesempatan Kerja Dan IPM Kabupaten/Kota Provinsi Bali." *E-Jurnal EP Unud* 10 (9): 3769–97.

Harits, Aqib Andiwa, and Siti Fatimah Nurhayati. 2024. "Analisis Faktor-Faktor Yang Mempengaruhi Kesempatan Kerja Di Karesidenan Semarang Tahun 2017-2022." *Co-Value Jurnal Ekonomi Koperasi Dan Kewirausahaan* 14 (12). https://doi.org/10.59188/covalue.v14i12.4408.

Maimun, Sholeh. 2007. "Permintaan Dan Penawaran Tenaga Kerja Serta Uoah: Teori Serta Beberapa Potretnya Di Indonesia." *Jurnal Ekonomi & Pendidikan* 4 (1): 62–74. https://media.neliti.com/media/publications/17245-ID-upaya-pengembangan-profesionalisme-guru-di-indonesia.pdf.

Mandak, Novia M T, Anderson G Kumenaung, and Jacline I Sumual. 2022. "Analisis Pengaruh Upah Minimum Provinsi, Pertumbuhan Ekonomi Dan Indeks Pembangunan Manusia Terhadap Kesempatan Kerja Di Kota Bitung." *Jurnal Berkala Ilmiah Efisiensi* 22 (4): 89–99.

Muna, Nilna, Syahidna Nahdi, Halda Amalika, Nanda Salsabila, and Vira Kirana Ningsih. 2024. "Analisis Faktor Yang Mempengaruhi Kesempatan Kerja Di Pulau Jawa." *Journal of Macroeconomics and Social Development* 1 (4): 15. https://doi.org/10.47134/jmsd.v1i4.330.

Nainggolan, H, R Erdiansyah, W S Ratri, A.A.N.E.S. Gorda, N.L.P.E.Y. Prastiwi, S Kadiman, I P A Adnyana, and A J Siska. 2022. *Ekonomi Sumber Daya Manusia*. Pradina Pustaka. https://books.google.co.id/books?id=5M6dEAAAQBAJ.

Nur Wulansari, Rosalia Agista, Niniek Imaningsih, and Riko Setya Wijaya. 2021. "Pengaruh Modal, Jumlah Unit Usaha, Nilai Investasi Dan Upah Minimum Terhadap Penyerapan Tenaga Kerja Pada Industri Kecil Dan Menengah Di Kabupaten Tuban." *Equilibrium : Jurnal Ilmiah Ekonomi, Manajemen Dan Akuntansi* 10 (2): 137–45. https://doi.org/10.35906/je001.v10i2.803.

Nurhardiansyah, Agam, Nanik Istiyani, and Fajar Wahyu Prianto. 2017. "Pengaruh IPM, PDRB, UMP Dan Inflasi Terhadap Kesempatan Kerja Di Pulau Jawa Tahun 2006 - 2015." *Ekuilibrium* 2 (2): 56–61. https://jurnal.unej.ac.id/index.php/JEK/article/view/13890%0Ahttps://jurnal.unej.ac.id/index.php/JEK/article/download/13890/7255.

Paramita, R. W. D., Rizal, N., & Sulistyan, R. B. 2021. *Metode Penelitian Kuantitatif*. (3rd ed.). Widya Gama Press.

Prishardoyo, Bambang. 2008. "Analisis Tingkat Pertumbuhan Ekonomi Dan Potensi Ekonomi Terhadap Produk Domestik Regional Broto (PDDB) Kabupaten Pati Tahun 2000 - 2005." *Jejak* 1 (1): 1–90.

Rahmawati, Ikka Dewi. 2013. "Pengaruh Investasi Dan Tingkat Upah Terhadap Kesempatan Kerja Di Jawa Timur." *E-Journal Unesa* 1 (3): 1–23. https://ejournal.unesa.ac.id/index.php/jupe/article/view/3582.

Sadono Sukirno. 2010. *Makroekonomi Teori Pengantar*. Ketiga. Jakarta: Raja Grafindo. https://www.rajagrafindo.co.id/produk/makroekonomi-teori-pengantar-edisi-ketiga/.

Saerang, Joel C. J, Anderson G. Kumenaung, and Krest D. Tolosang. 2021. "Pengaruh Belanja Modal Dan Kesempatan Kerja Melalui Pertumbuhan Ekonomi Sebagai Intervening Variabel Di Kabupaten Minahasa Tahun 2005-2019." *Jurnal Berkala Ilmiah Efisiensi* 21 (5): 40–51.

Sahil, Danish, Coki Ahmad Syahwier, Sya'ad Afifuddin Sembiring, and Raina Linda Sari. 2023. "Analisis Pengaruh Upah Minimum Regional, Investasi, Dan Jumlah Penduduk Terhadap Kesempatan Kerja Di Sumatera Utara." *PRIMER : Jurnal Ilmiah Multidisiplin* 1 (1): 1–8. https://doi.org/10.55681/primer.v1i1.22.

Setiani Tanjung, Putri, Herman Sambodo, and Monica Rosiana. 2024. "Faktor - Faktor Yang Memengaruhi Kesempatan Kerja Di Indonesia." *Jurnal Ekuilnomi* 6 (2): 150–58. https://doi.org/10.36985/r818n720.

Sutrisno. 2023. "Determinan Kesempatan Kerja Di Indonesia Tahun 2006-2021." *INNOVATIVE :*

Journal Of Social Scince Research 3 (3): 10870–84. https://j-innovative.org/index.php/Innovative/article/view/3444.

Tri Rezeki, Meilita, and Lucia Rita Indrawati. 2022. "Pengaruh Pendidikan, Penduduk, Pencari Kerja Terhadap Kesempatan Kerja Di Jawa Barat 1985-2020." *E-Journal Perdagangan Industri Dan Moneter* 10 (2): 135–50. https://doi.org/10.22437/pim.v10i2.20471.

Trianto, Anton. 2017. "132-214-1-Sm" 13 (April): 15–38.

Tumilaar, Teresa V., Mauna Th. B. Maramis, and Hanly F. Dj. Siwu. 2022. "Pengaruh Jumlah Penduduk, Pendidikan, Dan Upah Minimum Terhadap Tingkat Pengangguran Terbuka Di Kabupaten/Kota Provinsi Kalimantan Timur." *Jurnal Berkala Ilmiah Efisiensi* 22 (5): 61–72. https://ejournal.unsrat.ac.id/v3/index.php/jbie/article/view/42451.

Yuliana, Rena. 2023. "Pengaruh Tingkat Upah Dan Tingkat Pendidikan Terhadap Produktivitas Tenaga Kerja (Studi Pada Sektor Manufaktur 33 Provinsi Di Indonesia)." *Jurnal Multidisiplin West Science* 2 (03): 191–99. https://doi.org/10.58812/jmws.v2i03.264.

Yunianto, Dwi. 2021. "Analisis Pertumbuhan Dan Kepadatan Penduduk Terhadap Pertumbuhan Ekonomi." *Forum Ekonomi* 23 (4): 688–99. https://doi.org/10.30872/jfor.v23i4.10233.