Exploring the Elasticity of Job Opportunities between Regions in Indonesia

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ABSTRACT

This study aims to analyze and explain the influence of education level, wages, poverty rate, the informal sector, and economic growth on employment opportunities. Furthermore, the study will explain the conditions and differences in employment opportunities across three regions: Western Indonesia (WIB), Central Indonesia (WITA), and Eastern Indonesia (WIT). This quantitative study utilizes path analysis as a statistical tool to estimate the parameters of a variable. The results show that education level significantly decreases employment opportunities in the WIT region, while economic growth has no significant effect on employment opportunities in the three regions. Furthermore, wage increases significantly decrease employment elasticity in both WIB and WITA regions, while the effect is insignificant in WIT. Poverty negatively impacts employment opportunities in Region 2, while the effect is positive but not significant in the other two regions. The informal sector significantly impacts employment opportunities in the three regions. Furthermore, employment opportunities, as measured by employment elasticity, differ significantly between regions. The region with the highest elasticity is WIB, which never reaches negative elasticity, while the other two regions still experience negative elasticity. WITA in 2023 has experienced positive elasticity, but WIT remains negative even though it previously experienced positive elasticity in 2020.

Keywords: Informal sectors, Economic growth, Education, Wages, Employment, and Poverty

JEL codes: A10; O11

INTRODUCTION

Indonesia is a country that has many islands and has a large territory, so the Indonesian government divides this region into 3 parts based on the Regulation in the form of a Presidential Decree that regulates the division of time zones in Indonesia (WIB, WITA, WIT). Presidential Decree Number 41 of 1987 concerning the Division of the Republic of Indonesia into 3 (Three) Time Zones where this Presidential Decree sets the benchmark time zones GMT + 7, GMT + 8, and GMT + 9, effective from January 1, 1988. In addition to the division of time, the Indonesian region which is rich in natural resources (SDA) is unevenly distributed so that the development results obtained by each region will be different which can cause differences in available job opportunities. Regions with abundant natural resources are usually less able to absorb labor as expected, because most industries in the region are capital intensive. Here it can be mentioned that rich regions, such as the Riau region in WIB, South Sulawesi in WITA and Papua province in WIT. However, if viewed from the quality and causality of human resources, most are found in WIB, especially on the island of Java, so that it can cause the three regions to experience differences in both resources and human resources which can affect labor absorption or employment opportunities.

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Figure 1. Map of the Three Regions of Indonesia in Terms of Time.

Source: Ruang Guru, 2025. https://www.ruangguru.com/blog/keragaman-waktu-di-Indonesia

The problem of employment opportunities is closely related to employment which is always an interesting issue to discuss, various problems that often arise such as the lack of available employment opportunities, the lack of education levels of the workforce and the mismatch of job vacancies with the background of job seekers. According to Hasibuan (1987) a number of the main problems faced by Indonesia in the field of employment are limited employment opportunities, relatively high growth in the workforce, low wages as well as worker productivity, imbalances between regions which also relate to the amount of wages and labor absorption.

Employment opportunities are one indicator of economic development (Jhingan, M.L. 2021; Kuncoro,). When employment opportunities are high, unemployment is likely to be low, which directly impacts community well-being. Employment opportunities are crucial for society because the availability of adequate employment opportunities accelerates economic development, especially when coupled with high productivity. The opportunity to find work in various economic sectors is called employment. More broadly, employment opportunities and the rate of economic growth are related to each other. The relationship between the rate of employment opportunities and the rate of economic growth can be known by calculating the elasticity of employment opportunities (Zainab, 1984). Then we get employment opportunities. Which means the elasticity of employment opportunities describes how much change in economic growth to the opening of new jobs that will increase employment opportunities, so the higher the value of the elasticity of employment opportunities, each rate of economic growth will increase employment absorption. It is concluded that the rate of economic growth will affect workforce growth. Jobs created will ultimately increase people's income, growth can affect employment opportunities from the demand side (creating jobs) and the supply side (improving the quality of the workforce) in other words, in theory, economic growth plays an important role in increasing employment absorption (Todaro, & Smith, 2020)

Several factors can determine the expansion of employment opportunities, one of which is the level of economic growth, because with economic growth directly or indirectly can increase investment which in turn investment influences greatly determine economic growth which in turn will create growth because investment can be considered to have two sides of the coin, one side is economic growth and the other side is employment. Investment has an important role in driving the economic life of the nation, due to the formation of capital used to increase production capacity, increase national income and create new jobs, in this case to expand employment opportunities (Todaro & Smith, 2000). Furthermore, this economic growth can be determined by education (Romer 1986, Lucas, 1988).

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Education is one factor that can have a positive influence on the absorption or expansion of employment opportunities, because with high education and skills can easily enter or meet the demand for labor, so that companies can easily develop their businesses because of the availability of educated and skilled labor. Limited access to education and health makes it difficult for poor people to compete for decent jobs, so that employment opportunities to get jobs are very minimal. Furthermore, education can determine the level of labor absorption, as well as the efforts offered by job seekers, because not all workers who have the work skills are willing to accept wages determined by the company, because low wages can make workers unattractive and even choose to quit or look for other jobs that promise higher wages. High or competitive real wages can increase productivity and attract more people to work, although the impact can vary between the formal and informal sectors.

Furthermore, the expansion of employment opportunities can be hampered by poverty levels, as they lack adequate access. Poverty can significantly limit employment opportunities by hindering access to education, training, and business capital, leading to high unemployment rates or reduced employment opportunities. Poor people are often trapped in informal, part-time, or low-wage work due to a lack of skills, resulting in a cycle of poverty that is difficult to break. Poverty directly contributes to high unemployment rates due to limited employment opportunities (Arief, 1996).

Figure 2 shows the relationship between several economic and social factors and employment opportunities. Education can have a positive impact on labor absorption because it provides knowledge and skills, which in turn can create broader employment opportunities. Wages are one of the variables that can determine the level of labor absorption because high wages and willingness of workers as compensation can impact the expansion of employment opportunities. Poverty factors that are always unfair, especially in access to education and health, can worsen employment opportunities, while the informal sector, seen as a percentage of the total sector, is known to provide a large workforce that will impact the expansion of employment opportunities itself. Finally, economic growth is an important factor that can change unfavorable economic situations to a positive direction by expanding employment opportunities (Okun's Law, 1962). However, the conditions in Indonesia, which are diverse in terms of Natural Resources and Human Resources, it is not impossible that the opposite occurs, namely that growth is unable to encourage employment opportunities.

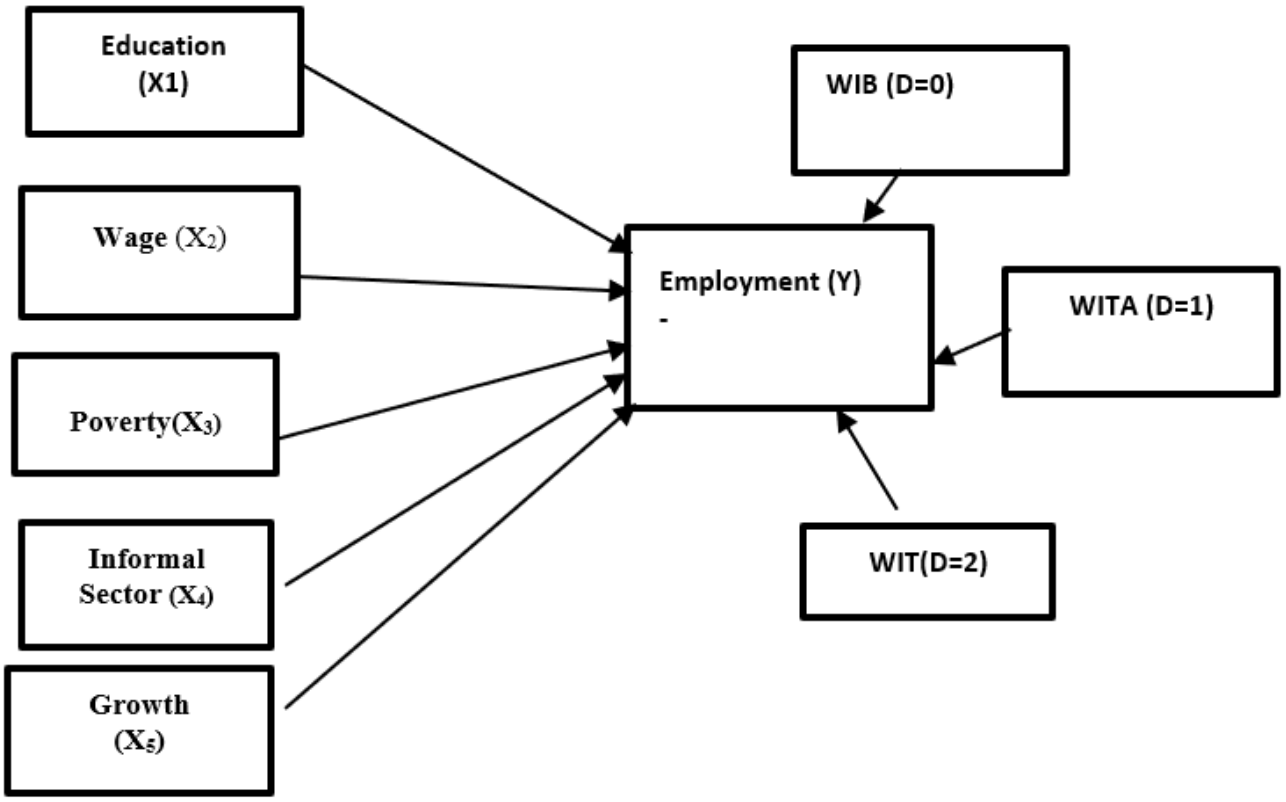

Figure 2. Framework

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LITERATURE REVIEW

Employment

Employment opportunities refer to existing jobs, their workforce, or job openings. Employment opportunities have two elements: employment and employment opportunity. Employment refers to jobs already occupied or people currently employed. Employment opportunities consist of jobs that have been filled, occupied, or vacant (Tulus, 1996; Beatty et al., 2002); Harton (1976) states that employment opportunities are groups of people who act as production factors to create economic growth through increasing population, productivity (production factors), and living standards. Furthermore, Tandiawan (2012) states that employment opportunities, according to Keynes's view, differ from the classical view. According to Keynes, economic activity depends on the demand side, namely on aggregate spending or expenditures made by the economy at a certain time. Aggregate expenditure is defined as spending made to purchase goods and services produced by an economy in a certain period, and can only be measured for a certain year.

Recardo, the founder of the labor theory of value, stated that labor is the sole factor of production, as other factors can be converted into labor value. Mathematically, job opportunities can be simply expressed as

$L = E \times \bar{n}$ Where: L = employment opportunities, E = number of employed people and $\bar{n}$ = average working hours per worker. So, according to this definition, employment opportunities are the result of multiplying the number of employed people by the average working hours. So, this explanation is very simple: employment opportunities are the number of employed people and the number of available job openings. Therefore, employment opportunities are the productive opportunities for individuals to engage in work activities.

Employment opportunities in the labor market are usually very limited, while the labor force or supply continues to grow far beyond demand. In this regard, Keynes (1964) stated that full or near-full employment rarely occurs and, if it does, is only for a short period. This statement contradicts the classical economists' opinion, developed by Adam Smith. However, this contribution of thought provides a theoretical foundation for the subsequent development of economics.

Region

The concept of region cannot be separated from its use for various purposes. According to (Nugroho and Dahuri 2004), a region is a geographic area with specific characteristics and serves as a medium for everything to locate and interact. According to Tarigan (2004), planning can mean understanding and analyzing current conditions, predicting the development of various relevant non-controllable factors, estimating limiting factors, establishing achievable goals and objectives, and seeking steps to achieve these goals. Regional planning is an activity that sets goals to achieve these goals. One goal is to narrow or minimize the gap between regions, in terms of socioeconomics, particularly per capita income.

Perroux, in 1955, who had spawned a regional theory about regional growth centers (Gowth poloe theory), which stated that economic growth in a region does not occur in just any place. Furthermore (Syafrizal, 2008) stated that the growth or development of a region is a reaction to the thoughts of economists at that time who stated that if in general the transfer of growth between regions can run smoothly, so that in the end the development of population, production and capital does not have to be proportional between times, but in the package the transfer of growth between regions does not run smoothly but concentrates on areas that have location advantages.

Geographically, progress in a region at a certain location point that results in a push towards the development of the next point or place will affect regional economic growth (Riyadi & Brakusumah, 2003). Hirschman sees the level of regional development tends to be achieved at several growth points where economic activity will be concentrated in that area due to the number of existing facilities being greater than in other areas, which ultimately leads to an increase in the level of migration to the hinterland area to the growth center area.

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THE METHOD

This type of research is quantitative, taking the type of study of comparative causality that processes numerical data that can be calculated using statistical formulas. The data analysis technique used in this study is path analysis which estimates influence of exogenous variables on endogenous variables, effects are available in the statistical program, AMOS used for estimation in this study. This study uses secondary data, namely data that is already available and collected by certain institutions and it is panel data. The data was taken from the Indonesia Central Statistics Agency (BPS) Bank Indonesia and the Ministry of Finance of the Republic of Indonesia. The data used is secondary data from 2017 to 2023 which covers 34 provinces in Indonesia..

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$Y = f(X_1, X_2, X_3, X_4, X_5)$ ..... (3.1)

Whereas:

X_1 = education (average length of schooling of the population aged 15 years and over, years)

X_2 = wage (minimum wage of provinces, IDR)

X_3 = poverty (percentage of poverty according to BPS,%)

X_4 = informal workers (proportion of informal employment by Province, %)

X_5 = economic growth (increase in the number of goods and services,%)

Y = Employment opportunities (measured by the number of people of working age who have participated or entered the world of work (person)

Using non-linear functions so that equation (3.1) can be written:

$$Y_2 = e^{\beta 0} X_1^{\beta 1} X_2^{\beta 2} e^{X_3^{\beta 3}} e^{X_4^{\beta 4}} e^{X_5^{\beta 5}} e^{\mu} \quad \text{.....(3.2)}$$

Transformation of equation (3.2) into linear form is obtained

$$\ln Y = \beta_0 + \beta_1 X_1 + \beta_2 \ln X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \mu_1 \quad \text{.....(3.3)}$$

Equation (3.2) can be written by providing or inserting a dummy variable in it so that we obtain

$$\begin{aligned} \ln Y = {} & \beta_0 + \beta_1 X_1 + \beta_2 \ln X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 D_1 + \beta_7 D_2 \\ & \beta_8 D_1 X_1 + \beta_9 D_1 \ln X_2 + \beta_{10} D_1 X_3 + \beta_{11} D_1 X_4 + \beta_{12} D_1 X_5 + \\ & \beta_{13} D_2 X_1 + \beta_{14} D_2 \ln X_2 + \beta_{15} D_2 X_3 + \beta_{16} D_2 X_4 + \beta_{17} D_2 X_5 + \mu \end{aligned} \quad \text{.....(3.4)}$$

For WIB (D_1=0, D_2=0)

$$\ln Y_1 = \beta_0 + \beta_1 X_1 + \beta_2 \ln X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \mu_1 \quad \text{.....(3.5)}$$

For WITA (D_1=0, D_2=1)

$$\ln Y = (\beta_0 + \beta_7) + (\beta_1 + \beta_{13}) X_1 + (\beta_2 + \beta_{14}) \ln X_2 + \beta_3 + \beta_{15} X_3 + (\beta_4 + \beta_{16}) X_4 + \beta_5 + \beta_{17} X_5 + \beta_6 D_1 + \mu_2 \quad \text{.....(3.6)}$$

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For WIT (D_1=1, D_2=0)

$$\ln Y = (\beta_0 + \beta_6) + (\beta_1 + \beta_8)X_1 + (\beta_2 + \beta_9)\ln X_2 + (\beta_3 + \beta_{10})X_3 + (\beta_4 + \beta_{11})X_4 + (\beta_5 + \beta_{17}X_{16}) + \mu_3 \quad \text{.....(3.7)}$$

$$Y_2 = e^{\beta 0} X_1^{\beta 1} X_2^{\beta 2} e^{X_3^{\beta 3}} e^{X_4^{\beta 4}} e^{X_5^{\beta 5}} e^{\mu} \quad \text{.....(3.2)}$$

Transformation of equation (3.2) into linear form is obtained

$$\ln Y = \beta_0 + \beta_1 X_1 + \beta_2 \ln X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \mu_1 \quad \text{.....(3.3)}$$

Equation (3.2) can be written by providing or inserting a dummy variable in it so that we obtain

$$\begin{aligned} \ln Y = {} & \beta_0 + \beta_1 X_1 + \beta_2 \ln X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 D_1 + \beta_7 D_2 \\ & \beta_8 D_1 X_1 + \beta_9 D_1 \ln X_2 + \beta_{10} D_1 X_3 + \beta_{11} D_1 X_4 + \beta_{12} D_1 X_5 + \\ & \beta_{13} D_2 X_1 + \beta_{14} D_2 \ln X_2 + \beta_{15} D_2 X_3 + \beta_{16} D_2 X_4 + \beta_{17} D_2 X_5 + \mu \end{aligned} \quad \text{.....(3.4)}$$

For WIB (D_1=0, D_2=0)

$$\ln Y_1 = \beta_0 + \beta_1 X_1 + \beta_2 \ln X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \mu_1 \quad \text{.....(3.5)}$$

For WITA (D_1=0, D_2=1)

$$\ln Y = (\beta_0 + \beta_7) + (\beta_1 + \beta_{13})X_1 + (\beta_2 + \beta_{14})\ln X_2 + \beta_3 + \beta_{15}X_3 + (\beta_4 + \beta_{16})X_4 + \beta_5 + \beta_{17}X_5 + \beta_6 D_1 + \mu_2$$

.....(3.6)

For WIT (D_1=1, D_2=0)

$$\ln Y = (\beta_0 + \beta_6) + (\beta_1 + \beta_8)X_1 + (\beta_2 + \beta_9)\ln X_2 + (\beta_3 + \beta_{10})X_3 + (\beta_4 + \beta_{11})X_4 + (\beta_5 + \beta_{17}X_{16}) + \mu_3$$

.....(3.7)

RESULTS AND DISCUSSIONS

Model fit test

The chi-square statistic, as stated earlier, is the most fundamental test to measure overall fit. It is very sensitive to the sample size and the relationship between exogenous variables, almost the same as the Multiple Linear Regression model. The model is considered good if the chi-square value is small. The smaller the value, the more feasible the research, meaning that the better it describes the match between the variance of the sample taken and the research population. The results of data processing carried out using the AMOS 18 program are as shown in Table 1. This table shows that the model used is statistically acceptable, where it can be seen that all Fit criteria have been met except for the Tuckler Lewis Index (TLI). According to Malkanthie (2015), some of the unmet criteria can be considered as a model that can be used as an initial stage in chi-square analysis.

Tabel 1. Goodness of Fit Index

No.	Goodness of fit Measure	Cut-off Criteria	Estimation (cut off Value)	Fit Situation
1	Chi-Square (χ^2) Significance Probability (p)	smaller the better ≥ 0.05	8.549 0.201	Fit
2	RMSEA (the Root Mean Square Error of Approximation)	≤ 0.05	0.046	Fit
3	NFI (Normed of Fit Index)	≥ 0.95	0.973	Fit
4	IFI (Incremental Fit Indices)	≥ 0.95	0.992	Fit
5	CMIN/DF (the minimum Sample Discrepancy Function)	≤ 2	1.425	Fit
6	TLI (Tuckler Lewis Index)	≥ 0,95	0.932	Not Fit
7	CFI (Comparative Fit Index)	≥ 0,95	0.991	Fit
8	Hoelter's Index	≥ 200	299	Fit

Soures: Malkanthie, 2015; Wan, 2022 and Amos Result

The results of data processing using the same program source are obtained in Figure 3.

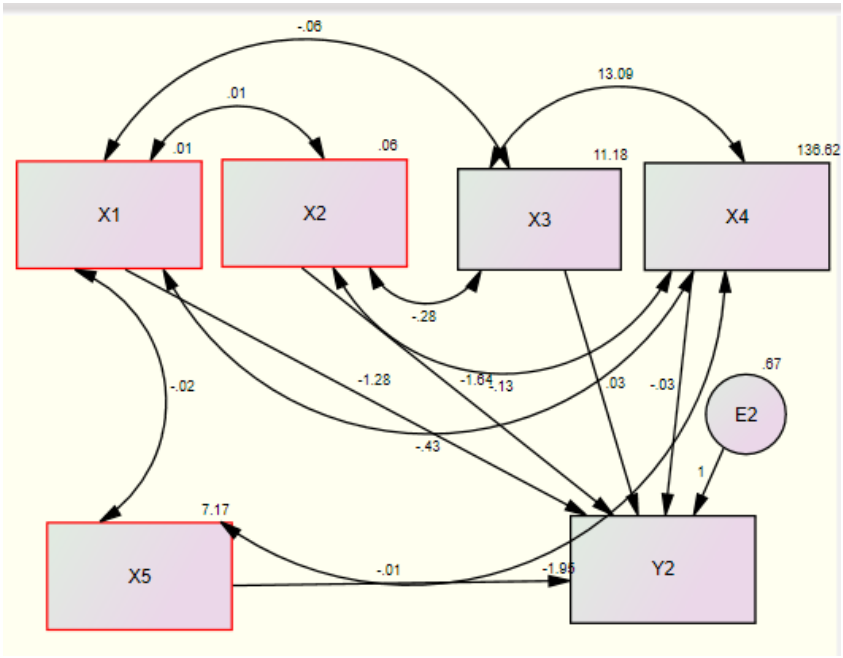

Figure 3. Estimation Results for Region 1,

Recourse: Result of the Default Model of Amos 18 Data Processing

Selanjutnya dari Gambar 3 ditambah hasil pengolahan data diperoleh Tabel 2.

Tabel 2. Regression Weights untuk Wilayah 1

Variables		Estimate	CR	Probability
Dependent	Independent			
Employment	Education	-1,281	-1.269	0.204
Employment	Growth	-0,013	0.416	0.677
Employment	Informal Sector	-0,027	-3.437	0.000
Employment	Wage	-1,639	-4.272	0.000
Employment	Poverty	-0,031	1.155	0.248

Sources: Figure 3, Data Processing Results

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From Table 2, the following regression equation is obtained:

$$\ln Y_2 = -1{,}95 - 1{,}28X_1 - 1{,}64 \ln X_2 + 0{,}03X_3 - 0{,}027X_4 - 0{,}13X_5 \ldots\ldots\ldots (3.8)$$

Next, for Region 2, Figure 4 was obtained.

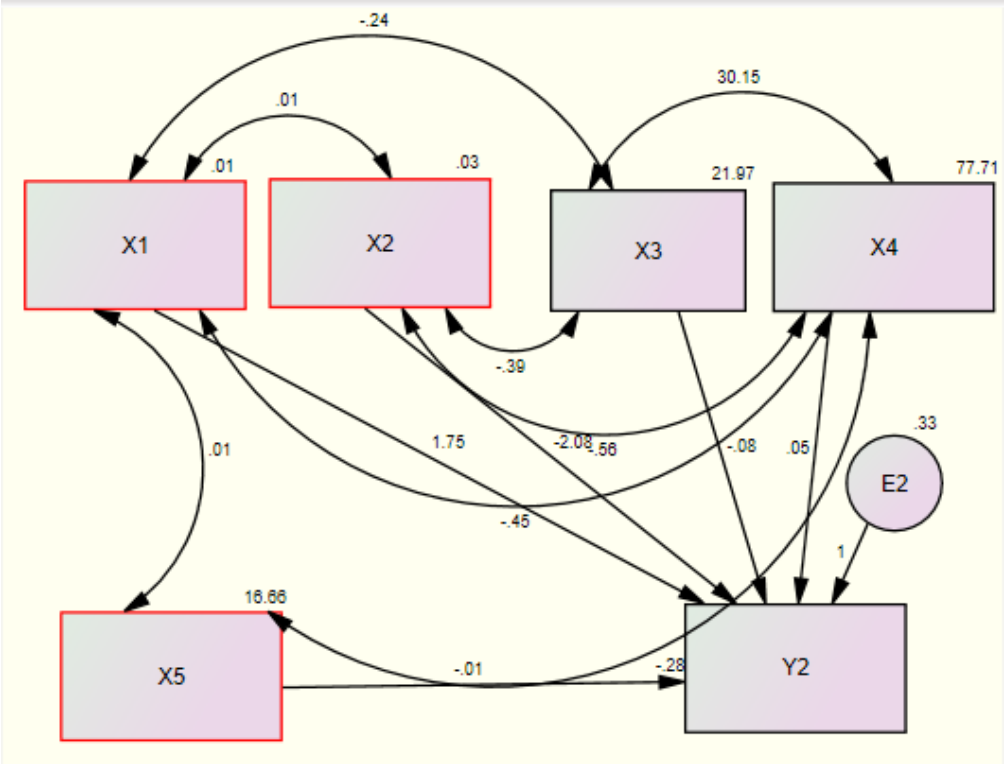

Figure 4. Estimation Results for Region 2

Recourse: Result of Default Model of Amos 18 data processing

Based on Figure 4, Table 3 is obtained.

Tabel 3. Regression Weights untuk Wilayah 2

Variables		Estimate	CR	Probability
Dependent	Independent			
Employment	Education	1.754	1.562	0.118
Employment	Growth	-0.012	-0.714	0.475
Employment	Informal Sector	0,051	4.315	0.000
Employment	Wage	-2.081	-4.072	0.000
Employment	Poverty	-0.084	-3.724	0.000

Source: Figure 4, Data Processing Results

Figure 5. Variable Coefficients and The Probabilities of Region 1

Recourse: Amos 18 data processing results.

Dengan demikian, dari tabel 3 dapat ditulis persamaan regresi berikut:

$$\ln Y_2 = -0{,}28 - 1{,}75X_1 - 2{,}08 \ln X_2 + 0{,}03X_3 - 0{,}08X_4 - 0{,}12X_5 \ldots\ldots\ldots\ldots\ldots\ldots (3.9)$$

Determining the regression coefficient or relationship between variables in region 3 can be seen in Figure 5

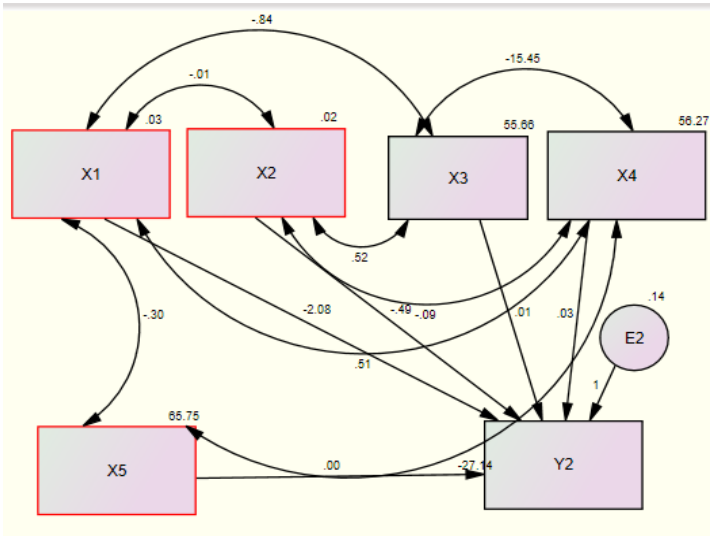

Figure 5. Estimation Results for Region 3

Recourse: Result of Default Model of Amos 18 data processing

Tabel 4. Regression Weights for Region 2

Variables		Estimate	CR	Probability
Independent	Dependent			
Employment	Education	-2.080	-3.438	0.000
Employment	Growth	-0.001	-0.094	0.925
Employment	Informal Sector	0,032	2.315	0.008
Employment	Wage	-0.489	-0.790	0.430
Employment	Poverty	0.013	0.892	0.372

Source: Figure 5. Data Processing Results

$$\ln Y_3 = -27{,}14 - 2{,}08X_1 - 0{,}49\ln X_2 + 0{,}01X_3 + 0{,}03X_4 - 0{,}001X_5 \text{ .....(3.10)}$$

Research findings

As is known, this research divides Indonesia's provinces into three regions, so the estimation results consist of three components. The estimation results for Region 1, which is called WIB, are shown with equation (3.8) which shows the regression equation for the Western Indonesia region (WIB); Regression equation (3.9) for the Central Indonesia region (WITA); and Regression equation (3.10) for the Eastern Indonesia region (WIT). Next, we will first explain the development of elasticity for the three regions.

Figure 6. Development of Employment Opportunity Elasticity in the Regions

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Figure 6 shows the development and striking differences between regions in Indonesia in terms of available job opportunities. In WIB (Western Indonesian Time), the elasticity of employment opportunities (the ratio of GDP growth to the growth of the workforce) is shown in the same figure. In 2020, the elasticity decreased but rebounded in 2023, surpassing the previous two years, and all were positively inelastic. Meanwhile, in WITA (Central Indonesian Time), the elasticity of employment opportunities showed positive development or a trend, with each of the previous two periods still showing a minus sign, but by 2023 it had changed to positive and inelastic. Furthermore, in the WIT region, the elasticity still showed a minus, meaning that as economic growth increased, employment opportunities decreased, although there was improvement in 2020.

RESULTS AND DISCUSSIONS

Education

Table 2 or equation (3.8) shows that education level has a significant negative effect on employment opportunities in Eastern Indonesia (WIT) at a confidence level of $\alpha = 0.05$, with an elasticity of -2.08. This means that a 1 percent increase in education in the region causes a decrease in employment opportunities. This fact contradicts government and public expectations, which, according to theories such as human investment, state that increased education will lead to economic growth, which in turn will create jobs (Okun, 1962). This fact may be due to the economic conditions in WIT, where several large industries such as gold and nickel mining businesses are located, making it a capital-intensive region, contributing to a shortage of labor absorption. Meanwhile, labor-intensive industries, small-scale industries, and the informal sector have not been able to absorb the workforce as expected. In addition, there is a mismatch between university graduates, most of whom have qualifications in the social and cultural fields, so they are relatively unable to be absorbed in the mining sector as expected. So, in the nickel mining sector, there is still a large use of foreign workers in the Maluku region (Ministry of Manpower of Indonesia, 2025). In addition, the growth of graduates in this region is not comparable to the available jobs, due to the lack of economic businesses such as MSMEs that can absorb more workers than other types of businesses, as occurs in the Kalimantan region (which includes WITA). In addition, this negative elasticity can also be influenced by other factors such as industrial structure, labor markets, infrastructure, and differences in government policies. The infrastructure of the WIB, WITA and WIT zones is very striking in terms of infrastructure development in terms of maturity, connectivity and equitable distribution of development results. In the WIB zone, it is more advanced and mature and dense, while in the WITA region, large-scale strategic projects are being actively implemented, while in the Eastern region, the focus is still on fulfilling basic infrastructure and connectivity (Regional Infrastructure Development Agency, 2025). Conditions like this can also determine the negative influence of education on employment opportunities.

Based on Figure 3, only central Indonesia shows a positive relationship between education level and employment opportunities, but this relationship is not significant at a confidence level of $\alpha = 0.15$. This fact shows that education does not always match or mismatch with workforce needs, primarily due to a lack of specific skills possessed by workers, even those with higher education. Therefore, in addition to not always guaranteeing employment, this is evidenced by the existence of educated unemployment. Likewise, the type of education completed by graduates will always differ in terms of job and technology suitability between vocational education and university education. This fact is not supported by research conducted by (Wati and Tisnawati, 2023), which states that the level of education has a positive and insignificant effect on employment opportunities in Bali in WITA.

Wages

Wages are the remuneration given by employers to workers in return for their sacrifices. The results of the same table and equation indicate that wages have a significant negative impact on employment opportunities in Western Indonesia and Central Indonesia (WITA), while in Eastern Indonesia there is no significant relationship between wage levels and employment opportunities. This positive relationship, which is not significant at the $\alpha=0.5$ confidence level, aligns with research by (Wibawa & Purbadharmaja, 2019), which found that district minimum wages have a positive but insignificant impact on employment opportunities in Bali Province.

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The wage level in Western Indonesia (WIB), particularly in the capital city of Jakarta, reached or approached 6 million rupiah in 2026, while other regions remained around 3 million rupiah. Wages that are too high will make it difficult for entrepreneurs or industries to continue their business operations because labor costs are considered high by companies, which can relocate their businesses or even leave Indonesia, such as PT Sanken Indonesia in 2025 and the automotive industry, such as Ford Motor, which left Indonesia in 2016. However, there are also companies from China or other countries that relocate their businesses to Indonesia. In addition to business relocation, there are also companies in Indonesia that lay off employees due to high labor costs, such as PT Alenatex (Ministry of Industry, Indonesia, 2022).

Economic Growth

Research results show that economic growth has had no or insignificant negative impact on employment opportunities in the three regions in Indonesia Fakta ini sesuai dengan penelitian (Sokian at al., 2020) yang menyatakan bahwa pertumbuhan ekonomi tidak berpengaruh secara signifikan terhadap penyerapan tenaga kerja. This fact contradicts the government's expectations, as economic growth is supposed to boost employment opportunities. Furthermore, it contradicts Keynesian theory and Okun's law yang mengatakan bahwa pertumbuhan ekonomi berdampak negatif pada tingkat pengangguran suatu wilayah. Pertumbuhan ekonomi yang lebih unggul di suatu wilayah akan meningkatkan kemungkinan tumbuhnya bisnis dan penyedia lapangan kerja (Roring et al., 2020).

The inability of growth to create jobs is due to automation and capital incentives, as is the case in Kalimantan and the Riau Islands, as well as in some regencies in Sulawesi and Eastern Indonesia, due to industries processing agricultural materials. Furthermore, the growth achieved cannot be offset by high population or labor force growth. The most dominant barrier to job creation is the informal sector, which absorbs the majority of Indonesia's workforce by 2025, reaching 59.40 % (Statistic Indonesia , 2025).

Poverty

Poverty is a condition in which individuals or groups are unable to achieve economic and social access, such as limited income and educational funding. In the Western region, poverty does not significantly impact employment opportunities at a confidence level of $\alpha = 0.05$. Meanwhile, in central Indonesia, as shown in Figure 4 or the Equation (3.9), poverty significantly impacts employment opportunities with an elasticity of -0.08. This means that a 1% reduction in poverty leads to a 0.08% increase in employment opportunities. This fact is almost consistent with research conducted by (Al Zariah et al, 2025) which states that poverty negatively affects labor force participation. This indicates that increasing poverty will reduce the level of community involvement in the productive economy, which also means reducing employment opportunities for these communities.

This fact indicates that government efforts or programs implemented from year to year have been successful in reducing poverty levels, resulting in increased employment opportunities in this region. Furthermore, in the Eastern region, poverty has a positive but insignificant effect at a confidence level of $\alpha = 0.05$. Therefore, in these two regions, poverty has actually had a negative impact on increasing employment opportunities, while in the West Indies, the effect is not yet significant and remains positive. Therefore, government programs in the area of poverty have been able to reduce poverty, as seen from year to year, the poverty rate tends to decrease, so that by 2025 the poverty rate will be only 8.25%. Government programs on poverty have not met expectations in WIT due to several factors that challenge or hinder the achievement of poverty alleviation goals. The main obstacle is the very low human resource capacity compared to the other two regions, especially when combined with the very limited education and health care in remote areas. In addition to human resource issues, other issues that have surfaced are the remote geographical conditions that are difficult to reach, while human resources remain underdeveloped in terms of health, education, and other socioeconomic issues. Basic infrastructure such as electricity is still lacking, and transportation such as inter-village roads is still very limited and of poor quality. But the real root of the problem is centralized policies and a lack of community participation (Ministry of Social Affairs, 2024).

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Informal Sector

The informal sector has a significant positive effect on employment opportunities at a confidence level of α = 0.05 in all three regions of Indonesia, except in the Indonesian Western Time (Western Indonesia). In western Indonesia, employment opportunities increase if the informal sector declines, as indicated by an elasticity of -0.03. This means that a 1% increase or growth in the informal sector will result in a 0.03 percent decrease in employment opportunities, thus representing a negative inelasticity. This contrasts with the other two regions, where the informal sector has a positive effect on employment opportunities. In central Indonesia, the elasticity is 0.05, meaning a 1% growth in the informal sector will result in a 0.05 percent increase in employment opportunities. Similarly, in eastern Indonesia, the elasticity is 0.03, meaning a 1% increase or growth in the informal sector will result in a 0.03 percent increase in employment opportunities, assuming other factors included in the model, such as economic growth, education level, wages, and poverty, remain constant**.**

CONCLUSION

Based on the previous discussion and statistical analysis, the following conclusions are drawn:

The results show that education levels significantly decrease employment opportunities in the East Indonesian Time (WIT) region, while economic growth has no significant effect on employment opportunities in the three regions. Furthermore, wage increases significantly decrease employment elasticity in both Western Indonesian Time (WITA) and Central Indonesian Time (WITA), while the effect is insignificant in Eastern Indonesian Time (WIT). Poverty negatively impacts employment opportunities in Region 2, while the effect is positive but insignificant in the other two regions. The informal sector significantly impacts employment opportunities in the three regions. Furthermore, employment opportunities, as measured by employment elasticity, differ significantly between regions. The region with the highest elasticity is Western Indonesian Time (WITA), which never reaches negative elasticity, while the other two regions still experience negative elasticity. In 2023, the WITA elasticity will be positive, but the WIT elasticity remains negative, despite achieving positive elasticity in 2020.

RECOMMENDATION

The suggestions to be put forward based on the discussion and conclusions that have been stated, among others:

The government should be careful in increasing wages by considering various aspects, because wage binding has had an impact on decreasing employment opportunities. Education should receive more attention from the government to get a higher portion or budget than before, especially in Eastern Indonesia. The government should always prioritize the development and empowerment of small and medium industries, including the digital industry and even household industries that automate the workforce, so that the achieved economic growth can be of higher quality. Poverty continues to be sought to decrease both in number and prevalence because it has had a negative impact on employment opportunities, but the government should also focus more on paying attention to poverty in the Eastern Indonesia Region because it is far more lagging behind than the other two regions.

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