

DETERMINATION FACTORS OF UNEMPLOYMENT IN BANTEN

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ARTICLE INFO	ABSTRACT
<p>Keywords: Unemployment, HDI, poverty, minimum wage</p>	<p>Research on the influence of the Human Development Index (HDI), Poverty, and Minimum Wage on Unemployment in Banten (2017-2022) stands as a pivotal exploration into the socio-economic dynamics of the region. To delve deeper into the analysis, several additional factors or variables can be considered. Firstly, education and skill development, wherein the correlation between educational achievements, skill development programs, and their impact on reducing the unemployment rate can be further explored. Secondly, sectoral employment patterns could be investigated to understand the roles of various sectors in absorbing the workforce and how changes within these sectors relate to unemployment rates. Thirdly, labor market policies need evaluation to assess the effectiveness of job training programs, employment subsidies, and incentives for businesses to create jobs. Fourthly, migration and urbanization can be studied to examine the impact of migration trends and urbanization on Banten's unemployment rate. Lastly, technology and automation can be identified to understand their influence on job opportunities and displacements in various sectors within Banten.</p>
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1. INTRODUCTION

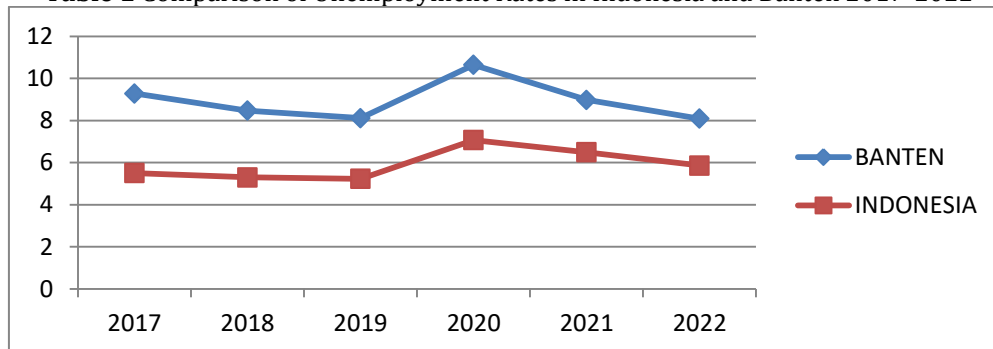
Unemployment is a problem for all countries in the world. A high unemployment rate will disrupt the country's national stability. So every country tries to maintain the unemployment rate at a reasonable level. The problem of unemployment has always been a problem that is difficult to solve in every country. Because the population is increasing every year, this will cause an increase in the number of people seeking work, and along with that the workforce will also increase. If the workforce cannot be absorbed into employment then they will be classified as unemployed (Septiatin et al, 2016). The unemployment rate in developed countries usually ranges from 2 to 3 percent, which is known as the natural rate of unemployment. This is a natural level of unemployment and cannot be eliminated. This means that if the level with the highest unemployment rate is between 2 and 3 percent, the economy is in a state of full employment (Sadono Sukirno, 2008). Unemployment in Indonesia continues to increase. The unemployment rate in Indonesia before the 1997 economic crisis was generally below 5 percent, and in 1997 it was 4.68 percent. Unemployment of 4.68 percent is still included in the correct category. (Nugroho, 2016). Unemployment can be defined as a condition of society consisting of a workforce that has a job but does not have one but is looking for a job, as well as a workforce that does not have a job and is not looking for a job (Soleh, 2017). Keynes's theory provides the basis for this research, stating that low overall general demand, caused by falling incomes, causes inflexible wage levels, resulting in decreased production and unemployment (Danindra et al, 2022).

The Open Unemployment Rate (TPT) is one indicator that can be used to calculate the unemployment rate. A high TPT value shows how large the number of people of working age are included in the unemployed category. According to the Indonesian Central Statistics Agency (BPS) (2016), open unemployment includes those who do not have a job, are looking for work, are preparing a business, and those who are not looking for work because they feel it is impossible to get a job. Apart from that, open unemployment also includes those who already have a job but have not yet started working (Mahroji & Nurkhasana, 2019).

According to Mankiw in Kolibu and Rumat (2017) unemployment is a macroeconomic problem that has a direct impact on humans. Unemployment can lower the standard of living and affect the psychological health of most people. In political debates, the issue of unemployment is always a hot topic, and politicians often state that their policies can help create jobs (Ainunnisa & Hidayat, 2019) The Central Statistics Agency (BPS) released the Open Unemployment Rate (TPT) in all provinces in Indonesia. Banten became the province with the highest TPT in Indonesia in February 2023, at 7.97%. Fitriyya et al

(2020); Suseno et al (2021) and in their research stated that the unemployment rate was high in the Regency/City of Banten province, based on data obtained from BPS Banten province that in 2018 and 2019 it had the highest unemployment rate in Indonesia. This is caused by low human resources, which result in many foreign workers looking for work in Banten Province, as well as many brokering practices that guarantee jobs in companies, so that local workers become less competitive (Daindra et al, 2022).

Table 1 Comparison of Unemployment Rates in Indonesia and Banten 2017-2022



Based on the table above, it states that the problems in Banten province are the highest unemployment problems in Indonesia. This is certainly a problem that must be resolved. From this table it is known that the highest unemployment occurred in 2020 in Banten province at 10.64%, and the lowest occurred in 2019 in Indonesia at 5.23%.

One of the indicators used to measure unemployment is the HDI. The human development index (HDI) is a measure of human development achievements based on living standards, education and health. The quality of human resources can also be a factor causing unemployment (Latifah et al., 2017). The Human Development Index (HDI) or Human Development Index (HDI) is a breakthrough index that assesses a country's human development to determine whether the country is in the advanced, developing or poor category. According to Putra (2018), HDI is calculated based on living standards, life expectancy and education (Hadi et al, 2022). The goal of economic development is to advance society. To achieve this progress, people must be given employment opportunities, which will ultimately result in equal distribution of income. On the other hand, the imbalance between the labor force and employment opportunities will clearly cause an increase in the number of job opportunities compared to the number of job seekers which continues to increase, which in turn increases the unemployment rate (Palindangan & Bakar, 2021). According to Kuncoro (2019), the more economic activity, the more labor is needed to produce more jobs. It is hoped that economic activity will absorb a lot of labor while reducing unemployment. Irawan and Suparmoko, 2017). Increased economic activity reduces unemployment because it gives people more opportunities to work and earn money. Ultimately, this situation will be able to reduce the number of poor people (Rahmadi & Parmadi 2022). Todaro (2000) states that the higher the human development index in a region, the lower the unemployment rate will be and vice versa, if the human development index is low it will have an impact on the high level of unemployment in the region.

Apart from HDI, indicators are also used to measure poverty. Poverty is a common phenomenon in social life. Poverty is often considered a symptom of low levels of well-being. However, poverty is a complex phenomenon and has many aspects. Even though various programs have been implemented to overcome this problem, the poverty rate statistically continues to increase along with increasing community needs. In the cycle of poverty, a low level of living is only one part of the chain. According to Asyad (2010), there is a close relationship between the level of unemployment and poverty. According to Prabowo Dwi (2014), there are many individuals, researchers and government institutions who have unique perspectives on the problem of poverty (Kuswanto & Dewi, 2016). District and urban communities both experience poverty. Develop empathy for the poor and affluent families, especially those responsible for public decision making. Poverty is not only a process, but also a result of society. As a process of poverty and the failure of a community to provide resources and assets fairly to its community members, it can be seen as a consequence of the inability of economic institutions to provide limited and unfair resources to their community members (Azizah & Asiyah, 2022).

Apart from HDI and Poverty, another problem related to unemployment is the Minimum Wage. According to Menkiw (2003) unemployment is caused by the inability of wages to adjust to demand and supply, when real wages are higher than the level that balances supply and demand for labor, more labor is offered than demanded causing unemployment (ziddan & sakti , 2022). Sulistiawati (2012), wages have two important aspects: for workers and for companies. While companies consider wages as costs that

must be incurred for production purposes, so production must be efficient by reducing labor costs, workers consider wages as a source of income to meet their needs, which has an impact on workers' efforts to increase their income (Soeharjoto & Oktavia, 2021)

2. METHODS

The research method used in this research is a quantitative research method. The type of data used in this research is panel data which is a combination of two time series and cross section data. The number of observations used in this research was 47, consisting of time series data, namely 2017-2022 and cross-sectional data from 8 districts/cities of Banten. The data used in this research was collected from the Central Statistics Agency (BPS). The variables used in this research are Unemployment as variable (Y), Human Development Index (HDI), Poverty, Minimum Wage as variable X. The analysis technique used in this research is the panel data regression method with the best method, namely the Random Effect Model (REM) with the Eviews 13 analysis tool. The equation form of panel data analysis is as follows:

$$PGR_{it} = \beta_0 - \beta_1 IPM_{it} + \beta_2 KMSKN_{it} + \beta_3 UMR_{it} + e_{it}$$

Information:

PGR is Unemployment

HDI is the Human Development Index

KMSKN is Poverty

UMR is Regional Minimum Wage

β_0 is a Constant

$\beta_1, \beta_2, \beta_3$ is the regression coefficient of the independent variable

e = Error term

i is the Cross section Unit (district/city in Banten province)

t is the Time Period (Time Series Data for 2017-2022).

3. RESULTS AND DISCUSSION

Results

In panel data model research, there are 3 tests to determine the best model, namely the common effect model, fixed effect model and random effect model. The three tests include the Chow test, Hausman test and Lagrange multiplier test. Based on the Chow test, it is used to choose which model is the best, between the common effect model or the fixed effect model with a confidence level of $\alpha 5\%$. The Chow test results can be seen based on the following table.

Table 2. Chow Test Results

Effects Test	Statistics	df	Prob.
Cross-section F	2.642778	(7.37)	0.0255
Chi-Square Cross-section	19.461848	7	0.0069

Source: Quantitative Data (processed: 2023)

Based on the Chow test table, it can be seen that the probability value of the Cross-section f is smaller than α (0.05), which means that H_0 is rejected and H_1 is accepted. So the model chosen is fixed effect. Next, a Lagrange multiplier test was carried out to determine the best model between the common effect model and the random effect model. Based on the results of the Lagrange multiplier test with an alpha confidence level of 5% (0.05), the following results were obtained

Table 3. Hausman Test Results

Test Summary	Chi-Sq. Statistics	Chi-Sq. df	Prob.
Random cross-section	16.902389	3	0.0007

Source: Quantitative Data (processed: 2023)

Based on the Hausman test results, it can be seen that prob. (0.0007) is smaller than α (0.05), so the best model to use is fixed effect. The best model results can be seen in the following table:

Table 4. Best Model Regression Results

Variable	Coefficient	Std. Error	t-Statistics	Prob.
C	31.1297	3.593381	8.663065	0.0000
HDI	-0.369128	0.045283	-8.151638	0.0000
POVERTY	0.338307	0.110227	3.069189	0.0037
MINIMUM WAGE	1.757057	0.347085	5.062324	0.0000

R²: 0.577631
Adjusted R-Square: 0.548164
F-statistic: 19.60227
Prob (F-Statistic): 0.000000
Source: Quantitative Data

Based on the panel data regression shown in table 4, the following regression equation is obtained:
PGRit=31.1297-0.369128IPMit+0.338307KMSKNit+1.757057UMRit

With explanation:

- 1) Based on the results of this research, it was found that the HDI was -0.369128. This shows that if the HDI increases by 1 (percent) it will reduce unemployment by 0.36. vice versa
- 2) The coefficient value of the poverty variable is 0.338307. This shows that if poverty increases by 1 unit, unemployment will increase by 0.33 and vice versa
- 3) The coefficient value of the minimum wage variable is 1.757057, meaning that if the minimum wage variable increases by 1 unit it will reduce unemployment by 1.75.

Classic Assumption Test

1. Normality test

The results of the normality test using the Jarque-Bera test have been carried out and it can be seen that the data is normally distributed or has passed the test. This can be seen from the Jarque-Bera probability value of 0.432823 > 0.05 so it can be concluded that the HDI, poverty and minimum wage are normally distributed.

2. Multicollinearity Test

Based on the results of the correlation matrix test, it can be seen that there are no more than 10 independent variables so there is no multicollinearity in the model.

3. Heteroscedasticity Test

Based on the heteroscedasticity test results, it can be seen that the resulting probability value is more than the α level (0.05), so it can be concluded that the heteroscedasticity test results have been met or have passed the heteroscedasticity test.

4. Autocorrelation Test

Tests to detect autocorrelation can be done by looking at the Durbin-Watson values in the model and comparing them with the values in the Durbin-Watson table. $DU < DW < 4-DU$ obtained a Durbin-Watson value of 2.651106 with a DU value of 1.6692 of $4-DU = 2.3308$, so it can be concluded that there is no autocorrelation or the data has passed the autocorrelation test.

F-Statistics Test

Based on the results of the F-statistics test showing a value of 0.0000 < 0.05, it can be concluded together that the independent variables namely HDI, poverty and minimum wage have an effect on the dependent variable, namely Unemployment.

T-statistical test

The t-statistical test is used to determine whether the HDI, poverty and minimum wage variables have a significant or partial effect on unemployment in Banten Regency/City. It is known that the IPM variable has a probability value of 0.0000 < 0.05, meaning that the IPM variable has a significant effect on unemployment. The probability value of the poverty variable is 0.0037 < 0.05, meaning that poverty has a significant effect on unemployment. And the Minimum Wage variable with a probability value of 0.0000 < 0.05 has a significant effect on unemployment.

Determinant coefficient test (R²)

From the results of data processing, an Adjusted R-Square value of 0.548164 is obtained, so it can be concluded that HDI, Poverty and Minimum Wage contribute to the Unemployment variable by 54 percent. Meanwhile, the remaining 46 percent is contributed by other variables that are not in the model.

Discussion

The influence of HDI on unemployment in Banten province 2017-2021

Based on the results of data processing, the results obtained are that the IPM value is 0.000 < 0.05 and the coefficient value is negative, meaning that IPM has a significant negative effect on unemployment in Banten Province. HDI can have a significant negative effect on unemployment, namely that HDI can describe the social and economic conditions of a region, and the dynamics of the labor market, government policies and economic structure also influence the unemployment rate. An increase in HDI will reduce unemployment in Banten and conversely, a decrease in HDI will increase unemployment in Banten. This research is in line with the new growth theory which states that human productivity can increase as a result of increased human development, this will increase labor demand and reduce

unemployment rates. This research is also in line with research conducted by Lumi (2021) which states that HDI has a significant negative influence on unemployment in cities, North Sulawesi Province, Dwi Mahroji & Nurkhasanah (2019) with the title The Influence of the Human Development Index on Unemployment in Banten Province and Research M Ayub (2018) with the title The Influence of Economic Growth, Unemployment and Poverty on the Human Development Index has a negative and significant effect on the unemployment rate.

The Effect of Poverty on Unemployment in Banten Province 2017-2021

From the research results, it was obtained that the significant value for poverty was $0.0037 < 0.05$ and the coefficient value was negative, meaning that poverty had a significant positive effect on unemployment in Banten. Structural changes in the economy that cause poverty, such as the adoption of new technology that replaces manual work, can cause an increase in unemployment. If the human development index increases, the unemployment rate in Banten Province will decrease. This is in accordance with the theory explained by (Todaro, 2020) that by increasing human capital development with development to increase human productivity. This research is in line with the economic cycle theory which states that during periods of recession or economic contraction, the unemployment rate tends to increase, which can result in an increase in poverty; conversely, during an economic expansion phase, unemployment rates may decrease, which can result in a decrease in poverty levels and is supported by research. This research is also in line with research conducted by Yunarti (2022) which states that poverty has a positive effect on the Open Unemployment Rate in Sidoarjo Regency. Deswita Adam (2022) states that poverty has a significant positive effect on the level of open unemployment, meaning that the higher the poverty, the higher the number of open unemployed.

The Effect of Minimum Wages on Unemployment in Banten Province 2017-2021

From the research results, a significant minimum wage value of $0.0000 < 0.05$ was obtained and the coefficient value is positive, meaning that the minimum wage has a significant positive effect on unemployment in Banten. The reason the minimum wage impacts unemployment is that the minimum wage is set at a high level. Businesses may tend to limit hiring or lay off workers, especially low-skilled workers who typically receive the minimum wage. This means that when the minimum wage increases, unemployment in Banten Province increases and vice versa, when the minimum wage decreases, unemployment will also decrease. This research is not in line with the supply and demand theory which states that when the minimum wage is higher than the market equilibrium level, labor supply increases and labor demand decreases which can cause unemployment. However, this research is in line with research conducted by those who say that Pratiwi (2021) which states that the minimum wage is has a significant positive effect on unemployment because companies consider wages as costs that must be incurred for production purposes, so production must be efficient by reducing labor costs, workers consider wages as a source of income to meet their needs, which has an impact on workers' efforts to increase their income which causes unemployment increase. Permadi & Chrystanto (2021) stated that the Regency/City Minimum Wage has an influence on unemployment. In accordance with research by Alghofari (2010) which states that workers set their minimum wage level at a certain wage level, a worker will refuse to get that wage and this will cause unemployment (Aisyaturridho et al, 2021)

4. CONCLUSION

Based on the research conducted, the results showed that partially HDI had a significant negative effect on Unemployment in Banten, poverty had a significant positive effect on Unemployment in Banten, and the Minimum Wage had a significant positive effect on Unemployment in Banten at $\alpha 5\%$. Meanwhile, simultaneously the HDI, poverty and minimum wage variables have a significant effect on unemployment in Banten, with an R value 0.577631% . Therefore, it is best to overcome the problem of unemployment in Banten, the Banten Provincial Government is expected to pay more attention to human development. Through increasing human development, it is hoped that human quality will improve and ultimately reduce the high level of unemployment. Statistical data should be used by the Banten Provincial Government, district government and city government through Bappeda in every program planning so that poverty management can be integrated. No ineffective activities should be combined to reduce poverty. Apart from that, the Banten Provincial government can make adjustments to the minimum wage.

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