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**THE EFFECT OF PROVINCIAL MINIMUM WAGE, INVESTMENT, AND LABOR
FORCE PARTICIPATION RATE ON ECONOMIC GROWTH IN WEST JAVA
2015-2019**

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Abstract:

This study aims to determine the effect of provincial minimum wage, investment, and labor force participation rate on economic growth in West Java 2015-2019. The research method used in this study is in the form of panel data from 2015 to 2019 in Regencies/Cities in West Java Province with a descriptive quantitative model. Data is presented annually obtained from BPS West Java Province. Based on the results of the partial analysis, the variables of the provincial minimum wage, investment, and labor force participation rate have a positive and significant effect on economic growth in West Java, which is seen from the probability value which is smaller than (0.05). Simultaneously all research variables have a significant effect on economic growth and have an influence shown by R^2 of 66.69%, indicating that all research variables can explain variable Y and the remaining 33.31% is explained by other variables outside the study.

Keywords: *Economic Growth, Provincial Minimum Wage, Investment, Labor Force Participation Rate*

BACKGROUND

Indonesia is a country with many islands and one of the most populous countries. This means that Indonesia consists of many regions. Therefore, it takes an economic development in each region that needs to be carried out evenly so that there are no gaps between regions and reduce differences in abilities between regions. Regional development is an integral part of national development, which is based on the principles of regional autonomy and control of national resources.

The progress of a region, especially in terms of the economy, is influenced by regional development. Whether or not regional economic development is achieved is inseparable from improvements in economic growth. This is because economic growth describes the process of increasing output per capita in the long run which describes the economic conditions in the area (Boediono, 2022). Increased economic growth can be said to be more prosperous for the people in the area, because the level of community welfare is described by the high and low economic growth of the area (R. R. A. Hasibuan et al., 2022).

West Java Province as one of the autonomous regions that has certain territorial boundaries with the largest population in Indonesia, namely in 2021 the population of West Java province will be 48,782,408 people, with a density of 1,379 people/km² (Noviyanti, 2021). West Java Province is also experiencing a process of economic development. The people's economy in West Java Province has increased with regional development that is taking place in a comprehensive and sustainable manner.



The existence of the Regency/City of West Java Province with its resources greatly influences the pressure on development results in West Java Province. The West Java Provincial Government as the executor of development in the West Java region is also faced with the problem of how to spur regional output growth to improve the welfare of its population.

Table 1. Economic Growth Rate in West Java Province 2015-2019

(In Percent)

Tahun	Laju Pertumbuhan
2015	5,05
2016	5,66
2017	5,35
2018	5,64
2019	5,02

Source: BPS West Java Province 2015-2019

Based on Table 1 above, West Java Province has the potential for economic growth which is quite volatile from 2015-2019. West Java's economic growth in 2016 grew 5.66%, a significant increase compared to 2015 which grew 5.05%. Throughout 2016, the movement of West Java's economic growth performance was relatively stable and was above national economic growth. West Java's economic growth in 2017 grew by 5.35%, slowing compared to 2016 which grew 5.66%. Even though West Java's economic growth has slowed down, it is still higher than the national economy which has grown by 5.07%.

West Java's economy in 2018 grew 5.64%, an increase compared to 2017 of 5.35%. From the production side, the highest growth was achieved by the Real Estate Business Field of 9.64%. From the expenditure side, the highest growth was achieved by the LNPRT Consumption Expenditure Component of 16.38%. West Java's economy in 2019 grew 5.02%, slowing compared to 2018 of 5.66%.

Based on the explanation above, economic growth in 2015-2019 showed a high level of stability. This does not mean that West Java Province is free from problems that affect economic growth such as the provincial minimum wage, investment and labor force participation rate. Therefore, the Regional Government and other stakeholders must coordinate with each other to continue to be optimistic in increasing economic growth in West Java Province. This economic growth can be influenced by the provincial minimum wage, investment, and labor force participation rate.

Every year the population continues to grow, so every year the daily consumption needs of the population also increase. Tambunan (2014) explains that every year income is needed. And according to Tarigan (2012) income for workers is wages and salaries. In a study by Sholeh (2007), based on the theory of demand and supply of labor in a competitive market, one of the factors that determine the level of demand and supply of labor is wages. In its application, to determine the level of wages, government intervention is required through the minimum wage policy applicable in the market. The establishment of a minimum wage policy in order to protect and increase the income of workers who still earn below the minimum wage is the government's goal without neglecting the interests of the company and the economy in general. Because if the government does not make a UMP policy, it will result in an economic imbalance and hamper the wheels of the economy in the area, this happens due to the level of production, consumption, and distribution which is influenced by an inappropriate minimum wage increase (Sulistiawati, 2012). Minimum wages have an important role in achieving the welfare and prosperity of workers. Therefore, the element of the minimum wage is needed in economic growth.

In addition to the minimum wage, according to Todaro (2000) investment has an important role in increasing regional development and is a factor that is positively related to economic growth. The ability of the region to make policies related to investment and the business world as well as to improve the quality of services for the community will be the success of the region in increasing its attractiveness to investment.



THEORETICAL FRAMEWORK

Economic Growth

According to Todaro and Smith (2006), economic growth resources can include a variety of factors both economic and non-economic, but the main sources of economic growth are investments that are able to improve the quality of capital or physical resources, which can further increase the productivity of all resources through new discoveries, innovations and technological advances. The economic development of an area shows a success development even though it is not the only indicator of success development (Todaro, Smith, 2006).

In the neo-classical theory Robert Solow suggests that economic growth is influenced by three main factors, namely: (1) Capital accumulation, that is, if part of the income is invested and saved back in the hope of increasing the value of output in the future. The accumulation of capital includes investments invested in physical equipment, land, as well as increases in wages received by workers when capital intensification occurs and human resources. (2) The number of workers includes the population in a country (3) Technological progress. Progress is due to innovations in the handling of traditional occupations such as in making clothes, building houses, and farming activities.

Economic growth is one of the indicators or parameters to measure the welfare of the people in a country. With these parameters, we can see the level of development of economic activity from time to time. Thus, if a country consistently experiences economic growth or development in a positive direction or progress within a certain period of time, it can be interpreted that the country is experiencing economic growth.

Provincial Minimum Wage

According to article 1 point 1 of the Regulation of the Minister of Manpower No.PER-01/MEN/1999 concerning Minimum Wages, the minimum wage is the lowest monthly wage consisting of basic wages and fixed allowances (Kementrian Tenaga Kerja, 1999). The minimum wage itself is used as a benchmark by entrepreneurs in determining the real wages given by workers or laborers in their companies (Asyhadie & Kusuma, 2019). The minimum wage is divided into the minimum wage based on the province or district/city (UMK) and the minimum wage based on the sector in the province or district/city. In the Neo Classical theory states that employees earn wages commensurate with the increase in marginal returns. Pay here serves as a reward for the work effort given by someone against entrepreneurs. Wages are paid by employers in accordance with work effort (productivity) provided by the workforce, meaning that in this theory it can be known that the Neo-Classical theory is based on the principle of value added results production factor. Where wages are a reward for value added production that employers receive from their employees.

Investment

Based on economic theory, investment means spending or purchasing capital goods and means of production that are used to replace and especially increase the ability to produce goods/services available in the economy. In other words, Investing is bridging money with the expectation of returns and value added (Webster, 1999). According to Lypsey (1997), investment is expenditure goods that are not consumed at this time where based on the time period, investments are divided into three, namely short-term investments, medium term investment, and long term investment. In addition, investment leads to capital accumulation which can increase the country's potential output and develop long-term economic growth (Samuelson & Nordhaus, 2004).

Labor Force Participation Rate

According to the Solow-Swan theory, economic growth depends on and increases the supply of production factors such as population, labor, and capital accumulation, as well as the level of technological progress. Manpower is an important factor that can encourage development, the number of workers will continue to change every year, this is because the demographic process also continues to occur. The labor force participation rate (TPAK) is used as a measure of the development of the



workforce in Indonesia. LFPR is the percentage of the population who have entered the age of 15 years and over who are the economically active labor force in a country/region. The higher the LFPR indicates that the higher the supply of labor available to produce goods and services in an economy (BPS, 2021).

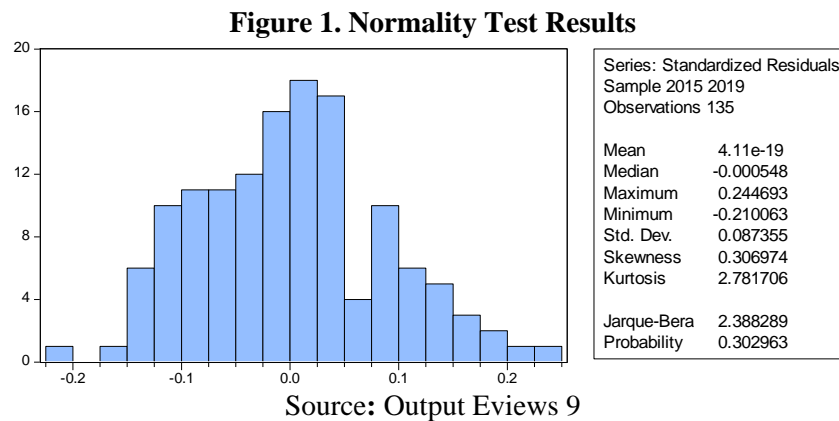
METHOD

This study uses quantitative methods. Quantitative method is a research method that can be interpreted as a research method based on the philosophy of positivism to examine several populations or samples, analyze quantitative data for the purpose of testing predetermined hypotheses (Sugiyono, 2016). The data used in this study used panel data in the form of timeseries during the 2015-2019 period and a cross section of 27 districts/cities in West Java.

RESULT

Classic Assumption Test

Normality Test



Based on the results of the normality test, the Jarque-Bera probability value was calculated at $0.302963 > 0.05$, which means the data is normally distributed.

Multicollinearity Test

Table 2. Multicollinearity Test Results

	X1	X2	X3
X1	1.000000	0.459632	0.420270
X2	0.459632	1.000000	0.287268
X3	0.420270	0.287268	1.000000

Source: Output Eviews 9

The results of the multicollinearity test above can be seen that the correlation value is < 0.8 , so it can be concluded that there is no multicollinearity problem in the research variables. With these results, one classic assumption test has been fulfilled.

Heteroscedasticity Test

Table 3. Heteroscedasticity Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.138491	0.443363	0.312365	0.7554
X1	-0.010900	0.036326	-0.300051	0.7647
X2	-0.004939	0.009133	-0.540793	0.5898
X3	0.003560	0.002958	1.203198	0.2316



Source: Output Eviews 9

Based on the test results, the probability value of the independent variable > 0.05 means that there is no heteroscedasticity symptom.

DISCUSSION

Hypothesis Testing

Panel Data Regression Analysis

The panel data regression equation used by the researcher aims to estimate the dependent variable if the independent variable is increased or decreased. The following are the results of the Fixed Effect Model (FEM) panel data regression conducted by researchers.

Table 4. FEM Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.291436	0.984551	0.296009	0.7678
X1	0.287006	0.080667	3.557922	0.0006
X2	0.056165	0.020281	2.769381	0.0066
X3	0.017033	0.006570	2.592680	0.0109

Source: Output Eviews 9

Based on the results of data processing, the following results are obtained:

$$Y = 0.291436 + 0.287006 + 0.056165 + 0.017033.$$

Based on the regression equation, it can be concluded as follows: If the Provincial Minimum Wage, Investment, and Labor Force Participation Rate are constant at 0 then Y (Economic Growth) is 0.291436. If X1 (Provincial Minimum Wage) increases by 1%, then Y (Economic Growth) will increase by 0.287006%. If X2 (Investment) increases by 1% then Y (Economic Growth) will increase by 0.056165%. If X3 (Labor Force Participation Rate) increases by 1% then Y (Economic Growth) will increase by 0.017033%.

T test

The probability value of the provincial minimum wage, investment, and labor force participation rate < 0.05 indicates that the test is significant.

F test

Table 5. F Test Results

R-squared	0.666944	Mean dependent var	7.344963
Adjusted R-squared	0.574957	S.D. dependent var	0.151366
S.E. of regression	0.098684	Akaike info criterion	-1.600663
Sum squared resid	1.022540	Schwarz criterion	-0.955047
Log likelihood	138.0448	Hannan-Quinn criter.	-1.338303
F-statistic	7.250422	Durbin-Watson stat	1.973735
Prob(F-statistic)	0.000000		

Source: Output Eviews 9

F-count probability value $0.000000 < 0.05$. Calculated with a 95% confidence level, $\alpha = 0.05$. This means that the three independent variables simultaneously affect the dependent variable. F-count value $7.250422 > F$ -table 2.67. This shows that the test model is feasible to be used in this study.

Coefficient of Determination

R-squared value 0.666944. It means that the independent variable is able to explain the dependent variable by 66.69% and the remaining 33.31% is influenced by other factors. While the Adjusted R-squared value is 0.574957, which means that the dependent variable, namely economic



growth, can be explained by the independent variables, namely the provincial minimum wage, investment, and the labor force participation rate of 57.49%, while the remaining 42.51% is influenced by other factors outside the model.

Provincial Minimum Wage on Economic Growth in West Java

The results of hypothesis testing using the panel data method between the provincial minimum wage on economic growth in West Java have a positive effect. Based on the results of the t-test, it produces a t-count of 3.557922 which is greater than the t-table of 1.65657 and has a probability value of 0.0006 which is smaller than the alpha significant level which is determined at 0.05, which means that the provincial minimum wage has a significant effect on economic growth in West Java, it is acceptable, because statistically proven. A positive value in t-count means that the influence of the provincial minimum wage on economic growth is unidirectional, meaning that if the provincial minimum wage increases, then economic growth will increase.

The provincial minimum wage has an important role in economic growth. The results of this study are supported by the efficiency-wage theory where minimum wage workers can increase income which will make workers more nutritious and healthier so as to increase productivity at work (Agusalim, 2020). For producers, the minimum wage will provide a disincentive to continue producing by reducing labor turnover. By paying higher wages, companies can motivate more workers to be more productive, so companies can operate more efficiently. Sumarsono (2003) said that changes in the wage level of course also affect economic growth in an area. This is because if the wage level in an area increases, the consumption level of the population will also increase. Conversely, if the wage level in an area is low, the consumption level of the population will also be low. If the consumption of the population is low, it will certainly affect the economic growth in the area.

This research is in line with the research of Umayanti & Utama (2020) which says that the minimum wage has a positive and significant effect on economic growth and an increase in the minimum wage will increase economic growth. In addition, it is also supported by research by Wijaya & Soelistianingsih (2014) which states that the minimum wage is able to increase economic growth, as a result of the minimum wage being able to encourage increased consumption and demand for goods and services.

Investment on Economic Growth in West Java

The results of hypothesis testing using the panel data method between investment and economic growth in West Java have a positive effect. Based on the results of the t-test, it produces a t-count of 2.769381 which is greater than t-table of 1.65657 and has a probability value of 0.0066 which is smaller than the alpha significant level determined of 0.05, which means that investment has a significant effect on economic growth in West Java, it is acceptable, because statistically proven. A positive value on t-count means that the effect of investment on economic growth is unidirectional, meaning that if investment increases, economic growth will increase.

Investment partially has a positive effect on economic growth in West Java. The benefits of investment, both Domestic Investment (PMDN) and Foreign Investment (PMA) will increase economic growth. The greater the income saved, the investment also increases, this indicates an increase in investment or capital formation. An increase in investment or capital formation has an impact on increasing the production of goods and services in the economy. This increase in the production of goods and services leads to an increase in economic growth. On the other hand, if there is a decrease in investment, economic growth will also decrease because a decrease in investment indicates a decline in investment or capital formation. A decrease in investment or capital formation will result in a decrease in the production of goods and services. A decrease in the production of goods and services will cause a decrease in economic growth.

The results of this study are supported by the theory of the neo-classical economic growth model which states that an increase in investment in an area is positively related to economic growth because investment or the availability of capital can change and this change leads to economic growth. This research is in line with research by Pambudy & Syairozi (2019) and Sudirman & Alhudhori (2018)



which states that investment has a significant effect with a positive relationship on economic growth, because investment activities affect economic activities and employment opportunities so as to increase national income which in turn improves people's welfare.

Labor Force Participation Rate on Economic Growth in West Java

The results of hypothesis testing using the panel data method between the level of labor force participation rate on economic growth in West Java have a positive effect. Based on the results of the t-test, the t-count is 2.592680 which is greater than the t-table of 1.65657 and has a probability value of 0.0109, which is smaller than the alpha significant level determined of 0.05, which means that labor force participation rate has a significant effect on economic growth in West Java, it is acceptable, because statistically proven. A positive value on t-count means that the effect of labor force participation rate on economic growth is unidirectional, meaning that if labor force participation rate increases, economic growth will increase.

Active labor is absolutely necessary in the development activities of a region, because labor is the driving force and implementer of the economic development. Quality human resources and the desire to do business are the main capital for the creation of active development of the economy. The more active workers who participate in economic activities, the more productive people will be, it will produce high output so that it affects economic growth. Likewise for per capita income, an increase in active workers who work means an increase in per capita income and consumption levels. The higher the level of need for consumption, so that either directly or indirectly, it affects economic growth.

The results of this study are supported by the Solow-Swan theory, that economic growth depends on and increases the supply of production factors such as: population, labor, and capital accumulation, as well as coupled with the level of technological progress (Arsyad, 2010). Meanwhile, Todaro (2000) revealed that population growth and the growth of the Labor Force (AK) are traditionally one of the factors that can have a positive impact on economic growth, because a larger number of workers will increase the level of production. This research is in line with research conducted by Puspasari (2019) and Mirah (2020) which state that the participation rate of a certain educated workforce has a significant influence both in the long term and in the short term. And also this research is in line with research conducted by Prawira (2017) that the active participation of the whole community which is the level of labor force participation can increase regional economic growth.

CONCLUSION

Based on the results of research conducted by researchers regarding the effect of the provincial minimum wage, investment, and labor force participation rate on economic growth in West Java in 2015-2019. Produced several conclusions based on the results of tests conducted using the-t test, it can be concluded that partially:

1. The minimum wage has a positive and significant effect on economic growth in West Java.
2. Investment has a positive and significant effect on economic growth in West Java.
3. The labor force participation rate has a positive and significant effect on economic growth in West Java.
4. Simultaneously the provincial minimum wage, investment, and labor force participation rate have a positive and significant effect on economic growth in West Java.

From these results it can be said that economic growth is strongly influenced by the variables of the provincial minimum wage, investment, and labor force participation rate.

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