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ANALYSIS OF FACTORS ATTRACTING INVESTMENT IN CENTRAL JAVA PROVINCE

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Abstract

This study discusses investment in the regencies and cities of Central Java Province. On average, from 2018 to 2024, Central Java ranks fourth out of six provinces on the island of Java in terms of investment inflows. This is an issue that needs to be addressed, considering that investment is a crucial component of economic development. The purpose of this research is to analyze the influence of minimum wage, economic growth, economically active participation rate, human development index, and infrastructure is proxied by road length to invesment in Central Java Province.

This study employs a multiple linear regression analysis using panel data and the Ordinary Least Squares (OLS) method. The results indicate that minimum wage, economic growth, and labor force participation rate have a positive and significant effect on investment. In contrast, the human development index and infrastructure do not have a significant effect on investment.

The implications of these findings are that regencies and cities with low investment inflows require special attention from the government, such as regulatory transparency and simplified licensing processes to attract more investors. Regarding minimum wage issues, the government should set standards that align with labor market conditions. Economic growth should be promoted due to its positive contribution to investment. Additionally, the potential of the labor force participation rate can benefit regions by making it easier for investors to invest, thereby maximizing employment absorption.

Keywords: Investment, minimum wage, economic growth, and labor force participation rate

INTRODUCTION

In general, investment is defined as the placement of an investor's capital to conduct business in a trusted entity with the expectation of gaining profits in the future. Investment is necessary to drive growth and the development of infrastructure, industry, and other economic sectors that serve as the main pillars in regional development. With the inflow of investment, a region has the opportunity to benefit from technology transfer, improvement in workforce skills, and the creation of new jobs, all of which directly impact the welfare of the community.

One of the regions in Indonesia with significant potential to attract various types of investment projects is the island of Java. As the center of economic and business activities, Java makes a substantial contribution to national investment receipts, supported by the availability of infrastructure, resources, quality human capital, a strong economy, and a large population (Destiningsih et al., 2019). However, investment in Central Java has shown relatively low figures from 2018 to 2024. Over the seven-year period from 2018 to 2024, on average, Central Java

Province ranked fourth out of the six provinces on the island of Java. Based on Table 1, Central Java's investment receipts were consistently among the bottom three, ranking above only Banten Province and the Special Region of Yogyakarta from 2020 to 2022.

Table 1. Investment Development of Provinces on the Island of Java

Province	2018	2019	2020	2021	2022	2023	2024
DKI Jakarta	7.165	11.436	34.454	34.739	33.892	88.732	92.727
Jawa Barat	6.374	8.830	20.020	13.847	21.061	46.270	45.554
Jawa Tengah	2.279	4.023	11.423	9.724	11.727	20.481	17.005
DI Yogyakarta	332	830	2.716	2.076	2.186	4.437	3.052
Jawa Timur	3.120	7.425	19.621	16.076	17.918	32.397	28.820
Banten	2.613	4.948	10.121	6.342	9.401	21.263	20.438

Source: (BPS, 2024)

Behind the challenges faced by Central Java Province, each region has its own unique characteristics and advantages to attract investors. One factor that can influence investment inflow is the wage standard set by each region (Faizin, 2019). According to Mankiw (2016), when workers' incomes increase, their purchasing power rises, which in turn drives demand for goods and services. This increased demand encourages companies to continue growing, create new jobs, and boost investment across various sectors.

Another factor affecting investment inflow is economic growth. Research by Sutawijaya et al. (2013) found that economic growth influences investors' willingness to invest. High economic growth drives an increase in per capita income. This occurs because the value of output produced by a region in a given period increases, thus creating more job opportunities and raising people's incomes. Higher incomes lead to increased consumption, which in turn boosts demand for goods and services that must be met by producers. This situation signals companies to expand production capacity to meet rising demand, thereby encouraging greater investment.

The economic growth in 2020 reflected complex challenges due to the impact of the COVID-19 pandemic. During this period, Central Java Province's economic growth contracted by -2.65% (BPS, 2025). Despite the pandemic, investment became one of the tools to support economic stability. In 2021, there was a significant decline in investment value. Interestingly, this decline contrasted with the economic growth rate, which began to show signs of recovery. The decrease in investment was a cautious response from investors to the uncertainty caused by the ongoing pandemic. The situation began to improve in 2022, with investment values gradually recovering. This indicates a restoration of market confidence, partly due to effective government policies and increased consumer purchasing power.

Another important factor in attracting investment is the Labor Force Participation Rate (LFPR). Findings from Choirunnisa et al. (2024) show a significant influence of LFPR on investment growth. A larger workforce tends to increase productivity. With more individuals participating in the workforce, the total output also rises. Especially if investors intend to expand in labor-intensive sectors, a substantial workforce is required. Moreover, abundant labor availability makes it easier for investors to find human resources to run their businesses. This is attractive to investors looking for locations to expand or start their businesses.

In addition to LFPR, the Human Development Index (HDI) also contributes to attracting investment. From the perspective of a decent standard of living, regions with high HDI indicate a well-established economy. High consumer spending suggests a strong potential market for investors. Areas with high HDI usually benefit from effective government interventions, resulting in a ready-to-work labor force. Furthermore, the presence of skilled workers benefits the government by reducing dependence on foreign labor. However, other research by Nurinsana et al. (2023) reveals that investment does not affect HDI improvement, indicating that investment does not always influence HDI.

One of the main components of physical infrastructure supporting economic activity is roads. Research by Syaparuddin et al. (2020) states that infrastructure availability affects investment inflow. Sufficient and well-distributed road length across regions facilitates the distribution of goods to all corners of an area, increasing logistics efficiency and expanding market access. Thus, the road length in a region directly influences investor interest. Further research by Siagian et al. (2024) found that the total road length in a region positively impacts investment inflow. The condition and availability of roads as infrastructure for raw material and product distribution are crucial considerations for investors, as road length can be an important element in predicting the smoothness of goods distribution and connecting production areas with markets. More evenly distributed road infrastructure makes distribution faster and more cost- and time-efficient, making it easier for investors to run their businesses.

Several previous studies have examined variables affecting investment inflow, but the results remain uncertain. Some studies report positive effects, while others find negative or insignificant impacts. This uncertainty raises doubts about previous findings and highlights research gaps that need further investigation. Additionally, previous studies have tended to focus on the general impacts and factors influencing investment, with limited analysis of the effects of specific sectors on total investment inflow in terms of the number of projects. This study also uses the period from 2018 to 2024, providing a more current time frame for investment analysis compared to earlier periods, making it more relevant for understanding the impact of investment in a region.

The purpose of this study is to analyze the influence of minimum wage, economic growth, labor force participation rate, human development index, and infrastructure on investment in Central Java Province. Theoretically, this research is useful for developing theories related to development economics and regional investment. This study can enhance understanding of how various economic factors such as minimum wage, economic growth, labor force, HDI, and infrastructure affect the amount of investment entering the region. Practically, this research benefits government agencies as a source of information and reference in formulating appropriate policies in the future, thereby supporting the economic development of Central Java Province and the welfare of its people. Furthermore, for future research, it is expected that the results of this study will provide valuable new insights and serve as a reference for other researchers conducting further studies.

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

A. Investment

In general, investment is the allocation of resources with the aim of obtaining profits in the future. One form of investment that significantly influences economic development is project investment. Project investment is a type of investment focused on planting limited production factors in a specific project (Manopo et al., 2013). When viewed together, investment can be influenced by future expectations, interest rates, economic conditions, and innovation. Changes in investor expectations will shift the demand curve, while changes in interest rates can cause an overall shift in the investment curve. Movements in interest rates and investor expectations will result in changes to investment plans. This indicates that investment is influenced not only by interest rates.

According to Keynes in macroeconomics, the real business cycle theory occurs due to fluctuations in economic activities that affect the investment decisions of capital owners (Wahyuningsih, 2022). Referring to the Keynesian framework, business cycles can be influenced by changes in aggregate demand and aggregate supply. Changes in aggregate demand and supply affect the flow of investment into a region. From this arises the concept of Marginal Efficiency of Capital (MEC). MEC is a benchmark measure of the expected return by investors from capital investment in a project or productive asset, considering aspects beyond interest rates. Meanwhile, the interest rate is the price paid for borrowing capital for

investment. The interest rate is defined as the additional percentage that must be paid as a return on loaned funds or the sacrifice of current consumption. In relation to investment decision-making, MEC and interest rates are two key variables closely related.

B. Minimum Wage

The fair wage theory proposed by John Stuart Mill explains that the wage level received by workers is the price needed to maintain and ensure the survival of workers and their families. Mill argued that wage formation should be left to market mechanisms (Ginting et al., 2024). Wage setting and payment are based on employment agreements, mutual consent, or applicable laws and regulations. As the party setting wages, the government plays an important role in bridging the differences between employers and workers. The government sets wage increases in response to market conditions such as inflation and rising cost of living. This reflects that wage increase determination considers labor market conditions, consistent with Mill's wage theory.

Research by Choirunnisa et al. (2024) found that labor wages have a negative effect on investment acceptance. Investors' desire to minimize production costs to maximize profits sometimes influences investment decisions in a region. Investors consider whether to reduce labor costs or raw material costs to achieve maximum profit. On the other hand, wage increases also encourage community consumption. When consumption rises, demand for goods and services increases, which ultimately requires companies to invest for business expansion. This condition aligns with findings by Syaparuddin et al. (2020) and Pratama et al. (2016), which state that wage levels have a positive effect on investment.

Hypothesis 1: Minimum wage has a positive effect on investment.

C. Economic Growth

Economic growth is generally measured by Gross Regional Domestic Product (GRDP), which reflects the increase in value added generated by various economic sectors in the region (Umiyati, 2014). The higher the value added, the greater the regional economic contribution to the national economy as a whole. Increasing economic growth will affect investment. This assumption aligns with Keynes's theory of money demand (Saputro et al., 2022). The theory states that the more money people hold, the higher their consumption. When community income increases, their purchasing power also rises, thus encouraging consumption activity. People use their income to meet both primary and secondary needs. When demand increases, producers must adjust production capacity to meet market needs. This encourages companies to expand business, add labor and capital, and adopt new technologies for efficiency. Production sector development attracts investors to invest capital, either in business funding or infrastructure development supporting company productivity.

According to research by Ritonga et al. (2023), investment is influenced by economic growth. From a macroeconomic performance perspective, an increase in GRDP enlarges the market size and is followed by increased real income. Higher income leads to increased purchasing power and consumption, creating a competitive business environment that attracts investors. Choirunnisa et al. (2024) found similar results. Investors tend to be interested in regions with growing economic growth due to increased consumption, which increases company profits. The increase in public consumption not only drives demand for goods and services but also creates broader market opportunities for companies to grow. Thus, regions with positive economic growth are considered to have high profit potential and lower risk, making them a key attraction for investors to invest their capital.

In some cases, countries experiencing economic growth may reach maturity stages. This condition causes labor and operational costs to rise, leading to higher wages and production costs. This can reduce investor interest as capital owners tend to seek locations with lower labor costs to maximize profits. This condition aligns with Astikawati et al. (2021), who found that economic growth negatively affects investment.

Hypothesis 2: Economic growth has a positive effect on investment.

D. Labor Force Participation Rate (LFPR)

In the employment context, LFPR is defined as the percentage of the population aged 15 and above who are economically active in a region (BPS, 2021). A high LFPR indicates the significant role of the working-age population in economic activities, which can increase national productivity and economic growth (Ningrum et al., 2022). According to Weber, industrial location determination considers the number of laborers (Muzayanah, 2015). This means the ideal industrial location is an area with abundant and inexpensive labor. Data shows that Central Java Province has increased worker wages year by year, but compared to wage standards in DKI Jakarta and other provinces in Java, the increase is still below standard. Therefore, with abundant labor and lower costs than other provinces, Central Java becomes an attractive consideration for investors.

Pratama et al. (2016) showed that LFPR positively affects investment because companies can easily fulfill production needs without difficulty recruiting employees if labor is abundant, attracting investors. A larger labor force also contributes to increased productivity, so LFPR affects economic growth. Rapid economic growth creates a more stable business environment and attracts investors (Choirunnisa et al., 2024). On the other hand, findings by Natio et al. (2023) and Nisa et al. (2022) show that high labor force can indicate weakening economic conditions in a region. When labor force numbers increase but unemployment is high, purchasing power declines, reducing demand for goods and services. This affects company profits and reduces investor interest due to lower potential returns.

Hypothesis 3: LFPR has a positive effect on investment.

E. Human Development Index (HDI)

The progress of a region is not only measured by its economic condition but also by the quality of its human resources. The higher the human development level, the better the quality of life in the area. The Human Development Index in Indonesia is calculated based on important indicators such as literacy rate, life expectancy, education level, and living standards (Syafrina et al., 2020).

Romer revealed through endogenous economic growth theory that economic growth is influenced by factors such as education, health, and innovation reflected in HDI (Nurlaili et al., 2023). A fundamental element of endogenous growth theory states that output from knowledge-based production factors will grow indefinitely (Inayah et al., 2023). This growth creates broad economic opportunities and expands company market share, fostering a business climate attractive to investors. When knowledge drives production, productivity increases, strengthening investment appeal both domestically and internationally.

Research by Emalya et al. (2023) shows that HDI positively affects investment. Skilled and expert communities contribute more to business sectors. When people offer their expertise, companies can achieve efficient and effective production processes. This finding aligns with Caceres et al. (2015), who stated that skilled labor contributes to innovation and technology development, enhancing company competitiveness in global markets and attracting investor confidence. On the other hand, higher HDI can increase labor costs and reduce investor interest (Astikawati et al., 2021). Highly educated workers usually demand higher compensation than less educated workers, increasing production costs and reducing company profits. Lower profits reduce investor willingness to invest.

Hypothesis 4: HDI has a positive effect on investment.

F. Infrastructure

Infrastructure refers to various physical facilities needed to support economic and social activities in daily life. One type of infrastructure used daily is road infrastructure. Road infrastructure provision includes activities from construction to management and maintenance to ensure sustainable and optimal benefits for society. According to Todaro,

infrastructure relates to economic development (Mahyoga et al., 2022). Availability of infrastructure such as roads, airports, and ports is a fundamental basis for economic activities. Limited infrastructure hinders economic growth because it causes inefficiencies in distribution and production activities between regions. This often discourages investors from investing in areas with uneven infrastructure, especially in industry and trade sectors that heavily depend on smooth logistics (Nurhamidah et al., 2014).

Good road access is an important infrastructure connecting regencies/cities, shortening travel time, and reducing logistics and operational costs. This is supported by research from Manuaba et al. (2022) and Siagian et al. (2024), which states that the number of roads positively affects investment. However, road infrastructure can also negatively affect investment, as found by (Emalya et al., 2023). Negative effects may arise because investors prefer faster and safer distribution methods such as air, sea, and rail transport. Companies prioritize effective distribution to consumers and supply chains, choosing more efficient and less risky routes. Road infrastructure development and repair can also increase taxes and additional operational costs borne by companies. Investors consider these factors when investing.

Hypothesis 5: Infrastructure has a positive effect on investment.

RESEARCH METHODS

A. Research Design

This study employs a descriptive quantitative research approach. Descriptive analysis is a statistical method used to process and analyze data by describing or depicting the data as it is (Yuliani et al., 2020). Quantitative methods are research techniques used to examine phenomena within a defined population or sample by obtaining data in numerical form (Sari et al., 2024). The researcher analyzes data using descriptive statistical methods to identify the relationship between minimum wage, economic growth, labor force participation rate, human development index, and infrastructure on investment in Central Java Province.

B. Population and Sample

The population of this study consists of data on the variables of minimum wage, economic growth, HDI, LFPR, and infrastructure related to investment in Central Java Province. The sample used includes data from these variables for the years 2018 to 2024.

C. Data Collection Techniques

Data were collected through literature study by identifying and gathering information from various references such as books, scientific journals, and published research (Adlini et al., 2022).

D. Instrument Development

1. Investment. Data on investment come from the total number of Foreign Direct Investment (FDI) and domestic investment projects received by each Regency/City in Central Java, measured in project units for 2018-2024.
2. Minimum Wage. The minimum wage data used are the minimum wages applicable in each region of Central Java for 2018-2024.
3. Economic Growth. This study uses the Gross Regional Domestic Product (GRDP) at constant 2010 prices for each Regency/City in Central Java, expressed as a percentage from 2018 to 2024.

4. Labor Force Participation Rate. LFPR data represent the percentage of labor force participation in each region of Central Java, sourced from BPS Central Java for 2018-2024.
5. Human Development Index (HDI). HDI data are expressed as percentages for each Regency/City in Central Java, obtained from BPS Central Java for 2018-2024.Investasi
6. Infrastructure. Infrastructure data consist of the total length of roads in each region of Central Java, sourced from BPS Central Java for the period 2018-2024.

E. Classical Assumption Tests

Not all classical assumption tests are required for panel data (Basuki et al., 2023). For example, normality test is not mandatory for panel data with sample sizes over 30 (Windoro et al., 2023). Autocorrelation tests are generally unnecessary because panel data resembles cross-sectional data, which has a low risk of autocorrelation (Windoro et al., 2023). This study only conducts multicollinearity and heteroscedasticity tests.

1. Multicollinearity Test. Identifies correlation among independent variables using correlation matrix analysis at a 90% significance level (Ghozali, 2018). A correlation value above 0.90 indicates multicollinearity; below 0.90 indicates no multicollinearity.
2. Heteroscedasticity Test. Detects inconsistency in variance of residuals across observations using residual plots and statistical tests such as White, Park, Glejser, and Breusch-Pagan Godfrey tests (Andriani, 2017). Residual values within ±500 indicate no heteroscedasticity (Napitupulu et al., 2021).

F. Panel Data Regression Analysis

Panel data regression analyzes the relationship between independent variables and the dependent variable using combined cross-sectional and time-series data (Kuncoro, 2009). The model equation used is:

$$LnInv_{it} = \alpha + \beta_1 LnUMK_{it} + \beta_2 PE_{it} + b_3 LnTPAK_{it} + b_4 LnIPM_{it} + b_5 LnINF_{it} + e_{it}$$ Where :

LnInv	= Realized investment value in percentage
α	= Intercept
β1-5	= Coefficients for minimum wage, economic growth, labor force participation rate, human development index, infrastructure
LnUMK	= Minimum wage in percentage
PE	= Economic growth in percentage
LnTPAK	= Labor force participation rate in percentage
LnIPM	= Human Development Index in percentage
LnINF	= infrastructure in percentage
e	= Error Term

This study uses data in which each variable has different units and magnitudes, so the regression equation must be modeled using the natural logarithm (ln). The use of ln is necessary to bring the data closer to scale and to allow the parameters to directly represent elasticity.

G. The coefficient of determination (R^2)

The coefficient of determination (R^2) is used to assess the extent to which independent variables explain the dependent variable. The greater the value of the coefficient of determination, or the closer it is to 1, the better the model describes the relationship between the independent variables and the dependent variable (Sugiyono, 2013). The coefficient of determination can be calculated using the following formula:

$$R^2 = 1 - \frac{RSS}{TSS}$$

R^2 = Coefficient of Determination
RSS = Residual Sum of Squares
TSS = Total Sum of Squares

H. F-Test

The F-test is conducted to measure the extent to which the independent variables collectively influence the dependent variable. According to (Kuncoro, 2009), the F-test uses the following hypotheses:

H_0: $\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = 0$ (no joint effect)

H_1: $\beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq \beta_5 \neq 0$ (there is a joint effect)

To test these hypotheses, the following statistical formula is used:

$$F = \frac{MSR}{MSE} = \frac{SSR/k - 1}{SSE/(n-k)}$$

Where:
SSR = Sum of Squares Due to Regression
SSE = Sum of Squares Error
n = Number of Samples
k = Number of Variables
MSR = Mean Square Due to Regression
MSE = Mean Square Due to Error

If the calculated F value ≤ the F table, then H_0 is accepted and H_1 is rejected. This means that the independent variables, collectively, do not have a significant effect on the dependent variable. If F value > F table, then H_0 is rejected and H_1 is accepted. This means that the independent variables, collectively, have a significant effect on the dependent variable (Kuncoro, 2009)

I. t-Test

The t-test is used to measure the extent to which each independent variable individually explains the dependent variable, and whether this effect can be considered statistically significant (Syaparuddin et al., 2020). The t-test can be formulated as follows (Kuncoro, 2009):

$$t - Test = (\beta L - 0)/S = \beta L/S$$

Where S is the standard deviation, calculated as the square root of the variance (S^2), obtained from:

$S^2 = \frac{SSE}{n-k}$

Where:
n = Number of Samples
k = Number of Variables

RESULTS AND DISCUSSION

RESULTS

A. Multicollinearity Test

From the test results, it shows that the correlation values among the independent variables in this study are less than 0,90. This means that there is no multicollinearity detected among the independent variables in this research. This test is used to determine whether there is a relationship between the independent variables in the regression model.

High multicollinearity can cause the regression analysis results to be unstable and difficult to interpret.

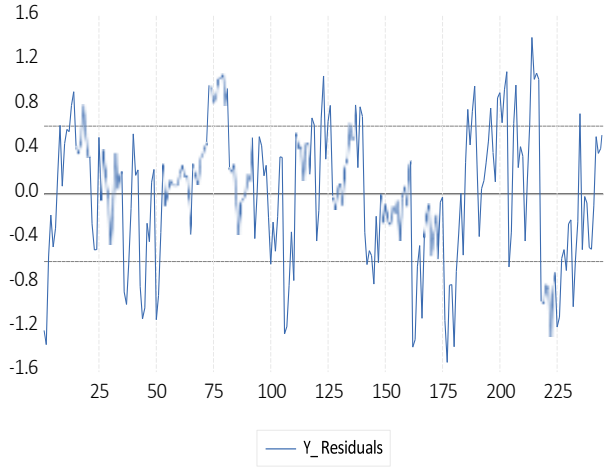
Table 2. Multicollinearity Test Results

	LnUMK	PE	LnTPAK	LnIPM	LnINF
LnUMK	1,000	-0, 046	0, 271	0, 449	-0, 060
PE	-0,046	1,000	0, 111	0,096	-0,044
LnTPAK	0,271	0,111	1,000	-0,011	0,119
LnIPM	0,449	0,096	-0,011	1,000	-0,539
LnINF	-0,060	-0,044	0,119	-0,539	1,000

Source: Processed Data, 2025

B. Heteroscedasticity Test

The results of the residual plot test indicate that the fluctuations of the blue band values range between 1,6 and -1,6. This means the values have not exceeded the range of 500 to -500. This suggests that there are no steep residual outliers, so the data processed in this study is free from heteroscedasticity.



Source: Processed Data, 2025

Figure 1. Results of the Heteroskedasticity Test

C. Panel Data Regression Analysis

This study is conducted to examine the influence of independent variables on the dependent variable. The data were collected from 35 regencies/cities, covering the period from 2018 to 2024. The following are the panel data regression results, with the Fixed Effects Model (FEM) identified as the best model for this study.

Table 3. Panel Data Regression Results

Variable	Coefficient	t-Statistic	Probability
C	-131,874	-9,342	0,000
LnUMK	10,104	13,030	0,000
PE	0,037	3,317	0,001
LnTPAK	1,851	2,698	0,007
LnIPM	-4,251	-0,722	0,470
LnINF	0,192	0,496	0,620
R-squared	0,94		
Adj. R- squared	0,93		

Source: Processed data, 2025

This study uses a regression model which can be expressed by the following equation:

$$LnInv_{it} = -131,874 + 10,104LnUMK_{it} + 0,037PE_{it} + 1,851LnTPAK_{it} - 4,251LnIPM_{it} + 0,192LnINF_{it}$$

D. Coefficient of Determination (R^2)

Based on the data analysis, the adjusted R^2 value of this study is 0,94 or 94 percent. This means that independent variables such as minimum wage, economic growth, and labor force participation rate, HDI, and infrastructure together explain 94 percent of the variation in the dependent variable, while the remaining 6 percent is explained by other variables outside the estimation model.

E. F-Test

Based on the regression results, the calculated F value is 91,940, which is greater than the F table value of 2,25. The significance value is 0,000, which is less than the alpha level of 5%. This means that the variables minimum wage, economic growth, human development index (IPM), labor force participation rate, and infrastructure jointly have a significant effect on the dependent variable, investment.

F. t-Test

This study uses an alpha level of 5 percent or a confidence level of 95 percent, so the t-table value obtained is 1,651 with degrees of freedom (df) = n - k, where n = 245 and k = 5. If the significance value (Sig.) is less than 0,05, it indicates a statistically significant effect. Conversely, if Sig. is greater than 0,05, the relationship between the independent variable and the dependent variable is considered not significant.

DISCUSSION

A. The Effect of Minimum Wage on Investment in Central Java Province

Based on previous analysis, it is known that the minimum wage variable has a positive and significant effect on investment. This means the analysis supports the initial hypothesis that minimum wage positively influences investment. Furthermore, based on panel data regression results, the UMK variable has a positive effect of 10,104, meaning every 1% increase in UMK will increase investment by 10,104%.

The wage increase impacts the fulfillment of workers' needs. As community needs tend to rise over time, this causes an increase in demand for goods and services that producers must meet. Higher demand leads to increased company revenues, thus higher profits. This condition influences investors' interest because with higher company profits, the dividends they receive are expected to be greater. This assumption aligns with Mill's theory, which states that wage levels are determined by market conditions. If the minimum wage is set proportionally by considering labor market conditions and current social conditions, along with increased labor productivity, then the purchasing power of the community will rise. This purchasing power increase will boost demand for goods and services, ultimately creating new market opportunities for investors.

This study's findings align with research by Sely, (2019) which states that wage determination positively affects investment. Additionally, Trimaya, (2014) also found that wage increases positively influence investment. This is because wage systems based on productivity benefit both workers and companies. Workers with higher incomes generally increase consumption levels and tend to produce better output. The rise in community purchasing power increases demand. When demand rises, companies need to increase production to meet it. The production surge affects company revenues, and if revenues increase, company profits also grow. This situation attracts investors due to a favorable business climate and profitable returns.

B. The Effect of Economic Growth on Investment in Central Java Province

The analysis shows that economic growth has a positive and significant effect on investment. This supports the initial hypothesis that economic growth positively influences investment. According to panel data regression, economic growth has a positive effect of 0,037, meaning every 1% increase in economic growth will increase investment by 0,037%.

When Gross Domestic Product (GDP) rises, investors are encouraged to allocate capital to meet market demand for goods and services. Increasing regional economic growth boosts community income, thereby increasing purchasing power. Producers then need to increase production quantity to meet the surge in demand. The increased production leads to higher company profits, which attract investors to invest more.

This condition aligns with Keynes's money demand theory, which states that as community income rises, consumption also increases. Increased consumption affects demand, which stimulates economic conditions. Therefore, investment tends to change along with economic growth in a region. These findings are consistent with research by Sutawijaya et al. (2013) which states that economic growth positively affects investment receipts. Sustained economic growth indicates a good regional economic atmosphere, attracting investors. Saputro et al. (2022) also found that higher economic growth leads to increased investment, as higher output meets market demand.

C. The Effect of Labor Force Participation Rate on Investment in Central Java Province

Analysis shows that the Labor Force Participation Rate (LFPR) positively and significantly affects investment. This supports the initial hypothesis that LFPR positively influences investment. Panel data regression indicates LFPR has a positive effect of 1,851, meaning every 1% increase in LFPR will increase investment by 1,851%.

An increase in LFPR indicates abundant labor availability in a region. This abundance makes it easier for capital owners to expand or establish businesses without worrying about labor shortages, as labor is a key production factor. This aligns with Weber's theory that industrial location decisions partly depend on labor availability. Regions with accessible and abundant labor are ideal industrial locations. Although wages in Central Java increase annually, they remain below the standards of other provinces in Java, as wage increases adjust to local labor market conditions. Abundant labor attracts investors because one of the company's production factors is secured.

This finding is consistent with Choirunnisa et al. (2024), who found a positive relationship between TPAK and investment. A large labor force reflects the availability of productive labor in the workforce. Increasing productive and well-paid labor raises consumption, signaling good market prospects and promising profits for investors. Supported by Sari et al. (2024), population growth accompanied by good quality can expand market size.

D. The Effect of Human Development Index (HDI) on Investment in Central Java Province

Previous analysis shows that HDI does not significantly affect investment. This means the analysis does not support the initial hypothesis that HDI positively and significantly influences investment. The results indicate that increases in HDI do not affect investment receipts.

Regions with high HDI tend to have higher labor costs compared to other areas. This is a consideration for investors because one way to achieve production cost efficiency is by controlling labor costs according to productivity, not just worker quality. This finding contradicts Romer's theory, which states that human resource quality is an indicator influencing economic growth. Regions with high HDI should boost economic growth and attract investors due to better human resource quality. High HDI regions allow capital owners to more easily incorporate technology in production and minimize training costs. However, in reality, high HDI is accompanied by high labor costs, which becomes a drawback for investors.

This study aligns with Astikawati et al. (2021), who found no influence of HDI on investment. This is because high HDI regions tend to have more expensive labor due to skilled workers. Najah et al. (2025) also found that HDI impacts are not felt in the short term; effects of HDI indicators are long-term and indirect, making it difficult to measure their contribution to economic conditions, especially investment receipts. This supports

the finding that HDI does not significantly affect investment because investors consider other factors beyond HDI before investing.

E. The Effect of Infrastructure on Investment in Central Java Province

Analysis shows that infrastructure does not significantly affect investment. This means the analysis does not support the initial hypothesis that infrastructure positively and significantly influences investment. The results prove that increases in infrastructure do not affect investment receipts.

Increasing road length does not directly improve infrastructure quality. If infrastructure access is only expanded in coverage but not accompanied by construction quality and physical condition improvements, the function of roads as distribution tools cannot be fully utilized. Disrupted goods distribution causes inefficiency, reducing investors' interest in investing.

This finding contradicts Todaro's theory, which states infrastructure affects investment and economic development. Availability of infrastructure such as roads, airports, and ports is crucial for daily activities. Infrastructure limitations hinder economic growth by disrupting interregional distribution and production activities. However, road infrastructure development must be accompanied by physical maintenance to optimize its function as a distribution channel.

This result contrasts with Siagian et al. (2024) who found a positive and significant relationship between road infrastructure and investment receipts. The insignificant relationship here occurs because the benefits of road infrastructure development are not directly felt by the community (Mahyoga et al., 2022). The benefits of new or improved roads are realized only after project completion and usability. Pratiwi et al. (2019) also found no significant relationship between road infrastructure and investment. Poor road conditions, such as potholes or severe damage due to natural disasters, can hinder goods distribution, increasing the risk of damage and affecting supply chains. This condition, in the long term, influences investors' decisions on where to invest to ensure expected returns.

CONCLUSION

A. Summary

Based on the research conducted to examine the effects of the Minimum Wage (UMK), economic growth, Labor Force Participation Rate (TPAK), Human Development Index (HDI), and infrastructure in Central Java Province from 2018 to 2024, it is found that UMK has a positive and significant effect on investment. Economic growth has a positive and significant effect on investment. TPAK has a positive and significant effect on investment. HDI does not have a significant effect on investment. Infrastructure does not have a significant effect on investment. Collectively, these five independent variables in this study have a strong influence on investment in the regencies/cities within Central Java Province during 2018-2024.

B. Implications

The government, as the wage setter, should ensure wages are fair for workers, comply with regulations, do not harm workers or producers, and adjust to labor market conditions while considering current inflation rates. Economic growth should be maintained to ensure investor confidence in the economic conditions of regencies/cities in Central Java, especially during unforeseen situations like pandemics or global uncertainties. Maintaining economic growth reassures investors that the business climate remains conducive and returns on investment remain promising. The government can protect economic growth by controlling prices of goods and services. Given the substantial potential of TPAK, the government should actively encourage investment inflows into Central Java by promoting labor-intensive industries to absorb the increasing labor force.

C. Limitations

This study includes data from 2020 to 2022, a period affected by the COVID-19 pandemic, which may disrupt data distribution due to significant declines in variables like economic growth. Future research should extend the study period or adjust for the pandemic to minimize data irregularities. Additionally, further in-depth research on the relationship between road length and investment receipts is needed, as partial testing without considering extreme road length reductions due to natural disasters may overlook the positive effect of road infrastructure on investment.

D. Recommendations

Future research should analyze other potential factors influencing investment growth in Central Java, especially socio-political factors and foreign economic conditions, considering the importance of foreign investment. Also, future studies could analyze fluctuations in investment receipts by extending and updating the research period.

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