International Conference on Sustainable Economics, Management, and Accounting (ICSEMA 2025)
Proceedings
Vol. 01 No.01 Year 2025, Page 2254-2263

THE EFFECT OF INVESTMENT, LABOR ABSORPTION RATE, AND EDUCATION LEVEL ON ECONOMIC GROWTH IN CENTRAL JAVA PROVINCE

Safriana Rahmawati[1*], Dijan Rahajuni[2], Suharno[3], Eko Supriyanto[4]

[1-3] Faculty of Economics and Bussiness, Jenderal Soedirman University, Indonesia
[4] Directorate General Treasury Regional Office of Central Java, Indonesia
[*]Email corresponding author: safriana.rahmawati@mhs.unsoed.ac.id

Abstract

This research is motivated by Central Java Province, which ranks second with the lowest economic growth in Java Island. In addition, the disparity and fluctuations in economic growth between regencies and cities each year are the main problems in development in Central Java Province. This study aims to analyze the impact of domestic investment, foreign investment, employment absorption rates, and education levels on economic growth in Central Java Province. The data used in the research is secondary data sourced from the BPS and the DJPK from 35 regencies/cities in Central Java for the period of 2021-2024. The method used is panel data regression analysis with a Fixed Effects Model (FEM) approach. The results of the study indicate that domestic investment and education levels have a significant positive effect on economic growth in Central Java Province. Meanwhile, foreign investment and labor absorption rate do not show significant impact. Among all variables, education level is the most influential factor on the economic growth of this province. The implication of this research is the need to improve domestic investment and the quality of education in driving regional economic growth. Local governments need to create a conducive investment climate through the provision of adequate infrastructure and ease of licensing for investors. The education sector also needs serious attention through improving access, the quality of educators, and the relevance of the curriculum to the needs of the labor market.

Keywords: Economic Growth, Investment, Employment Absorption Rate, Education Level

INTRODUCTION

Indonesia began to enter the early phase of economic recovery from the impacts of covid-19 in 2021. Java Island ranks third after the Maluku and Papua Islands and Sulawesi Island, with an average economic growth rate of 4.80 percent over the past four years. Java Island is one of the largest islands in Indonesia and plays an important role in the national economy as it is the center of major economic activities in Indonesia. This is reflected by Java Island's contribution of 57.02 percent to the national GDP, supported by the manufacturing, trade, and construction sectors (BPS, 2025).

According to data from the BPS 2024, the average economic growth in Central Java Province from 2021 to 2024 ranks as the second lowest among other provinces on the island of Java. After experiencing a recovery post pandemic in 2021, economic growth in Central Java Province has shown a downward trend consecutively in recent years. Data indicates that economic growth in 2022 increased by 5.31 percent, then decreased in 2023 by 5.03 percent and in 2024 by 4.97 percent. This situation indicates that there are issues that need to be examined in more depth to understand the factors contributing to the economic slowdown in the province from both external and internal perspectives.

In addition, the economic growth conditions of each regencies and cities in the Central Java Province also experience very varied and fluctuating growth from year to year. Generally, the economy in this province has experienced positive growth although at different rates in each area (BPS, 2024).

Table 1. Average Economic Growth Rates Highest and Lowest for Regencies and Cities in Central Java Province (percent)

Highest		Lowest	
Regencies/Cities	Average	Regencies/Cities	Average
Batang Regency	5.60	Kudus Regency	1.41
Semarang City	5.58	Blora Regency	3.13
Surakarta City	5.36	Cilacap Regency	3.82

Source : BPS (2024)

Based on Table 1, it shows the highest and lowest average economic growth rates for each regency/city in Central Java Province. The regencies/cities with the highest average growth rates include Batang Regency, Semarang City, and Surakarta City. Meanwhile, the regencies/cities with the lowest average growth rates include Kudus Regency, Blora Regency, and Cilacap Regency. Semarang City is the largest contributor to the Gross Regional Domestic Product (GRDP) in Central Java Province, with the main drivers of this growth coming from the manufacturing, construction, and trade sectors (BPS, 2024). On the other hand, Batang Regency is also dominated by the manufacturing sector, where its growth is driven by the development of the Batang Integrated Industrial Zone, which has attracted new investments and job opportunities (Kementerian Investasi, 2023). Meanwhile, the low economic growth of Kudus Regency is attributed to the impact of the covid 19 pandemic, high dependence on the manufacturing sector whose growth has slowed, and insignificant growth in other sectors (Mubaroq et al., 2021). The mining and quarrying sector, along with the agricultural sector, which contribute most significantly to the economy of Blora Regency, also experienced a decline and contraction due to prolonged drought and other factors, causing economic growth in the region to slow down (Raharjo, 2024).

According to the neo classical growth theory developed by Robert Solow and Trevor Swan in the 1950s, economic growth is influenced by three factors includes investment, labor absorption, and technological progress (Mankiw, 2003). Investment in Central Java Province, domestic investment and foreign investment, has fluctuated over the past four years. In addition, labor absorption rate and education levels have tended to increase. However, in reality, these increases have not been in line with economic growth.

Therefore, this study aims to analyze the influence of domestic investment, foreign investment, labor absorption rate, and education levels on economic growth in Central Java Province and to analyze the variables that most influence economic growth in Central Java Province.

From the results of this research, it is hoped that it can provide benefits for academics and researchers in enriching literature in the field of economics and contribute to the development of economic science, especially theories related to economic growth, and can serve as a reference for future research. Practically, it serves as a consideration in formulating economic development policies, especially in managing investments, increasing labor absorption, and improving the quality of education to promote more equitable and stable economic growth in the future.

Thus, the results of this study offer a novelty in updating the research period from 2021 to 2024, enabling a more comprehensive evaluation of post-pandemic economic dynamics in Central Java Province and focusing on combining economic and social variables simultaneously, including domestic investment, foreign investment, labor absorption rate, and education level on economic growth in Central Java Province, as there remains inconsistency in findings regarding the factors influencing economic growth across various regions.

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

A. Literature Review

Economic growth is an important indicator for assessing the development performance of a region. There are several factors that play a role in promoting economic growth, including:

1. Domestic Investment

Theoretically, investment is one of the main components in the economic growth process. The Harrod-Domar theory states that economic growth is influenced by the level of savings and investment efficiency (output-capital ratio). Meanwhile, the Solow-Swan growth model places investment as the main driver of capital accumulation, which then increases productivity and national income in the long term (Todaro & Smith, 2011). Domestic investment can be a source of investment in the formation of GRDP because it can encourage business and create more job opportunities. Domestic investment is considered more stable than foreign investment because it is not affected by exchange rate fluctuations and global economic conditions (Zainuddin & Ria, 2022). According to research by Nuri et al., (2024), Yuliani et al., (2023), Munawaroh (2023), Parahita et al., (2018), Yunita & Sentosa (2019) domestic investment has been proven to have a positive effect on economic growth. These studies indicate that stable and consistent domestic investment flows have a direct impact on job creation and increased regional income.

2. Foreign Investment

According to the Solow-Swan theory, investment plays an important role in increasing capital accumulation, which is the driving force behind long-term economic growth. Foreign investment can increase long-term development financing and is more profitable when compared to financing sourced from foreign debt. This is because foreign investment is more beneficial in driving a country's economy as it does not cause foreign debt or repayment obligations. Foreign investment is divided into two types, namely foreign direct investment and foreign portfolio investment (Krugman & Obstfeld, 2018).

Foreign investment contributes to an increase in total investment in a country, accompanied by technology transfer from the country of origin to the recipient country, thereby increasing productivity and efficiency in the production process (Todaro & Smith, 2011). According to research by Gahari & Hasmarini (2024), Nuri et al., (2024), Yuliani et al., (2023), Huda (2022), Bima & Anwar (2024) Hendri et al., (2018) foreign investment has a positive effect on economic growth. These studies indicate that an increase in foreign investment is correlated with an increase in regional economic output, particularly in areas with adequate infrastructure and investment policies.

3. Labor Absorption Rate

According to Solow Swan's theory, labor absorption is an important indicator of economic development success because it reflects the region's ability to reduce unemployment and improve community welfare (Atiyatna et al., 2016). The absorption of labor into various sectors and job fields is driven by the demand for labor. Therefore, labor absorption can be categorized as labor demand (Maryati et al., 2021).

Okun's law theoretically shows the relationship between economic growth and employment rates. Okun states that there is a negative correlation between unemployment and Gross Domestic Product (GDP), whereby the higher the unemployment rate, the lower the economic growth rate of a country (Maryati et al., 2021). According to Yunita & Sentosa (2019) and Parahita et al., (2018) labor absorption has a positive effect on economic growth. This is because labor contributions directly affect productivity and production output, thereby increasing per capita income. When per capita income increases, it drives economic growth (Supratiyoningsih & Yuliarmi, 2022).

4. Education Level

According to endogenous economic growth theory, the quality of human resources plays a key role in driving long-term growth through increased productivity, innovation, and adaptability to technology (Anwar, 2024). According to Becker, 1976 (in Lee & Lee, 2018) the higher a person's level of education, the greater their contribution to the production process and overall economic growth. According to research Muda et al., (2019) and Pratiwi & Utama (2020) education level has a positive effect on economic growth, both through increased labor productivity and innovation capacity in the region.

B. Hypothesis Formulation

Based on theory and previous research findings, the following hypotheses are proposed :

Ha1: Domestic Investment has a positive effect on economic growth.
Ha2: Foreign Investment has a positive effect on economic growth.
Ha3: Labor absorption rate has a positive effect on economic growth.
Ha4: Education level has a positive effect on economic growth.
Ha5: Domestic Investment is the most influential variable affecting economic growth.

RESEARCH METHODS

The analytical method employed in this study is panel data regression analysis using the following equation:

$EG_{it} = \alpha + \beta 1 lnDI_{it-1} + \beta 2 lnFI_{it-1} + \beta 3 LAR_{it} + \beta 4 EL_{it} + {}_{eit}$ ……………………………………………………(1)

Description:

α	: Constant (intercept)
β	: Regression coefficient
EG	: Economic Growth (percent)
DI	: Domestic Investment (in billion rupiah)
FI	: Foreign Investment (in billion rupiah)
LAR	: Labor Absorption Rate (percent)
EL	: Education Level (in years)
i	: Cross-section unit
t	: Time series
e	: Error term

Before proceeding with further analysis to evaluate the model's feasibility and obtain valid estimations, the panel data used in this study must be subjected to model selection tests including the Common Effect Model, Fixed Effect Model, and Random Effect Model, and must satisfy classical assumption tests consisting of normality test, multicollinearity test, and heteroscedasticity test.

To test Hypothesis 5, an elasticity test is employed using the following formula:

$E = \beta \frac{X/n}{Y/n}$ ……………………………………………………………………………………(2)

Where X is the mean of the independent variable, Y is the mean of the dependent variable, β is the regression coefficient, and E is the elasticity value. This test uses the criterion that the most influential variable is the one with the largest coefficient or the highest absolute elasticity value (Gujarati & Porter, 2009).

RESULTS AND DISCUSSION

A. Results

Based on the results of the model selection test, it was found that the Chow test value showed a chi-square probability value of 0.000 < 0.05, indicating that FEM was more appropriate than CEM. Furthermore, the Hausman test results also showed a probability value of 0.000 < 0.05, indicating that FEM was more appropriate than REM. Thus, the panel regression model used in this study is the Fixed Effect Model (FEM). In addition, the FEM model also meets classical assumptions, such as normality test, heteroscedasticity test, and multicollinearity tests, making it suitable for further analysis.

Table 2. Fixed Effect Model (FEM) Regression Output

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-27.76028	9.403440	-2.952141	0.0039
LnDI	0.217493	0.084275	2.580746	0.0113
LnFI	-0.059470	0.044917	-1.324007	0.1885
LAR	0.113185	0.112595	1.005240	0.3172
EL	2.531246	0.577792	4.380895	0.0000
R Square	0.626193			
F statistic	4.452442			
Prob (F statistic)	0.000000			

Source: Eviews, processed data, 2025

Based on the findings in Table 2, the interpretation of the coefficient of determination, F-test, and t-test is as follows:

1. Coefficient of Determination

   The R-Square value of 0.626193 indicates that the independent variables in this study, which include domestic investment, foreign investment, labor absorption rate, and education level, can explain 62.61 percent of the dependent variable of economic growth, with the remaining 37.39 percent explained by factors outside the model.

2. F Test

   Based on Table 2, the calculated F value > F table with a value of 4.45 > 2.28 and a probability of 0.00 < 0.05, which means that the domestic investment, foreign investment, labor absorption rate, and education level together have a significant effect on the economic growth.

3. t Test

   a. Domestic Investment

      Based on Table 2, the coefficient value of 0.217 means that domestic investment has a positive effect. The probability value of 0.01 < $\alpha = 0.05$ and the magnitude of t count 2.580 > t table 1.657 means that domestic investment has a significant positive effect on economic growth so that Ha1 is accepted. From the output results, if domestic investment increases by 1 percent, economic growth will also increase by 0.21 percent.

   b. Foreign Investment

      Based on Table 2, the coefficient value of -0.059 means that foreign investment has a negative effect. The probability value of 0.18 > significance $\alpha = 0.05$ and the magnitude of t count |-1.324| < t table 1.657 so that foreign investment has a negative and insignificant effect on economic growth so that Ha2 is rejected.

   c. Labor Absorption Rate

      Based on Table 2, the coefficient value is 0.113, meaning that labor absorption rate has a positive effect. The probability value of 0.317 > significance $\alpha = 0.05$ percent and the magnitude of t count 1.005 < t table 1.657 so that labor absorption rate has no significant effect on economic growth so that Ha3 is accepted but not significant.

   d. Education Level

      Based on Table 1.2, the coefficient value is 2.531, meaning that education level has a positive effect. The probability value of 0.00 < significance $\alpha = 0.05$ and the magnitude of t count 4.380 > t table 1.657 means that the level of education has a significant positive effect on economic growth so that Ha1 is accepted. From the output results, if the level of education increases by 1 year, economic growth will also increase by 2.5 percent.

4. Elasticity Test

Table 3. Elasticity Output

No	Variable	Regression Coefficient	Average X	Average Y	Elasticity Value

1	DI	0.217	5.89	4.73	0.270
2	FI	-0.059	3.71	4.73	-0.046
3	LAR	0.113	94.85	4.73	2.265
4	EL	2.531	8.17	4.73	4.371

Source: Eviews, processed data, 2025

Based on Table 3. it can be seen that the highest elasticity test value is the education level variable with a value of 4.371. This means that the education level variable has the greatest effect on the increase in economic growth than other variables in Central Java Province. Thus, Ha6 in this study is rejected.

B. Discussion

1. Domestic investment

Domestic investment has a positive effect on economic growth. The results of this study are in accordance with the Solow Swan and Harrod Domar growth theories where investment is a factor that can drive economic growth (Anwar, 2024). Domestic investment can be a source of investment in the formation of GRDP because domestic investment can contribute to increasing the capital stock which encourages businesses to increase output and create more job opportunities. Domestic investment is considered more stable when compared to foreign investment because it is not affected by exchange rate fluctuations and global economic conditions. Domestic investment is also very important in supporting the implementation of regional development which will encourage the development of the economic structure so that people's welfare increases (Zainuddin & Ria, 2022).

The condition of domestic investment in Central Java Province shows fluctuating developments and tends to increase with the highest investment in the industrial estate sector. In addition, Central Java Province is also supported by adequate infrastructure such as the Trans-Java toll road which cuts logistics travel time, the Tanjung Emas port which continues to be developed, logistics railways, and airports that are directly connected to industrial centers, thus increasing the efficiency of goods distribution and competitiveness.

The results of this study are also in line with research by Nuri et al., (2024) which states that domestic investment has a significant positive effect on economic growth in Sumatra Province, research by Yuliani et al., (2023) states that domestic investment has a significant positive effect on economic growth in Indonesia, research by Munawaroh (2023) states that domestic investment has a significant positive effect on economic growth in Central Lampung, and research by Zainuddin & Ria (2022) which states that domestic investment affects economic growth in DKI Jakarta Province.

2. Foreign investment

If foreign investment increases, it not only increases production capacity but also creates new jobs and technology transfers, thereby encouraging economic growth. However, in this study based on the regression results that have been carried out, foreign investment has no effect on economic growth in Central Java Province.

Foreign investment has no significant effect on economic growth in Central Java Province because investors tend to invest in labor-intensive industrial sectors such as the textile industry, food and beverage industry, and footwear industry that produce low added value so that labor productivity is also low and the contribution to economic growth is small. Many foreign companies do not use many local inputs, so the multiplier effect on local GRDP is weak. The value of foreign investment has also declined in recent years as a result of the covid 19 pandemic in 2020. In addition, there are constraints in regulations and a lack of coordination between local government agencies, making it difficult for foreign investors to realize their investments in Central Java Province (DPMPTSP Provinsi Jawa Tengah, 2024).

The results of this study are also in line with the research of Hutapea & Priharjanto (2022) which states that foreign investment does not have a significant impact on economic growth in Indonesia. In the research by Carbonell & Werner (2018) it is stated that foreign investment will have a large impact on the economy if the region is an exporter rather than an importer. Furthermore, foreign investment in Central Java Province often experiences fluctuations with increases and decreases. Although the current situation indicates that foreign investment does not affect economic growth, it can be a component that could drive the economy if there are policy improvements in the future.

3. Labor Absorption Rate

If the labor absorption rate increases, many workers will be absorbed by employment and involved in the production process of goods and services, which in turn will increase people's income and purchasing power and in turn will encourage economic growth. However, in this study based on the regression results that have been carried out, the level of labor absorption has no effect on economic growth in Central Java Province.

The level of labor absorption does not have a significant effect on economic growth because most of the labor in Central Java Province is mostly absorbed into the informal sector which has low productivity so that an increase in the absorption of the number of workers does not automatically increase economic output significantly. The percentage of labor absorbed into the formal sector in Central Java Province over the last 4 years is only around 39.86 percent. This means that as much as 60.14 percent is absorbed into the informal sector (Badan Pusat Statistik, 2024). Informal workers often have irregular incomes and depend on the output of their work. The agricultural sector is still the main pillar of the economy, followed by the manufacturing and trade sectors. These sectors are dominated by informal economic activities characterized by small business scale, use of simple technology, and lack of formal labor protection. In addition, the number of people who urbanize or migrate out of Central Java Province also causes a reduction in productive labor in the area of origin so that although unemployment decreases, regional economic growth may not necessarily increase because the labor absorbed into employment is not from the region. This is done because of limited employment opportunities in the origin region and higher wages in big cities.

The results of this study are in line with research conducted by Budihardjo et al., (2020) and Parahita et al., (2018) which state that labor absorption has no significant effect on economic growth.

4. Education Level

The level of education has a significant positive effect on economic growth in Central Java Province. Theoretically, this result is in accordance with the theory of endogenous growth and human capital which states that the quality of human resources, one of which is determined by the level of education, is a major factor in long-term economic growth. The higher education attained will increase labor productivity, encourage innovation which will then have an impact on employment opportunities and higher incomes and ultimately increase economic growth.

The level of education in regencies/cities in Central Java Province during the 2021-2024 period has always increased. The free school program, improving the quality of teachers and educational facilities, providing scholarships for students from poor families have been carried out by the Central Java Provincial government to improve the quality of education. However, differences in education levels between regencies/cities in Central Java Province are still quite visible. Urban areas such as Semarang City, Surakarta City, Magelang City, and Salatiga City have relatively higher average years of schooling compared to mountainous or southern coastal areas (Badan Pusat Statistik, 2024). These areas generally have challenges in accessing education such as limited infrastructure and education facilities (Siregar, 2024).

In addition, these results are also in line with the research by Pratiwi & Utama (2020) which states that the level of education has a significant positive effect on economic growth in Indonesia, research by Muda et al., (2019) which states that the level of education has a significant positive effect on economic growth in North Sulawesi Province, and research by Su & Liu (2016) which states that human capital has a positive effect on GDP in China.

5. Elasticity

Based on Table 3, it is obtained that the largest elasticity is the education level variable of 4.371. This shows that this variable is the one that most influences economic growth in Central Java

Province during the 2021-2024 period. The results of this study are in accordance with the theory of endogenous economic growth which emphasizes the role of human capital, especially secondary education as a foundation in improving productive skills. Therefore, investment in education plays an important role for economic progress. This is also supported by the level of education in Central Java Province which is getting better from year to year. In the research by Dainty et al., (2020) that in the long run higher education can help people to compete in the labor market so that they can get income and reduce unemployment.

CONCLUSION

The conclusion of this study is that domestic investment and education level have a significant positive effect on economic growth in Central Java Province. Foreign investment and labor absorption rate have no significant effect on economic growth in Central Java Province. Education level is the variable that has the most influence on economic growth in Central Java Province.

The implication of this research is that local governments need to create a conducive investment climate through ease of licensing for investors and provide infrastructure that can support investment and channel local governments can also prioritize domestic investment so that it can be channeled into productive sectors such as opening industries in order to increase employment that absorbs the workforce. Local governments should pay attention to the education sector through improving education infrastructure, the quality of educators, and the relevance of the curriculum in accordance with labor market needs so as to support the creation of superior human resources and support inclusive growth.

BIBLIOGRAPHY

Anwar, N. (2024). *Buku Pintar Ekonomi Makro* (Edisi Pertama). Purwokerto:CV.ZT Corpora.

Atiyatna, D. P., Muhyiddin, N. T., Bambang, D., & Soebyakto, B. (2016). Pengaruh upah minimum, pertumbuhan ekonomi dan pendididikan terhadap penyerapan tenaga kerja di Provinsi Sumatera Selatan. *Jurnal Ekonomi Pembangunan*, 14(1), 8–21. https://ejournal.unsri.ac.id/index.php/jep/index8

BPS. (2024). *Laju Pertumbuhan Produk Domestik Regional Bruto atas Dasar Harga Konstan 2010 Menurut Provinsi*. Diakses Dari Https://Www.Bps.Go.Id/Id/StatisticsTable/3/WnpCcmNtcE1ibkF5VjFSelJHMUVhRE52WjNWSVp6MDkjMw==/Laju-Pertumbuhan-Produk-Domestik-Regional-Bruto-Atas-Dasar-Harga-Konstan-2010-Menurut-Provinsi--Persen---2022.Html?Year=2022.

BPS. (2024). *Provinsi Jawa Tengah Dalam Angka*. 33000.24005, Semarang. Badan Pusat Statistik Provinsi Jawa Tengah Diakses dari: https://jateng.bps.go.id/id/publication/2024/02/28/980d120f5be18d6400c48b16/provinsi-jawa-tengah-dalam-angka-2024.html

Bima, & Anwar, A. (2024). Analysis of Gross Domestic Product determinants in the association of Southeast Asian Nations Region. *Jurnal Kebijakan Ekonomi Dan Keuangan*, *3*(2), 199–208. https://doi.org/10.20885/JKEK.vol3.iss2.art10

BPS. (2025). *Produk Domestik Bruto Indonesia Triwulanan 2020–2024.* Diakses dari: https://www.bps.go.id/id/pressrelease/2025/02/05/2408/ekonomi-indonesia-tahun-2024-tumbuh-5-03-persen--c-to-c---ekonomi-indonesia-triwulan-iv-2024-tumbuh-5-02-persen--y-on-y---ekonomi-indonesia-triwulan-iv-2024-tumbuh-0-53-persen--q-to-q--.html

Budihardjo, A., Arianti, F., & Mas'ud, F. (2020). Pengaruh Investasi, Tenaga Kerja, dan Indeks Pembangunan Manusia Terhadap PDRB (Studi Kasus Kabupaten/Kota di Provinsi Jawa Tengah Tahun 2016-2018). *Diponegoro Journal of Economics*, *9*(2), 1–9. https://ejournal2.undip.ac.id/index.php/dje

Carbonell, J. B., & Werner, R. A. (2018). Does Foreign Direct Investment Generate Economic Growth?

A New Empirical Approach Applied to Spain. *Economic Geography*, *94*(4), 425–456. https://doi.org/10.1080/00130095.2017.1393312

Dainty, G., Roring, J., Kumenaung, A. G., Lapian, A. L. C. P., & Ratulangi, U. S. (2020). Pengaruh Pertumbuhan Ekonomi Dan Pendidikan Terhadap Tingkat Pengangguran Terbuka (Tpt) 4 Kota Di Provinsi Sulawesi Utara. *Jurnal Pembangunan Ekonomi Dan Keuangan Daerah*, *20*(4), 70–87. https://ejournal.unsrat.ac.id/v2/index.php/jpekd/article/view/32806

DPMPTSP Provinsi Jawa Tengah. (2024). *Realisasi Investasi Jawa Tengah 2024*. Diakses dari : https://dpmptsp.jatengprov.go.id

Gahari, R. R. M., & Hasmarini, M. I. (2024). Do foreign investment, human development index, labor, and poverty influence economic growth in Indonesia? *Journal of Economics Research and Policy Studies*, *4*(2), 134–145. https://doi.org/10.53088/jerps.v4i2.1034

Gujarati, D., & Porter, D. (2009). *Basic Econometrics* (Fifth Edition). NewYork:McGraw-Hill/Irwin.

Hendri, Susetyo, D., Kadir, S. A., & Yuliana, S. (2018). Influence Of Investment, Local Expenditure And Fiscal Autonomy Towards Economic Growth In Southern Sumatera Of Indonesia. *Russian Journal of Agricultural and Socio-Economic Sciences*, *80*(8), 19–25. https://doi.org/10.18551/rjoas.2018-08.03

Huda, N. (2022). The Effect Of Foreign And Domestic Investment And Government Spending On Growth Central Kalimantan Province Economy 2015-2019. *JHSS (Journal of Humanities and Social Studies)*, *06*(02), 131–136. https://doi.org/https://doi.org/10.33751/jhss.v6i2.5402

Hutapea, B. C., & Priharjanto, A. (2022). Pengaruh Ekspor, Penanaman Modal Asing, Dan Dana Perimbangan Terhadap Perekonomian Regional. *Jurnal Perspektif Bea Dan Cukai*, *6*(2), 409–427. https://doi.org/10.31092/jpbc.v6i2.1781

Kementerian Investasi. (2023). *Perkembangan Kawasan Industri Terpadu Batang*.Diakses dari: https://bkpm.go.id/

Krugman, P., & Obstfeld, M. (2018). *International Economics: Theory and Policy* (11th ed). California:Pearson.

Lee, J. W., & Lee, H. (2018). Human capital and income inequality*. *Journal of the Asia Pacific Economy*, *23*(4), 554–583. https://doi.org/10.1080/13547860.2018.1515002

Mankiw, N. G. (2003). *Teori Makro Ekonomi* (Edisi Kelima). Jakarta: Penerbit Erlangga.

Maryati, S., Handra, H., & Muslim, I. (2021). Penyerapan Tenaga Kerja dan Pertumbuhan Ekonomi Menuju Era Bonus Demografi di Sumatra Barat. *Jurnal Ekonomi Dan Pembangunan Indonesia*, *21*(1), 95–107. https://doi.org/10.21002/jepi.2021.07

Mubaroq, M. H., Dewi, E. R., & Caesar, D. L. (2021). *Hubungan Sosial Ekonomi Masyarakat Dengan Kejadian Covid-19 Di Kabupaten Kudus, 07*(2), 101–109. https://journal.lppm-unasman.ac.id/index.php/jikm/article/view/2691

Muda, R., Koleangan, R., & Kalangi, J. B. (2019). Pengaruh angka harapan hidup, tingkat pendidikan dan pengeluaran perkapita terhadap pertumbuhan ekonomi di Sulawesi Utara pada tahun 2003-2017. *Jurnal Berkala Ilmiah Efisiensi*, *19*(01), 44–55. https://ejournal.unsrat.ac.id/index.php/jbie/article/view/22368

Munawaroh, S. (2023). Pengaruh Investasi Swasta (PMDN), Belanja Daerah, Dan Pendapatan Asli Daerah Terhadap Pertumbuhan Ekonomi Di Provinsi Lampung. *Business and Enterpreneurship Journal (BEJ)*, *4*(2), 41–45. https://doi.org/https://jurnal.umitra.ac.id/index.php/bej/article/view/1201

Nuri, D. R., Junaidi, J., & Achmad, E. (2024). Pengaruh PMA, PMDN, Ekspor, Belanja Pendidikan dan Belanja Kesehatan terhadap Pertumbuhan Ekonomi Di Provinsi dalam Pulau Sumatera. *J-MAS (Jurnal Manajemen Dan Sains)*, *9*(1), 688–697. https://doi.org/10.33087/jmas.v9i1.1199

Parahita, L. L., Rahajuni, D., & Windhani, K. (2018). Analisis Faktor Yang Mempengaruhi Produk Domestik Regional Bruto (PDRB) Sektor Industri di Provinsi Jawa Barat Tahun 2002 - 2016. *Seminar Nasional Dan Call for Paper Sustainable Competitive Advantage (SCA)*, 1–13. https://doi.org/10.22219/jie.v5i04.17826

Pratiwi, I. A. C., & Utama, M. S. U. (2020). Pengaruh Tingkat Pendidikan, Tenaga Kerja, Investasi, dan

Ekspor Terhadap Pertumbuhan Ekonomi di Indonesia. *E-Jurnal EP Unud*, *11 (07)*, 2869–2899. https://doi.org/10.24843/EEP.2022.v11.i08.p08

Raharjo, B. (2024). *Pertumbuhan Ekonomi Kabupaten Blora Melambat*. https://harianmuria.com/news/umum/pertumbuhan-ekonomi-kabupaten-blora-melambat-pada-tahun-2024-ini-penyebabnya

Siregar, R. (2024). Tantangan Pendidikan Terpencil Lokasi Perdesaan di Indonesia Rahmadiyah. *Jurnal Edukatif*, *2*(1), 201–207. https://ejournal.edutechjaya.com/index.php/edukatif

Su, Y., & Liu, Z. (2016). The impact of foreign direct investment and human capital on economic growth: Evidence from Chinese cities. *China Economic Review*, *37*, 97–109. https://doi.org/10.1016/j.chieco.2015.12.007

Supratiyoningsih, L., & Yuliarmi, N. N. (2022). Pengaruh Investasi, Pengeluaran Pemerintah, Tenaga Kerja Terhadap Pertumbuhan Ekonomi Dan Tingkat Kemiskinan Di Provinsi Bali. *E-Jurnal Ekonomi Dan Bisnis Universitas Udayana*, *11*(01), 1. https://doi.org/10.24843/eeb.2022.v11.i01.p01

Todaro, M., & Smith, S. (2011). *Pembangunan Ekonomi* (Edisi Kesebelas). Jakarta:Penerbit Erlangga.

Yuliani, N. M., Fuadi, A. B., Arkan, M. N., & Helmi, S. G. Y. (2023). Pengaruh PMA dan PMDN Terhadap Pertumbuhan Ekonomi 34 Provinsi di Indonesia. *JEMeS: Jurnal Ekonomi Manajemen Dan Sosial*, *6*(2), 43–50. https://doi.org/https://doi.org/10.56071/jemes.v6i2.612

Yunita, M., & Sentosa, S. U. (2019). Pengaruh Pajak, Penanaman Modal Dalam Negeri (Pmdn) Dan Tenaga Kerja Terhadap Pertumbuhan Ekonomi Di Indonesia. *Jurnal Kajian Ekonomi Dan Pembangunan*, *1*(2), 533. https://doi.org/10.24036/jkep.v1i2.6265

Zainuddin, D., & Ria, A. (2022). The Factors That Influencing on GRDP Increase In Jakarta. *International Journal of Islamic Business and Management Review*, *2*(2), 182–191. https://doi.org/10.54099/ijibmr.v2i2.409