THE EFFECT OF HDI, MINIMUM WAGE AND REGIONAL INCOME ON INCLUSIVE ECONOMIC DEVELOPMENT INDEX IN CENTRAL JAVA, 2018 – 2021

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ABSTRACT

During the Covid-19 pandemic, Central Java was still able to increase its inclusive Economic Development Index score. But nationally, Central Java's ranking has declined. In addition, in the first pillar, Central Java's IPEI is below the province with an absolute IPEI score, while other provinces are below Central Java. The purpose of this research is to see the effect of HDI, minimum wage, General Allocation Fund (GAF), Local Own-source Revenue and village funds for IEDI in Central Java in 2018-2021. The locations that are the object of this research are every district/city in Central Java. The type of data used in this study is secondary data so that data collection is carried out by other parties by recording existing data. The analytical method used is panel data regression analysis. The results of this study show that HDI and GAF have a positive and significant effect on IEDI while minimum wage, Local Own-source Revenue, and village funds have no effect on IEDI for each Regency/City in Central Java in 2018-2021. Taken together the variables HDI, minimum wage, General Allocation Fund (GAF), Local Own-source Revenue and village funds affect for IEDI in Central Java in 2018-2021.

Keywords: IEDI, HDI, General Allocation Fund, Minimum Wage, Local Own-source Revenue, village funds.

1. Introduction

Economic development can be interpreted as activities carried out in a country as an effort to increase economic activity and the welfare of its people such as poverty alleviation, income distribution, and low unemployment. The World Economic in collaboration with Oxford Economics developed a tool to measure development through The Inclusive Economic Development Index (IEDI). IEDI is a tool to measure the level of development of a country by taking into account aspects other than the economy such as income inequality, access to education and health services. The purpose of this IEDI is to describe economic development that is more comprehensive by taking into account environmental sustainability and social inclusion (Weforum, 2018). The National Development Planning Agency (Bappenas, 2023) also explains that one of the indicators to measure the level of success of a development is the Inclusive Economic Development Index. The Inclusive Economic Development Index (IPEI) measures the level of inclusiveness of Indonesia's development at the national, provincial, and district/city levels through the aspects of economic growth, inequality, poverty, as well as access and opportunity. Based on the latest IEDI report published by the World Economic Forum in 2021, Indonesia is ranked 55th out of 120 countries, and 5th out of 10 Southeast Asian countries. Indonesia's position is quite good in Southeast Asia.

Regional development has an important role in the process of sustainable development to expand national development and create prosperity for the whole community. Central Java is the 5th province with the highest IEDI score in 2021, namely with a score of 6.43, this shows that Central Java's economic development is on a scale of 4-7, which means development in the area is satisfactory. During the 2020 Covid-19 pandemic, Central Java was in 4th place with an IPEI score of 6.01. In addition, in the first pillar, IEDI Central Java is below the province with an absolute IEDI score, while other provinces are under Central Java. There has been an increase in the Central Java IPEI score from 2020 to 2021, indicating that the development process in the area has increased quite high even though there is currently a pandemic.

The Human Development Index (HDI) is a strategic indicator and is widely used to see the overall success of development programs in an area (Saputra, 2011). Therefore, HDI can be a factor to measure the level of development from economic and other aspects or can be used to measure Pillars 1 and pillar 2 in IPEI. Another economic problem that is often faced by every country, both developed and developing countries, is the unequal distribution of income. According to Herlina et al., (2022) said that changes in the level of economic growth can affect the level of people's per capita income so that it can cause a wide gap and become a trade-off between economic growth and income distribution in a region. The government sets a minimum wage to protect workers from getting a decent wage, but even a low minimum wage level can result in unequal distribution of income in the regions (Fanshuri & Saputra, 2022).

The fiscal authority implemented in Indonesia is fiscal decentralization in nature by Law Number 32 of 2004 concerning the Regional Government. In overcoming the problem of financial inequality and the existence of significant regional financing needs, the central government provides balancing funds, and the General Allocation Fund (GAF) is one of the components of the balancing fund that makes the largest contribution to the regions (Uhise, 2013). Another effort made by local governments to increase their income is to increase local revenue . Regional original income is income received by the regional government for the resources and potential that exist in the area which must be managed by the regional government to obtain its income (Mardiasmo, 2011). The existence of the Covid-19 pandemic had an impact on changes to the TKDD budget where the central government issued Minister of Finance Regulation Number 17/PMK.07/2021 and based on this regulation the GAF ceiling has decreased. Another role that is urgently needed in the development process is the village. As an effort to support village development, the government provides a policy of transferring funds to village governments as stipulated in Government Regulation Number 60 of 2014 concerning Village Funds originating from the State Revenue and Expenditure Budget which makes villages a national development priority.

Previous research conducted by Sihombing & Purwanti (2022) stated that the variables local revenue, tax revenue, GAF, special allocation fund and village funds had a significant positive effect on IEDI. Based on the background above, researchers will conduct research to find out whether there is an effect of HDI, minimum wage, GAF and local revenue on the inclusive economic development index in Central Java in 2018-2021. Research conducted by Sihombing & Purwanti (2022) uses variables that only focus on income, not looking at other factors. Researchers also provide suggestions to include macro-social factors to see other influences on IEDI. Based on this, in this study included HDI and minimum wage variables.

2. Literature Review

2.1 Economic Growth According to Solow-Swan

Economic growth according to Solow is also known as the neoclassical model of growth theory. Through the Cobb-Douglas production function, Solow stated that three main factors influence economic growth, namely capital, labor, and technological developments. From this equation, it is also stated that an increase in the output of goods and services or GDP can occur if there is an increase in labor supply, an increase in physical capital, and an increase in productivity each year.. (Leasiwal, 2022).

2.2 Inclusive Economic Development

The definition of inclusive economic development according to the National Development Planning Agency is an effort to create economic growth that provides access and great opportunities for all levels of society equally, increases welfare, and reduces inequality between groups and regions (Hartati, 2021).

2.3 Inclusive Economic Development Index

The Inclusive Economic Development Index (IEDI) is a tool to measure the level of development of a country by considering aspects other than the economy such as income inequality, access to education and health services (Weforum, 2018). Meanwhile, according to the National Development Planning Agency, the Inclusive Economic Development Index is a tool to measure and monitor the level of inclusiveness of Indonesia's development at the national, provincial, and district/city levels. Measurement of inclusivity is through economic growth, inequality, and poverty, as well as access and opportunities. IPEI figures are formed from 3 pillars, 8 sub-pillars, and 21 indicators.

3. Research Methodology

3.1 Research Setting

This study uses a quantitative research approach, the types and sources of data used are secondary data. The location of this research is every district/city in Central Java in 2018-2021. The analytical method used is a multiple linear regression analysis of panel data. The variables used in this study are Inclusive Economic Development Index (IEDI), Human Development Index (HDI), minimum wage, General Allocation Fund (GAF), Local Own-source Revenue, dan village funds with data collection techniques through documentation techniques.

3.2 Analytical Approaches

According to Widarjono (2009), the use of models in panel data can be done by three methods, yaitu Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). Where the three models were selected by going through three tests, namely the Chow Test, Hausman Test, and Lagrange Multiplier Test.

3.3 Operational Definition of Variables

3.3.1 Inclusive Economic Development Index

According to the National Development Planning Agency (2023), the Inclusive Economic Development Index is a tool to measure and monitor the level of inclusiveness of Indonesia's development at the national, provincial, and district/city levels.

3.3.1 Human Development Index

According to the Central Bureau of Statistics (2021), the Human Development Index is a composite index that measures human development based on four indicators, namely life expectancy at birth, expected length of schooling, average length of schooling, and per capita expenditure.

3.3.1 Minimum Wage

According to Law Number 36 of 2021 article 23 it states that the minimum wage is the lowest monthly wage, namely wages without benefits or basic wages and fixed allowances. If the wage component in the company consists of a basic wage and non-fixed allowances, the basic wage is at least equal to the minimum wage, and the company is prohibited from paying less than the minimum wage.

3.3.1 General Allocation Fund

According to Rachim Af (2015), General Allocation Funds are funds originating from the APBN which are allocated to equalize financial capabilities between regions in funding regional needs as an effort to implement decentralization.

3.3.1 Local Own-source Revenue

According to Mardiasmo (2016), Local Own Revenue is revenue obtained from regional tax sector revenue, regional levies, regional-owned business results, separated regional wealth management results, and other legalized regional original revenues.

3.3.1 Village Funds

According to Government Regulation Number 60 of 2014 village funds are funds sourced from the APBN which are earmarked for villages that are channeled through the district/city APBD and are used to finance government administration, development implementation, community development, and community empowerment.

4. Results

After testing the model with the Chow test and Hausman test, this research is more appropriate to use the Fixed Effect Model method from panel data regression analysis.

4.1 Multiple Linear Regression Analysis

Table 1. Results of Multiple Linear Regression Analysis

Variabel	Coefficient	Prob.
Konstanta (c)	-4.594833	0.0547
Human Development Index (X_1)	0.117836	0.0022
Minimum Wage (X_2)	0.000000	0.4325
General Allocation Fund (X_3)	0.000000	0.0000
Local Own-source Revenue (X_4)	-0.000000	0.3986

Village Funds (X$_5$)	-0.000000	0.8129

Source: Eviews, data processed, 2023

Based on the estimation results with the Fixed Effect Model (FEM) that has been done, the panel data regression equation is:

$$IEDI_{it} = -4.594 + 0.117HDI_{it} + 0.00000010MW_{it} + 0.0000000000018GAF_{it} - 0.00000000000012LOR_{it} - 0.000000000000085VF_{it} + \varepsilon_{it}$$

From the results of the regression equation above, it can be interpreted that the constant value = -4.594833 means that each independent variable has a value of 0, so the IEDI value is -4.594833. The regression coefficient value (X$_1$) = 0.117 means that every additional 1 HDI point will increase the inclusive economic development index by 0.117 points. Variable X$_2$ has no effect on IEDI. The regression coefficient value (X$_3$) is 0.0000000000018 meaning that for every additional 1 billion general allocation funds, it will increase the inclusive economic development index by 0.0000000000018 points. Variable X$_4$ has no effect on IPEI, and variable X$_5$ has no effect on IEDI.

4.2 Test F

Table 2. Result of test F

F-statistic	115.0253
Prob(F-statistic)	0.000000

Source: Eviews, data processed, 2023

Based on the results of analysis through table data, the results of the F test show that the probability (F-statistic) obtained is 0.000000, which is smaller than 0.05. The F-statistic value was 115.0253 compared to the F table of 2.28, so 115.0253 > 2.28. This means that H0 is rejected and H1 is accepted, which means that together the variables Human Development Index, District/City Minimum Wage, General Allocation Funds, Regional Original Income, and village funds affect the Inclusive Economic Development Index.

4.3 Coefficient Of Determination

Table 3. Results of the Coefficient of Determination

R-squared	0.978194
Adjusted R-squared	0.969690

Source: Eviews, data processed, 2023

Based on the results of the panel data regression analysis, it is known that the adjusted R2 value is 0.969690 or 96.9690 percent. This shows that the variables Human Development Index, District/City Minimum Wages, General Allocation Funds, Regional Original Income, and village funds are able to explain the dependent variable as much as 96.9690 percent while the remaining 3.031 percent is explained by other variables outside the study.

4.4 Uji t

Tabel 3. Hasil uji t

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-4,594833	2,363940	-1,943718	0,0547
HDI	0,117836	0,037491	3,143024	0,0022

MW	0,000000	0,000000	0,788165	0,4325
GAF	0,000000	0,000000	6,679854	0,0000
LOR	-0,000000	0,000000	-0,847698	0,3986
VF	-0,000000	0,000000	-0,237300	0,8129

Source: Eviews, data processed, 2023

The interpretation of the panel data regression analysis results obtained probability values and t-statistics as follows:

1. The human development index variable has a t-statistic value of 3.143024 compared to a t-table of 1.65630, so 3.143024 > 1.65630 (t-stat is larger than t-table). The probability value is 0.0022 which is smaller than 0.05. This means that H_0 is rejected and H_1 is accepted, which means that the human development index variable has a positive effect on the inclusive development index.

2. The district/city minimum wage variable has a t-statistic value of 0.788165 compared to a t-table of 1.65630, so 0.788165 <1.65630 (t-stat is smaller than t-table). The probability value of 0.4325 is greater than 0.05. This means that H_0 cannot be rejected, which means that the district/city minimum wage variable has no effect on the inclusive development index.

3. The general allocation fund variable has a t-statistic value of 6.679854 compared to a t-table of 1.65630, so 6.679854 > 1.65630 (t-stat is bigger than t-table). The probability value is 0.0000 which is smaller than 0.05. This means that H_0 is rejected and H_1 is accepted, which means that the general allocation fund variable has a positive effect on the inclusive development index.

4. The regional original income variable has a t-statistic value of 0.847698 compared to a t-table of 1.65630, so 0.847698 <1.65630 (the t-stat is smaller than the t-table). The probability value of 0.3986 is greater than 0.05. This means that H_0 cannot be rejected, which means that the local revenue variable has no effect on the inclusive development index.

5. The village funds variable has a t-statistic value of 0.237300 compared to a t-table of 1.65630, so 0.237300 <1.65630 (t stat is smaller than t gam). The probability value of 0.8129 is greater than 0.05. This means that H_0 cannot be rejected, which means that the village fund variable has no effect on the inclusive development index.

The model chosen in this study is the FEM model, so it has the advantage of being able to distinguish intercepts between individuals. The individual who has the highest intercept rate is Magelang City at -3.577562544, while the individual who has the lowest intercept is Semarang City at -5.919396544.

5. Discussion

5.1 The Effect of the Human Development Index on the Inclusive Economic Development Index

The quality of human resources becomes an important actor in the development process. The measuring tool for determining the quality of human resources is through the HDI score. HDI scores in Central Java districts/cities from 2018-2021 tend to always increase. Based on the results of the analysis conducted, the human development index has a positive effect on the inclusive economic development index. This shows that every increase in the human development index score is able to increase the inclusive economic development index score in each Regency/City of

Central Java. Economic growth is the first pillar in IEDI as the basis for creating broad economic opportunities and then realizing inclusive economic development.

5.2 The Effect of District/City Minimum Wage on Inclusive Economic Development Index

Based on the research results, the minimum wage has no effect on the inclusive economic development index. This is due to the still high open unemployment rate in Central Java. In 2021 the open unemployment rate in Central Java reaches 5.95 percent and nationally Central Java is in 11th position (BPS, 2023). If the unemployment rate is still high, changes or increases in the minimum wage will not affect economic development because companies will easily recruit workers with lower wages, so companies will ignore the increase in the minimum wage. Therefore, an increase in the minimum wage can very little affect people's income and consumption if the unemployment rate is still high. This can also be seen from the average percentage of poverty in Central Java which is still high in 2018-2021, which is 11.2 percent, even nationally Central Java is always in 15th position. Therefore, an increase in the minimum wage has not been able to affect development in Central Java that year.

5.3 The Effect of Human General Allocation Funds on the Inclusive Economic Development Index

The General Allocation Fund is one of the components of the transfer of funds that has the greatest influence. Regencies/cities in Central Java always receive general allocation funds every year, but in 2020 during the Covid-19 pandemic there was a decrease in the GAF ceiling given to each region. Based on the results of the analysis conducted, the general allocation fund has a positive effect on the inclusive economic development index. Funding from the center depends on the fiscal capacity of each region. In 2018-2021 the category of regional fiscal capacity in the Regency/City of Central Java, 46% of the area is in the low and medium category. This shows that there are still many regions that depend on funds from the center. Therefore, with the increase in the general allocation fund, it will be able to increase existing development in the Regency/City of Central Java.

5.4 The Effect of Regional Original Income on the Inclusive Economic Development Index

Based on the results of the study, regional original income has no effect on the inclusive economic development index. Factors that can cause regional own-source income to have no effect on IEDI are the quality of regional spending. Realization of government spending for each district/city in Central Java is dominated by personnel spending, so this limits regional spending for development such as infrastructure. Infrastructure that is not evenly distributed or even less supportive can slow down the process of economic activity so that the local revenue obtained becomes underutilized due to hampered economic distribution. In addition, it can be seen that there are still many Regencies/Cities in Central Java whose fiscal capacities are in the low and medium categories. The lower the category of regional fiscal capacity indicates that the region is increasingly dependent on transfer funds from the center. This shows an indication of the phenomenon of the flypaper effect on district/city regional spending in Central Java. Regional original income should be the main source of regional income, but what happens is the transfer of funds from the center which is the main source of income. As a result of this phenomenon, regional governments do not focus on increasing the potential of their regions to become a source of income, so that changes from local original income will not be able to influence the inclusive

development process because the regions depend on transfer funds from the center for the development process.

5.5 The Effect of Village Funds on the Inclusive Economic Development Index

Based on the research results, village funds have no effect on the inclusive economic development index. The rural geography, which is predominantly agricultural, makes the village dependent on the agricultural sector which is vulnerable to changes in prices and weather conditions, so that the presence of village funds is not enough to influence sustainable economic conditions in rural areas. According to the Central Statistics Agency (2023) in 2019 the percentage of informal workers in Central Java's agricultural sector was ranked 8th. This can be a positive and negative impact on economic conditions. The positive impact is the maintenance of food security because the productivity of farmers is higher, but the negative impact is that people are dependent on the primary sector, making it difficult to be able to change the economic and social conditions of the community. In addition, it is possible that village funds received will be used to allocate benefits that are not felt by the community, such as the construction of gates, village halls, and salaries of village officials, so that village funds are limited but spending is very large and less effective.

6. Conclusion

The conclusions from the analysis and discussion that have been presented are that in 2018-2021 the variables Human Development Index, Regency/City Minimum Wage, General Allocation Funds, Regional Original Income, and Village funds together have a significant effect on the Inclusive Economic Development Index in each Regency/City of Central Java. Partially in 2018-2021 the Human Development Index and General Allocation Fund variables have a significant positive effect on the Inclusive Economic Development Index, while the District/City Minimum Wage, Regional Original Income, and village funds variables do not have a significant effect on the Inclusive Economic Development Index in each Regency / City of Central Java.

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