



ANALYSIS OF HUMAN RESOURCE DEVELOPMENT INDEX: 6 CITIES OF CENTRAL JAVA PROVINCE

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Abstract

This study aims to determine the extent to which factors such as poverty, the average number of years spent in school, the district minimum wage, and per capita expenditure all have an impact on the human development index (HDI) in six cities located in Central Java in the years 2010-2021. The method used is associative with quantitative from the publication of the Central Java Province Statistics Agency (BPS).

The data used is panel data consisting of cross-section data in the form of city and time series data for 2010-2021. The results showed that the minimum wage had a positive and significant effect on HDI, poverty had a positive and insignificant effect on HDI, average years of schooling had a significant positive effect on HDI, and adjusted per capita expenditure had a positive and significant effect on HDI. The coefficient of determination in this study's independent variables influences 99.08% of HDI. At the same time, the other 1.92% is influenced by other variables.

Keywords: Human Development, HDI, Minimum Wage, Poverty, Average Years of Schooling, and Adjusted Per Capita Expenditure.

INTRODUCTION

Appropriate preparation of human resources, which are the bedrock of life, is essential to producing quality human beings. The progression of humanity works towards the realization of a powerful new generation of science and technology continuously improving over time. Because people are the most critical factor in the development of regions and even countries, efforts to improve the quality of people should be a priority in the planning of states and regions (Sabrina, 2022). Human development is an indicator of development to achieve the nation's goals; based on the opening of the 1945 constitution, the goals of the Indonesian nation include educating the nation's life. The Human Development Index (HDI) measures development's success.

Improving human resources is carried out through efforts to equalize and reduce existing gaps and expand opportunities to obtain quality and affordable education for all types, pathways, and levels of education, increasing relevant competitiveness and increasing the value of education governance. Improving academic ability, professionalism and ensuring the welfare of teachers and educators is an integral part. Through the 2018-2023 Regional Medium-Term Development Plan (RPJMD) of Central Java province, a grand design of development planning was prepared that aims to improve the quality of the population in improving the quality of human resources through efforts to increase access to health services in general and education and employment or business opportunities (RPJMD Central Java 2018-2023).

Human resources are not only considered an object but also a determining factor in the direction and policy of development. Human resource development can be done through empowering, increasing the capacity of the community to realize all its potential, and increasing self-awareness (self-hood). An increase in HDI is a manifestation of human development, as success in increasing the ability to build choices (enlarging people's choices). Effective education and health care systems can explore the ability of efficiency in development. Human resources (Iheoma, 2012:2).

According to the Central Bureau of Statistics of Central Java Province, the highest value of the human development index in 6 cities in 2010-2021 was obtained by Salatiga City in 2021 at 83.6%. Although this shows an increase from the previous year, which obtained the smallest human development index, Pekalongan City, it only reached 68.95% in 2010. Despite this improvement, the quality and competence of human resources are still a problem, so development still needs to be fully implemented (Central Java Bappeda Strategic Plan 2022). In addition, the increase in human resources has become a wide gap between cities every year, such as in Pekalongan City in 2021 at 75.4% and Salatiga City at 83.6% (BPS, 2021). In the provisions of the Central Statistics Agency (BPS), the quality of human life in Indonesia is calculated based on the Human Development Index (HDI).

This regional development strategic plan needs to explore science, technology, local wisdom, natural resources, the environment, and human resources wherever they are to support and strengthen their own world power (Grand Design Governor of Central Java 2018-2023). Regional Regulation of Central Java Province Number 3 of 2008 will always be a reference for regional development agents in achieving development goals that are integrated with the vision and mission of national goals and the direction of development that has been determined together so that development becomes more effective, efficient, and sustainable based on the integration of complementarity with each other.

LITERATURE REVIEW

Human Development Index

Human development can increase due to several factors, including improving the quality of human resources to improve the quality of life; the United Nations Development Programme (UNDP) defines the Human Development Index (HDI) as a process of expanding choices for a person to achieve income, health, education, physical environment, and so on consistently. HDI measures three main dimensions of human development that are considered capable of reflecting basic capabilities. The three basic capabilities are living a long life in good health, having knowledge and skills, and accessing the resources needed to achieve a better standard of living. Qualified human resources are the wealth asset of the nation as well as the primary capital for development. To produce quality human resources, education, and health are the principal capital humans must have to increase their potential and contribute to development (BPS, Central Java in 2022).

The focus of Indonesia's national development has embraced this concept, namely the concept of complete human development, which requires improving the quality of life of the population both

physically, mentally, and spiritually (Setiawan and Hakim, 2013). The HDI ranges from 0 to 100. The closer to 100, the human development index is, the better it is. Closer to 0 indicates that the human development index is getting worse. The units used are per cent.

Minimum Wage

The minimum wage is the minimum requirement that must be paid to workers as wages for work performed and a decent standard of living. The minimum wage is a government policy tool to implement income distribution and become an instrument for various purposes. According to Susanti (2013), setting the minimum wage has the objectives of reducing poverty, reducing wage inequality, reducing low-wage jobs, providing assistance for education, and protecting workers with low bargaining power.

Government Regulation of the Republic of Indonesia Number 78 of 2015 concerning Wages, article 1 paragraph 1 explains that wages are the right of workers or laborers to receive and are manifested in the form of money as compensation from the employer or employers to workers or laborers determined and paid according to a work agreement, agreement or laws and regulations, including benefits for workers or laborers and their workers or families for work and services performed or to be performed.

Poverty

Poverty can be a regional and even national problem because it concerns the primary fulfillment and quality of life. Poverty is inseparable from its dimensions as a commitment to ending poverty in the Sustainable Development Goals / SDGs also explain to prosper the community, including ending poverty, quality education, responsible, decent work, and can reduce inequality. Poverty is a severe problem and must be addressed immediately so that welfare in society is evenly distributed, and there is no inequality Mirza (2012).

Average Years Of Schooling

Average years of schooling indicate the level of education in a region. Education is a form of human capital that shows the quality of human resources at work (I Made Cahyadi et al., 2022). The average years of schooling will improve the quality of human resources whose benefits exceed the costs incurred in the education process. The Central Bureau of Statistics states that the average length of schooling is the years the population uses to undergo formal education.

Adjusted Capita Expenditure

According to Muhamad Abdul Halim (2012, per capita expenditure is the total household expenditure that covers the entire household consumption expenditure. Households make household consumption expenditures to buy goods and services for the living needs of household members in a

period. According to (Zaini Ibrahim 2016), Community income is the main factor affecting per capita expenditure. The relationship between the two is positive, meaning that if income increases, government consumer spending also increases.

METHOD

The minimum wage, the number of people living in poverty, the typical years spent in school, and the average amount spent per person have all been adjusted. Implemented with the years 2010-2021 as the range of years. This research takes a quantitative approach and employs an associative methodology. Furthermore, the data used in this study are quantitative and were obtained from secondary sources. While based on time, this type of research includes panel data. The data is obtained from the Central Java Province Statistics Agency (BPS), while the analysis in this study is in the form of regression using the analytical tool Stata 14. Regression analysis is a statistical interpretation used to determine whether or not there is an influence given by the independent variable on the dependent (Wahyudi 2020). The mathematical model in panel data regression is as follows :

$$Y_{it} = \beta_0i + \beta_1X_{it} + \beta_2X_{2it} + \beta_3X_{3it} + \beta_4X_{4it} + \epsilon_{it}$$

RESULTS AND DISCUSSION

Multicollinearity test with the value of Variance Inflation factors. According to (Ghozali 2016) the. VIF value < 10, it is stated that there is no multicollinearity because the results given are as follows:

Mean VIF	1.86
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Source: Central Java BPS data processed in 2023

Based on the table above, the independent variables do not occur in multicollinearity with a VIF value of less than 10. From these results, it is stated that there is no high correlation or similarity between the independent variables, so it is free from multicollinearity problems.

The heteroscedasticity test tests the difference in each variable from the residuals of one observation to another (Juliandi et al., 2014). So this test is to see how much inequality an observation is, as in the table below :

Heteroskedastisitas

Chi ² (1)	0.02
Prob > chi ²	0.8915

Source: Central Java BPS data processed in 2023

The table above explains that the chi-square 0.8915 is greater than the alpha value of 0.05 because the value obtained is higher than the alpha value of the independent variable. There is no heteroscedasticity problem.

DISCUSSION

this study tested several methods to answer the overall research problem. The results of these tests produce the equation below:

$$Y_{it} = -95.90001 - 193076X_{1it} + .6421146X_{2it} + 10.44197X_{3it} - 12.82842 + e_{it}$$

1. The value of $\beta_0 = -95.90001$ is a constant value that explains when the independent variables of minimum wage, poverty, average years of schooling, and expenditure per capita are adjusted. The Human Development Index (HDI) of 6 cities in Central Java province in 2010-2021 is - 95.90001.
2. $\beta_1 = 193076$ Based on these results, the constant value shows that if the independent variable minimum wage increases by 1 cent, the Human Development Index (HDI) will increase by 193076%. Increasing the minimum wage can encourage an increase in the population's quality of life so that they can live more appropriately.
3. The value of $\beta_2 = .6421146$ based on these results, the constant value explains that if poverty increases by 1 percent, it is still able to increase human resources by .6421146%. That way, the increase in poverty must be overcome so that poverty can be overcome sustainably.
4. The value of $\beta_3 = 10.44197$ Based on these results, the constant value shows that if the independent variable average years of schooling increases by 1 percent, the Human Development Index (HDI) will increase by 10.44197%. The increase in the average length of schooling becomes part of improving the population's quality of life so they can live more appropriately.
5. Based on these results, the constant value shows that if the independent variable adjusted per capita expenditure increases by 1 rupiah, the Human Development Index (HDI) will increase by 12.82842% adjusted per capita, expenditure becomes part of being able to measure the extent of a person's ability to meet the needs of things related to human resources.

The test results show that the minimum wage has a probability value of 0.0000, which is smaller than the alpha value of 0.05%, so it is concluded that the minimum wage has a positive and significant effect on the HDI value of 6 Central Java cities in 2010-2021, this is the same as the research conducted by Chalid and Yusuf (2014). then strengthened by Government Regulation of the Republic of Indonesia Number 78 of 2015 concerning Wages as a form of oversight of the prevailing wage system to protect all people getting a decent standard of wage.

The results of the test show that the poverty variable has a probability value of 0.115, more significant than the alpha value of 0.05. These results explain that mean schooling has a positive and significant effect on HDI, in line with research conducted by (Astuti, 2018), which states that the poverty variable does not affect HDI. Poverty is still a problem that has not been fully solved; if someone lives in poverty, they are unable to improve their resource capabilities, so poverty must still be considered consistently and systematically so as not to create new poverty as expressed (Uswanus 2016) poverty involves two dimensions, first economic deprivation and second concerning sociopolitical tegan.

The test results show that the average length of schooling has a probability value of 0.0000, less than the alpha value of 0.05%. These results explaining the average length of schooling has a positive

and significant effect on HDI; this is supported by previous research (Astuti, 2018); average years of schooling have a positive and significant effect on HDI, supported by (Todaro, 2000). Highly educated people will start full-time work at a more mature age, but their income rises faster than people working earlier.

The test results have shown that the adjusted per capita expenditure variable has a value of 0.0000; adjusted capita expenditure has a positive and significant effect on HDI., in line with previous research (Manurung and Hutabarat 2021). The better per capita expenditure signals that the economic situation of the community is getting better; of course, it has a better impact on meeting the basic needs of life; from the test results using f-count to determine the effect of the independent variables of District Minimum Wage (X_1), Poverty (X_2), Average length of schooling (X_3), and adjusted per capita expenditure (X_4) on the dependent variable Human Development Index (y), shows f-count 164.71 and f-table 2. 50. the value of F-count > F-table ($164.71 > 2.50$). the results show that the independent variables affect the dependent variable Human Development Index in 6 Central Java Cities in 2010-2021 by comparing the alpha value and p-value obtained, with a significance level of 5% or 0.05%.

Correlation tests the extent of the relationship between the independent and dependent variables. Then expressed in correlation coefficients ranging from 0 to 1. The results of the correlation significance test of the independent variable district minimum wage were found to be 1.93%. It is concluded that the minimum wage has a perfect and positive correlation relationship because it is at a positive value and more than 1. The correlation coefficient value of poverty is 0.64%, meaning that it has a strong correlation because it lies in the correlation interval of 0.5 to 0.75.

The average length of schooling has a correlation coefficient of 10, 44%. Automatically, the average length of schooling has a perfect and positive correlation relationship with the value shown as more than 1 or equal to 1, as well as the adjusted per capita expenditure of 12.82% also provides a perfect and positive correlation with the value shown as very strong because it lies in the correlation interval of more than 1.

The other test also used in this study is the Coefficient of Determination; according to Gujarati and Porter (2013), the coefficient of determination is to see how large the proportion of the independent variable is to the dependent variable. The coefficient of determination is expressed as the squared value of R-Squared. The coefficient of determination value shows the coefficient of determination expressed in the R-Squared (R^2) value of 0.9908, which shows the independent and dependent variable of 6 cities in Central Java by 99.08%. At the same time, the other 1.92% is explained by factors not explained by this study.

CONCLUSION

The results of the study explain the effect of the independent variables of minimum wage, poverty, average years of schooling, and adjusted per capita expenditure on the dependent variable Human Development Index (HDI) of Central Java 2010-2021; the following conclusions are drawn:

1. Research involving 6 cities in Central Java Province from 2010 to 2021 found that the independent variables simultaneously influence the dependent variable. It means that changes in the independent variables can simultaneously affect the dependent variable.
2. The model used to explain the effect of the independent variable on the dependent variable in this context is the Fixed Effect Model (FEM). In FEM, the independent variable has a consistent fixed effect on the dependent variable over time. It means that individual differences between the units of observation in this study were not ignored but were taken into account in the analysis.
3. This statement implies that the independent variables studied can explain as much as 99.08% of the variation in the Human Development Index (IPM). The remainder, 1.92%, is influenced by other factors not included in the research model. It shows that the independent variables studied have a significant and dominant influence on HDI. However, there are still other factors that contribute to HDI variations that these variables cannot explain.

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