The Effect of Human Growth Index and Investment on Economic Growth in Central Java Province

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A R T I C L E I N F O

A B S T R A C T

Investment and the human development index (IPM) have an important role in maintaining economic growth in the province of Central Java.
This study aims to determine the effect of investment on economic growth, the effect of HDI on economic growth and the effect of investment and HDI on economic growth. The research method used is a quantitative method. Data were taken from the Central Java Bureau of Statistics from 2017 to 2021. The classic test was carried out using the normality, heteroscedasticity and multiplierity tests. After that, several hypothesis tests were carried out such as the Coefficient of Determination Test (R^2), F test and t test. The results showed that, there is an effect of investment on economic growth, there is an effect of HDI on economic growth and there is an effect of investment and HDI on economic growth. These results can be the basis for further research

INTRODUCTION

Homogeneous people's income can cause a stark difference between high and low income people. The emergence of poverty can cause an imbalance of opinion in society. Extreme poverty can arise if there is no real effort from all parties. Inequality in Indonesia is still very high. There are several factors that cause high income inequality in Indonesia (Rabbani, 2022) including the low income of the community so that they cannot fulfill their daily needs and are unable to meet basic needs such as food, health and education which results in the process of human development being hampered, as measured by Human Development Index (HDI). Another factor is the level of investment in each province in various sectors is very different. The level of income inequality is one of the variables that reflects a measure of equal distribution of welfare whether it is generally accepted or only enjoyed by some people. High economic growth does not necessarily guarantee the welfare of all levels of society (Dewi, & Sutrisna, 2014). The results of high economic growth may only be enjoyed by a certain minority of people.

In Indonesia, there are more or less three main challenges in economic development. Of the three problems, including poverty, economic inequality, and unemployment, whose numbers have increased. Until now, the development carried out in various sectors has not been able to overcome poverty in Indonesia.

The development carried out in each sector is also still uneven and has not fulfilled the needs of the community (Andani, (2016). It can be seen that until now the problem of inequality in income distribution has not been handled properly. This problem is a consideration for how the government makes decisions with policies that defend people.

Government Regulation Number 63 of 2019 concerning Government Investment article 1 paragraph 1 states that Government Investment is the placement of a number of funds and/or financial assets in the long term for investment in the form of shares, debt securities, and/or direct investment in order to obtain economic, social, and or other benefits. Whereas Article 39 paragraph 1 reads Direct investment in the form of providing loans as referred to in Article t letter a can be used for: a. Development in infrastructure and other fields; and/other, point b. Financing/funding facilities. And for Article 54 paragraph 1 point a states that saving the national economy; and/or point b. implementation of urgent Government programs. The State Revenue and Expenditure Budget (APBN) is used by the Government to realize National development goals. So that the APBN can have an impact on economic growth and maintain the stability of the country's economy. Specifically, the purpose of preparing the APBN is to serve as a guideline for state revenues and expenditures in carrying out state tasks to increase economic growth, employment opportunities, productivity and people's prosperity.

One of the provinces that has a high population density is Central Java. The province has a population of 37,032. 410 people in 2022. A large population is an important capital in contributing to development in the region.
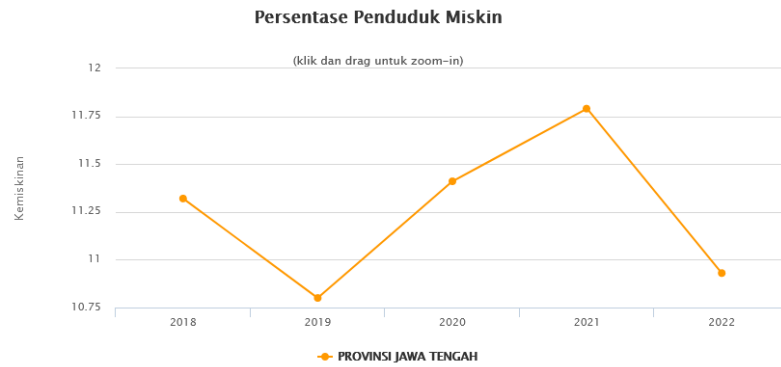
Figure 1. Poor residents

The poverty rate in 2022 will drop dramatically, thanks to the active role of local governments in suppressing the inflation rate and increasing investment in the regions. The inflation rate in 2023 is 0.22. This is a challenge for local governments to maintain and increase economic growth which continues to develop.

Figure 2. IPM

In Figure 2 it can be seen that the HDI has increased from year to year, which is a good indicator for economic growth in general. IPM plays an important role in the development of human resources and the transfer of increasingly advanced technology.

Tabel. 1 Investasi di Prov. Jawa Tengah

Investasi (Juta Rp)		
2019	2020	2021
2723240.20	1363635.00	1820243.90

Likewise with investments that have a tendency to rise. A good investment will provide many and abundant employment opportunities. Labor requires expertise that is skilled enough to keep up with technology from outside. Investment from abroad will boost the ability for stable economic growth.

Based on the description above, the researcher asks research questions, namely, 1), is there an effect of the human development index on economic

growth?, 2), is there an effect of investment on economic growth? and 3) is there any influence of human development index and investment on economic growth?. While the research objectives are 1), to determine the effect of the human development index on economic growth, 2), to determine the effect of investment on economic growth and 3) to determine the effect of the human development index and investment on economic growth.

THEORETICAL REVIEW
Human development index
According to the Central Bureau of Statistics for the 2020 period, the Human Development Index (IPM) suggests how residents can access development results for income, health, education, and so on. The Human Development Index was introduced by the United Nations Development Program (UNDP) in 1990 and is published in the annual Human Development Report (HDR).
The Human Development Index (IPM) is formed by 3 (three) basic dimensions:
a. Longevity and healthy life.
b. Knowledge
c. Decent standard of living.
According to the Central Bureau of Statistics for the 2020 period, the benefits of the Human Development Index (IPM) are as follows:
i. The human development index is an important indicator in measuring success in efforts to build the quality of human life (community/population).
ii. The human development index can determine the rank or level of development of a region/country.
iii. For Indonesia, the human development index is strategic data because apart from being a measure of government performance, the human development index is also used as one of the allocations for determining the General Allocation Fund (DAU).
The Human Development Index (IPM) is commonly used to determine whether a country is a developed, developing or underdeveloped country and also to measure economic policy towards quality of life. According to Amartya Sen (2019, p. 241) said that hunger occurs not because of a lack of food but due to the uneven development of the distribution of food.
The formula for calculating the Human Development Index (IPM) according to the Central Statistics Agency (BPS) for 2020 is that the Human Development Index (IPM) has 3 dimensions which are used as the basis for calculations, namely longevity and healthy life as measured by life expectancy at birth. Knowledge calculated from the school's expectation rate and the average length of schooling. And standardization of decent living which is calculated from GDP / GRDP (balanced spending ability) per capita.

Investation investment
Through investment in education, it is hoped that all elements of society can receive education so that they have the potential to get out of the poverty trap through working/not being unemployed. It is stated that more or less the same thing, namely micro-investment has a significant effect on reducing

income inequality. Through pro-production micro government regulations, it is expected that government regulations are required to regulate the ease of investment at the micro level.

Investment decisions consider two things, namely portfolio and profitability (profit). Portfolios can be interpreted as buying shares with price momentum at the same time ignoring the principle of supply and demand which is actually already known in financial behavior as hard behavior (simultaneous behavior). In deciding to invest, investors are influenced by behavior. It is said to be a behavior due to the psychological factors involved in it.

Economic growth

Experts argue that an economic increase is considered as an increase in the output of goods or services at a certain time. Economic improvement can be assumed as an increase in the ability to produce goods or services at the national level.

Economic growth can reduce poverty by opening up many jobs and creating a skilled workforce. Economic growth can be matched by social development programs. It is said that the goal of calculating economic growth is calculated in a year. Annual economic growth can be measured using the following formula:

$$g = \frac{(PDBs - PDBk)}{(PDBk)} x100\%$$

Information:
g = level of economic growth
PDBs = real GDP for the current year
GDPk = Real GDP last year

Economic growth is an activity in the economy that results in products and service costs made in society increasing and increasing people's welfare. The problem of economic growth is part of the long-term macroeconomic problems. From one period to another, the ability of a country to produce goods and services continues to increase. This increased ability is due to the existence of production factors which are ensured to always increase in the quantity and quality of the product. On the other hand, the workforce has experienced an increase due to an increase in population, and work experience as well as being educated can have skills.

Economic growth is a series of activities to increase the ability to produce goods in a country, the ability to prepare goods and services for the wider community. High and sustainable economic growth is the main condition or a must for sustainable economic development and increased prosperity. If the population volume increases every year, automatically the daily consumption needs will increase every year, so an increase in income is needed every year. Viewed from the demand side (consumption) and the supply side, population growth also requires growth in employment opportunities (source of income). Tambunan, T. T., & Purwoko, B. (2002), argue that economic growth must be accompanied

by good employment opportunities, otherwise there will be inequality of additional income (ceteris paribus), which is called the condition of economic growth and is accompanied by an increase in poverty.

METHODOLOGY

In this research, what is meant by population i is all research variable data i.e. all research variable data related to Investation, IPM, and economic growth in Central Java

The sampling technique used by the author is non-probability sampling. According to Sugiyono (2010, hlm. 120) non-probability sampling is i.an technique of sampling which gives the same opportunity/opportunity for each element or member of population to be selected. This sampling technique includes, systematic sampling, quota , accidental, purposive, saturated, snowball sampling The non-probability sampling technique used in this sampling technique is this purposive sampling technique.

Meanwhile, the sample used in this research is data (time series) for 5 years in 65 areas of the central Java province. Thus, the number of samples used in this research is 30 samples.

The data that is used in this research, if viewed from its nature, it is quantitative data, that is, data that is in the form of numbers and can be measured. The National Bureau of Statistics used in this research is secondary data, namely data in the form of reports that have been compiled and published by relevant parties, namely from BPS, BI, NaSppeda, central Java in various editions as well as various other relevant sources such as journals, dissertations, internet, my mother and the results of other research related to the research carried out.

Related to this research, the research variables are classified as follows: Provide a clear and shortened version of your methods in conducting the research, the population and sample, and means of data analysis.

Related to this research, the research variables are classified as follows:

1)   Variable Independent . The independent variables in this research are Investation (X1), IPM (X2).

2)   Variable Dependent. The dependent variable in this research is Economic Growth (Y)
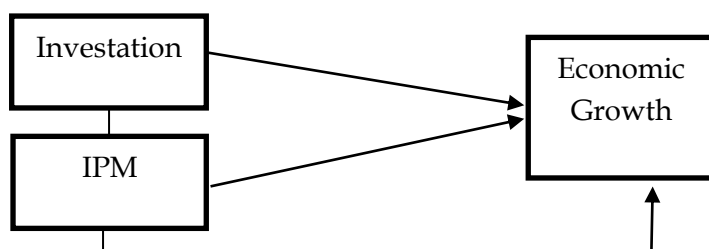

Figure 3. Conceptual Frame

In this study, the data were processed with SPSS 22. The classical test was carried out with normality, heteroscedasticity and Multinieritas tests. After that, several hypothesis tests were carried out such as :

a) Coefficient of Determination Test (R^2). The coefficient of determination (R^2) is basically to find out how much influence the independent variable (X) has on the dependent variable (Y). The value of R^2 ranges from 0 to 1, if R^2 = 0 means that there is no relationship between the independent variable and the dependent variable, if R^2 = 1 means that the independent variable has a perfect relationship to the dependent variable.

b) F Statistical Test. The F statistical test basically shows whether there is a joint influence between the dependent variable (Y) and the independent variable (X),. After that, do the t-test.

c) The t-test basically shows whether there is a significant partial effect between the dependent variable (Y) and the independent variable (X).

RESULTS

Data processing was carried out after data on investment variables, HDI and economic growth were taken from the national statistics bureau data from 2017 to 2021.

The results of the normality and multilinearity of the data are as follows: Regression requirements are good if the research data follows a normal distribution. Based on the normality test of the data, the hypothesis test which states that the distribution of the data in this regression analysis follows the normal distribution. This is indicated by all the Asymp values. Sig. > 0.05. This means that all data are normally distributed.

Table 1. Model Summary

Model R	R Squred	Adjusted R Square	Std.Error of The estimate
0,639	0,541	0,439	8,261

Based on the Anova table, the sig. of 0.000, which means the independent variable has an effect on the dependent variable. There is an influence of 54% of the variables X1 and X2 on Y.

Table 1. Model Summary

Model	B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
Constant	7.218	3.013		2.127	.006
X1 Investation	.119	0.74	-919	-1.616	.104
X2 IPM	.017	0.47	.042	.356	.722

From the table above, the Sig values for variables X1, X2, X3 each amount to, 0.001,0.007, 0.001 < 0.005, which means that all independent variables affect variable Y. The variables of SMEs, Infrastructure and Cooperatives each have an effect on economic growth.

DISCUSSION

Investment is one of the drivers of a new industry. The investment will increase production capacity or open new production centers (Suprapto, et al, 2022). Massive production movements will add new workers, so that better income is expected (Susanto, 2013). Increased production will increase the number of workers' income.

The government is currently promoting investment on a medium to long scale. Long-term investments such as infrastructure development. Investments made by the regional government of Central Java vary widely. Investment in the Kendal industrial area is the right step to provide long and medium term investment. Investments should also support entrepreneurship in young people (Vernia, & Widiyarto, 2023)

The Industrial Area in Kendal is the largest Industrial area (Sadewo, & Buchori, 2018). Various manufacturing industries are developed and have good future prospects. It has been recorded that various industries have been developed in Kendal, such as the beverage industry, the tobacco processing industry, the textile industry, the apparel industry, the wood industry, the printing industry, the furniture industry, and other processing industries. The increase in HDI is the result of investment (Pambudy, & Syairozi, 2019). A good HDI in Central Java can be a good indicator for economic growth.

CONCLUSIONS AND RECOMMENDATIONS

This study emphasizes the importance of investment and HDI for economic growth in Central Java. There is an effect of investment on economic growth, there is an effect of HDI on economic growth and there is an effect of investment and HDI on economic growth. These results can be the basis for further research..

ACKNOWLEDGMENT

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