ANALYZING THE EFFECT OF INVESTMENT, WORKFORCE, HUMAN DEVELOPMENT INDEX, AND GOVERNMENT EXPENDITURES IN THE ECONOMIC GROWTH OF EAST JAVA PROVINCE

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ABSTRACT

This research aims to determine whether investment, labor, Human Development Index and government expenditures influence economic growth in East Java. Hence, the results of this research can determine whether these variables have significant influence or not. This research contains investment, labor, Human Development Index, and government expenditures influence economic growth in East Java Province. Secondary data and from several sources such as the Central Bureau of Statistics, Directorate General of Fiscal Balance are the data used in this research. Also, this research uses quantitative research because it uses data in the form of numbers and uses tools to analyze information. The tool used Eviews 9. This research used data as much as five years, starting from 2012 to 2016. Dependent variable (Y) in this research is economic growth, while the independent variables in this research are investment, labor, Human Development Index, and government expenditures. The results of this research indicate that investment and labor do not have a significant effect on the economic growth in East Java Province. Meanwhile, the Human Development Index and government expenditures influence East Java economic growth.

Keywords: economic growth, investment, labor, Human Development Index, government expenditures
INTRODUCTION

Development is a multidimensional process which involves physical reality and the level of the mindset that people have through a combination of social, economic and national institutions, including accelerating economic growth, reducing inequality and eliminating absolute poverty (Todaro, 2000). Arsyad (2011) says economic development is a long term effort to increase real income per capita and it is also followed by improvement in the institution’s system. The primary objective is to create community welfare that can be seen from the increase of economic growth and the even income distribution. In short, the indicators of economic development are economic growth, equity, and poverty.

The rate of economic growth can be seen by comparing income (GRDP) in certain years which is calculated based on current prices or constant prices. Constant prices serve as a benchmark because calculations are used based on the same price from year to year. Thus, using constant prices can show changes in income which are only based on a change in the level of economic activity. An economy is changing if the changes are more significant than in the previous year. 2015 was a tough year for the global and domestic economy. The economic rate slowdown that occurred in 2013 to 2014 had happened again in 2015. The slowdown occurred because there was a policy of fuel prices adjustment in 2013 and 2014, consequently making the Indonesian economy fluctuating, rising inflation. Furthermore, the situation also affected the domestic economy including East Java province at both the provincial, district and city levels. The national economy in 2015 reached 4.79 percent. The number was slowed if compared to 2014, which was 5.02 percent. Whereas in growth, East Java declined from 5.86 percent in 2014 to 5.44 percent in 2015 (BPS, 2015). However, in 2016, the East Java economy showed improvement. In East Java, the growth and contribution rate of each district/city had differences as seen in Figure 1.1.
Figure 1.1 shows that East Java economic growth in 2016 experienced an increase after years of rising inflation. East Java grew from 5.51% to 5.57%; it was above the average national economic growth. East Java Province is also one of the biggest contributors to economic growth. East Java Province is second only to DKI Jakarta.

From the explanation above, the researcher is interested in identifying the impact of investment, workforce, human development index, and government expenditures to Economic Growth in East Java Province. Thus, the author conducted a study entitled ‘Analyzing The Effect Of Investment, Workforce, Human Development Index, and Government Expenditures In The Economic Growth of East Java Province’

**LITERATURE REVIEW**

**Economic Growth**

Economic growth is a change in the level of economic activity that lasts from year to year. Economic growth number is obtained by comparing national income from the determined year and calculated based on constant prices and prevailing prices. Changes that occur in national income values can only be caused by changes in the...
level of economic activity. Economic growth is a long term process of increasing output per capita (Boediono, 1991). The existence of economic growth is closely related to the increase in per capita output numbers. Two important sides need to be considered in the per capita output, namely the total output and the total population. Therefore, what is called per capita output is the total output divided by the total population. Another aspect of defining economic growth is to look at the long-term perspective. The increase in per capita output throughout one or two years, which is then followed by the reduction of per capita output cannot describe economic growth.

**Investment**

Investment plays a vital role in driving the nation’s economic life, because the formation of capital increases production capacity, raises national income and creates new jobs. Therefore it will further expand employment opportunities. Investment can also be interpreted as spending or shopping for investors or companies to buy capital goods and equipment to increase their ability to produce goods and services available in the economy matters. The pursuit of growth is a fundamental problem in the economic sector of all countries in the world today. The success of development programs is often assessed based on the high level of growth in output, and national income, even the good and bad quality of government policies and the quality of its apparatus in the overall economic field are usually measured based on the speed of national output growth.

**Workforce**

The general definition of workforce is stated in the Workforce Law No. 13 of 2003, namely, everyone who is capable of doing work both inside and outside the employment relationship to produce services or goods to meet their own needs or the community. The working age population according to the Central Bureau of Statistics (BPS, 2009), as suggested by ILO (International Workforce Organization), is residents aged 15 years and above. Furthermore, they are grouped into the workforce and not the workforce. The workforce division is based on workforce force groups and not the workforce. The groups which included in the workforce is (1) working class, (2) unemployed and job seeker.
**Human Development Index**

Human development is one indicator of the creation of development that can drive economic growth. The United Nations Development Program (UNDP) introduces the concept of quality of human capital which is named the Human Development Index (HDI). HDI is beneficial to measure the quality of human capital. The high level of human development greatly determines the ability of the population to absorb and manage sources of economic growth, both concerning technology and institutions as an essential means of achieving economic growth. Besides that, the HDI explained that workforce is a factor that affects economic growth. The role of the workforce is one of the factors of production that will affect the level of national income in quantity terms.

**Government Expenditures**

Government expenditure is part of the fiscal policy (Sukirno, 2004), which is a government action to regulate the economy by determining the number of government revenues and expenditures each year, which is reflected in the APBN documents for national and regional/regional budgets. Fiscal policy purposes are to stabilize prices, output levels, and employment opportunities and spur economic growth. This research is more focused on the effect of allocation of Government Expenditures on economic growth which in this case is GRDP and the Implications for Local Revenue. Government expenditures have a stronger relationship with GRDP or economic growth because development from this expenditure will reproduce products that are essential to improve economic growth. Economic growth is a process of growth in economic activity that causes an increase in GDP due to an increase in output in aggregate.

**Hypotheses**

1. The investment in 38 districts/cities in East Java Province in 2012-2016 allegedly has a positive or significant effect on economic growth in East Java Province.
2. The number of workers in 38 regencies/cities in East Java Province in 2012-2016 allegedly has a positive or significant effect on economic growth in East Java Province.

3. Human Development Index in 38 districts/cities in East Java Province in 2012-2016 allegedly has a positive or significant effect on economic growth in East Java Province.

4. Allegedly Government Expenditures in 38 districts/cities in East Java Province in 2012-2016 have a positive or significant effect on economic growth in East Java Province.

**RESEARCH METHODOLOGY**

In this research, the writer employs quantitative descriptive approach. The purpose of the quantitative descriptive approach is to emphasize the form of calculations in the formulation and focuses on testing the hypothesis. The area that was the object of this research was Gross Domestic Product (GRDP) in 38 districts/cities of East Java Province with observations from 2012 to 2016. There are thirty-eight of these districts/cities were chosen as research objects based on the location and data available. In this research, the type of data used is quantitative data and data sources are based on secondary data. Secondary data used in this research is panel data, which is data derived from a combination of periodic data series (time series) and latitude data (cross-section). Secondary data used are: Jatim BPS 2012-2016.

**Research Variable**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Operational Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDRP</td>
<td>Gross Domestic Regional Product in East Java Province from year 2012 until 2016</td>
</tr>
<tr>
<td>Investment</td>
<td>Total amount of Investment which is Foreign Investment and Domestic Investment in East Java Province from year 2012 until 2016</td>
</tr>
</tbody>
</table>
Workforce | Total of Workforce that determined by adult population, productivity in East Java Province from year 2012 until 2016
---|---
Human Development Index | Percentage of Human Development Index. HDI is a composite index to measure achievement of the quality of human development to be able to live more quality, both in terms of health, education, and economic aspects. In this study the HDI data unit is in percent. All index numbers are high Human Development, the quality of human development to be able to live will get better. Located in East Java Province from year 2012 until 2016
Government Expenditures | Government Expenditures is an expenditure that must be spent by the government to implement a policy obtained from the budget for regional expenditure to increase the pace of the economy in the year 2012-2016 measured in units of rupiah

**Regression Analysis Model**

In this study, the following models will be used:

\[ Y = \alpha + \beta_1X_1 + \ldots + \beta_iX_i + \mu_i \]

In this research the equation becomes:

\[ \ln \text{Economic Growth} = \alpha + \beta_1 \ln \text{Investment} + \beta_2 \ln \text{TenagaKerja} + \beta_3 \ln \text{IPM} + \beta_4 \ln \text{Government expenditure} + \mu_i \]

Information:

\[ \ln \text{Economic Growth} = \text{Economic Growth of 38 districts/cities in East Java Province} \]

\[ \ln \text{Investment} = \text{Amount of investment in 38 districts/cities in East Java Province} \]

\[ \ln \text{Workforce} = \text{Number of Workers in 38 districts/cities of East Java Province from 2012 - 2016} \]
InHDI = Total Human Development Index in 38 districts/cities of East Java Province from 2012-2016

In Government Expenditures = Government Expenditures of 38 districts/cities in East Java Province from 2012-2016

RESULT AND DISCUSSION

Result of Panel Data Regression

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>83.603058</td>
<td>4</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

From the results above, it shows the chi2 probability of 0.0000 <0.05. It can be concluded that Ho is rejected. The test is not continued until LM testing because the appropriate panel data model is using the Fixed Effect model.

Regression Equations

After going through the two test stages to determine which method is the best, the Fixed method is chosen. Furthermore, the regression equation analysis is performed from the Fixed Effect method itself; this is used to determine the magnitude of the influence between the independent variables (Investments, Workforcers, IPM, Government Spending) on the dependent variable (Inpdrb). The used Fixed Effect is the GLS method. The calculation will be done using Eviews 9 with the following calculation
Based on the regression results above, the equation is obtained as follows:

\[
\text{Economic Growth} = 4.903937 + 0.005422 \text{ Investment} + 0.070623 \text{ Workforce} + 0.034115 \text{ IPM} + 0.206310 \text{ Government Expenditures} + e
\]

The interpretation of the equation above is as follows:

- From the results of the regimen above, a constant value of 4.903937 is obtained, which means that if the four variables are free of investment, workforce, human development index, and government expenditure are stated in zero. Then, Economic Growth will increase by 4.903937 percent.

- From the regression results above, the investment coefficient value is 0.005422, which if the number of investments increases by 1 percent, it will increase Economic Growth in 38 cities/districts of East Java Province by 0.005422 percent.

- From the regression results above, the workforce coefficient value of 0.070623 is obtained, which means, if the number of workers increases by 1 percent, it will increase the Economic Growth of 38 cities in East Java Province by 0.070623 percent.

- From the regression results above, the results of the human development index coefficient are as big as 0.034115 which means, if the human development index increases by 1 percent, it will increase the Economic Growth of 38 cities/districts of East Java Province by 0.034115 percent.
- From the regression results above, the results of the coefficient value of government expenditure are 0.206310 which means that if government spending increases by 1 percent, it will increase the Economic Growth of 38 cities/districts in East Java Province by 0.206310 percent.

**Economic Analysis**

**Effect of Investment on Economic Growth in East Java**

From the estimation results, it can be seen that the variable amount of investment has a positive but not significant impact on economic growth in 38 districts/cities in East Java Province. These conditions indicate the effect of the investment on economic growth in East Java Province does not move in the same direction, means that a decline in economic growth follows the increase in investment and vice versa. Investment spread is not evenly distributed in all districts/cities. Most of the investments made by investors are invested in big cities and only a few districts. For example, the investment rate in Malang City. The investment number invested by investors in Malang is huge compared to Kediri district. The spread of uneven investment causes a slowdown in the rate of economic growth; investing does not affect economic growth. Many investments are also made in the cities of East Java because facilities, infrastructure such as toll roads are also the reason for many investors who invest in East Java. Such situation is one of the reasons why investment does not affect economic growth. The average investment growth is not proportional to the average economic growth. This indicates that small investment figures have not been able to move the economy which can increase economic growth to be higher. In East Java Province, the average rate of investment growth is 3.67 percent, while the economic growth of East Java has an average rate of 9.87 percent. The small amount of investment is not able to lift East Java’s economic growth.

**The Influence of Workforce on Economic Growth in East Java**

From the estimation results, it can be seen that the variable number of workers has a positive but not significant impact on economic growth in 38 districts/cities in East Java Province. These conditions indicate the effect of workforce on economic growth in East Java Province is not moving in the same direction, means the increase in the number of workers followed by a decline in economic growth, and vice versa.
According to ILO (International Labour Organization), a larger share of the working population of East Java is low-skilled, while the majority of unemployed are junior and senior high school graduates. Low skills development limits the capacity of a worker to be productive. The reasons behind the poorly developed human resources are a lack of access and poor quality education and skills training, and labour market information, as well as a high cost of secondary education that makes it inaccessible to the poorer quintiles of the population.

It can also be seen that the Economic Growth in East Java Province is around 9.87 percent, while the absorption of workforce in East Java Province is only around 5.60 percent. The percentage shows that the small rate of employment is not comparable to Economic Growth. The thing that causes this is that the workforce in East Java Province still has low skills or also the workforce is placed in a place that is not following the education and work skills that exist in each workplace. In general, the employment conditions of the East Java community in August 2017 experienced a slight improvement compared to 2016. The Central Java Provincial Statistics Agency (BPS) noted that in the August 2017 period, the number of workforce force increased by 4.93% compared to August 2016. Likewise with the absorption rate of the workforce has increased by 5.15%, from 19.12 million to 20.10 million. Attention to employment has succeeded in slightly reducing open unemployment by 0.10%, which is from 4.10% to 4.00%.

**Effect of the Human Development Index on Economic Growth in East Java**

The positive and significant relationship is consistent with the hypothesis at the beginning of the research which states that the Human Development Index has a positive and significant relationship to Economic Growth. The existence of a positive and significant relationship between the Human Development Index and Economic Growth can occur due to an increase in the Human Development Index. Development of the Human Development Index in East Java Province has always increased from year to year. The results of the research by Aris Budi Susanto and Lucky Rachmawati (2013) entitled “The Effect of Human Development Index and Inflation on Economic Growth in Lamongan Regency” which shows the results that the Human Development Index has a positive and significant effect on Economic Growth in East Java Province.
The Human Development Index has a close relationship with Economic Growth because of the increase in the Human Development Index encourages most industries so that public consumption increases. Human Development Index is an indicator used to measure the degree of human development, namely life expectancy, literacy rate, per capita expenditure. So, the Human Development Index becomes an essential factor in stimulating the economic growth of East Java Province.

**Effects of Government Expenditures on Economic Growth in East Java.**

This relationship is under the hypothesis at the beginning of the research which states that government expenditures have a positive and significant relationship to economic growth. The existence of a positive and significant relationship between government expenditures and economic growth can occur due to an increase in government expenditures. In the results of Eunike’s research (Eunike, 2012) with the title ‘The Influence of Government Investment and Workforce on Economic Growth in the City of Manado,’ Government expenditure is a very important thing to move the economy of a region. With government spending/capital expenditure in East Java Province, it will overcome the lack of capital/investment in several districts/cities of East Java Province.

Moreover, the higher the Government Expenditures, this will encourage and expedite the process of Economic Growth in East Java Province. In the research of Phany Ineke Putri (2014) in the title ‘The Influence of Investment, Workforce, Capital Expenditures, and Infrastructure on the Economic Growth of Java’ resulted in the composition of capital expenditure in the improvement of public facilities and infrastructure, improvement of education, health facilities, supporting facilities and other. The formation of capital is broadly defined so that it covers all expenditures that are in nature increasing the productivity of East Java Province, which ultimately increases economic growth.

**CONCLUSION**

**Conclusion**

Based on the results of research and data analysis that has been carried out on the factors that influence economic growth of East Java Province, several
conclusions can be taken as a summary of the results of the analysis of this study. Some conclusions obtained from this research are as follows:

1. Amount of Investment and the number of Workforce has an insignificant effect on Economic Growth. This could be because the number of investments in East Java Province is not moving in the same direction. Moreover, for the number of workers, from the results conducted by researchers, if workforce increases, this can also cause much unemployment. Low workforce skills can also be one of the factors that make workforce does not affect economic growth.

2. The Human Development Index value has a significant influence on economic growth. A high Economic Development Index can increase production factors so that if the production factor rises, it will increase the output of 38 regencies/cities in East Java Province.

3. Government expenditure provides significant and positive results on economic growth in East Java Province. With this government expenditure, local governments can reduce public consumption of foreign products, and can also make people create savings for the future.

Suggestions

Based on the analysis that has been conducted, some suggestions can be conveyed including:

1. The government needs to increase foreign investment or domestic investment in East Java Province. If more investment is made in East Java Province it may be able to increase people’s purchasing power which will affect economic growth.

2. The need to improve the quality of the workforce by providing excellent education, then placing workers by their fields. Then, train the skills of the workforce so that they can work under their portions.

3. Although the Human Development Index has been useful and has a positive relationship to the Economic Growth of East Java Province, this must be improved so that the output issued by the community can be better. Local governments must continue to improve basic services both education and health, but also must be
supported by adequate basic infrastructure. For example health problems, cannot be far from the problem of clean water and sanitation. So, actually basic services in the context of education, health and infrastructure are the key areas to improve HDI

4. Government Expenditure Figures have a significant influence on Economic Growth in East Java Province. This figure can be increased again to improve the facilities and infrastructure in East Java Province to make it better. Moreover, it can also make infrastructure even better because the infrastructure has a vital role in Economic Growth in East Java Province. In addition to infrastructure as a facility, it can also support the smooth running of economic activities in the community, distribution of the flow of production of goods and services as an example that the road can facilitate transportation of raw materials to the factory for distribution to markets to the community. In some senses, the term infrastructure includes social infrastructure for basic needs such as including schools and hospitals

BIBLIOGRAPHY


