

# Effects of Investment (PMTB) on Economic Growth and Employment In Papua Province

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**Abstract**—This study is aimed to modify the effects of investment on employment through economic growth at Papua Province. The population of the study was all the subject of the study. Thus, the population in this study was the investment in Papua Province. Due to high number of population, the sample of this study was the economic growth of Papua Province. Verification analysis used in this study was path analysis and Sobel test. The result of the study shows that 1) the investment has significant effects and positive correlation on the economic growth at Papua Province. 2) If the economic growth increases, the employment will also increase. 3) The third hypothesis is rejected and it indicates that the investment does not affect employment through economic growth in Papua Province.

**Keywords**—*effects of investment, economic growth, employment*

## I. INTRODUCTION

Gross investment is an investment to improve the ability to produce goods and services, and investment in purchasing capital goods which experienced a decrease in price. Those included in gross investment is the purchase of capital goods, such as land, industrial machinery, vehicles, building factories, housing and offices, to increase and expand production. Purchase of materials and supplies of unsold goods are also included.[1]

The Central Statistics Agency (BPS) reported national economic growth in the first quarter in 2016 reached 4.92 percent (year on year). This figure is higher than economic growth in the first quarter of 2015, which is 4.73 percent. Economic growth in the first quarter is still affected by various conditions in the global market. BKPM (Investment Coordinating Board), up to the third quarter of 2015. The total realization of investment entering Indonesia is amounted to Rp. 400 trillion, or increases by 16.7 percent, compared to the third quarter of 2014. This value is only 77 percent of the 2015's investment target value. The recently incoming investment has a positive impact on employment in the fourth quarter of 2015. The influx of domestic and foreign investment has given a positive impact in employment, reaching up to 740,000 people.[2]

Economic growth of a region is calculated based on the growth of GRDP at Constant Prices (ADHK). As what is calculated here is the growth caused by real changes in production, minus the effects of price changes. The more the economic activities done, the higher the economic growth will be, or vice versa.

Papua's economy in 2015 had increased, in comparison with the previous year's growth. The growth rate of Papua Province's GRDP in 2014 reached 3.81 percent, while in 2015, it was 7.97 percent. The economic growth in 2013 was 8.55 percent, while in 2012, it was 1.72 percent. And in 2011, it contracted by -4.28 percent.[3]

The increase in the economic growth of Papua Province is certainly inseparable from the role of investment in the region. Investment by Domestic Investors (PMDN) and Foreign Investors (PMA) in Papua Province, both from the investment realization value and the investment percentage rate occurred is shown in Table 1.1.

From table 1.1 above, it can be seen that, in general, investment in Papua Province in 2011 was amounted to 9984.81. In 2012 it rose to 28882.22. In 2013, it rose to 30778.25. Meanwhile, in 2014, it rose to 33171.67, and in 2015, it rose to 35530.18.

Judging at the condition of regencies in Papua Province, the increasing capital played an important role in improving the economy; therefore, the government needs to seek to improve the economy via fund raising or investment.

In addition to investment, one of the factors affecting the economic growth is human resources. The increasing population over time can be either the driver or inhibitor of economic growth. Increasing population will magnify the number of workers, and such addition allows an area to improve its production. However, on the other hand, the population increase which does not come into balance with employment opportunities will cause an economic growth

incompatible with the improving welfare, as shown by Table 1.

Table 1. Workforce at Papua Province (2011-2015)

Year	Workforce in the Year (2011-2016)
2011	1,536,728
2012	1,585,434
2013	1,688,876
2014	1,675,113
2015	1,741,945

Source: BPS of Papua Province, 2011 – 2015

Table 1 shows that the number of people working in 2011-2015 fluctuated. It is proven by the number of employed people in 2011, amounted to 1,536,728 workforces. In 2012, there were 1,585,434 people employed. In 2013, the number of employed people was 1,688,876. In 2014, the number of employed people decreased by 1,675,113 people, and in 2015, it rose to 1,741,945 people.[4]

**Formulation of the Problems**

From the problems above, the author can formulate problems as follows:

1. Does investment (PMTDB) affect economic growth in Papua Province?
2. Does investment (PMTDB) affect employment in Papua Province?
3. Does investment (PMTDB) affect employment through economic growth in Papua Province?

**Research Objectives**

The objectives of this research are:

1. To determine the effects of investment (PMTDB) on economic growth in Papua Province.
2. To find out the effects of investment (PMTDB) on employment in Papua Province.

To determine the effects of investment (PMTDB) on employment through economic growth in Papua Province..

**II. RESEARCH METHODS**

**A. Research Site**

The present research was conducted in Papua Province.

**B. Data Collection Method**

The data collection was conducted by researchers using secondary data from BPS, government agencies, journal literature studies and other research data. The data used included time series secondary data, in the form of Investment Data (PMTDB), Economic Growth, and Employment.[5]

**III. RESEARCH RESULTS**

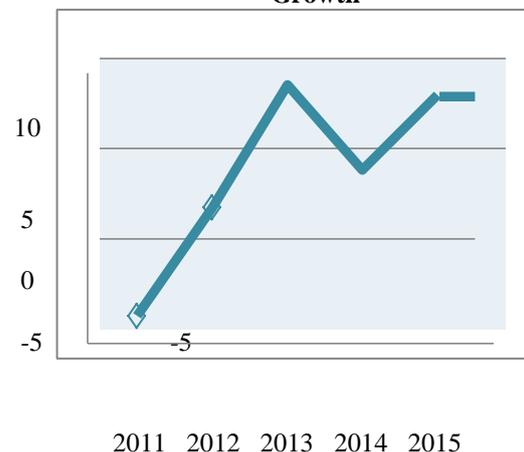
**A. Results**

**1) Economic Growth**

Regional economic growth is closely related to an increased production of goods and services, as measured by the amount of the Gross Regional Domestic Product (GRDP). Economic growth itself is a process of increasing regional income per capita in the long run. The objectives of national and area/ region of economic development are: (1) creating employment opportunities for the community; (2) achieving national/ regional economic stability; and (3) building diverse economic bases and opportunities. Economic growth is a long-term economic problem of a country. Economic growth measures the achievement of the economic development from one period to another. From one period to another, a country's ability to produce goods and services will increase due to production factors which constantly undergo an increase in its number and quality.

One of the development problems encountered by Indonesia, including Papua Province, is unemployment problem. To find out the extent to which the economic growth in Papua Province can provide employment, in an effort for reducing unemployment, it is necessary to do analysis based on the growth of workforce in each sector. The fact faced to this day shows that the high rate of economic growth does not always guarantee a high rate of employment, in the sense that despite the increasing economic growth in the Papua Province, there are no effects on the employment in that province.

**Figure 1.1. Rate of Economic Growth of Papua Province in 2011-2015 (Percentage) Rate of Economic Growth**



Source: BPS of Meruke Regency, 2011-2015 Rate of Economic Growth

**2) Investment**

The investment commonly called investment or capital establishment can be interpreted as spending or expenditure for investment, or where a company buys capital goods and production tools to improve the abilities to produce goods and services available in the economy. Regional investment

pattern serves as capital maker for regional development to achieve many development goals of government investment pattern. The investment taken should be aimed for productive use or those capable of improving the output. The economic development of the Papua Province is inseparable from the investment role of Papua Province, where the investment fluctuated during the period 2011-2015.

Table 2. Total Investments in Papua Province in 2011-2015

Year	Gross Fixed Capital Formation
2011	9984,81
2012	28882,22
2013	30778,25
2014	33171,67
2015	35530,18

Source: BPS of Papua Province, 2011-2015

### 3) Workforce

Workforce is a population of working age, those aged between 15-64 years old. Population in this working age can be classified into two: workforce and non-workforce. In brief, the workforce consists of workforce and non-workforce.

What is meant by the workforce is a part of the workforce involved or is still trying to engage in productive activities that produce goods and services. Workforce is the citizens who have not been employed, but is ready to work or is looking for a job at the prevailing wage rate. The work rate comprises a working group, the unemployed and job seekers. And what meant by non-workforce are those who are still in school, housewives, and other groups or recipients of income. If what is used as a workforce calculation unit is a person, then it is considered that everyone here has the same work ability and productivity, and the duration of work is considered the same. The use of labor can only be embodied if there are two basic elements available: First is the presence of considerable employment opportunities, the productive ones and good reward. Second is workforce with high ability and morale.

Table3. Workforce at Papua Province (2011-2015)

Year	Workforce (in the year 2011-2015)
2011	1,536,728
2012	1,585,434
2013	1,688,876
2014	1,675,113
2015	1,741,945

Source: BPS of Papua Province, 2011-2015

## B. Discussion

### 1) Effects of Investment (PMTDB) on Economic Growth in Papua Province

Based on the results of the research conducted, the path coefficient value of Investment on Economic Growth is 0.399 or 39%. Coefficient value is positively marked, showing that what happens between investment and economic growth variables is in the same direction. It means that if there is an increase in investment, it will also be followed by an increase in economic growth. From the result of the coefficient of determination, it is shown that investment has a significant and positive effect on economic growth with an effect of 0.607% or 60.7%. Meanwhile, the remaining 39.3% is affected by other uninvestigated factors, but are it is believed to have contributed to the economic growth.

It is supported by the theory proposed [6], investment plays an important role in driving the nation's economic life, as capital establishment will increase the production capacity, increase national income and create new jobs; and in this case, it will further expand employment.[6]

This research is also supported by [7]Total investment, which is seen from the total number of foreign and domestic investment in five districts/ cities in Special Region of Yogyakarta in 2007-2013, has a positive and significant impact on economic growth there. The increasing number of investment will lead to increasing economic growth in in Special Region of Yogyakarta.

### 2) The Effects of Economic Growth on Employment in Papua Province

Based on the results of the research conducted, the path coefficient value of economic growth on employment is 0.49 or 49%. Coefficient value is positively marked, showing that what happens between economic growth and employment variables is in the same direction. It means that if there is an increase in economic growth, it will also be followed by an increase in employment. From the result of the coefficient of determination, it is shown that economic growth has a significant and positive effect on economic growth with an effect of 0.925% or 92.5%. Meanwhile, the remaining 7.5% is affected by other uninvestigated factors, but are it is believed to have contributed to the economic growth. It is supported by the theory proposed by Pressman (2000), economic growth can run due to the mechanization process and workforce division. Then, the division of labor will make work productivity increase. This research is also supported [8], who concluded that economic growth and employment are closely related.

### 3) Effects of Investment (PMTDB) on Employment through Economic Growth

Based on the results of the research conducted, the path coefficient value of investment on employment is 1.9%. Coefficient value is positively marked, showing that what happens between economic growth and employment

variables is in the same direction. It means that if there is an increase in investment, it will also be followed by an increase in employment. The t-table calculation is smaller than t-count, so it can be seen that the rejected hypothesis means that investment has no effect on employment through economic growth in Papua Province. It is due to the impact of the global economic crisis in 2015, decreasing the investment Papua Province into USD 831.4 (34%).

#### IV. CONCLUSION

Based on the analysis of the results, and discussion of the effects of investment, economic growth, employment, and the welfare of the community in Papua Province, the conclusions made are shown below:

1. Investment (PMTDB) has significant and positive relationship to economic growth in Papua Province. These results indicate that the increase in investment has led to an increase in economic growth in Papua Province.
2. Economic Growth on Employment in Papua Province is positively marked, showing that what happens between the variables of economic growth and employment is in the same direction. It means that if there is an increase in economic growth, it will also be followed by an increase in employment.

#### ACKNOWLEDGMENT

We thank Universitas Musamus for facilities, supports, and publications.

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