

Analysis of Economic Growth Determination and Investment Needs in North Lombok

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History Article

Received: January 14, 2018
Accepted: March 18, 2018
Published: April 1, 2018

Keywords: Economic growth;
investment; GDP

JEL Codes: R11, R53

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Abstract

The purpose of this research aiming at (1) analyzing how big influence of labor, private investment and government expenditure (capital expenditure) to the economic growth of North Lombok Regency, and (2) understanding the amount of Investment need to achieve economic growth in North Lombok Regency. This research undergo a quantitative approach by using time series data source during 2009-2016 from Bureau Central of Statistics (BPS) and documents sourced from both the local government of North Lombok Regency and various publication papers. The analysis technique used in this research is Multiple Linear Regression and Incremental Capital Output Ratio (ICOR) Analysis. The findings indicate that, partially, variable of investment and government expenditure did not significantly affect to the economic growth. While labor have a positive relationship and significantly to the economic growth of North Lombok Regency. Simultaneously, Investment, capital expenditure and workforce amount have a significant effect to GDP growth.

How to Cite:

Sucipto, B., Hailuddin., & Harsono, I. (2018). Analysis of Economic Growth Determination and Investment Need in North Lombok. *Quantitative Economic Research*, 1(1), 25-31.

INTRODUCTION

Economy growth is a continuous changing of an economic condition in a certain local area toward a better state in a certain period of time. The economic growth can be described as a rise in the process of economic production capacity in the form of regional income raise. This growth has function as an indicator of a successful economy development. The development is basically a realization of providing social services undergo the government to achieve society's needs. Therefore, effort in fulfilling society's needs should become the main consideration in conducting development activities.

According to Sukirno (2013), the growth and economic development have different definition. Economy growth is a raising process of per capita output continuously in a long run which is and indicators of development success. On the other hand, economic development is an effort to increase income per capita by cultivating potential economic power to become real economy through capital investment, technology use, knowledge replenishment, skill escalation, and also expansion in the ability to deal with organization and management.

Economy development is a motivation for developing countries as the economy sector functions as the activator for other activities in other sectors so that it is expected that economic development can lead to a better condition for the sake of prosperity escalation. This idea is in line with what is stated by Siagian (2012), that the primary backwardness faced by developing countries is in the economic

sector. Therefore, it is said that economic development gains the most attention because of the history demand.

The direction of the economic development is to improve the citizens' standard of living which is measured by the real income per capita in a country in a long-term accompanied by refinement of organization system (Arsyad, 2010). Thus, development should be seen as an attempt for prosperity refinement through income and productivity enhancement in the society. According to Sjafrizal (2008), the process of development is not only determined by economy aspect, but the economic growth also play a vital element in the process of national and regional development in Indonesia. The region here mean provinces, regencies, and municipalities. Regional development should be adjusted with the availability of potentials and sources also the society aspirations which is grow and develop in the related regions. If the priority of regional development is not suitable with the provided potential, the usage of the sources will not be optimal. Moreover, the realisation of regional authority is expected to give positive effect to the society.

In fact, the regional development has focused on economic growth in terms of increasing the productivity of goods and service measured by gross regional domestic product (PDRB). Economy growth is one of the benchmarks which can be used to view the regional development from various economy sectors which indirectly depicts the level of the economic growth. During 2009 to 2016, the scale of PDRB growth in North Lombok had increased each year. The amount of PDRB in North Lombok regency in 2009 was IDR 2.2 trillion and increased to IDR 3,1 trillion in 2016. This means that North Lombok Regency increased approximately 27.3 percent during 2009 to 2016 with the growth rate of 5 percent in 2016 or with the average growth rate during that period about 4.6 percent. This progress of PDRB reflected a real economic development in North Lombok regency during the period.

In general, the economic improvement in North Lombok is supported by several sectors namely agriculture, fishing, and forestry sectors in which those sectors present has the highest contribution in economy compared to other sectors. By approximately 67 percent of the citizens earn their living from the agriculture sector. While another sector which expected to accelerate regional development and increase regional income is tourism sector. This segment is well-reinforced by the potential sources in North Lombok. From human resources perspectives, North Lombok is inhabited by approximately 214,393 citizens in 2016 with productive rate of citizen was about 149,806 people or around 69.87 percent of the total inhabitants of North Lombok. Meanwhile, the amount of unemployment in 2016 was 5.42 percent of the total labor force.

The capital resources owned by North Lombok can be seen from the amount of investment such as private domestic investment (PMDN) and foreign private investment (PMA). The amount of private investment during the period of 2009 - 2016 was IDR 5.6 trillion with details on PMDN investment was as much as IDR 997.7 billion and PMA investment was more than IDR 4.6 trillion with tourism sector as the dominant sector. The number of accomplished projects up to 2016 was about 998 with details on PMDN projects were as many as 69 and PMA projects were as many as 929. In terms of employment rate, PMDN projects sheltered 439 workers and PMA projects accommodated 5,464 workers. The investment is realized by the great amount of capital expenditure budget. In eight years between 2009 to 2016, the amount of capital expenditure budget was more than 1.3 trillion IDR with the most budget went to expenditure on roadwork, irrigation, and network.

There are several numbers studies related to economics growth along with the affecting factors (Rizky et al., 2016; Bado, 2016; Hasna, 2015; Daud, 2015; Putri,

2014; Riani et al., 2014; Nazmi et al., 1997). More Specifically, Hasna (2015) revealed that Labor-force, Investment, realizations of PMA and PMDN has a positive and significant influence towards the economics growth. Furthermore, Daud (2015) showed that the value added of the regional industry and government spending significantly affect the regional Economic growth, meanwhile local population density has no significant effect on the regional Economic Growth.

Another result by Putri (2014), undertook a study on the effects of Investment, Labor-force, Capital Expenditure, Infrastructures on Economic Growth in Java Island. The result of this study depicted that there is significant effect on Economic Growth in Java Island, whilst the non-asphalt roads have positive but insignificant effect. Nazmi et al. (1997) showed that variables of Labor-force and private-investment have positively significantly correlated to the Economic Growth. While in terms of government expenditures, it remains have positive effect but insignificant to the Economic Growth.

Investment by private PMDN, PMA, and government during the period of 2009 - 2016 was more than IDR 6.9 trillion with 81 percent for the private parties and 19 percent for the government. It can be seen that investment the private parties was higher than the government's. It means that government's allotment through investment to support the economic growth was insignificant. To attain an excellent economy growth, development acceleration is needed through the optimization of local potential sources and supporting investment becomes and absolute necessity so that the target for economic growth on the medium-term regional development plan in 2016-2021 by approximately 6 percent can be successfully obtained. Thus, the prosperity for North Lombok inhabitants can also become reality. From the aforementioned background and explanation, the writer formulates the problems as the following: 1) How does the influence of labor, private investment, and capital expenditure on the North Lombok's economic growth? 2) How much investment is required to reach the economic growth of North Lombok?

METHOD

The data used consist of quantitative data - time series data, qualitative data - number descriptions, and data which is research object-related. Data were collected through documentation and literature studies sourced from the secondary. These data were obtained from the institution (The official research object) in forms both quantitative and written documents.

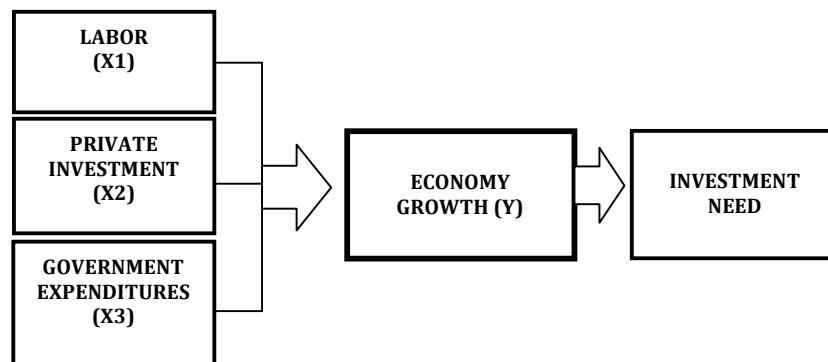


Figure 1. Conceptual framework

Multiple Linear regression analysis was used in analyzing the closeness of the relationship and the extent to which the influence of investment, government

expenditure, labor-force positively affects on economic growth in North Lombok regency. Meanwhile, Incremental Capital Output Ratio (ICOR) was used in analyzing the amount of investment requirement to achieve economic growth of North Lombok Regency.

The Big influence of Labor, Private Investment and Government Expenditure (Capital Expenditure) to Economic Growth of Regency of North Lombok

To analyze how big influence of labor, private investment and government expenditure (capital expenditure) to economic growth of North Lombok Regency, the formula is:

$$\begin{aligned}
 Y &= f(X_1, X_2, X_3) \dots\dots\dots & 1 \\
 Y &= \beta_0 \cdot X_1^{\beta_1} \cdot X_2^{\beta_2} \cdot X_3^{\beta_3} \cdot \mu^e \dots\dots\dots & 2 \\
 \text{Ln}Y &= \beta_0 + \beta_1 \text{Ln}X_1 + \beta_2 \text{Ln}X_2 + \beta_3 \text{Ln}X_3 + \mu^e \dots\dots\dots & 3 \\
 \text{Ln}Y &= \text{The Amount of PDRB Growth} \\
 X_1 &= \text{The Number of Labor} \\
 X_2 &= \text{Private Investment} \\
 X_3 &= \text{The amount of Government Expenditure} \\
 \mu^e &= \text{error trem}
 \end{aligned}$$

The Amount of Investment Need to Achieve Economic Growth Area of North Lombok regency.

To calculate the amount of investment needed to increase economic growth rapidly as what has been decided, the formular used is Incremental Capital Output Ratio (ICOR):

$$\text{ICOR} = \frac{\Delta K}{\Delta Y}$$

In which:

- ICOR = The amount of capital needed to produce improvement on output by one unit
- Δ K = The change of capital and investment value
- Δ Y = The change of output Value/PDRB

RESULTS AND DISCUSSION

The Big Influence of Labor, Private Investment and Government Expenditure (Capital Expenditure) to Economic Growth of North Lombok

Partial Test

Table 1. Statistics result toward model

Model	Coefficients ^a				
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig
(Constant)	-3.745E+12	8.698E+11		-4.306	.013
Investment	.062	.049	.105	1.248	.280
Capital	.512	.248	.193	1.802	.146
Labor	44163319.04	6415873.872	.756	6.883	.002

a. Dependent Variable: PDRB

The result of statistical test will be presented in the following table to discover whether there is a partial influence in each independent variable toward dependent variable. Based on the table 1, the result of multiple linear regression

formula is achieved for the independent variable toward the dependent variable as the following:

$$\text{Economic Growth} = -3,745.10^2 + 0.062. \text{Investment} + 0.512. \text{Capital} + 44,163,319.04 \text{Labor.}$$

Based on the formula and table 1 of statistical test, the influence variable of investment (X1), Capital (X2) and Labor (X3) toward Economic Growth (Y) as well as the influence of each variable can be elaborated as the following:

- a. Investment variable (X1) with the coefficient of regression of 0.062 and probability of 0.280 is above the level of significance α 5% (Sig \geq 0.05), it indicates that the investment variable in this study does not has significant effect and has not yet given any contribution toward the economic growth of Regency of North Lombok.
- b. Capital variable (X2) is shown by the coefficient value of 0.512 and probability of 0.146 above the level of significance α 5% (Sig \geq 0.05), It indicates that the governement expenditure in the form capital in this study does not have significant effect toward the economy growth in Regency of North Lombok.
- c. Labor variable (X3) with regression coefficient value of 44,163,319.04 and probability of 0.002 indicate that every rising number of labor by 1 unit will improve the economic growth in this case the PDRB of Regency of North Lombok in total of IDR 44,163,319.04. Therefore, labor have a positive relationship and have a significant effect in the level α 5% (Sig $<$ 0,05) toward the economic growth of Regency of North Lombok.

Simultaneous Test

The result of statistical test to see if there is any simultaneous effect of indepedent variable will be presented in the table 2.

Table 2. Statistics result toward Model

ANOVA ^a					
Model	Sum of Squares	Df	Mean Square	F	Sig
Regression	6.054E+23	3	2.018E+23	87.821	.000 ^b
Residue	9.191E+21	4	2.298E+21		
Total	6.146E+23	7			

a. Dependent Variable: PDRB

b. Predictors: (Constant), Labor Batch, Investment, Capital.

From the table 2, it can be seen that the significant value gained from the analysis of linear regression is 0.000 in which this number is smaller than the level of significance α 5% (Sig $<$ 0.05). Based on the hypothesis where H0 is rejected and H1 is accepted, thus in can be concluded that investment, capital, and Simultaneous labor batch have significant effect toward the PRDB growth.

The Amount of Investment Need to Achieve the Economic Growth in North Lombok

In the period of 2009 to 2016, North Lombok GRDP developemnts increased in which the growth rates remains increasing year per year. According to its RPJMD year 2016 to 2021, the targetted economic growth to increase to 6 percent, from the 2016 growth of 5 percent. Thus, it can be projected how much the amount of investment is required to support the economic growth in North Lombok Regency for the next five years.

From the ICOR calculation, the investment need and target of PRDB in each trade in which the growth target is based on the RPJMD of 2016-2021 in the total of 10 percent, thus to achieve that growth investment needed for the entire trade is 396,923,000,000 IDR so that the total of PDRB in 2021 will be 4,387,962,000,000 IDR. To realize the aforementioned targets, stake-holders' roles and participations are eminantly needed. Moreover, the four fields of businesses having been supporters of the economic growth namely wholesale and retail, automotive repair and maintenance, agriculture, forestry and fishing, construction, supply and Drinking. These fields can be a motor of other business growth; therefore, it can contribute to the economic growth of North Lombok Regency as a whole.

CONCLUSION

Based on the partial test result, it has been found that investment and capital expenditures are not significant and yet contribute to the economic growth. However, Labor-force has positively significantly affected to economic growth. While based on the simultaneous test results, it is obtained that the investment, capital expenditure and Labor-force simultaneously have a significant effect on the economic growth North Lombok. The result of calculation toward the effect of each variable in which the investment and government expenditure in the form of the asset have not given any significant impact toward the economic growth in North Lombok. Therefore, the investment should be reviewed. Investment should provide direct contribution toward the society's economic growth by emphasizing in the natural resources by looking at the potential possess by North Lombok Regency which is really vast but is not really well develop. Furthermore, the appropriate development strategy by maximizing the potential of natural resources, capital, and labor should be attained and the consistency of the government toward the predetermined vision of the development planning.

REFERENCES

- Arsyad, L. (2010): *Ekonomi Pembangunan*, Yogyakarta, UPP STIM YKPN.
- Badan Pusat Statistik Provinsi Nusa Tenggara Barat, (2016). *Provinsi Nusa Tenggara Barat Dalam Angka 2016*, BPS Provinsi NTB.
- Badan Pusat Statistik Provinsi Nusa Tenggara Barat, (2016). *Statistik Daerah Provinsi Nusa Tenggara Barat 2016*, BPS Provinsi NTB.
- Bado, B. (2015). Analisis Belanja Modal, Investasi dan Tenaga Kerja Terhadap Pertumbuhan Ekonomi Sulawesi Selatan. *Jurnal Ilmiah Ecosains*, 14(2), 118-126.
- BPS Lombok Utara (2015). *Lombok Utara Dalam Angka 2015*, Mataram, CV. Maharani.
- Daud, N. (2016). The Influence of Economic Growth on the Degree of Autonomy of the Regions and the Absorption of Labor and Social Welfare: Regencies and Cities of Maluku Province. *International Journal of Economics and Finance*, 8(2), 234-242.
- Hasna, O. (2015). PMDN, PMA and Labor Factors as the Indicators of the Success of Development in Province of Maluku: An Application of New Growth Theory. *Research in World Economy*, 6(1), 58-71.
- Jhingan, M. L. (2014). *Ekonomi Pembangunan dan Perencanaan*. Jakarta: PT. Raja Grafindo Persada.
- Nazmi, N., & Ramirez, M. D. (1997). Public and private investment and economic growth in Mexico. *Contemporary Economic Policy*, 15(1), 65-75.

- Putri, P. I. (2014). Pengaruh Investasi, Tenaga Kerja, Belanja Modal, dan Infrastruktur Terhadap Pertumbuhan Ekonomi Pulau Jawa. *JEJAK: Jurnal Ekonomi dan Kebijakan*, 7(2), 109-120
- Riani, E., Haryadi, H., & Amril, A. (2014). Faktor Penentu Pertumbuhan Ekonomi Kabupaten Bungo. *Jurnal Perspektif Pembiayaan dan Pembangunan Daerah*, 2(1), 21-28.
- Rizky, R. L., Agustin, G., & Mukhlis, I. (2016). Pengaruh Penanaman Modal Asing, Penanaman Modal Dalam Negeri dan Belanja Modal Terhadap Pertumbuhan Ekonomi Provinsi di Indonesia. *Jurnal Ekonomi dan Studi Pembangunan*, 8(1), 9-16.
- Siagian, P. S. (2012). *Teori Pengembangan Organisasi*. Jakarta: Bumi Aksara.
- Sjafrizal. (2008). *Ekonomi Regional Teori dan Aplikasi*. Padang: Baduose Media
- Sukirno, S. (2013). *Makro Ekonomi Modern Perkembangan Pemikiran dari Klasik Hingga Keynesian Baru*. Jakarta: Raja Grafindo Pustaka.