

The Effect of Investment and Labor on Economic Growth

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Abstract: The purpose of this study is to analyze the effect of investment and labor on economic growth in Majene Regency and to find out which factors have a dominant influence on economic growth in Majene Regency. This research was conducted in Majene Regency, where the data collection centers were the Majene Regency BPS (Central Bureau of Statistics) Office, Majene Regency Bappeda Office, Majene Regency Manpower and Transmigration Office, (4) Central Investment Coordinating Board (BKPM), internet and other official offices that can further refine research data. The population in this study is all GRDP and investment, the workforce in Majene. The author uses secondary data (time series); there is no sample. The results of the study indicate that the effect of investment and labor on economic growth is positive. This means that if the investment is added, it will increase economic growth. Likewise, if the workforce is added, it will be followed by an increase in economic growth. Through this study, the authors recommend this research to the local government. In increasing economic growth, factors that can positively impact are needed, including investment and labor factors.

Keyword: *Investment; Labor, Economic Growth*

Introduction

The Indonesian state aims to improve the welfare and prosperity of its people. To improve the welfare and prosperity of the community, the government carries out development in various fields, both in the short and long term. The implementation of the development is grouped into national development and regional development, where regional development is an integral part of national development.

Development more broadly can be interpreted as an effort to increase further the productivity of the potential resources possessed by a country, both natural resources, human resources, capital or capital as well as resources in the form of technology, with the ultimate goal of improving people's living standards (Todaro). 2000). In general, national and regional development in developing countries is emphasized on economic development. This is because what is most felt is that economic backwardness and development in the economic field can support the achievement of goals or encourage changes and reforms in other areas of the community's life.

Economic growth is a long-term economic problem for a country. Economic growth measures the achievement of the development of an economy from one period to

the next. From one period to another, the ability of a country to produce goods and services will increase due to production factors that are constantly increasing in quantity and quality. Regional development is an integral part of national development, which is based on regional autonomy and regulation of national resources, which provides opportunities for increasing democracy and regional performance to improve people's welfare towards a civil society free of collusion, corruption, and nepotism. The implementation of local government as a state sub-system is intended to increase the efficiency and results of government administration and public services. According to Sukirno (2004), in macro analysis, the level of economic growth achieved by a country is measured by the development of real national income achieved by a country/region. Neo-Classical Economic Growth Theory states that economic growth (in the area measured by GRDP growth) depends on production factors, namely capital, labor, and technology (Sukirno, 1994).

To achieve better economic growth, Indonesia carries out development in various sectors, especially the industrial sector, which is expected to reduce the role of the agricultural sector in national economic growth. The role of the industrial sector is highly expected because this sector can absorb a much larger number of workers than the agricultural sector. Thus, the development of the industrial sector will provide wider employment opportunities than the agricultural sector (Tambunan, 2001b). This means that a significant investment in the industrial sector must be made to provide the expected wide range of job opportunities.

To overcome this imbalance between supply and demand for labor, one of the national development goals is the expansion of job opportunities that can be done, among others, through increased investment. This goal is essential because high population growth is followed by a high labor force growth as well. On the other hand, high economic growth is not necessarily followed by growth or expansion of job opportunities. The success of GRDP growth cannot be separated from increased investment. Investment is a keyword determining the rate of economic growth because, in addition to encouraging a significant increase in output, it will also automatically increase input demand, which in turn will increase employment opportunities and community welfare as a consequence of increasing income received by the community (Makmun and Yasin, 2003).).

According to Silalahi (2004), to overcome the problem of unemployment and underemployment, the net effect of development outcomes which are expected to be better in the future, needs to be redistributed to the community in various forms, including the creation of productive and remunerative employment opportunities. The creation of productive job opportunities can be done through investment, thus providing more job opportunities to the workforce. Security guarantees and effective investment costs will also increase domestic investment, especially foreign investment.

Investment is the mobilization of resources to create or increase production capacity/income in the future. In investment, there are 2 (two) main objectives to be achieved: replacing the part of the damaged capital supply and additional existing capital supply. The picture of the development of regional development cannot be separated from the development of distribution and allocation of investment between regions. In this regard, it is necessary to separate the types of investment made by the private sector and the government, considering that the factors that determine the location of the two types of investment are not always the same. In general, the government still has to pay attention to several factors, such as the development of a particular area for political and

strategic reasons, such as border areas and areas with history and unique characteristics, thus requiring special attention, including investment policies. However, both types of investment, whether made by the government or the private sector, will eventually increase job opportunities and contribute to overcoming economic and social problems such as poverty, unemployment, etc. The link between investment and job opportunities and unemployment as described above can also occur at the provincial level, such as in West Sulawesi. This needs to be studied considering that West Sulawesi is one of the barometers of the Indonesian economy and is an investment destination.

One of the regions in Indonesia, especially West Sulawesi, whose GRDP contribution is quite significant to the GRDP of West Sulawesi, is Majene Regency. Gross Regional Domestic Product (GRDP) is one indicator of the level of welfare of a region in a certain period. The calculation of GRDP in Majene Regency changes every year. Based on statistical data (BPS Majene Regency), the Gross Regional Domestic Product (GRDP) in Majene Regency has increased every year. This shows that the business sectors in Majene Regency are progressing.

All business fields in Majene Regency play a role in increasing the GRDP figure. However, from all these business fields, several business fields have a significant role or influence on economic development in Majene Regency, which is indicated by the size of the GRDP in each sector of the business field. The role of the industrial sector in increasing economic growth in the form of industrial sector output or industrial sector GDP is inseparable from the role of investment and labor. The investment made is a direct investment in foreign investment (Foreign Investment) and domestic investment (Domestic Investment). Direct investment can absorb much labor in the labor market, and direct investment is also expected to increase economic growth.

The investment factor is included in this study because, theoretically, investment contributes to economic growth in Majene Regency. The labor factor is included in this study because theoretically, the workforce provides a large enough contribution to economic growth in Majene Regency. Currently, many countries are implementing policies aimed at increasing investment, both domestic and foreign. The government does this because investment activities will also encourage a country's economic activities, employment, increase in output, save foreign exchange or even increase foreign exchange. Investment is one of the factors that determine the rate of economic growth because, in addition to encouraging a significant increase in output, the investment will also increase the demand for inputs, one of which is labor, so that it will affect the provision of job opportunities and high employment absorption, ultimately the welfare of the community—achieved as a result of increased income received by the community.

According to Harrod - Domar, the aspect that was developed from the Keynes theory by Harrod - Domar is an aspect that concerns the role of investment in the long term. Both Sir Harrod (1939) and Evsey Domar (1946) gave a pivotal role in investing in economic growth, especially regarding the dual impact of the investment. First, investment creates income (affects aggregate supply = aggregate demand). Second, investment increases the economy's production capacity by increasing the capital stock (affecting aggregate supply = aggregate supply). In a longer time perspective, investment (I) increases the capital stock (capital stock, such as buildings, laboratories, factories, roads, etc.), so that $I = sK$ (where K = capital stock in society), which means there is an increased production capacity. According to Harrod-Domar, every additional capital stock (K) will increase the community's output (Y) ability.

Labor is an essential factor in the production process because humans (labor) can move other production factors to produce an item. According to Payaman J. Simanjuntak (1985), the workforce is a population aged over ten years or more. Indeed, in each country, the age limit for workers is different. For example, in India, the workforce is the population aged between 14 and 60 years. Apart from this age group, they are considered non-employees. In Indonesia, there is no maximum age limit because there is no national social security in Indonesia. Indeed, some residents receive benefits in old age, but only a small number, namely civil servants and few private employees.

Adam Smith (1776), in his book entitled "An inquiry into the Nature and causes of the weath of Nations," has revealed the process of long-term economic growth. According to Smith, two things cause economic growth, namely population growth and the division of labor (a division of labor). In economic development, a significant factor is the population factor because population growth tends to increase economic growth. The increasing population has the potential to expand the market; a broad market tends to increase production, which encourages specialization and division of labor. These two things cause economic activity to increase and accelerate economic growth. Furthermore, with specialization and division of labor, productivity increases and encourages technological development. Adam Smith is very optimistic that this process will occur continuously so that economic growth will also continue to grow and people's per capita income will also continue to increase.

The benchmarks for economic progress include national income, employment opportunities, price levels, and foreign payment positions (Makmun, 2004). Nationally, data shows that the economic paralysis of industrial areas in urban areas causes a decrease in the rate of economic growth in rural areas and an increase in unemployment due to increasing migrants returning to the village. The decline in the economic rate in the village and the increase in the number of workers in the village, and the increase in consumer prices and production costs in agriculture will reduce the agricultural production capacity produced.

The provision of government capital facilities for the development of the SME sector will overcome the leveling off (decreased level of ability) and increase profits. The development of agribusiness and agro-industry in rural areas will also increase the productivity, income, and employment opportunities of the population so that it will increase the aggregate supply.

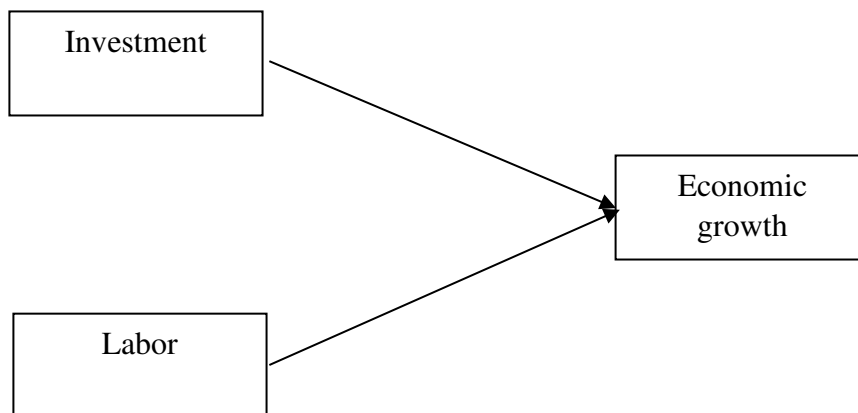


Figure 1. Research Model

H1: Investment has a positive effect on economic growth in Majene Regency

H2: Labor has a positive effect on economic growth in Majene Regency

H3: Investment and Manpower have a dominant and significant effect on economic growth in Majene Regency.

Metode Penelitian

This research was conducted in Majene Regency, where the data collection centers are (1) BPS Office (Central Statistics Agency) Majene Regency, (2) Majene Regency Bappeda Office (3) Manpower and Transmigration Office of Majene Regency, (4) Majene Regency Central Investment and Coordination (BKPM). The population in this study is all investment and labor in Majene Regency. Moreover, the author uses secondary data (time series). The sample used in this study is the Gross Regional Domestic Product (GRDP) of Majene Regency in 2008 - 2012. Data collection is carried out using a library research system (Library Research). Data collection is done by recording data sourced from publications published by and official government publications and through literature studies from literature and journals related to research problems.

The method used to analyze the data in this research is the descriptive quantitative method. Descriptive analysis is used to describe the condition of the workforce, investment, and output of Majene Regency, especially those in the industrial sector. In addition, to describe the influence of the industrial sector on the economic growth of Majene Regency, which is reflected by the Gross Regional Domestic Product of Majene Regency. The quantitative method in this study uses an econometric model consisting of two multiple linear regression models using the OLS (Ordinary Least Square) method. Simple linear regression is a regression equation that has only one independent variable. If the equation has more than one independent variable, it is called a multiple or multiple linear regression model (Nachrowi and Usman, 2006). The specifications of this research model are as follows:

$$\text{Log}Y = A + \beta_1 \log X_1 + \beta_2 \log X_2$$

Description :

Y	=	Total GDP
X1	=	Investment
X2	=	Labor
A	=	Constant
β_1, β_2	=	Regression coefficient

The first stage of testing the data in this study is to perform the R^2 test (coefficient of determination), which aims to determine the strength of the independent variable to explain the dependent variable. Furthermore, a simultaneous test (F-test) was conducted to simultaneously determine the regression coefficient's statistical significance. If $F\text{-count} > F\text{-table}$, then H_0 is rejected, and H_1 is accepted. The last is to do a partial test (t-test) to determine the statistical significance of the partial regression coefficient. If that $> \text{table}$ then H_0 is rejected, and H_1 is accepted.

Result and Discussion

Table 1. Data on Investment, Manpower, GRDP, and Economic Growth of Majene Regency in 2008-2013

No.	Year	Investment (Rp 000)	Labor	PDRB (Million Rupiah)	Economic growth (Million Rupiah)
1	2008	-	-	100031352	-
2	2009	45543382	105889	101582245	1550893
3	2010	51643300	107789	105442691	3860446
4	2011	54332602	116875	113452382	8009691
5	2012	58482331	128521	124049766	10597384
6	2013	60351325	130445	138534006	14484240

In order to test the research hypothesis, multiple regression analysis was used. Table 2 shows that the multiple regression equation obtained from the results of the analysis is:

$$Y = -42885489,606 + 0.410 X1 + 241.044 X2$$

The regression equation means that the effect of investment and labor on economic growth is positive. This means that if the investment is added, it will increase economic growth. Likewise, if the workforce is added, it will be followed by an increase in economic growth. The regression coefficient value for the investment variable is 0.410, indicating that if the investment is added by 1 unit, it will increase economic growth by 0.410. this means that the investment variable (X1) positively correlates with economic growth (Y). The value of the regression coefficient for labor is 241.044, indicating that the value of adding 1 unit of labor will increase economic growth by 241.044. this means that the labor variable (X2) positively correlates with economic growth (Y). Based on the calculation results, the hypothesis, which states a positive influence of investment and labor factors is proven to affect economic growth in Majene Regency positively, is accepted.

Table 2. Regression Test Results
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-42885489.606	7458892.576		-5.750	.029
1 Total Investment (Rupiah)	.410	.370	.465	1.108	.383
Number of Workers (Persons)	241.044	190.769	.530	1.264	.334

a. Dependent Variable: Total Economic Growth (%)

The F test is carried out to test the effect simultaneously or jointly on the investment and labor variables.

Table 3 shows that the results of hypothesis testing by calculating the F test using the computerized program SPSS for windows 20.00 obtained F count = 25,790 with a significance value of. 0.037. because the significance value is more than 0.05, indicating that the calculated F value obtained is insignificant. Thus, it shows that together there is no significant simultaneous relationship between investment and labor on economic

growth.

Table 3. Simultaneous Test Results

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	103073701262326.390	2	51536850631163.195	25.790	.037 ^b
	Residual	3996644081832.404	2	1998322040916.202		
	Total	107070345344158.800	4			

a. Dependent Variable: Total Economic Growth (%)

b. Predictors: (Constant), Number of Labor (Persons), Total Investment (000 Rupiah)

Table 4. Simultaneous Correlation Output

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.981 ^a	.963	.925	1413620.190

a. Dependent Variable: Total Economic Growth (%)

b. Predictors: (Constant), Number of Labor (Persons), Total Investment (000 Rupiah)

Table 4 shows that the correlation coefficient simultaneously is 0.981 with an R square value of 0.963. This indicates that the collaborative relationship between investment and labor variables on economic growth is in a strong category. The magnitude of the influence of investment and labor can be seen from the value of the coefficient of simultaneous determination (R²), which shows that investment and labor together influence 96.3% of economic growth. At the same time, the remaining 9.8% is the influence of other factors that cannot be included in this model.

Conclusion

This study indicates that the investment variable has a positive effect on economic growth, especially investment in the agricultural sector and retail trade. The investment regression coefficient value indicates this obtained 0.410, indicating that the regression coefficient value obtained is positive. The labor variable has a positive effect on economic growth. This is indicated by the value of the regression coefficient of labor obtained 241.044, indicating that the regression coefficient value is positive. In increasing economic growth in Majene Regency, factors that can have a positive impact are needed, including investment and labor. For further researchers to be able to add other factors that have not been studied in this study so that a more comprehensive research result is obtained.

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