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The Effect of Invetation and Exports on Labor Absorption through Economic Growth in Indonesia

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A B S T R A C T
This study aims to analyze the effect of investment and exports on employment through direct economic growth, then analyze the level of influence of labor absorption on the rate of economic growth directly, analyze the effect of investment on employment through economic growth and analyze exports on employment through economic growth in Indonesia. This study uses secondary data in the form of time series data, 2012-2021, namely investment data, exports, labor absorption and economic growth which are tested using path analysis techniques. The results showed that investment had a positive and significant effect on employment, while exports had a negative and insignificant effect on employment. Investment and exports have a positive and insignificant effect on economic growth. Labor absorption has a positive and insignificant effect on economic growth.

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INTRODUCTION

Economic growth can be interpreted as an increase in total output in the long term, whether it is smaller or exceeds the total population growth and is followed by changes in economic structure or not (Afandi, 2014). Regional economic growth can come from increasing capital through public investment and savings, increasing the quality and quantity of jobs through workforce growth and expanding knowledge and skills in technological improvements in the production process. Economic growth can be measured by the development of gross domestic product (GDP) in representing the welfare of the population at the regional level. Gross regional domestic product as an economic indicator includes several economic tools that reveal the macroeconomic conditions of a country's regional economic growth, per capita income and other economic instruments. The GDP figure is very necessary because in addition to planning analysis material it is also a barometer for measuring the results of the development carried out.

According to Sukirno (2014) investment can be defined as the cost of investors or companies for purchases to increase capital goods and production facilities the ability to produce goods and services available in the company. Investments that enter a region directly increase capital in blood and increase economic activity. If currently investing in an area is sustainable and long-term and coupled with a very competitive economy, investment is made to increase supply by increasing the existing capital stock, then increasing this capital stock will increase people's wealth to produce output or carry out production activities that complement these activities. regional economy (Rizal, 2014). This means that the higher the accumulation of capital, the higher the economic growth and the higher the welfare of the people. Exports and investment are considered as an important part of the macro variables that affect economic growth (Yerimis, 2011). According to Dornsbusch and Fischer (Muhammad, 2014). Investment will have an impact on economic growth which in turn will affect vacancies in an area. When investing in the area will increase regional capital and economic growth which can create new business fields so that they can absorb labor.

Table 1. Development of GDP, Investment, Export Value and Working Population in Indonesia

Year	Investment Investment Domestic (billions of Rupiah)	Value of Oil and Gas-Non Oil and Gas Exports (Millions USD $)	Population Indonesia Working	GDP Based on Current Prices by Business field (billion rupiah)
2012	92.182,0	191.691,00	226.566.850	8.615.704,50
2013	128.150,6	186.628,70	228.690.684	9.546.134,00
2014	156.126,3	178.178,80	232.797.948	10.569.705,30
2015	179.465,9	142.694,50	235.666.020	11.526.332,80
2016	216.230,8	135.652,80	239.059.670	12.401.728,50
2017	262.350,5	156.985,50	245.561.272	13.589.825,70
2018	328.604,9	188.711,30	255.761.737	14.838.756,00
2019	386.498,4	170.727.70	260.447.863	15.832.657,20
2020	413.535,5	141.568,80	261.747.050	15.438.017,50
2021	447.063,6	196.190,00	262.144.828	16.970.789,20

THEORETICAL REVIEW

According to Rhardjo (2013) economic growth is an effort to increase production capacity to increase output, as measured by the level of Gross Domestic Product (GDP) or Gross Regional Domestic Product (GDP) in a region. Sukirno (2011) stated that economic growth is defined as the development of activities in the economy that cause goods and services produced in society to increase and people's prosperity to increase. Labor is the main factor in development activities. Development has an important goal, which is to improve people's welfare, in the implementation of development there must be guarantees for the rights of workers, their effectiveness is developed and their obligations are regulated. In general, labor can be interpreted as the number of labor force currently working in companies or economic sectors (Sofia, 2015). Investment will force people to continue to increase economic activity and employment. Thus national income will increase and will be followed by an increase in the welfare of the people. Sukirno (2012: 367). Efforts from the community to obtain goods produced with limited resources are essentially in terms of meeting needs and continue throughout the ages as long as humans live and need them (Syahrir and Rahmat, 2018).

Mind Map

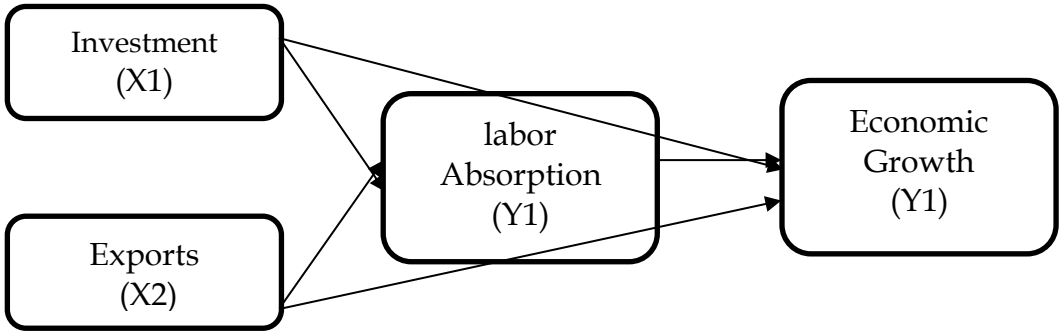

Figure 1. Path Analysis Model of the Influence of Investment and Exports on Labor Absorption through Economic Growth

METHODOLOGY

The research was used by searching for data originating from the central statistics agency regarding investment, exports, employment and economic growth for the 2012-2021 period. The data used in this research is quantitative data using secondary data. The data collection method is non-participant observation, namely data collection where the researcher is not directly involved, only as an independent researcher (Sugiono, 2008). The endogenous variable in this study is economic growth, the exogenous variable is investment and exports and the intervening variable is employment. This study uses path analysis techniques (*path analysis*).

RESULT AND DISCUSSIONS

Table 2. The Regression Results of Substructural Equation 1

Dependent Variable: Y1				
Method: Least Squares				
Date: 11/04/22 Time: 20:07				
Sample: 2012 2021				
Included observations: 9				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	2.17E+08	5374313.	40.34995	0.0000
X1	109.2019	5.799727	18.82880	0.0000
X2	-4.291960	29.97023	-0.143207	0.8908
R-squared	0.983421	Mean dependent var		2.43E+08
Adjusted R-squared	0.977895	S.D. dependent var		13854099
S.E. of regression	2059783.	Akaike info criterion		32.17530
Sum squared resid	2.55E+13	Schwarz criterion		32.24104

Log likelihood	-141.7889	Hannan-Quinn criter.	32.03343
F-statistic	177.9563	Durbin-Watson stat	1.150640
Prob(F-statistic)	0.000005		

Based on table 2 it can be seen that the regression results of substructural equation 1 are as follows:

$Y1 = 109.2019\ Y_1X_1 - 4.291960\ Y_1X_2 + e1$ ……..(1)

The above equation can be interpreted as follows:

a. The estimated result of the coefficient of the investment variable (X_1) is 109.2019 and is significant at a probability of 0.0000 < α = 0.05. This means that direct investment ($X1_{on}$employment ($Y1_{effect}$). If there is an increase in investment (X_1) of 1 percent, then employment (Y_1) in Indonesia will increase significantly by 109.2019 percent. Conversely, if there is a decrease in investment ($X1_{.}$then employment ($Y1_{,}$)) in Indonesia will decrease significantly by 109.2019 percent in one year, caters paribus
b. Export variable coefficient ($X2_{the}$) is -4.291960 and is significant on the prob. 0.8908 > α = 0.05.directly$X2_{that}$on employment ($Y1_{effect}$. If there is an increase in exports (X_2) of 1 percent, then employment (Y_1) in Indonesia will decrease significantly by 4.291960 percent. Conversely, if there is a decrease in exports ($X2_{.}$) of 1 percent, then:
   a. Employment absorption (Y_1) in Indonesia will increase significantly by 4.291960 percent in one year, caters paribus.
   b. The estimated results of the coefficient of determination with the value of R Squared were obtained at 0.9834 or 98.34% which indicates the ability of the investment and export variables to explain the variations that occur in employment in Indonesia of 98.34%, while the remaining 1.66% is influenced by other variables not examined in this study.

Table 3. The Regression Results of Substructural Equation 2

Dependent Variable: Y2				
Method: Least Squares				
Date: 11/04/22 Time: 20:10				
Sample: 2012 2021				
Included observations: 9				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-7646658.	26981518	-0.283404	0.7882
X1	14.06054	13.67654	1.028077	0.3511
X2	-5.013890	9.132894	-0.548992	0.6066
Y1	0.072515	0.124194	0.583885	0.5846
R-squared	0.969163	Mean dependent var		12610777
Adjusted R-squared	0.950660	S.D. dependent var		2820987.
S.E. of regression	626612.0	Akaike info criterion		29.83514
Sum squared resid	1.96E+12	Schwarz criterion		29.92280
Log likelihood	-130.2582	Hannan-Quinn criter.		29.64598
F-statistic	52.38058	Durbin-Watson stat		1.155037
Prob(F-statistic)	0.000336			

Based on table 3 it can be seen that the regression results of substructural equation 1 are as follows:

$Y2 = 14.0605\ Y_2X_1 - 5.0138\ Y_2X_2 + 0,0725\ Y_2Y_1 + e1$ ……..……..(2)

The above equation can be interpreted as follows:

a. The estimated result of the coefficient of the investment variable ()$_{X1}$is 14.0605 and is significant at a probability of 0.3511 > α = 0.05. This means that direct investment ($X1_{Y2}$positive and insignificant effect on economic growth ()$_a$. If there is an increase in investment () by 1 percent, economic growth ($Y1_{X1}$) in Indonesia will increase significantly by 14.0605 percentConversely, if there is a decrease in investment (X_1) of 1 percent, then economic growth (Y_1) in Indonesia will decrease significantly by 14.0605 percent in one year, caters paribus.

b. The estimated result of the export variable coefficient ($X2_{-5.0138}$and is significant on the prob. 0.6066 > α = 0.05. This means that exports directly (X_2) have a negative and insignificant effect on economic growth (Y_2). If there is an increase in exports (X_2) of 1 percent, economic growth (Y_2) in Indonesia will decrease significantly by 5.0138 percent. Conversely, if there is a decrease in exports ($X2_{paribus}$) of 1 percent, economic growth ($Y2$.) in Indonesia will increase significantly by 5.0138 percent in one year, caters

c. The estimated result of the variable coefficient of labor absorption (Y_1) is 0.0725 and is significant on the prob. 0.5846 > α = 0.05. This means that direct labor absorption (Y_1) has a positive and insignificant effect on economic growth (Y_2). If there is an increase in employment (Y_1) of 1 percent, economic growth (Y_2) in Indonesia will decrease significantly by 0.0725 percent. Conversely, if there is a decrease in employment (Y_1) of 1 percent, economic growth (Y_2) in Indonesia will increase significantly by 0.0725 percent in one year, caters paribus.

d. The estimated results of the coefficient of determination with an R Squared value were obtained at 0.9691 or 96.91% which shows the ability of the investment, export and employment variables to explain the variations that occur in economic growth in Indonesia of 96.91%, while the remaining 3.09 % is influenced by other variables not examined in this study.

Table 4. Direct Influence, Indirect Influence and Total Influence

Variable Relationship	**Direct**	**Indirect Influence**	**Total**
$X_1 \rightarrow Y_1$	109,2019		109,2019
$X_2 \rightarrow Y_1$	-4,291960		-4,291960
$X_1 \rightarrow Y_2$	14,06054	7,9187757785	21,9793157785
$X_2 \rightarrow Y_2$	-5,013890	-0,3112314794	-5,3251214794
$Y_1 \rightarrow Y_2$	0,072515		0,072515

Based on table 3 it can be explained as follows:

1. Direct Influence
   a. The effect of the investment variable on employment absorption is 109.2019.
   b. The effect of the export variable on employment absorption is -4.291960.
   c. The effect of investment variables on economic growth is 14.06054.
   d. The effect of export variables on economic growth is - 5.013890.
   e. The effect of the labor absorption variable on economic growth is 0.072515.

2. Indirect Effect
   a. The effect of investment variables on economic growth through employment absorption is 7.9187757785 **(109.2019 x 0.072515 = 7.9187757785)**
   b. The effect of unemployment on poverty through economic growth is 0.2085. **(-4.291960 x 0.072515 = -0.3112314794)**

3. Total Effect
   a. The total effect of investment variables on poverty through economic growth is -0.0400 **(14.06054 + 7.9187757785 = 21.9793157785).**

b. The total effect of unemployment on poverty through economic growth is 0.2138 **(-5.013890 + -0.3112314794 = -5.3251214794)**

The magnitude of the error value on each effect of the independent variable on the dependent is obtained through the following calculation:

1. Error Y1
   1 – R-Squared
   1 - 0.983421 = 0, 016579

2. Error Y2
   1 – R-Squared
   1 – 0.969163 = 0.030837

Based on the research results of the relationship between the variables formed by the path analysis coefficient model. The substructural equation can become a path analysis coefficient model, which is as follows:

1. Substructural Equation I
   $Y_1 = 109.2019Y_1X_1 - 4.291960Y_1X_2 + 0.016579e1$

2. Substructural Equation II
   $Y_2 = 14.06054Y_2X_1 – 5.013890Y_2X_2 + 0.187817 + 0.030837e2$

Theory, *trimming* testing the validity of the research model is observed through calculating the total coefficient of determination as follows:

$Rm = 1- (0.016579^2) (0.030837^2)$
$= 1 - (0.0274863241) (0.608251809)$
$= 1- 0.1671860635658$
$= 0.8328$
$= 83.28\%$

The coefficient of determination value of 0.8328 indicates that 83.28% of the information in the data can be explained by the model, while the remaining 16.72% is explained by *errors* and other variables outside the model. The coefficient numbers in this model are relatively large so that it is feasible to do further interpretation.

CONCLUSION AND RECOMMENDATIONS

Investment has a positive and significant effect on employment absorption while exports have a negative and insignificant effect on employment absorption. Investment and exports have a positive and insignificant effect on economic growth. Absorption of labor has a positive and insignificant effect on economic growth. Based on the conclusions above, the advice given by the researchers is that increasing can be done by increasing investment, therefore the government should provide conditions and tax relief to investors in order to increase investment inflows to Indonesia. To increase the value of exports, it is better if the raw materials used come from within the country or the regions of each province in order to increase economic growth.

And the government must pay more attention to several factors such as providing training to the workforce, how to increase production values and increase employment opportunities that will increase skills and good quality, especially in areas that have potential.

This study aims to analyze the effect of investment and exports on employment through direct economic growth, then analyze the level of influence of labor absorption on the rate of economic growth directly, analyze the effect of investment on employment through economic growth and analyze exports on employment through economic growth in Indonesia. This study uses secondary data in the form of time series data, 2012-2021, namely investment data, exports, labor absorption and economic growth which are tested using path analysis techniques. The results showed that investment had a positive and significant effect on employment, while exports had a negative and insignificant effect on employment. Investment and exports have a positive and insignificant effect on economic growth. Labor absorption has a positive and insignificant effect on economic growth.

FURTHER STUDY

The results showed that investment had a positive and significant effect on employment, while exports had a negative and insignificant effect on employment. Investment and exports have a positive and insignificant effect on economic growth. Labor absorption has a positive and insignificant effect on economic growth. Investment has a positive and significant effect on employment absorption while exports have a negative and insignificant effect on employment absorption. Investment and exports have a positive and insignificant effect on economic growth. Absorption of labor has a positive and insignificant effect on economic growth.

In general, labor can be interpreted as the number of labor force currently working in companies or economic sectors (Sofia, 2015). Investment will force people to continue to increase economic activity and employment. Thus national income will increase and will be followed by an increase in the welfare of the people. Sukirno (2012: 367). Efforts from the community to obtain goods produced with limited resources are essentially in terms of meeting needs and continue throughout the ages as long as humans live and need them

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