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The Effect of Credit Distribution and an Educated Workforce on Economic Growth in Indonesia

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Abstract: The purpose of this research is to analyze the effect of lending and an educated workforce on economic growth in Indonesia. This study uses secondary data, namely Credit Distribution and Educated Labor Against Economic Growth in Indonesia in 1982-2012 from the Indonesian Central Bureau of Statistics and Bank Indonesia. This study uses a multiple linear regression model. The results of the study show that (1) Credit Distribution has a significant effect on Economic Growth in Indonesia with a probability value of $0.0000 < \alpha = 0.05$ (2) Educated Workforce has a significant effect on Economic Growth in Indonesia where the probability value is $0.0000 > \alpha = 0.05$ Credit Distribution and Labor Educated work has a joint effect on economic growth in Indonesia by 99 percent.

Keywords: Credit Disbursement, Educated Workforce, Economic Growth.

INTRODUCTION

Economic growth is a process of changing the economic condition of a country on an ongoing basis towards a better condition for a certain period. Economic growth can also be interpreted as a process of increasing the production capacity of an economy which is manifested in the form of an increase in national income. Their economic growth is an indication of the success of economic development. The success of economic growth is more quantitative, namely an increase in income standards and the level of production output produced.

The problem of economic growth that arises in a country depends on many factors such as human resources (HR), natural resources (SDA), science and technology (IPTEK), culture, and capital resources which must be identified and identified precisely so that factors This can affect the country's economic growth rate. A country's economic growth can be measured by looking at GDP and the rate of economic growth. The economy will experience growth if the total output of the production of goods and the provision of services in a certain year is greater than the previous year, or the total allocation of output in a certain year is greater than the previous year. The results of a country's economic growth are later

expected to improve the welfare of all levels of society. However, the facts on the ground, especially in developing countries, are many factors that distort the quality of a country's economic growth. The following is the development of GDP and its growth rate in Indonesia over the last fifteen years

Table 1. Indonesia's GDP (millions of US\$) 1997 – 2012

Year	Indonesian GDP	pert %
1997	247002.87	
1998	214579.49	-13.13
1999	216277.09	0.79
2000	226918.06	4.92
2001	235185.74	3.64
2002	245767.87	4.50
2003	257516.48	4.78
2004	270471.81	5.03
2005	285868.61	5.69
2006	301594.10	5.50
2007	320730.32	6.35
2008	340018.08	6.01
2009	355757.09	4.63
2010	377853.79	6.21
2011	402398.28	6.50
2012	427468.43	6.23

Source: World bank 2014

In Table. 1 above it can be seen that developments in the value of GDP in Indonesia tend to fluctuate. In 1997 the value of GDP was 247002.87 (million US\$), while in 1998 the value of Indonesia's GDP was 214579.49 (million US\$) with a growth rate of -13.13 percent, this was caused by the economic crisis that hit Indonesia, and in 1999 the GDP value was 216277.09 (million US\$) while in 2000 the value of Indonesia's GDP was 226918.06 million US\$ with an economic growth rate of 4.92 percent, this shows that the Indonesian economy began to improve after the crisis that occurred in 1998. However, in 2009 the value of Indonesia's GDP again a decrease of 355757.09 million US\$ with a growth rate of 4.63 percent.

Banking as one of the intermediary functions plays a role in encouraging economic growth and expanding employment opportunities through the provision of a number of development funds and the business world. Specifically for the business world, funds provided by banks are in the form of credit. Demand for credit at a bank is influenced by various factors, both from the debtor's side and from the creditor's side (banking) itself.

Demand for credit from the debtor side (business world) is influenced by efforts to increase business activity, both in the form of investment and working capital. Meanwhile, from the banking side, demand for credit is influenced by factors such as lending rates, maximum credit limits, SBI, policies -government policies and the bank's own services to its customers. Credit distribution in society affects the level of economic growth, where one indication of the economic progress of a region is through the level of credit distribution in society. Credit is cooperative between lenders or creditors and credit recipients or debtors mutual benefit and mutual risk.

Based on the background and discussion of the problems above, it can be concluded that the main objectives of this research are to find out: (1) To find out how the influence of lending has on increasing economic growth in Indonesia. (2) To find out how the effect of an educated workforce on increasing economic growth in Indonesia. (3) To find out how the influence of credit distribution and educated workforce on economic growth in Indonesia.

LITERATURE REVIEW

The Effect of Credit Distribution on Economic Growth.

According to GA Diah Utari, et al in the Bulletin of Monetary Economics and Banking (2012: 4-5) bank credit has an important role in financing the national economy and is a driving force for economic growth. The positive causal relationship between economic growth and credit reflects a procyclical relationship between the two variables. This is in accordance with the empirical study of Terrones and Mendoza (2004) which shows that economic growth encourages credit growth with an elasticity of more than one in the long run. High credit growth on the one hand can be seen as normal and is a positive consequence of increased *financial deepening* in the economy (GA Diah Utari, et al in the Bulletin of Monetary Economics and Banking 2012: 5).

The Effect of an Educated Workforce on Economic Growth in Indonesia

Mankiw (2003) suggests that the marginal product of labor is influencing GRDP of a region is formed from the average labor productivity Work. Meanwhile, labor productivity is influenced by education owned by the workforce (Sumarsono , 2009). It's the same as that stated by Arsyad (2004), that the factors (education, number, age) that affect the development and growth of the workforce, will also has an effect on *the output* it produces, even further affect the rate of economic growth

Quality of labor according to recent education completed results in a labor market analysis conducted in an educated and uneducated labor market approach. Market This educated and uneducated workforce differentiates the level of education of the workforce work (Simanjuntak, 1985). Simanjuntak (1985) said that, labor educated generally come from families who are more affluent, namely families who relatively wealthy people who can send their children to high school and college tall. From Simanjuntak's statement, it can be concluded that, educated workforce is a workforce with the last education (graduation) High school or college (diploma or bachelor's degree, and level of education above), while workers with the last education (graduation) of elementary school or SMP, included in the uneducated workforce. Simanjuntak's statement about the difference between educated and uneducated workers educated is strengthened by law number 20 of 2003 concerning the system national education article 17 paragraphs 1 and 2, article 18 paragraphs 1 and 2, and article 19 paragraphs 1 and 2. In the three articles it is stated that SD and SMP is basic education that underlies or as the foundation of education for higher education, namely high school and college. Then got it was concluded that, workers who graduated from elementary or junior high schools only received basic education, so they were categorized as uneducated workers. Meanwhile, workers who graduated from high school who received secondary education, and workers who graduated from universities who received higher education, are included in the educated workforce.

The Relationship between an Educated Workforce and Economic Growth

Simanjuntak (1985) states that with a high level of education, economic growth will occur more quickly. John Kendrick (in Simanjuntak, 1985) proves that, the contribution made by workers who have higher education to economic growth is through their productivity. So education is an investment for the creation of a workforce that has high productivity and income. Todaro (2006) reveals that the contribution made by education economically and non-economically cannot be replaced by investment, even though investment produces a higher growth rate. Therefore, an educated workforce is a necessary condition for sustainable economic growth. Just as stated by Sukirno (2004), namely, the availability of capital alone is not enough to modernize an economy, various groups of educated and skilled workers are needed.

The positive contribution made by increasing education to accelerating economic growth is that modern corporate management is developed more efficiently, the use of modern technology in economic activities can develop more quickly, higher education increases people's thinking power, and the availability of experts needed by various economic activity (Sukirno, 2004).

METHODS

This research is classified as descriptive and associative research. Descriptive aims to describe events or incidents, research variables and also to find whether or not there is an influence between the independent variables and the dependent variable. The research was conducted in West Sumatra and the data were obtained from the Central Statistics Agency (BPS), where the data was obtained from the agency. used in this research. While the research time is during February 2014 until completion.

In this study, the variables consisted of the independent variables and the dependent variables. Here the independent variable is economic growth while the dependent variable is credit distribution, educated workforce and domestic investment.

In analyzing and finding solutions to the desired problem, the techniques used in this research are documentation techniques and library studies. Where the data was obtained from the official website of the world bank (www.worldbank.com), International Financial Statistics (www.ifs.com), BI (Bank Indonesia), and documents contained in the West Sumatra Central Bureau of Statistics (BPS).

The data analysis technique used in this study is Descriptive Analysis and Inductive (Inferential) Analysis. Descriptive analysis aims to describe what is found in the research results and provide information in accordance with what is obtained in the field, by presenting data in the form of distribution tables for the distribution of data from the variables studied, then analyzing the percentage of central tendency and dispersion and providing interpretation of the analysis. Inductive (Inferential) analysis uses multiple linear regression analysis techniques (ols). to measure the elasticity of the dependent variable on the independent variable, which shows the percentage change in the independent variable, the logarithmic form is used so that the equation becomes:

$$Y \log = \log \alpha + \beta_1 \log X_{1t} + \beta_2 \log X_{2t} + U_t$$

Where :

$\log Y$ = Economic growth in Indonesia

$\log X_1$ = Distribution of credit

$\log X_2$ = Educated workforce

α = Constant

$\beta_1 \beta_2$ = Parameters of lending, educated workforce and domestic investment on economic growth in Indonesia.

U_t = Interrupt error (*Error Term*)

RESULT AND DISCUSSION

Research result

1. Development of Indonesia's Economic Growth

The average GDP development in Indonesia during the period 1983 to 2012 was 228,665,485,947.37 US\$ with a growth rate of 5.37 percent, meaning that the period of the dominant GDP value is below average. The standard deviation is 3.99 percent, meaning that the deviation rate of each data from the central value is 3.99 percent. The coefficient of variation of the GDP value is 40.58 percent, meaning that each gross domestic product growth data varies greatly compared to the average.

2. The development of lending in Indonesia

distribution is the bank's top priority in allocating funds. This is because the source of bank funds comes from the community so that the bank must redistribute the DPK that has been collected to the public in the form of credit. This is in line with the function of the bank as a financial intermediary (*financial intermediary*). Besides that, the provision of credit is the most important activity for Commercial Banks as a *business entity* to generate profits.

After the 1998 crisis, credit interest rates in Indonesia slowly began to rise. This is evidenced in the table above that in 2000, lending rates in Indonesia began to rise by 9% with a value of Rp. 15248 trillion. The improvement in the Indonesian economy was marked by an increase in lending rate growth from 2000 to 2010.

3. Development of Number of Educated Workforce in Indonesia

From 1982 to 1984 the growth in the number of Indonesian educated workers increased significantly, namely in 1985 there was the highest growth in the Indonesian educated workforce, namely 46.49% with a total workforce of 3,422,284 million people. Then in 1986 the growth of Indonesia's educated workforce decreased by -0.50 % , this was due to a decrease in the rate of high school graduates to bachelor degrees. Then in 1987 the growth in the number of educated Indonesian workers began to increase until 1988, namely by 39.97%, and again decreased in the following year by -8.93%.

As the quality of education in Indonesia improves, the development of the number of educated workers in Indonesia is increasing, as evidenced by the increasing percentage of growth in the number of educated Indonesian workers from 1990-2000. In 2001 the number of educated Indonesian workers decreased again but in the following year until 2012 the number of educated Indonesian workers experienced an increase, this is an indication of the improving structure of the Indonesian economy which has an impact on improving the quality of human resources in Indonesia.

The positive contribution made by increasing education to accelerating economic growth is that modern corporate management is developed more efficiently, the use of modern technology in economic activities can develop more quickly, higher education increases people's thinking power, and the availability of experts needed by various economic activity (Sukirno, 2004). This is confirmed by Todaro (2006) who states that, more people who have higher education will encourage economic growth through the creation of a more productive work force, the availability of wider employment opportunities, the creation of groups of educated leaders, and the creation of modern attitudes in society . various layers of society.

Labor is a human production factor that directly or indirectly carries out production activities. Factors of production of labor are also categorized as original factors of production. In the factors of labor production, there are elements of the physical, mental, and abilities possessed by the workforce. Therefore, the workforce can be grouped based on quality (ability and expertise) and based on the nature of work.

Based on the results of analysis and processing of data that has been carried out using the multiple linear regression method with a sample size of 33 years from 1980 – 2012, the results of data processing are presented as follows:

Dependent Variable: LOG(Y)

Method: Least Squares

Date: 05/07/14 Time: 01:46

Samples: 1982 2012

Included observations: 31

Variables	coefficient	t-Statistics	Prob.
C	7.468731	13.21730	0.0000
Credit disbursement (X1)	0.166384	8.576663	0.0000
Educated Workforce (X2)	0.265761	6.899832	0.0000
R-squared	0.990958		
Adjusted R-squared	0.990313		
F-statistics	1534,388		
Prob(F-statistic)	0.000000		
Durbin-Watson stat	1.342046		

The estimation results on the Multiple Linear Regression Method can be seen the influence between the credit distribution variable (X1) and educated workforce (X2) on economic growth in Indonesia (Y). the variable lending (X1) has a probability of $0.0000 < \alpha = 0.05$, with a regression coefficient of 0.166384 l. The Educated Labor Variable (X2) on Indonesia's economic growth (Y) has a probability = $0.0000 < \alpha = 0.05$, with a regression coefficient of 0.265761 .

The constant value obtained based on the results of the Multiple Linear Regression Test above is 7.468731 and the value of the coefficient of determination (R-Square) is 0.990958 .

Discussion

From the results of the hypothesis test using the t-test it was found that the credit distribution variable has an insignificant effect on economic growth in Indonesia with a probability of 0.16638 . Indonesia as a country in the category of developing countries is inseparable from capital injections both from abroad and within the country to increase economic growth, the results of this hypothesis test are in accordance with the theory put forward by Solow in (Soekirno, 2000: 450) which states that an increase in distribution Credit will increase economic growth. Among them through the distribution of credit to the factors of production in producing output. Similarly, the Harrod-Domar theory reminds us that as a result of the investment that has been made, in the next period the capacity of lending in the economy will increase, meaning that lending indirectly affects economic growth .

Growth in the period 1982 -2012 Indonesia's economic growth occurred in 1989 with a growth rate of 81.71% while this high economic growth was also accompanied by a high percentage growth in the amount of credit disbursement in the same year, namely 29.00%, this shows that lending plays an important role in economic growth in Indonesia. From the results Hypothesis test using the t-test found that the variable number of educated workers has a positive and significant influence on economic growth in Indonesia with a magnitude of 0.2625, if the number of educated workers increases by 1 % it will increase economic growth by 0.2625 .

According to Mankiw (2007: 212), the production function relates total capital (K) to total labor (L) to total output (Y). Labor is one of the factors of production in economic growth. Calculations for sources of economic growth are called growth calculations where there is an increase in the factors of production, namely an increase in labor, an increase in capital and technological developments. The marginal product of labor (MPL) expresses how much output changes when labor increases. Therefore when

the amount of labor increases by ΔL units, output increases until it approaches $MPL \times \Delta L$.

Based on the results of data calculations in Table 9, it can be seen that the F_{value} in this study is 1534.388 or the significance obtained is 0.000 at $\alpha = 0.05$, means that thus the obtained $F_{\text{table value}}$ of 2.69 means the $F_{\text{value}} = 1534.388 > F_{\text{table}} = 2.69$. Because the hypothesis put forward in this study is accepted, thus there is a significant influence between lending, educated workforce, and domestic investment together on economic growth in Indonesia. Therefore, big or small economic growth in Indonesia is determined by lending, an educated workforce, and domestic investment.

CONCLUSION

Credit distribution has no significant effect on economic growth ($\text{prob} = 0.1696 > \alpha = 0.05$), Labor has a positive and significant effect on economic growth in Indonesia ($\text{prob} = 0.0000 < \alpha = 0.05$), with an influence level of 0.50 percent, Domestic investment has a positive and significant effect on economic growth in Indonesia ($\text{prob} = 0.0020 < \alpha = 0.05$), with an influence level of 0.047 percent.

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