The Effect of Educational Level and Economic Growth on Poverty in Mandailing Natal

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Abstract

The purpose of this paper is to find out the influence of educational level and economic growth on poverty level in Mandailing Natal. This study used a multiple linear regression analysis. The data used are annual data from 2009 until 2013, the results of the regression analysis showed that the level of education and economic growth to the level of poverty in Mandailing Natal.

Keywords: education level, economic growth, poverty.

Introduction

The problem of poverty is one of the issues that became the center of government’s attention. In this regard the Government has implemented various programs to decrease poverty. Since the year 2007 based on experienced in previous years to alleviate poverty, the Government take steps to consolidate the poverty reduction program that was launched in three clusters, namely 1 program aid package are relief and social protection direct cash assistance, rice’s poor, guarantee public health, Family Expectations Program school operational program, social aid for refugee, aid for the disabled, the elderly groups aid, and others, 2 aid package which are community empowerment program, and 3 Program aid package which are program of empowerment of small and micro enterprises. The result is the percentage of the total population of poor go down from the year 2009 amounted to 14.15 percent be at 11 per cent in the year 2013.

Mandailing Natal is one of the regencies in North Sumatra Province that seriously and continues to make a concerted effort to tackle the problem of poverty. It can be seen from the decline in the percentage of poverty from year to year. In the year 2009 poverty of Mandailing Natal is at 13 percent, while in the year 2013, it is of 9.62 percent. According to the BPS development, the poorer population in Mandailing Natal from year 2009 until 2013 can be seen in table 1

<table>
<thead>
<tr>
<th>Year</th>
<th>The percentage of the poor population</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>13.02</td>
</tr>
<tr>
<td>2010</td>
<td>12.60</td>
</tr>
<tr>
<td>2011</td>
<td>11.98</td>
</tr>
<tr>
<td>2012</td>
<td>11.57</td>
</tr>
<tr>
<td>2013</td>
<td>9.62</td>
</tr>
</tbody>
</table>

Source: BPS the Province of North Sumatra 2013
Equitable poverty reduction in Mandailing Natal became one of the unresolved problems today. Although the percentage of the poor population from year 2009-2013 has decreased but the situation is still high so that the need to look for the right solution to tackling the problem of poverty in Mandailing Natal.

Equitable development throughout the city in Mandailing Natal Regency should be done immediately. The development process of course requires a high income areas and rapid economic growth. Economic growth can be assessed as the impact of the Government’s discretion, in particular in the field of economics. Economic growth is the rate of growth that is formed from a variety of economic sectors that indirectly describe that growth rates occur and as important indicator for the region to evaluate the development success (Sirojuzilam, 2008).

Maipita (2013; 68) mention some factors because of poverty in local and global economic growth is low, the level of education and low technological mastery, a limited natural resource, high population growth, and stability politics are not conducive.

Economic growth can reduce poverty was originally based on the theory of trickle-down effect that mention the existence part of a rich group and dripping into the poor. Higher economic growth will boost the capacity of the economy, creating new jobs, increasing per-capita income (means reducing poverty), driving up demand and supply, and so on. Following the spin the mechanism of the economy. If viewed from the side of economic growth in Mandailing Natal years 2009 to 2013 experiencing fluctuations. Following developments on the economic growth rate of Mandailing natal in the past years 2009-2013.

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of economic growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>6.40</td>
</tr>
<tr>
<td>2010</td>
<td>6.41</td>
</tr>
<tr>
<td>2011</td>
<td>6.40</td>
</tr>
<tr>
<td>2012</td>
<td>6.27</td>
</tr>
<tr>
<td>2013</td>
<td>6.35</td>
</tr>
</tbody>
</table>

Source: BPS the Province of North Sumatra 2013

Based on the table above, it can be seen that in 2009 economic growth reached 6.40 percent. Year 2010 increased to 6.41 percent. Years 2011 down reached 6.40 percent. The year 2012 go down 6.27 percent and reaching the year 2013 ride reached 6.35 percent. It can be concluded that the highest economic growth occurred in the year 2010, namely reached 6.41 percent. While the lowest economic growth in 2012 reached 6.27 percent.

So, the economic growth is needed not only from high economic growth, but also equally to all levels of society. Increased economic growth that is not accompanied equity distribution to all layers and only focus on one layer of society can lead to inequality, and ultimately leads to poverty. Economic growth is a necessary, although a good economic growth is also a means to reduce, it will not be bad if not accompanied equitable distribution of income (Wongdesmiwati, 2009).

According to Sharp, as quoted Kuncoro (2006), the causes of poverty are seen in terms of the economy is a result of the low quality of human resource. The low quality of human resource is due to the low level of education. The higher level of education, the knowledge and skills will also increase so that will encourage
increased work productivity. The low productivity of the poor can be caused to their low access to education (Sitepu dan Sinaga, 2004).

If the view of education development in Mandailing Natal from 2009 until 2013 experiencing fluctuations. This can be seen on table 3.

**Table 3.** The percentage of education in Mandailing Natal year 2009-2013.

<table>
<thead>
<tr>
<th>Year</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>20.23</td>
</tr>
<tr>
<td>2010</td>
<td>17.29</td>
</tr>
<tr>
<td>2011</td>
<td>17.69</td>
</tr>
<tr>
<td>2012</td>
<td>19.02</td>
</tr>
<tr>
<td>2013</td>
<td>19.67</td>
</tr>
</tbody>
</table>

*Source: BPS the Province of North Sumatra 2013*

Based on the table above we can see that in 2009 the level of education at 20 percent. The year 2010 is down to at 17 percent. Year 2011 rose to 17.69 percent. Year 2012 rise at 19 percent. The year 2013 rise to 19.69 percent, so the highest education level percentage occurred in the year 2009 amounted at 20 percent and the percentage of the lowest level of education occurred in the year of 2010 at 17 percent.

Todaro (1994) stated that over the past few years, most research in the field of Economics, both in developed countries and in developing countries, operates on the linkage between education, labor productivity, and output levels.

In the study of Yoga and Fitrie Anggit Bisby (2012) produces a negative effect that education and significant poverty rate to districts/municipalities in Central Java. This means that in improving education will reduce the percentage of the poor people in the County/city in Central Java.

**Research Method**

In this research the research approach used quantitative methods. The data used secondary data obtained in the Central Bureau of statistics and time series data for 2009-2013 in Indonesia.

**Multiple Regression Analysis Test**

Multiple linear regression is an appropriate method of analysis when the study involves one dependent variable that is thought to relate to one or more independent variables. Multiple linear regression analysis model used to test the hypothesis is as follows:

\[
Y = a_0 + \beta_1X_1 + \beta_2X_2 + \varepsilon
\]

**Description**

- \(a_0\) = Constants
- \(\beta_1, \beta_2, \beta_3\) = Constants Regression for \(X_1, X_2, X_3\)
- \(\varepsilon\) = Standard error
- \(Y\) = Poverty
- \(X_1\) = Education Level
- \(X_2\) = Economic Growth

**Results and Discussion**

**Multiple Regression Analysis Test**

The results of multiple regression tests in this research are:
Table 4. The results of Multiple Linear Regression.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-45.789</td>
<td>98.994</td>
</tr>
<tr>
<td>Tingkat Pendidikan</td>
<td>-.120</td>
<td>.688</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Tingkat Kemiskinan

The results of data processing in multiple linear regression model as follows:

\[ Y = -45.789 + 9.394 X_1 - 0.120 X_2 + e \]

With description:

\( Y \): The level of poverty  
\( a \): Constant  
\( b_1 \): The Regression Coefficient  
\( X_1, X_2 \): Economic Growth, The Level Of Education

Interpretation model:

a. constant (a) = -45.789, showing the price constant, where if the value of the variable \( X_1 \) (economic growth) and the variable \( X_2 \) (education level) = 0, then poverty levels (Y) = 0. This means that if the growth-based and the level of education against poverty levels is not increased then the poverty level remains worth 0.

b. The coefficient of \( X_1 \) (economic growth) = 9,394, shows that the variables \( X_1 \) (economic growth) a positive effect against poverty levels in Mandailing Natal. This means that any improved economic growth by 1 percent, then the poverty rate will increase by 9,394 percent.

c. The coefficient of \( X_2 \) (education level) =-0120, shows that the variable \( X_2 \) (education level) negatively effects the poverty rate in Mandailing Natal. This means that the level of education fell 1 percent, then the poverty rate will be reduced by 0.120 percent.

Conclusions

Based on the results of the analysis it can be concluded that:

1. Based on multiple linear regression tests, it is known that economic growth has a positive effect on poverty level in Mandailing Natal.
2. Based on multiple linear regression test, it is known that the education level of negatively effect the poverty level in Mandailing Natal.

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