Analysis of the Effect of Development Assistance Funds in Order to Reduce Income Inequality in West Java Province

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Abstrak  
This study aims to prove the effectiveness of development assistance funds in reducing income inequality. However, the results of the study show that development assistance funds do not affect income inequality. Regression analysis with secondary data was used in this study. In dealing with data that are not normally distributed, researchers perform data transformations with natural logarithms. The researchers found other closely related variables related to income inequality in the discussion, namely education, health, and the industrial sector.

Kata kunci: aid, development, income inequality, natural logarithm

INTRODUCTION  
Aspects of justice and equity can be reviewed based on national relations and reviewed between regions. Nationally, it shows whether the income between individuals or groups of community members is fair and equitable. Meanwhile, between regions shows the equal distribution between regions, provinces, and districts/cities. The notion of economic disparity (disparity) has been put forward by many economists, among others, according to Debraj Ray (2010) which states that economic inequality is "the basis of the disparity of individuals who allow owning an item, object (material) when other individuals choose something, the same." Using the Williamson index (Williamson index) to measure development inequality between regions.

The success of the development is also measured by the willingness and ability to be independent, namely the willingness of the community to create, preserve, and develop development outcomes (Purwaningsih, 2008). On the other hand, the government also carries out village development due to the inequality of poverty development between villages and cities. Most of the poor people in Indonesia are located in rural areas. This is the following data from BPS (2016), which states that in the period September 2015-March 2016, the number of poor people in urban areas was 10.34 million people, while in rural areas, the number of poor people was inadequate 17.67 million people. The existence of inequality between villages and cities makes the direction of development now prioritized to rural and regional development. (Arifiani & Sjaf, 2018)

In West Java, the use of revenues and transfers from the government, West Java Province allocates to two types of expenditures, namely regional expenditures and capital expenditures, where each expenditure is adjusted to the needs and portions of each. Realization of regional expenditure and capital expenditure of West Java province. Regional expenditure in the 2015 fiscal year is budgeted at Rp. 27,752,682,415,573.12. Of this amount, Rp. 24,642,731,222,290.00 (88.79%). The regional expenditure is allocated for Indirect Expenditure of Rp. 21,686,438,822,087.12 and Direct Expenditure was allocated Rp. 6,066,243,593,486.00. Indirect Expenditure can be realized as much as Rp. 19,256,546,459,502.00 (88.80%), while Direct Expenditure can be realized as much as Rp. 5,386,184,762,788,00 (88.79%).
On the other hand, the 2016 Special Allocation Fund (DAK) doubled to Rp 55.3 trillion from the 2015 allocation of Rp 27.1 trillion. DAK is also an essential component in financing regional expenditures. The more DAK increases, the better DAK contributes to financing regional expenditures. This situation becomes very interesting to study concerning the high level of inequality in the province of West Java, and the transfer funds provided by the central government are pretty significant.

Based on the data above, the West Java Provincial Government uses more of its income to fund Regional Expenditures than fund Capital Expenditures. This is because regional spending is prioritized to improve the quality of people's lives as a regional obligation. Regional government affairs break down regional Expenditures, organizations, programs, activities, groups, types, objects, and details of spending objects.

Regional Expenditures are used in the framework of funding the implementation of government affairs which are under the authority of the province or regency/municipality which consist of mandatory affairs, elective affairs, and affairs of their handling in certain sections and fields that can be carried out jointly between the government and regional governments or between regional governments which are stipulated by provisions. Legislation so that the budget from regional expenditure is more significant than capital expenditure. The low level of regional financial capacity will often lead to negative circulation, namely "low levels of public services which in turn will invite central intervention or even transfer some of the functions of local government to higher levels of government" (Isdijoso and Brahmanio, 2011:19).

The West Java provincial government uses DAU and PAD, judging from financial independence, it can be said that "West Java Province has been independent in managing and financing its regional finances resulting in the conclusion that the General Allocation Fund (DAU) has a significant positive effect on regional spending" (Sumardi and Prasetyan, 2011: 26). This study seeks to analyze whether development assistance funds affect income inequality in districts/cities in West Java Province.

RESEARCH METHODS

This research is quantitative research with an associative approach. Researchers used secondary data sources in documentation from the Central Statistics Agency (BPS) and the Directorate General of Fiscal Balance of the Ministry of Finance (DIPK kemenku) in 2000-2015. In data analysis, researchers perform natural data transformation algorithms.

The natural logarithm is "The logarithm based on e, where e is 2.718281828459... (and so on)". Natural logarithms are defined for all positive real numbers x and can also be defined for complex numbers, not 0. The following are the original data and data that have been converted to natural logarithm form. The Ln function is an inverse and an exponential function (Gujarati, 2003:39).

The researcher used the independent variable in development assistance funds and income inequality as the dependent variable. After that, the researchers tested the normality of the data and continued by testing simple linear regression and the coefficient of determination. The analysis results will show the significant value of the influence of one variable on the other will also show the correlation coefficient.

RESULT AND DISCUSSION

Result

West Java, for more than three decades, has experienced rapid economic development. The increase in the modern economy is currently marked by an increase in the manufacturing and service sectors. Besides social and infrastructure developments, the manufacturing sector accounts for the largest contribution through investment, almost three-quarters of non-oil manufacturing industries centered around West Java. West Java's GRDP in 2003 reached Rp. 231,764 billion (US$ 27.26 Billion), contributing 14-15 percent of the total national gross domestic product, the highest figure for a province. However, due to the large population, the Gross Domestic Product per capita of West Java is Rp. 5,476,034 (US$644.24), including oil and...
gas, representing 82.4 percent and 86.1 percent of the national average, respectively. Economic growth in 2003 was 4.21 percent, including oil and gas, 4.91 percent, including oil and gas, better than Indonesia as a whole. (US$1 = Rp. 8,500,-).

The population of West Java Province is 43,053,732 people, including those who live in urban areas as many as 28,282,915 people (65.69 percent) and rural areas as many as 14,770,817 people (34.31 percent). The percentage of population distribution by district/city varies from the lowest of 0.41 percent in Banjar City to the highest of 11.08 percent in Bogor Regency.

The results of normality testing in this study are shown in the following table.

Table 1. Recapitulation of Normality Test Calculation Results

<table>
<thead>
<tr>
<th>Class</th>
<th>Number of Samples</th>
<th>Lo</th>
<th>$L_{table}$</th>
<th>$\alpha = 0.05$</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development Assistance Fund</td>
<td>16</td>
<td>0.3120</td>
<td>0.213</td>
<td>Abnormal</td>
<td></td>
</tr>
<tr>
<td>Income Inequality</td>
<td>16</td>
<td>0.70</td>
<td>0.213</td>
<td>Abnormal</td>
<td></td>
</tr>
</tbody>
</table>

Source: Processed (2021)

Both variables have data that are not normally distributed, but the researcher performs a transformation in the form of a natural logarithm. According to Fachrudin (2011), the data showing that the residual data does not meet normality can be transformed with Natural Logarithms. The data graph of the two variables also changes with the following data.

![Figure 1. Changes in the graph of grant data](image1)

![Gambar 2. Changes in inequality rate graph](image2)

The diagram above is a change in data from the normality test after the Natural Logarithm is performed. Furthermore, the researchers conducted a Correlation Coefficient Analysis. The correlation coefficient shows a strong relationship (strength)
between the two variables, and the value of r that is close to 0 indicates a weak relationship between the two variables. While the + (positive) and - (negative) signs provide information about the relationship between the two variables. If the value is + (positive), then the two variables have a unidirectional relationship. If the correlation coefficient is positive, then the two variables have a unidirectional relationship. Based on the calculation results, the r_xy value is -0.0791. These results are consulted with the correlation coefficient scale (Chapter III table 3.3), which is between 0-0.25, which means that the relationship between the variables of development assistance funds and the variable level of income inequality is feeble.

In the analysis of coefficient determination, the researchers found that the coefficient of determination was 0.00623%. It shows that the variable of development assistance funds (X) contributes to income inequality (Y) of 0.00623%. While the remaining 99.994% is influenced by other factors not examined, for example, demographic factors including labor conditions, differences in natural resources between regions, and the allocation of development funds between regions, both government investment and private investment, has not been evenly distributed. With the following regression equation Y = -0.8734 - 0.0227X The simple linear regression equation above means that if the value of aid funds is 0 or constant, then the level of income inequality is -0.8734%. If aid funds have increased by 1%, it will affect the level of inequality West Java's income is -0.0227%, and vice versa.

Then, in testing the hypothesis, it was found that t_count: t_table = -0.298 < 1.761, so the conclusion Ha was rejected, and Ho was accepted. In other words, it can be concluded that development assistance funds do not influence the level of income inequality in West Java Province.

Discussion

The study results have discussed that the regression and correlation calculations results do not show the effect of regional development assistance on the level of income inequality. So it is necessary to analyze what other variables can affect income inequality. In another analysis, educational factors can influence income inequality, as research conducted by Dastiar (in Nangarumba, 2015) in developing countries where there is a condition where the service sector and industry are more dominant than agriculture. This condition increases the level of income inequality. Generally, developing countries prioritize the advancement of the industrial sector and tend to leave the agricultural sector. However, the agricultural sector has a lot of workers, less educated. This labor force in the agricultural sector has a relatively high poverty rate. Whereas in developed countries, the development of the service sector and the reduced share of the industrial and agricultural sectors will reduce income inequality.

In other research results, other factors such as an increase in the minimum wage increase the income gap or enlarge the income gap (Sari Nurmalisa Sungkar, 2015). Furthermore, the widening income gap will be exacerbated by the level of health that ultimately makes the community unproductive. Previous research explained that income inequality (measured by the Gini coefficient) significantly affects health status when we control income, savings, and education levels. The relationship was consistent regardless of health status and income specifications. Thus, the study results provide some empirical support for the income inequality hypothesis (Asafu-Adjaye, 2004)

This finding is supported by research by Ledić & Rubil (2019), which explains that health is a variable other than income that can affect the level of income inequality. Based on these, Researchers suggest conducting further research or more in-depth research on health and education as variables that can affect inequality.
PENUTUP

Regression testing does not provide a significant value between the two variables, making research on regional income assistance to income inequality closer to finding variables that affect income inequality. For example, education and health are closely related to income inequality. Agriculture is also a sector that needs to be developed because it is the focus of many people. Hakim (2009) considers the economic contribution to the agricultural sector, so industrialization should be stimulated and based on that sector to not interfere with labor conditions. If this industrialization model is adopted, two critical things will soon be achieved; On the one hand, an adequate level of economic growth will be obtained.

On the other hand, the number of workers involved in the industrialization process is vast. In this way, the accelerated industrialization process in Indonesia will not cause as many problems as is the case in many countries, such as unemployment and income inequality. This research can be a reference for the government in reducing income inequality by focusing on education, agriculture, and health.

REFERENCE


