Does Special Autonomy Funds Matter for Economic Performance? The Case of Aceh Province, Indonesia

Abstract: This study aims to examine and analyze the effects of special autonomy funds on economic growth, poverty, inequality, and unemployment. It also attempts to study and analyze the effects of economic growth on poverty, inequality, and unemployment in 23 regencies/cities in Aceh Province, Indonesia. Using panel data from 2013-2019 and analyzing using the fixed-effect panel regression technique, this study found evidence that special autonomy funds promoted economic growth and reduced poverty, income inequality, and unemployment. Furthermore, the estimation results showed that economic growth increased poverty, income inequality, and unemployment. The results showed the effectiveness of special autonomy funds in improving the economic performance of 23 districts/cities in Aceh Province, Indonesia. However, economic growth has not been able to reduce poverty, income disparity, and unemployment. This shows the importance of redesigning inclusive economic development by formulating development policies that are pro-poor, pro-job creation, and pro-equal income distribution oriented by involving the active participation of the community collectively in economic development.

Keywords: Pro-poor; Pro-job creation; Special autonomy funds; Economic performance.

INTRODUCTION

Aceh Province is one of 34 provinces in Indonesia that are granted special autonomy based on Law Number 11 of 2006 concerning the Government of Aceh. The implementation of special autonomy is also marked by the provision of financial resources to the Aceh government in the form of regional income and financing, including through the provision of special autonomy funds. The Aceh special autonomy fund is the Aceh government's revenue which is intended to finance development, especially infrastructure development and maintenance, people's economic empowerment, poverty alleviation, unemployment, and funding for education, social, and health. In addition, special autonomy funds are also allocated to finance development programs in the context of implementing Aceh's privileges. The management of special autonomy funds is aimed at catching up with regional development by taking into account the balance of development progress between regencies/cities.

The special autonomy fund is expected to improve the standard of living of the people in Aceh Province and provide opportunities for Acehnese indigenous people to play a role in development in Aceh. Development in Aceh Province must be a collaboration between the Central Government and the Provincial Government, as well as the community. Implementing the acceleration of development requires an adequate number of budgets/funds and these funds are the Special Autonomy Fund. The management of special autonomy funds is aimed at catching up with regional development by taking into account the balance of development progress between regencies/cities. Although the Central Government distributes special autonomy funds through the provincial government, the special autonomy funds are also a source of revenue for districts/cities.

Poverty and development inequality is inseparable element. Poverty exists due to social inequality in a country. Where most of the income of a country can only be enjoyed by a handful of people and others only get a small portion or even do not get it. The effect of the poverty level on inequality has a negative effect, namely where when the poverty level increases it will also increase the economic disparity that will occur. Therefore, equitable development should be realized immediately so as not to cause disparities between regions. Likewise with the problem of unemployment has always been a problem that needs to be solved in the economy.
The problem of unemployment in both developed and developing countries is an important part of development planning, especially concerning economic development issues. The increasing number of people who are getting bigger every year will result in an increase in the number of the workforce as well as the number of people looking for work will increase, and also be followed by an increase in the workforce. Therefore, the government must immediately think about this unemployment problem so that it can decide on strategic steps as an effort to deal with the unemployment problem.

There are at least three main problems that must be considered in measuring the economic growth of a country or region, namely: 1) What happens to the poverty level, 2) What happens to unemployment, and 3) What happens to inequality in various fields (Hamzah, 2010, 2007). The main problems are interrelated and influence each other. The level of poverty is influenced by the number of unemployed and in turn, will certainly have an impact on inequality in various fields. If one of the three things decreases or increases, then the other two things also experience an impact.


Figure 1. Economic Performance of Aceh Province, Indonesia (2010-2019)

As illustrated in Figure 1, it can be viewed that the poverty percentage of the population of Aceh province continues to decline continuously from 2010 by 20.98 percent until 2019 can be reduced to 15.01 percent. Meanwhile, the percentage of the open unemployment rate is still fluctuating. This can be seen from the graph above where the highest increase in the percentage of unemployment occurred in 2013 which was 10.12 percent. However, it decreased again until in 2019 the percentage of unemployment was able to be reduced to 6.2 percent.

The percentage of Gini ratio is also still fluctuating. However, the percentage is still around 0.3 percent. It means that the inequality that occurs is still high and is a priority for the government to eliminate the inequality. Furthermore, the level of economic growth in Aceh is still the center of attention of the government, while its rate has been volatile across the last few decades.

The special autonomy fund is seen as able to reduce poverty, unemployment and reduce the Gini ratio more quickly if it is driven by good governance so that regional economic growth can also increase. This is even dicd in the study by Zaman et al. (2010) in Pakistan using a cointegration approach over the study period from 1964 to 2006. Economic volatility has pressure on poverty and it also has a negative impact on inequality. This means that if economic growth is positive, it will also have a positive impact on poverty and inequality and can reduce unemployment.

Previous studies related to the contribution of special autonomy funds in economic growth and economic problems such as poverty, inequality, and unemployment has been studied before. However, previous studies examined the effect of special autonomy funds on economic growth, poverty, inequality, and unemployment partially. Meanwhile, the difference between this research and previous research is that besides aiming to analyze the effect of special autonomy funds on economic growth, poverty, inequality, and unemployment partially. Meanwhile, the difference between this research and previous research is that besides aiming to analyze the effect of special autonomy funds on economic growth, poverty, inequality, and unemployment, this study also aims to analyze the effect of economic growth in mediating special autonomy funds on poverty, inequality, and unemployment. Meanwhile, previous research focused on the effect of special autonomy funds on economic growth or empirical analysis of economic growth on poverty and inequality.

The studies of Zaman et al. (2010), DJPK (2017), Ikhsan (2020), Rosyafa and Deky (2018), Nasrullah et al. (2017), Iskandar (2017), Anwar (2018), and Nur (2015). In addition to the different variables, this study uses the years 2013-2019 while the previous research is only the last few years, such as Zaman et al. (2010) from 1964-2006, Nur (2015) from 2009-2013, and Anwar (2018) from 2011-2015. In contrast to previous studies that focused on other areas in Indonesia, such as the provinces of Papua and West Papua, this research focused on the province of Aceh.
Specifically, this study aims to examine and analyze the effect of special autonomy funds on economic growth, poverty, inequality, and unemployment. It also attempts to study and analyze the effect of economic growth on poverty, inequality, and unemployment in 23 regencies/cities in Aceh Province, Indonesia during the 2013-2019 period by using a panel regression model. The results of this study are expected to enrich references and policies on optimizing the use of special autonomy funds for economic development.

LITERATURE REVIEW

To examine directly the effect of economic growth on poverty and unemployment; and to indirectly examine the effect of local revenue, general allocation of funds, allocation of special funds, and capital expenditures for poverty and unemployment. Setiyawati (et al.) (2007), the results of the study with regression show that local revenue and general allocation of funds have a significant direct effect at the 0.01 level on economic growth. The results of the estimation of economic growth show that there is a significant direct effect at the 0.01 level on poverty, and unemployment, local revenue and general allocation of funds have a significant indirect effect on poverty and unemployment. Using the regression model, Hamza (et al.) (2007) found that regional income (regionally-generated revenue, general allocation fund, and special allocation fund) has a positive influence on economic growth, poverty, and unemployment.

Furthermore, research by Tamberan (et al.) (2019) focuses on the allocation of special autonomy funds and their impact on economic inequality in Papua Province during the 2010-2018 period. Special autonomy funds in the field of community economic empowerment have no significant effect on regional economic inequality. According to Tambunan (2001), economic growth without being accompanied by additional employment opportunities will result in inequality in the distribution of the additional income (ceteris paribus), which in turn will create a condition of economic growth with an increase in poverty.

Nurmaryati (2018) further explains that the factors for poverty include: (1) The occurrence of inequality in economic development that is evenly distributed economically and is powerless because the area is not isolated or in a deepening and underdeveloped area so that it is difficult to reach such as health services, education and so on; (2) The low level of education results in limited self-development abilities and causes narrow employment opportunities that can be entered; (3) Unemployment is a factor in the occurrence of poverty because the unemployed population cannot generate income or profits to meet their living needs; and (4) Geographic, this relates to natural conditions that are measured in the potential for soil fertility and natural wealth.

Factors that affect economic growth, such as human resources, natural resources, technology, culture, and capital are closely related to the availability of funding sources such as the availability of a special autonomy fund budget. Thus, it can be concluded that special autonomy funds are related to economic growth. An increase in special autonomy funds goes hand in hand with an increase in human resources. Saputra (2014) shows that special autonomy funds have a positive and significant influence on the HDI, where the increase in special autonomy funds is accompanied by an increase in the HDI in West Papua. Uddin (et al.) (2014) explored the relationship between the development of development funds, economic growth, and poverty. The estimation results of the Bangladesh government's development funds can influence poverty reduction by encouraging the development finance sector.

RESEARCH METHODS

This study uses annual secondary panel data involving 23 districts/cities in Aceh Province during the period 2013-2019. The reason why the data was taken from 2013-2019 is that special autonomy funds have been distributed to districts/cities starting in 2013 until now. In other words, the number of observations in this study was 161 observations.

This study uses panel regression analysis involving data on special autonomy, economic growth, poverty, unemployment, and economic inequality. The special autonomy fund is calculated based on the number of special autonomy funds received by the district/city per year. Economic growth is calculated based on the annual change in the gross domestic product in percentage. Poverty is calculated from the proportion of the number of poor people from the total population, economic inequality is calculated using the Gini ratio index, and unemployment is calculated based on the proportion of the number of unemployed people compared to the total population of districts/cities per year.

Mathematically, the following estimated models are proposed to examine the effect of special autonomy funds on economic growth, poverty, income inequality, and unemployment:

\[ ECG_i = \alpha_0 + \alpha_1 OTF_i + \epsilon_1 \]  
\[ POV_i = \alpha_0 + \alpha_2 OTF_i + \epsilon_2 \]  
\[ DISP_i = \alpha_0 + \alpha_3 OTF_i + \epsilon_3 \]  
\[ UNEM_i = \alpha_0 + \alpha_4 OTF_i + \epsilon_4 \]  

Meanwhile, the mathematical equation proposed to test the effect of economic growth on poverty, income inequality, and unemployment, as follows:

\[ POV_i = \alpha_0 + \alpha_5 ECG_i + \epsilon_5 \]  
\[ DISP_i = \alpha_0 + \alpha_6 ECG_i + \epsilon_6 \]
UNEM_t = \alpha_0 + \alpha_1 ECG_t + \varepsilon_t (2.3)

Where ECG is the economic growth rate; POV is the poverty rate; DISP is the disparity rate; UNEM is the unemployment rate; OTF the special autonomy funds; \alpha_0, \alpha_1 are the constant terms, \alpha_i are the estimated regressors; \varepsilon_t is the error terms, i is the district/city i; and t is the period t.

FINDINGS AND DISCUSSION

Before the data were analyzed, this study first tested the classical assumptions. Multicollinearity test is used to ensure that there is no perfect linear relationship between some or all of the independent variables. Heteroscedasticity test to determine whether there is an inequality of variance from the residuals for all observations in the regression model, while the normality test was carried out to see whether the residual values were normally distributed.

As shown in Table 1, the economic growth variable has a statistical value of 8.589 with a p-value of 0.000 <0.05. With an estimated economic growth coefficient of 0.060, it means that if there is an additional special autonomy fund budget of Rp1 billion, Aceh's economic growth can increase by 6.0 percent assuming other variables are held constant. Based on the estimation that has been generated, it shows that the special autonomy fund has a significant and positive effect on economic growth. This shows that the special autonomy budget plays a role in increasing economic growth in Aceh. Our findings are in line with a previous study by Anwar (2018) who showed that the Special Autonomy Fund has a significant and positive effect on economic growth or gross regional domestic product. If the special autonomy fund increases, then economic growth would also increase. Furthermore, a similar study was conducted by Sihombing (et al.) (2017) that stated special autonomy has a role in economic growth. The results of this study are also in line with the research of Zulham (et al.) (2015) where the convergence of regional economic growth based on sigma, absolute and conditional before and after special autonomy shows an increase in results after special autonomy.

The poverty variable has a t-statistic value of -5.397 with a p-value of 0.000> 0.05. With an estimated economic growth coefficient of -0.027 percent, it means that if there is an additional 1 billion rupiah in the special autonomy fund budget, the poverty rate in Aceh can be reduced by -2.70 percent with the assumption that other variables are held constant. Based on the estimates that have been generated, it shows that the special autonomy funds have no significant effect on poverty. Alleviating poverty lies not only in the role of the budget. Even if the budget is a lot, but it is not used properly, this also has not boosted the level of community welfare. In this case, there must be policies that are right on target so that the role of the special autonomy fund can be used in the context of alleviating poverty.

Our findings are in line with the research conducted by Ikhsan (et al.) (2020) who found that the implementation of poverty reduction programs and policies is still in the form of pseudo-participation due to low transparency and accountability as well as economic dependence on other regions outside Aceh and at least medium and large industries in Aceh. Ikhsan (et al.) (2020) also explained that this research should be useful for the Government of Aceh to review to maximize the role of the special autonomy fund in poverty alleviation efforts in Aceh so that the accountable and transparent use of special autonomy funds can alleviate poverty in Aceh.

The income inequality variable has a t-statistical value of 2.719 with a p-value of 0.007 <0.05. With an estimated economic growth coefficient of 0.002, it means that if there is an additional special autonomy fund budget of IDR1 billion, then the Gini ratio in Aceh can increase by 2.29 percent assuming other variables are held constant. Based on the estimates that have been generated, it shows that special autonomy funds affect inequality. This is in line with the research found (Tamberan (et al.) 2019) which suggests that special autonomy funds have a significant impact on regional economic inequality in Papua Province in 2010-2018. This shows that the budget planning formulation that has been determined has taken into account the geographical aspect to achieve development goals effectively. Furthermore, Mesak (et al.) (2019) in the results of his research found that the regional development gap before special autonomy was relatively smaller than the regional development gap after special autonomy, meaning that the implementation of the autonomy status had led to the creation of a higher development gap in these provinces. Sustained development initiatives that should be followed up with adequate oversight, better transparency, and law enforcement from government bureaucrats and legislative bodies are recommended to reduce inequality.

Table 1. Effect of Special Autonomy Funds on Economic Performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>ECG</th>
<th>POV</th>
<th>DISP</th>
<th>UNEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>14.177</td>
<td>3.116</td>
<td>-3.518</td>
<td>3.537</td>
</tr>
<tr>
<td>OTF</td>
<td>0.060***</td>
<td>-0.027***</td>
<td>0.023***</td>
<td>-0.151***</td>
</tr>
<tr>
<td>t-statistic</td>
<td>8.589</td>
<td>-5.397</td>
<td>2.720</td>
<td>-4.593</td>
</tr>
<tr>
<td>p-value</td>
<td>0.000</td>
<td>0.000</td>
<td>0.007</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Primary panel data, processed (2020).
The unemployment variable has a t-statistic value of -5.593 with a p-value of 0.000 <0.05. With an estimated unemployment coefficient of -4.151, it means that if there is an additional special autonomy fund budget of IDR1 billion, the unemployment rate in Aceh can decrease by 15.07 percent assuming other variables are held constant. Based on the estimation that has been generated, it shows that the special autonomy fund affects unemployment. This is in line with the opinion of Kuncoro (2003) where he argues that the optimization strategy and budget management will encourage economic growth through optimizing the potential of development sectors so that economic growth will suppress the unemployment rate.

<table>
<thead>
<tr>
<th>Variable</th>
<th>POV</th>
<th>DISP</th>
<th>UNEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>17.9447</td>
<td>15.3663</td>
<td>15.3882</td>
</tr>
<tr>
<td>ECG</td>
<td>-0.9895***</td>
<td>0.1576***</td>
<td>-0.1201***</td>
</tr>
<tr>
<td>t-statistic</td>
<td>-9.4295</td>
<td>1.8664</td>
<td>-5.1698</td>
</tr>
<tr>
<td>p-value</td>
<td>0.0000</td>
<td>0.0641</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

**Source:** Primary panel data, processed (2020).

Table 2. Effect of Economic Growth on Poverty, Income Disparity, and Unemployment

Based on Table 2, it can be viewed that the poverty variable has a t-statistic value of -9.4295. At a significant level = 0.05 percent with a p-value of 0.000 <0.05, it means that H0 is accepted. With an estimated poverty coefficient of -0.9926, it means that if there is an increase in the economic growth of 1 percent, it can reduce the poverty rate in Aceh by -9.92 percent with the assumption that other variables are held constant. Based on the estimates that have been generated, it shows that economic growth has a significant effect on poverty. This shows that poverty is the main concern of policy-makers because its occurrence is directly related to the welfare of the population. Chen and Ravallion (2013) suggest that economic growth and development are generally relevant to reducing poverty.

Then the results of the study of Banerjee (et al.) (2015) found that growth in various regions and sectors in India has helped reduce poverty levels. This is similar to the results of the study by Datt (et al.) (2016) found that India's economic growth after the reforms of the 1990s was important for reducing poverty. Furthermore, Fosu (2015) also finds that economic growth plays an important role in reducing the incidence of poverty. Zaman (et al.) (2010) in Pakistan concluded that pressure on economic growth will hurt poverty, inequality, and unemployment. This means that if economic growth is positive, it will also have a positive impact on poverty and inequality and can reduce unemployment.

The inequality variable has a t-statistic value of 1.8663 with a p-value of 0.0641 <0.10. With an estimated inequality coefficient of 0.1576, it means that if there is an increase in the economic growth of 1 percent, the Gini ratio in Aceh will increase by 0.15 percent assuming other variables are held constant. This shows that the economic growth that has occurred has not provided an answer to the inequality that has occurred. Inequality is, basically, caused by several factors, such as differences in natural resources, the limited reach of facilities and infrastructure for the community. Mandasari (2017) states that economic growth does not partially affect inequality in Aceh Province. Because the inequality that occurs in Aceh Province belongs to the high inequality group, this condition exposes Aceh Province to the challenge of increasing equity and expanding the quality range of other social services. Inequality caused by the ability of a region to encourage the process of economic development is also different. Therefore, it is not surprising that in every country/region there are usually developed and underdeveloped regions (Sjafrizal, 2008).

The unemployment variable has a t-statistical value of -5.1698 with a significant level of = 0.05 percent with a p-value of 0.000 <0.05 meaning H0 is accepted. With an estimated unemployment coefficient of -0.1202, it means that if there is an increase in the economic growth of 1 percent, it can reduce the unemployment rate in Aceh by 0.12 percent with the assumption that other variables are held constant. Based on the estimates that have been generated, it shows that economic growth affects unemployment. The finding is in line with the results of research by Hamzah (2007) who found that economic growth has a positive effect on unemployment. Furthermore, Iskandar Putong (2003) also explains the same thing that an increase in economic growth will reduce the number of unemployed. This shows that the greater the economic growth, the greater the amount of unemployment that can be reduced.

However, our results contradict the research conducted by Handson (2016) where the results of the study show that economic growth has a negative impact on unemployment. In this case, the South African government should direct its spending on activities that directly and indirectly promote job creation and decent work, a conducive environment, and flexible labor market policies or regulations without barriers to job creation should be made, and lastly, the government should prioritize industries that encourage labor-intensiveness. So all this will help absorb a large number of the unemployed population thereby reducing unemployment in South Africa. Furthermore, Anghel (et al.) (2007) suggest that many labor resources are not

Available Online: [https://iarconsortium.org/journal-info/IARJB](https://iarconsortium.org/journal-info/IARJB)
used to increase the production of goods and services, causing a large number of unemployed.

CONCLUSION
The research examines and analyzes the effect of special autonomy funds on economic growth, poverty, inequality, and unemployment. It also attempts to study and analyze the effect of economic growth on poverty, inequality, and unemployment in 23 Regencies/Cities in Aceh Province, Indonesia. Using panel data from 2013-2019 and analyzed using the fixed-effect panel regression technique, this study finds evidence that special autonomy funds can promote economic growth and reduce poverty, income inequality, and unemployment. Furthermore, the estimation results show that economic growth actually increases poverty, income inequality, and unemployment. The results showed the effectiveness of special autonomy funds in improving the economic performance of 23 districts/cities in Aceh Province, Indonesia. However, the economic growth that has occurred has not been able to reduce poverty, income disparity, and unemployment.

Our findings showed the importance of redesigning inclusive development by establishing pro-poor development, pro-job creation, and pro-equal income distribution policies by involving the active participation of the community collectively in economic development.

To enrich the results of research on the role of special autonomy funds on economic performance, future research is expected to consider other macroeconomic variables and examine all provinces receiving special autonomy funds in Indonesia with a longer analysis period.

REFERENCES

Available Online: https://iarconsortium.org/journal-info/IARJBM
49. Undang-Undang Republik Indonesia Nomor 11 Tahun 2006 Tentang Pemerintahan Aecch.
50. Undang-Undang Republik Indonesia Nomor 21 Tahun 2001 Tentang Otonomi Khusus Bagi Provinsi Papua.
51. Undang-Undang Republik Indonesia Nomor 32 Tahun 2004 Tentang Pemerintahan Daerah.