Economics Development Analysis Journal Vol (1) (2022)

Economics Development Analysis Journal

http://journal.unnes.ac.id/sju/index.php/edaj

Does Fiscal Decentralization Increase the Economic Growth in Sulawesi Island?

Nur Azizah[1], [2]Hendra Kusuma✉, [3]Zainal Arifin

[1,2,3]Economic Development, Faculty of Economics and Business, University of Muhammadiyah Malang, East Java, Indonesia

Article Information

History of Article
Received October 2021
Accepted December 2021
Pusblished February 2022

Keywords:
Fiscal Decentralization, Economic Growth, Fund Transfer

Abstract

Fiscal decentralization in Indonesia has been carried out since the issuance of Law No. 22/1999 which requires the central government to hand over financial management authority to local governments. Fiscal decentralization can create efficiency and effectiveness to encourage economic growth. However, there are still problems, namely whether the delegation of authority can contribute to regional economic growth. This study was conducted to determine the effect or impact of fiscal decentralization on the economic growth of six provinces on the island of Sulawesi. The central government assists the regions through fund transfer schemes such as GAF, SAF, and RSF. This study uses data from six provinces on Sulawesi Island between 2005-2019 and looks at the amount of fiscal decentralization used, namely the ability of regional transfers to create economic growth (AI_I) and the ability of local revenues to contribute to economic growth (AI_{II}). The results of the analysis show that the indicator of the ability of transfer funds to the formation of regional original income has a positive and significant relationship. This means that, judging from the ability of the regions to contribute to economic growth, they are still unable to increase economic growth without the help of the central government.

© 2022, Universitas Negeri Semarang

✉ Corresponding author :
Address: Economic Development, Faculty of Economics and Business, University of Muhammadiyah Malang, East Java, Indonesia
E-mail: hendrakusuma@umm.ac.id

ISSN 2252-6560

INTRODUCTION

The overall allocation local administrative functions from various islands in Indonesia or decentralization is not a new concept in Indonesia and even various countries. The concept of decentralization has been carried out since the Dutch East Indies era (Matsui, 2003). The central government tried to use a decentralization policy in 1995. However, during the new government order the process of changing the economic structure slowed down due to the high degree of fiscal centralization. After the end of the New Order's rule in 1998, the demands for democracy and the need of regional empowerment to achieve economic growth became very strong. Based on these problems, during the administration of President Habibie (1999) a law regulating Regional Autonomy, namely Law Number 22 of 1999 was issued.

The law provided a fairly fundamental change to the change, namely the retribution of authority in the bureaucracy and economy (Fiscal decentralization). Among them covered the concept of decentralization taking precedence over deconcentration, more horizontal than vertical accountability, clearer arrangements regarding the allocation of funds from the center to the regions, and full financial management authority given to local governments (Nurhemi and Suryani, 2015).

Furthermore, with the enactment of the regional autonomy law, there was a paradigm shift in government in 2001, namely from centralized to decentralized. The principle of implementing decentralization is directed at accelerating the achievement of community welfare, such as meeting the basic needs of the community in order to reduce poverty Risalam (2013) Its implementation was through service improvement, empowerment, and increasing competitiveness while still paying attention to the principles of democracy, equity, justice, specificity, potential and regional diversity. In addition, local governments also have the authority to receive and manage regional finances independently for public services and community welfare (Zahari et al., 2018).

The major authority delegated to local governments is to plan the main direction of development and economic growth of their own regions. In addition, with the great authority of the regional government accompanied by a financial transfer scheme from the central government, it is hoped to solve development problems that have an impact on economic growth and be able to encourage changes in the structure economic of the regional government itself.

Changes in the economic structure are urgently needed because if local governments only rely on the primary sector, the added value of that sector will be smaller than that of the processing industry (secondary sector). The primary sector which is an economic sector that utilizes its own natural resources directly such as agriculture, forestry, fisheries and mining will have a wide enough impact on the region itself because its importance will decline over time along with developments in other sectors. This will encourage a decrease in public consumption and savings (investment). In addition, it will also have an impact on decreasing local taxes, while in fact local revenues are also supported by local taxes. Given that issue the greater regional revenues will give more freedom to a region itself to carry out regional development (Alwi, 2017).

Implementation of fiscal decentralization and regional autonomy is supported by a transfer fund scheme carried out by the central government to regional governments through balancing funds sourced from state budget or APBN revenues allocated to regions (autonomous) to fund regional needs and improve the implementation of public services and manage their own regional households. Local governments have the opportunity to improve their economy effectively and efficiently in allocating existing resources Sianturi (2011). Improving the welfare of a region supported by a transfer scheme from the central government is expected to increase the Human Development Index (HDI).

The role of the central government is significant for the economic growth of a region Hammond and Tosun (2011). All processes carried out by local governments to run the wheels of the regional economy require large capital, where the capital is obtained from the economic potential of the regions as well as transfer funds provided by the central government. On the other hand, the economic growth of a region will be hampered if in fulfilling the development capital the regional government only relies on transferring funds from the central government as a form of responsibility for managing the central government's finances to the regional government.

According to Oates (1993) Fiscal decentralization has provided great benefits for the economic growth of a region. The main advantage of fiscal decentralization for the regions is that economic growth will run better and more efficiently. Therefore, with the transfer of authority and financial management from the central government to local governments, it is hoped that economic growth will be better and the provision of public services will be balanced between local governments and the community.

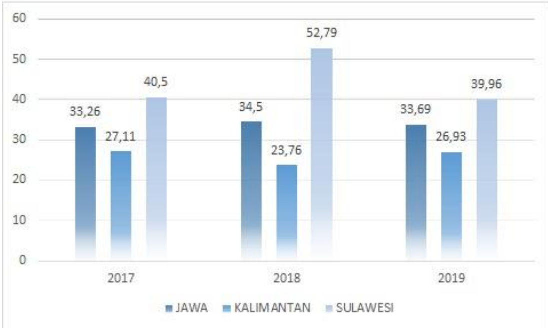
The economic growth of a region will be hampered if the fulfillment of local government capital in improving regional development only relies on balancing funds from the central government. However, the funds provided by the central government to local governments will have a positive impact if they are used for the consumption of goods and services in order to meet the smooth growth of the regional economy (Devarajan et al., 1996).

The ability of local government own revenue is very much needed in meeting regional budgets that encourage the process of economic development Fatimah et al. (2019). However, this development will be hampered if the local government only relies on transfers from the central government. Based on this perspective, local governments should concentrate more on empowering their own household economic power to create economic growth.

The government makes investments to encourage the smooth wheels of the economy of a region. One form of government investment for infrastructure development is in government spending. In addition to investments made by the government, local, national and international communities are also suggested to invest to encourage the smooth running of the economy.

Wealth owned by regions such as natural resources and human resources is one of the main attractions for investors Psycharis et al. (2016). However, in improving and developing public services, government interventions are heavily needed. Thus, the availability of adequate infrastructure will be able to reduce the cost of factors of production Morrison and Schwartz (1992). In addition, infrastructure is also the most important thing in influencing domestic and foreign investment (Globerman and Shapiro, 2003).

Figure 1. Economic Growth Rate 2017-2019



Source: BPS Indonesia Processed, 2019

Transfer funds illustrate the role of the central government to assist local government spending in implementing fiscal decentralization policies. The diversity of responses from fiscal decentralization has also been investigated by several empirical researches such as the one by Davoodi and Zou (1998). To find out the relationship between fiscal decentralization and economic growth, endogenous growth model analysis was used to calculate the panel data from 46 developed and developing countries during the period 1970-1989. The research conducted shows that there is a negative relationship between fiscal decentralization and economic growth in the development in developing countries. This is indicated by the ratio of 33% vs 20% that developed countries are more receptive to fiscal decentralization policies than developing countries. In addition, the GDP growth of developed countries is also higher than that of decentralized developing countries (2% vs.

1.6%). Oppositely, a research conducted by Slavinskaitė (2017) found that there is a positive relationship between fiscal decentralization and economic growth in developing countries.

In Figure 1. It can be seen that of the three islands in Indonesia, namely Java, Kalimantan and Sulawesi the highest GRDP growth rate since 2017-2019 was gained by Sulawesi Island. This made researchers interested in further researching the fiscal conditions in Sulawesi Island Provinces. In addition, a research done by Davoodi and Zou (1998) shows that developed countries are more receptive to fiscal decentralization so that the growth rate is high. Meanwhile, when compared to the three islands above, Sulawesi Island is an area that can be considered underdeveloped because it still relies on the primary sector compared to others.

Another research conducted by Akai and Sakata (2002) which used cross section and time series data from 50 states in the United States and follows the equation made by Xie et al. (1999) shows the results that fiscal decentralization will have an impact on the United States of America. Further, the ability of these states in implementing regional expenditures related to the delegation of central government authority to local governments shows positive results on economic growth of Gross Domestic Product (GDP).

The fiscal decentralization policy system has been implemented by Indonesia since 2001 after the issuance of Law No. 22 of 1999. Therefore, to find the accordance of the delegation of authority related to financial management from the central government to local governments with the objectives, it is necessary to observe more about the proportion regional expenditures, regional capacity from central government transfer funds in the process of economic growth as well as the ability of Local Government Own Revenue in its contribution to economic growth.

The definition of fiscal decentralization includes various aspects that need to be considered, namely administrative, fiscal, political and economic aspects. In carrying it out, the government is in charge of three main functions, namely distribution, allocation and stabilization (Stiglitz and Rosengard, 2015).

The distribution function carried out by the regional government is to implement the principle of equity through the distribution of economic development and ensuring justice in an even distribution of income. In controlling and allocating economic resources, including allocation funds from the central government, local governments carry out the allocation function. Meanwhile, in term of the stabilization function the government has a very important role. It is such as a balancer of various socio-economic aspects such as unemployment, price stability and economic growth. To do so, the local governments can use their resources to accelerate economic growth.

The Implementation of regional development to achieve community welfare through fiscal decentralization according to Bird and Vaillancourt (2000) covers three variations. First, decentralization means relinquishing responsibility within the central government to local governments (regional vertical agencies). Second, delegates, namely the regions acting as representatives of the central government to carry out certain functions on behalf of the government. Third, delegation, which is not only the implementation given to the regions, but also the authority to decide what needs to be done by the regions.

Fiscal decentralization policies on the delegation of authority from the central government to larger regional governments can create efficiency and effectiveness for the provision of public goods. This is because local governments better understand the preferences of their people. Thus, the availability of public goods by the government will be able to increase economic growth. However, in meeting the needs of regional expenditures for the provision of public goods, government revenues can be allocated from local government own revenue as well as transfer funds from the central government (Kainde, 2013).

According to Martinez-Vazquez and McNab (2003) the relationship between fiscal decentralization and multidimensional economic growth can be distinguished in direct and indirect relationships. A direct relationship based on Oates' (1993) is realized in the provision of public goods in the fiscal decentralization policy that will increase the efficiency of economic growth. The direct relationship between fiscal decentralization and economic growth as stated by Oates (1993) still needs further development. However, there is some potential that can be developed regarding the indirect relationship between fiscal decentralization and economic growth.

In addition to the cross section, the researchers examined researches conducted by Aschauer (2000), (Baffes and Shah, 1998) as well as a research conducted by Rappaport (1999) with the case of the United States. Comprehensive and updated review of the impact of fiscal decentralization on the economy, society and politics by seeing first target is understood as the examination of two crucial and yet unsolved issues in the empirical literature on decentralization. Additionally, the proper measurement of decentralization itself and its potential endogeneity in econometric estimates has also been analyzed by (Martínez-Vázquez et al., 2017).

A research conducted by Jin and Zou (2002) regarding fiscal decentralization in China shows that spending decentralization does not increase economic growth. Not only in China, an empirical analysis of Russian regions for 2005–2012 shows that excessive expenditure decentralization within the region, which is not accompanied by the respective level of revenue decentralization, is significantly and negatively related to regional economic growth (Yushkov, 2015) In contrast, investigations conducted by Ewetan et al. (2020), (Ganaie et al., 2018, Grisorio and Prota, 2015, Pasichnyi, 2017) show that the level of decentralization influences the composition of expenditure. This shows that the central government is more efficient in managing its expenditures than local governments Zhang and Zou (1998). Meanwhile, according to the theory of Syahputra (2017) decentralization in the revenue sector has a positive and significant impact. Revenue decentralization will support revenues from local financial sources. This is also in accordance with a research conducted by Rodden and Rose-Ackerman (1997) that fiscal decentralization will be hampered if local governments do not have adequate capacity compared to the central government. Another research in China which has also been studied by Han and Kung (2015) concludes that fiscal incentives influence local government policy choices in China at the expense of the real estate and construction sectors, when their corporate tax revenue levels are reduced thereby slowing the central government's industrial growth.

Akai and Sakata (2002) in their research describe several indicators to measure fiscal decentralization. First, the ratio of local government revenues and expenditures to revenues from the central government. Second, the ratio of real local revenue to total revenue, including government transfers. Third, the ratio of real local revenue to total revenue, excluding transfers from the government.

The theory of fiscal decentralization policy suggests a number of potential trade-off between efficiency and other objectives of intergovernmental distribution of resources or macroeconomic stability. Hence, the provision of a small amount of macroeconomic policy will increase macroeconomic stability.

Many problems arose in the implementation of fiscal decentralization in Indonesia, so there is a need for a policy that brings more benefits to large countries such as Indonesia. In addition, fiscal decentralization policies can encourage accelerated economic growth and provide changes to the economic structure that have a broad impact on regions that are considered underdeveloped. In general, underdeveloped areas still rely on the primary sector, such as on the island of Sulawesi Arham (2014). Therefore, in general, the economy of the Sulawesi regions is still more underdeveloped compared to other regions in Indonesia.

In order to adapt to the development of circumstances, state administration, and demands for the implementation of regional autonomy, 2004 Laws Number 32 and 33 were issued with the emphasis of regional government finances and cause of considerable changes to the financial system of the Indonesian government. The two laws on decentralization have given local governments great authority to manage their own households as well as to manage and allocate their own finances. From the magnitude of the delegation of authority from the central government to regional governments, it is hoped that regional governments can improve the regional economy and be able to accelerate regional economic growth. In addition, the purpose of delegation to autonomous regions is to reduce the dependence of local governments on the central government(wekan, 2019).

The purpose of regional autonomy is not only the delegation of central government authority to local governments. It is more likely to increase the efficiency and effectiveness of financial resource management to improve welfare and public services as regulated in Government Regulation No. 58 Article 4 of 2005 concerning regional finance (Gousario and Dharmastuti, 2015, Suseno, 2013).

Regional financial performance gets better results because of the existence of autonomous regions that encourage maximum sources of income. This is also a consequence of the implementation of regional autonomy, namely the region must have its own ability to carry out government affairs and regional development (Tajuddin and Ilyas, 2020).

The present research was conducted to determine the effect or impact of fiscal decentralization on the economic growth of the six provinces on the island of Sulawesi. As we know fiscal decentralization can create efficiency and effectiveness to encourage growth and change the structure of the economy. However, in its implementation there still found several problems, one of which is whether the delegation of authority can contribute to regional economic growth. Therefore, further researches on the success of local governments in implementing decentralization in the Sulawesi region as an area in whose resource management has not yet been maximized need to be conducted. With the implementation of fiscal decentralization in each region, especially Sulawesi, the researchers got some overviews of the way regions manage their resources because the regions are more aware of their own conditions.

Several researchers have tried to examine fiscal decentralization and economic growth. Even though the contribution of fiscal decentralization has been widely acknowledged to economic growth in theoretical work, there are still more to be further examined, especially in the current research. Researches on fiscal decentralization and its effect on the economic growth of a region have been carried out by researchers include Akai and Sakata (2002); Baskaran and Feld (2013); Kusuma (2016); Xie et al. (1999) ; who used the ratio of transfer income from the value issued by the central government to local governments. Furthermore, a research on fiscal decentralization and current economic growth in six provinces on the island of Sulawesi, Indonesia, adds Investment and Expenditure Government as well as several ratios of fiscal decentralization needs to be conducted to describe regional economic growth on the implementation of the delegation of authority from the central government to local governments. The formulation of the problem in this research was how does fiscal decentralization influence Capital Expenditure Ratio (CER), Government Expenditure, and Investment on economic growth.

RESEARCH METHODS

The research was conducted to determine the effect or impact of fiscal decentralization on the economic growth of the six provinces on the island of Sulawesi. The samples taken in six provinces on the island of Sulawesi were expected to be able to describe and represent the central part of Indonesia. Those were done during the period of 2005-2019 using the data panel where the best approach will be chosen from common effect, fixed effect or random effect. To overcome various kinds of classical assumptions, the Feasible Generalized Least Square (FGLS) approach was used.

In order to determine the impact of fiscal decentralization on economic growth in the six provinces on the island of Sulawesi, the researchers adopted a demand-side economic growth model. Then, it raised together with the control model variable from Akai and Sakata (2002) such as Openness and population growth as follows (1):

$$GrY_{it} = a_0 + \beta_1 RBM_{it} + \beta_2 AI_{Iit} + \beta_3 AI_{IIit} + \beta_4 (GrG)_{it} + \beta_5 (GrI)_{it} + \beta_6 (GrNX)_{it} + \varepsilon \text{ ..... (1)}$$

The dependent variable in this research was economic growth described by GRDP growth in each province, while the independent variables in this research were government spending, investment growth and Net Export growth for the control variables using Capital Expenditure Ratio (CER), AI_I and AI_{II} variables. The operational definitions of these variables are, firstly, economic growth is used for Gross Regional Domestic Product growth. Second, government spending uses the Capital Expenditure Ratio (CER) which is used as an indicator of measuring the ability of regions in implementing regional capital expenditures related to the delegation of authority from the central government to regional governments. Capital Expenditure Ratio (CER) is obtained from the ratio between capital expenditures to total expenditures. Third, Authority Indicator (AI_I) is an indicator used to measure the regional ability of transfers in creating economic growth. The Authority Indicator is obtained from local government's own revenue to total revenue, with revenues excluding federal grants.

Fourth, the transfer of total revenue from the Provincial Authority Indicator (AI_{II}) is the same measurement indicator as the AI_I which was used to measure the ability of local government own revenue in its contribution to economic growth. The Authority Indicator was obtained from local government's own revenue to total revenue, with revenues including federal grants. Fifth, the growth of local government spending (GrG) is a measure to determine the level of development of total regional spending each year. Sixth, regional government investment growth (GrI) is a measure to determine the level of investment development of a region to total income. Seventh, the government's net export growth (GrNX) is a measure to determine the level of development of a region's net exports to total income.

RESULTS AND DISCUSSION

Delegation of authority and financial management by the central government to local governments can open up space for regions for economic development in accordance with the potential of the regions. Hence, it is expected that local governments are able to allocate budgets for improving public services and community activities.

The role of the central government in the implementation of regional economic improvement is very much needed so that the support from the central government to the regions is not only through the delegation of authority and financial management. However, the central government has also issued other policies to improve the regional economy, one of which is through the policy of economic acceleration and expansion. The policy is an effort made by the central government to maximize resources in accordance with the potential of the region (Sambanis and Milanovic, 2014).

Fiscal decentralization is currently estimated to be able to improve services in various sectors, especially in the public sector. It means by increasing services to the public sector, the attractiveness of investors to invest in the region can be increased not only in terms of domestic investors but also foreign investors. One of the local government's efforts to increase the level of public and local government trust during the current shift in the composition of spending was to increase capital investment in the form of fixed assets so that the increase in capital expenditure from local governments would encourage the improvement of public services.

Judging from the large regional funding needs, the central government provided balancing funds aimed at improving regional growth and being able to manage their own regions. One component of the balancing fund that made a very large contribution was the General Allocation Fund (GAF), in which the balancing fund is a form of regional funding sourced from the APBN which consists of the Revenue Sharing Fund (RSF), the General Allocation Fund (GAF) and the Special Allocation Fund (SAF).

Fiscal decentralization is expected to create regional independence and reduce the dependence of regional governments on the central government. It is said to be independent if the finances can be managed properly or reflect the amount of local government own revenue in the total Regional Income.

Table.1 Development of the Balanced Fund for the Six Provinces on the Island of Sulawesi (Billion Rupiah)

Province	GAF			SAF			RSF		
	2017	2018	2019	2017	2018	2019	2017	2018	2019
West Sulawesi	1,008	1,025	1,064	498	452	613	26	19	20
North Sulawesi	1,390	1,428	1,463	1,008	957	1,114	110	121	126
South Sulawesi	2,509	2,509	2,586	2,566	2,540	2,817	280	238	280
Gorontalo	997	1,007	1,043	393	370	456	26	22	32
Southeast Sulawesi	1,563	1,576	1,614	1,041	1,165	1,256	71	125	160
Central Sulawesi	1,546	1,586	1,638	955	949	1,249	125	196	206

Source: DJPK, 2019 (data processed)

As showed in Table 1, the proportion of GAF is greater than that of SAF and RSF. Revenue Sharing Fund (RSF) is a fund sourced from taxes and natural resources. The funds collected from taxes are from Land and Building Tax (PBB), Customs on Land and Building Rights Acquisition (BPHTB) and Income Tax (PPh) chapter 25 and 29 for domestic individual taxpayers and chapter 21 Income Tax. Meanwhile, the one sourced from natural resources come from forestry, general mining, fisheries, petroleum mining, natural gas mining and geothermal mining.

RSF in 2017 to 2019 in each province in Sulawesi was different. The provinces of North Sulawesi, Southeast Sulawesi and Central Sulawesi experienced an increase. This was because the local tax revenue has increased, and vice versa. If the RSF has decreased, it is because the local tax revenue has decreased, so the revenue sharing fund from the local government also decreased. In addition, RSF in South Sulawesi, West Sulawesi and Gorontalo provinces fluctuated, meaning that local tax revenues also fluctuated. Profit sharing funds from PBB revenues which was given 90% for regions and 10% of the government's share of PBB revenues are all distributed to regions. The revenue sharing funds from BPHTB revenues amounted to 80% and 20% was distributed to the regions. It includes revenue sharing funds from the receipt of income tax chapter 25 and chapter 29 for domestic individual taxpayers and income tax chapter 21 which regulates the regional share of 20%. The government determines the allocation of revenue sharing funds originating from natural resources in accordance with the determination of the calculation basis and the regional products and RSF as parts of the regions to be distributed based on the realization of revenues for the current fiscal year.

The General Allocation Fund (GAF) is a fund sourced from APBN revenues allocated to regions to fund regional needs to implement decentralization aiming at encouraging economic growth. The total amount of GAF is set at least 26% of the net domestic revenue in the APBN. Based on the data, the GAF for six provinces on Sulawesi Island has increased from 2017 until 2019. This was because the administrative burden and local government needs of the area has increased which in turn pushed the GAF from the central government to increase. The GAF for a region is allocated on the basis of the fiscal gap and the basic allocation, where the fiscal gap is the difference between the region's fiscal needs and the regional fiscal capacity.

Regional fiscal needs are regional funding needs to carry out basic public service functions.

Each funding need is measured successively by population, area, Construction Cost Index, Gross Regional Domestic Product per capita, and Human Development Index. Regions that have a fiscal gap value equal to zero will receive a GAF equal to the basic allocation. GAF allocations for regions with large fiscal potential but small fiscal needs will receive relatively small GAF allocations. On the other hand, regions with small fiscal potential but large fiscal needs will receive relatively large GAF allocations. Then, the policy confirms that the function of the GAF is as a factor for equitable distribution of fiscal capacity.

Special Allocation Funds (SAF) are funds sourced from APBN revenues that are allocated to certain regions with the aim of helping to fund special regional activities in accordance with national priorities. The SAF criteria set by the government include general criteria, specific criteria and technical criteria. First, general criteria are set by taking into account the regional financial capacity in the APBD. Second, specific criteria are set by taking into account statutory regulations and regional characteristics. And thirdly, the technical criteria are set by the Ministry of State/Technical Department.

Regions receiving SAF are required to provide matching funds of at least 10% of the SAF allocation which is then budgeted in the APBD. Meanwhile, regions with certain fiscal capacities are not required to provide companion funds. Based on the data from 2017 to 2019, SAF for five provinces on Sulawesi Island fluctuated and in Southeast Sulawesi Province it increased. The increase in SAF shows that the needs of regions in catching up with regional development lags and targets for achieving national priorities were increasing.

Judging from the ratio of the central government's balancing funds into local government own revenue from 2017 to 2018, it is known that nationally the central government's balancing funds to local governments have decreased by 2.3% so it can be said that the dependence of local governments on the central government has decreased. This proves that the ability of local governments to realize balancing funds for their own household growth has increased. However, compared to other islands in Indonesia, the island of Sulawesi is the area with the highest dependency level, which was 72.5%. As for the island of Java, it is an area with a low level of dependence, which was 51.8%.

The proportion of GAF to regional growth was higher compared to Local Government Own Revenue. This showed the high dependence of local governments on the central government. Increasing investment such as improving adequate infrastructure, both in quality and quantity, is the most important factor for a region to encourage regional economic growth.

Regarding the above issue, the central government gives responsibility to local governments to optimize the potential of their own household income by providing a larger proportion of capital expenditure to carry out regional development, which in turn is able to utilize the resources owned by the region.

Table 2. Best Model Selection Regression Output

Variable	1.1	1.2	1.3
CER	0,11	-0,02	0,11
	[0,00]*	[0,64]	[0,00]*
AI_I	-0,30	-0,04	-0,30
	[0,67]	[0,54]	[0,66]
AI_{II}	2,35	2,71	2,35
	[0,00]*	[0,00]*	[0,00]*
GrG	-0,00	-8,26	-0,00
	[0,01]*	[0,02]*	[0,01]*
GrI	-8,31	-0,00	-8,31
	[0,93]	[0,19]	[0,93]
GrNX	-0,00	-0,00	-0,00
	[0,69]	[0,92]	[0,69]
Coef.	3,61	3,97	3,61
	[0,00]	[0,00]	[0,00]
R^2	0,58	0,52	0,89

Source: Data Processed, 2021

The GRDP growth (2005-2019) Six Provinces on Sulawesi Island are showed in Table 2. with three tests for selecting the best model with coefficient values (first row) and t-statistics (second row) with a significance level of 5% (*). After the implementation of fiscal decentralization in Indonesia, regional financial management has undergone many changes. Local governments that have information about the advantages of their own regions are expected to be able to manage transfer funds provided by the central government to local governments.

This research used the variable control model from Akai and Sakata (2002) by adding the dependent variable, namely economic growth in each province. As for the independent variables used government expenditures, investments and net exports with observations of 6 provinces on the island of Sulawesi with a period of 15 years in order to get a more complete picture of decentralization that has been implemented on the island of Sulawesi.

Several scenarios were taken to get a more complete pictures of fiscal decentralization on Sulawesi Island (Table 2). The results show that in the first scenario (table 2 column 1.3) gained the best model of random effect along with 3 variables that had influence, were significant and with the largest R-squared value in which R-squared was a variable that have been researched, while the rest was explained by other variables outside the model.

The first variable that showed positive and significant results was the Capital Expenditure Ratio (CER) which describes the ability of the regions to implement regional capital expenditures related to the delegation of authority from the central government to regional governments. Capital expenditure is a tool that encourages regional economic growth. The higher capital expenditure made by local governments will increase people's income and consumption patterns so that economic growth will also increase.

A positive value in Capital Expenditure Ratio (CER) indicated that the increase in people's income has been able to encourage economic growth in Sulawesi Island. Here, the increase in income was obtained from the high transfer funds provided by the central government. On the other hand, the increase in income should be caused by an increase in local government own revenue, but in reality, local government own revenue only financed routine local government expenditures of less than 30% (Iskandar, 1993). Thus, the needs of local governments were mostly met by transfer funds and as a result reduced the proportion of transfer funds for regional development. Due to this phenomenon, the economic growth was hampered.

Further explanation deals with AII variable which describes a measure of the region's ability to transfer in the creation of economic growth using the ration from regency/city local government own revenue to regency/city total revenue by excluding grants from the central government. The results of the analysis showed a non-significant value, which meant that any increase in revenue by eliminating transfers from the central government to local governments would hamper economic growth. In addition, it showed that the concept of fiscal decentralization to local governments has not been fully accepted, or local governments were still highly dependent on the central government.

The results of the analysis on the third variable, A_{III} reflected the ability of regional original income in its contribution to economic growth (including Grants). A significant positive value indicated that decentralization has been able to increase regional economic growth. Another indication showed that the A_{III} results which had significant positive results provided an answer to the high dependence of local governments on the central government for economic growth.

The fourth variable is the growth of local government spending (GrG) which is a measure to determine the level of development of total regional spending each year. It showed significant results, but the results were negative. These results produce an illustration that the amount of government spending on the amount of local government spending will have a negative effect on economic growth.

Not only limited to capital expenditure, various kinds of government spending economic growth will also respond positively. The theory of economic growth with a quantity approach shows that the higher the spending, the better the economic growth. Other variables such as Investment and Net Exports did not show a significant relationship with economic growth, while their presence also showed a negative direction. These results illustrate that the amount of investment and net exports will have a negative effect on economic growth. Various kinds of government spending will always be responded positively by economic growth, but this research showed the opposite. That the amount of government spending was significant but negative indicating that local government spending had a negative effect on economic growth. Another indication showed that local governments were still dependent on the central government. This result was also evidence of the first variable, namely A_{II}.

In general, from all samples taken in the six provinces on the island of Sulawesi, it can be stated that the delegation of authority to local governments has not been fully capable of creating economic growth. This result is showed in the fiscal decentralization indicator which showed an insignificant direction and negative direction towards economic growth. However, important things such as the ability of local governments to spend finances that can encourage economic growth represented the success of implementing fiscal decentralization in the Six Provinces of Sulawesi Island.

Fiscal decentralization suggests minimizing the fiscal gap so that economic growth in regions will improve. The ability of a region to increase fiscal capacity with the aim of reducing the fiscal gap that occurs can be done in various ways, one of which is by paying attention to the region and increasing Human Resources (HR) and improving regional infrastructure such as infrastructure to encourage the economy. According to Rodden and Rose-Ackerman (1997), Fiscal decentralization will be hampered if local governments do not have adequate fiscal capacity compared to the central government.

Table 3. Output Pooled Regression

Pooled Data Random Effect	
North Sulawesi	0,048
Central Sulawesi	-0,011
South Sulawesi	0,086
Southeast Sulawesi	0,051
Gorontalo	-0,135
West Sulawesi	-0,039

Source: Data Processed, 2021

Based on the results of Pooled regression, South Sulawesi Province gained the largest result compared to the others, which was 0.086 and the smallest was Gorontalo Province at -0.135. These results indicated that when all the variables taken are assumed to be the same, the intercept in the regression results will affect economic growth in the six provinces on Sulawesi Island with the most dominant province being South Sulawesi Province, which will add a value to each variable taken by 0.086.

The results obtained indicated that the six provinces on the island of Sulawesi appeared their superiority in each region described in the availability of natural resources that could be managed by the regions on the ability of their own households. The ability of regions to create Local government own revenue will have an influence on fiscal dependence on the central government Syahputra (2017). There are five main causes of low local revenue; first, local companies do not play a role as a source of regional income; second, the high level of centralization in the taxation sector; third, even though local taxes are quite diverse, it turns out that only a few can be relied on from sources of revenue; fourth, political factors which become concerns that if the region has high financial resources, it will encourage disintegration and separatism; fifth, the weakness in the provision of subsidies from the central government to local governments.

Regional economic growth will run well if local government own revenue is able to meet fiscal needs as well as public needs. The results of the analysis showed a significant relationship to the effect of local government own revenue by including grants on economic growth in the region. Even though local original income by excluding grants showed insignificant results on economic growth with a positive value, it was able to create economic growth. The ability of local governments to meet minimum service standards that can increase economic growth cannot be directly realized from the funding of local government own revenue.

Regional income through transfer funds from the central government is an important variable in economic growth. The significant influence on the results of the analysis between local government own revenue and economic growth has illustrated that directly the government needs in the public service sector could create economic growth. The local government law provides space to get added value from transfer funds on the side of the general allocation fund. The addition is a result of the fiscal needs of local governments that are not able to be met from Local Government Own Revenue.

In general, at the beginning of the implementation of fiscal decentralization, the role of the central government in covering the fiscal needs of local governments was very necessary. It is hoped that fiscal decentralization in the era of regional autonomy can be fulfilled from the Revenue Sharing Fund (RSF) and the Special Allocation Fund (SAF). Revenue Sharing Fund (RSF) is the strength of regional economic indicators from community activities seen from tax revenues. The greater the Revenue Sharing Fund (RSF) earned by the regional government indicates that the government has been able to improve the regional economy. Vice versa, if there is an increase in the General Allocation Fund (GAF), it illustrates that the region has not been able to meet its fiscal needs.

Meanwhile, Special Allocation Fund (SAF) is central government funding for programs that are national priorities. The implementer of the SAF is the local government in coordination with the central government. The smaller the SAF means the local government has been able to provide and implement national priority programs.

The results of the analysis of the transfer of authority from the central government to local governments in six provinces on the island of Sulawesi showed that local governments still depended on the central government. This is supported by the description of the large Revenue Sharing Fund (RSF), the increasing General Allocation Fund (GAF) and the smaller Special Allocation Fund (SAF) (in Table 1).

As a provider of public needs, local governments are expected to accelerate economic growth. If infrastructure facilities are met properly, then community activities will be smoother so as to increase the flow of regional investment. This is because infrastructure is one way to attract investors, but the availability of sufficient Human Resources (HR) will be a force in driving the wheels of the economy. The increase in Human Resources (HR) in the regions will have a positive impact on regional growth and development. In addition to the fulfillment of good infrastructure, economic activities carried out by the private sector will be better because they get better Human Resources (HR) production inputs. This will have an impact on increasing regional investment flows.

CONCLUSION

The rate of economic growth of a region is driven by increased regional spending. The results of the analysis show that the Capital Expenditure Ratio (CER) on the delegation of authority from the central government to local governments is positive and significant for economic growth, so CER has been able to encourage economic growth in the regions on the island of Sulawesi.

In addition to Capital Expenditure Ratio (CER), the Authority Indicator (AI_I) variable, a measure of the ability of the region to create economic growth in the region gained insignificant results, but the results are positive on economic growth. In addition, AI_{II} showed positive and significant results on economic growth. In this case, the decentralization indicator of local government own revenue's ability to total income by excluding grants has not been able to increase economic growth. On the other hand, the dependence of local governments on the central government is very high. As a result, the government in carrying out economic development is very dependent on central government transfer funds. In fact, the increase in income should be due to an increase in local government own revenue. Although the three variables show insignificant and positive results on economic growth, the ability of local governments to spend finances to encourage economic growth represents the success of implementing fiscal decentralization in the six provinces on Sulawesi Island. In general, from all samples taken in the six provinces on the island of Sulawesi, it can be stated that the delegation of authority to local governments has not been able to create economic growth.

Decentralization policy is not only on the financial management of the central government to local governments, but is also very important for administration and politics. Therefore, it is necessary to conduct more equitable research of the picture of decentralization. The research that has been done has limitations in data analysis, namely there are still variables that did not capture the fiscal decentralization in the six provinces on Sulawesi Island or in Indonesia. Hence, the research only produces conclusions in a sample that represents the contribution of the region on the island of Sulawesi in economic growth.

It is hoped that further researchers will add variables that describe fiscal decentralization as a whole in order to get clearer and overall results regarding the contribution of regions to economic growth on the delegation of authority from the central government to regional governments.

REFERENCES

Akai, N. & Sakata, M. 2002. Fiscal decentralization contributes to economic growth: evidence from state-level cross-section data for the United States. *Journal of urban economics,* 52, 93-108.

Alwi, J. M. 2017. *the relationship between fiscal decentralization with regional economic growth and regional disparities in Indonesia, 2006-2015.* Universitas Gadjah Mada.

Arham, M. A. 2014. Fiscal Decentralization Policies, Sectoral Shifts and Inequalities Amongst Regencies/Municipalities in Central Sulawesi. *Jurnal Ekonomi dan Pembangunan Indonesia,* 14, 145-167.

Aschauer, D. A. 2000. Public capital and economic growth: issues of quantity, finance, and efficiency. *Economic Development Cultural Change,* 48, 391-406.

Baffes, J. & Shah, A. 1998. Productivity of public spending, sectoral allocation choices, and economic growth. *Economic development cultural change,* 46, 291-303.

Baskaran, T. & Feld, L. P. 2013. Fiscal decentralization and economic growth in OECD countries: is there a relationship? *Public finance review,* 41, 421-445.

Bird, R. M. & Vaillancourt, F. 2000. *Desentralisasi fiskal di negara-negara berkembang*, PT Gramedia Pustaka Utama.

Davoodi, H. & Zou, H.-F. 1998. Fiscal decentralization and economic growth: A cross-country study. *Journal of Urban economics,* 43, 244-257.

Devarajan, S., Swaroop, V. & ZOU, H.-F. 1996. The composition of public expenditure and economic growth. *Journal of monetary economics,* 37, 313-344.

Ewetan, O. O., Matthew, O. A., Babajide, A. A., Osabohien, R. & Urhie, E. 2020. Fiscal federalism and economic development in Nigeria: An auto-regressive distributed lag approach. *Cogent Social Sciences,* 6, 1789370.

Fatimah, N. N., Nopiyanti, A. & Mintoyuwono, D. 2019. the effect of Local Government Revenue and Balancing Fund on Local Expenditure. *Equity,* 22, 197-214.

Ganaie, A. A., Bhat, S. A., Kamaiah, B. & KHAN, N. 2018. Fiscal decentralization and economic growth: Evidence from Indian States. *South Asian Journal of Macroeconomics Public Finance,* 7, 83-108.

Globerman, S. & Shapiro, D. 2003. Governance infrastructure and US foreign direct investment. *Journal of international business studies,* 34, 19-39.

Gousarjo, F. & Dharmastuti, C. F. 2015. Regional financial performance and human development index based on study in 20 counties/cities of level I region. *The Winners,* 16, 152-165.

Grisorio, M. J. & Prota, F. 2015. The impact of fiscal decentralization on the composition of public expenditure: panel data evidence from Italy. *Regional Studies,* 49, 1941-1956.

Hammond, G. W. & Tosun, M. S. 2011. The impact of local decentralization on economic growth: Evidence from US counties. *Journal of Regional Science,* 51, 47-64.

Han, L. & Kung, J. K.-S. 2015. Fiscal incentives and policy choices of local governments: Evidence from China. *Journal of Development Economics,* 116, 89-104.

Jin, J. & Zou, H.-F. 2002. How does fiscal decentralization affect aggregate, national, and subnational government size? *Journal of Urban Economics,* 52, 270-293.

Kainde, C. 2013. The Analisis of Spending Growth in Bitung City. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi,* 1.

Kusuma, H. 2016. Fiscal Decentralization and Economic Growth In Indonesia. *Jurnal Ekonomi Kuantitatif Terapan,* 9, 1-11.

Martinez, J. & Max, R. M. 2003. Fiscal decentralization and economic growth. *World development,* 31, 1597-1616.

Lago-Penas, S. & Sacci, A. 2017. The impact of fiscal decentralization: A survey. *Journal of Economic Surveys,* 31, 1095-1129.

Matsui, K. 2003. Decentralization in nation state building of Indonesia. *IDE Research Paper,* 2.

Morrison, C. J. & Schwartz, A. E. 1992. State infrastructure and productive performance. National Bureau of Economic Research Cambridge, Mass., USA.

Nurhemi, N. & Suryani, G. 2015. The impact of regional financial autonomy on economic growth in Indonesia. *Buletin Ekonomi Moneter Dan Perbankan,* 18, 183-206.

Oates, W. E. 1993. Fiscal decentralization and economic development. *National tax journal,* 46, 237-243.

Pasichnyi, M. 2017. Empirical study of the fiscal policy impact on economic growth. *Problems perspectives in management,* 15, 316-322.

Psycaris, Y., Zoi, M. & Illopoulou, S. 2016. Decentralization and local government fiscal autonomy: evidence from the Greek municipalities. *Environment Planning C: Government Policy,* 34, 262-280.

Rappaport, J. 1999. Local growth empirics. *CID Working Papaer.* Center of International Development at Harvard University.

Risalam, F. 2013. Analysis of Poverty Levels, Availability of School Infrastructure, and Economic Growth on Fiscal Independence in Districts/Cities of Central Java Province, 2007-2011. *Economics Development Analysis Journal,* 3, 12.

Roden, S. 1997. Does federalism preserve markets? *Virginia law review*, 1521-1572.

Sambanis, N. & Milankovic, B. 2014. Explaining regional autonomy differences in decentralized countries. *Comparative Political Studies,* 47, 1830-1855.

Sianturi, Y. S.,Miyasto. 2011. *the impact of the implementation of fiscal decentralization on regional economic growth and regional disparities in 19 regencies/cities in North Sumatera Province.* Universitas Diponegoro.

Slavinskaite, N. 2017. Fiscal decentralization and economic growth in selected European countries. *Journal of business economics management,* 18, 745-757.

Stiglits, J. E. & Rosengard, J. K. 2015. *Economics of the public sector: Fourth international student edition*, WW Norton & Company.

Suseno, D. A. 2013. Effectiveness and Financial Independence of Central Java Province Post Implementation of Fiscal Decentralization. *Economics Development Analysis Journal,* 2.

Syahputra, R. 2017. Analysis of the Degree of Decentralization or Financial Independence Regions in the Implementation of Regional Autonomy in Aceh Tamiang. *Jurnal Samudra Ekonomika,* 1, 12-21.

Tajudin, T. & Ilyas, I. 2020. Comparison the Autonomic Regional Financial Performance in Southeast Sulawesi Province. *Economics Development Analysis Journal,* 9, 180-189.

Wekan, R. J. 2019. The Impacts Of Fiscal Decentralization On Economic Growth and Social Welfare in Maluku Province. *Jurnal, Bisnis, Manajemen dan Informatika,* 15.

Xie, D., Zou, H.-F. & Davoodi, H. 1999. Fiscal decentralization and economic growth in the United States. *Journal of Urban economics,* 45, 228-239.

Yushkov, A. 2015. Fiscal decentralization and regional economic growth: Theory, empirics, and the Russian experience. *Russian Journal of Economics,* 1, 404-418.

Zahari, M., Tan, S., Haryadi, H. &Syapparudin, S. 2018. Analysis of fiscal decentralization impact on community welfare in Jambi Province. *Jurnal Perspektif Pembiayaan dan Pembangunan Daerah,* 6, 319-330.

Zhang, T. & Zou, H.-F. 1998. Fiscal decentralization, public spending, and economic growth in China. *Journal of public economics,* 67, 221-240.