Analysis of the Effect of Regional Original Income and Balanced Funds on Regional Financial Independence in North Maluku Province Local Governments

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A R T I C L E   I N F O

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A B S T R A C T

This study aims to determine and analyze the effect of regional original income and balancing funds on regional financial independence in regional governments in North Maluku Province. The sample in this study used a purposive sampling method. Based on the sample selection with the criteria, 11 local governments in North Maluku Province or 55 observation units were selected within a period of 5 years. The analytical method used in this research is panel data analysis. The results of the study show that regional original income has a significant positive effect on regional financial independence and the balancing fund has a significant negative effect on regional financial independence in each local government in North Maluku Province.

INTRODUCTION

The implementation of regional autonomy and fiscal decentralization according to Law (UU) Number 23 of 2014 concerning Regional Government is to increase independence and reduce the fiscal dependence of regional governments on the central government. In regional autonomy, there are two aspects of financial performance that are required to be better than before regional autonomy. The first aspect is that the regions are given the authority to manage regional financing, with the main strength being in the ability of Regional Original Income (PAD) as fiscal decentralization. The second aspect is on the side of regional expenditure management, which includes more accountable and transparent regional financial management so that it is more efficient and effective. One of the objectives of implementing regional autonomy in Indonesia is to realize regional independence by measuring the amount of PAD obtained by each regional government. The greater the PAD of a region compared to the financial transfers of the central government, the more the regional government can be said to be independent. A strong PAD structure reflects a strong regional financing capability. Meanwhile, the Balancing Fund, as another form of central government transfer, should only be supportive of regional financing. The smaller the level of dependence, the more an area can be said to be independent. (Tjahjono and Octavianti 2016).

Dependency on the Balancing Fund has a very large impact on the implementation of government activities, including the ability of local governments to carry out regional development activities. For example, based on the LHP of the BPK Representative of North Maluku Province, the East Halmahera Regency Government in 2019 lists other short-term debts of Rp. 56,943,411,989.00, which is the regional government's debt to third parties for the implementation of physical work that has not been paid. This value reached 19.72% of the realized value of capital expenditures of Rp.288.824, 155,273.00. This condition also

happened to the Taliabu Island Regency Government. In 2020, the Taliabu Island Regency Government recorded a short-term debt of Rp. 14,901,900,944.09, or 14.45% of the realization of capital expenditures of Rp. 103,142,264,214.00. The average financial independence ratio of North Maluku Province from 2016 to 2019 is relatively low when the PAD component is compared to total income, so it can be concluded that dependence on the central government is still quite high. According to research by Ratnasari (2014), PAD simultaneously has a significant influence on the level of regional financial independence. This is contrary to research from Putri et al. (2012), which states that PAD does not simultaneously affect the level of regional financial independence.

RESEARCH METHOD

Research design

This type of research is quantitative descriptive research that is describing. Statistical analysis is panel data analysis. By taking data through the Realization Report of the Regional Revenue and Expenditure Budget of each local government in North Maluku Province to analyze its influence then conclusions can be drawn based on predetermined criteria.

Research Location and Time

The researcher chose the location and time of the study to analyze Regional Financial Independence as well as PAD and Balancing Funds by managing data by referring to the suitability of the sampling criteria, as follows:

1. All local governments in North Maluku Province.
2. Local governments that have complete budget realization reports for at least five budget years (range 2015 to 2019); and
3. Local governments whose financial reports have been audited by the Supreme Audit Agency of the Republic of Indonesia.

Research Population and Sample

Sugiyono (2015:80) defines population as a generalization area consisting of objects or subjects that have certain qualities and characteristics set by researchers to be studied and then drawn conclusions. In this study, the population of 11 local governments in North Maluku Province for the 2015-2019 Fiscal Year is used. The 11 local governments that were sampled were 1) North Maluku Province, 2) Ternate City, 3) Tidore Islands City, 4) West Halmahera Regency, 5) North Halmahera Regency, 6) South Halmahera Regency, 7) Central Halmahera Regency, 8) East Halmahera Regency, 9) Sula Islands Regency, 10) Morotai Island Regency, and 11) Taliabu Island Regency.

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Research Subjects and Objects

This research was conducted on the local government in North Maluku Province using secondary data supported by literature studies. The secondary data comes from the respective regional government budgets in North Maluku Province, the BPK RI Audit Result Report on regional government financial reports, and/or the website http://www.djpk.kemenkeu.go.id/. The data used include PAD and Balancing Fund data.

Analysis Method

To answer the problems that have been determined, then in analyzing the problem (data) the author will use the Panel Data regression method. Panel data (pool) which is a combination of time series data and cross section data. Therefore, panel data has a combination of characteristics, namely data consisting of several objects and covering several times (Winarno, 2011).

The panel data regression models in this study are:

$$Yti = \alpha + b1X1ti + b2X2ti + e$$

Description:

Y   =   Regional Financial Independence
□   =   constant
X1=   Locally-generated revenue
X2=   Balancing Fund
e   =   error
t   =   Time
I = Company

Determination of the Estimation Model

The regression model estimation method using panel data can be done through three approaches, including (Dedi, 2012).

Common Effect Model (CEM)

This is the simplest panel data model approach because it only combines time series and cross section data, without paying attention to the time or individual dimensions. In general, the forms of linear models that can be used to model panel data are:

$$Yit = Xit\beta it + eit$$

Description:

Yit = Observation from the i-th unit and observed in the t-time period (ie the dependent variable which is a panel data)

Xit = The independent variable from the i-th unit and observed in the t-time period here it is assumed that Xit contains a constant variable

Eit = Error component which is assumed to have a mean value of 0 and a homogeneous variance in time and independent of Xit.

Fixed Effect Model (FEM)

This model assumes that differences between individuals can be accommodated from differences in intercepts. The Fixed effect Model equation can be written as follows:

$$Yit = Xit\beta + Ci + ... + \varepsilon it$$

Description:
Ci = dummy variable

Random Effect Model (REM)

This model estimates panel data in which the disturbance variables may be interrelated over time and between individuals, with the following equation:

$$Yit = Xit\beta + Vit$$

Description:
Vit = Ci + Di + it
Ci = assumed to be independent and identically distributed (iid) normal with mean 0 and variation 2c (cross section component)
Di = assumed to be normal iid with mean 0 and variation 2d (component of times series error)
it = assumed to be iid with mean 0 and variation 2e.

Data analysis technique
Chow test
The Chow test is a test to determine what model to choose between the common effect model or the fixed effect model. The Chow Test Hypothesis is:

Ho = Common effect model (pooled OLS)
H1 = Fixed effect model (LSDV)

The number of observations (n) is the number of individuals multiplied by the number of periods, while the number of parameters in the fixed effect model (k) is the number of variables plus the number of individuals. If the calculated F value is greater than the critical F, the null hypothesis is rejected, which means that the correct model for panel data regression is the fixed effect model. And conversely, if the calculated F value is less than the critical F, the null hypothesis is accepted, which means that the correct model for panel data regression is the common effect model.

H0 = E (Ci | X) = E (u) = 0 or there is a random effect model
H1 = fixed effect model

Hausman test
Hausman test is a test that is used to select the best model between the fixed effect model or the random effect model. This Hausman test is based on the idea that Least Squares Dummy Variables (LSDV) in the Fixed Effect method and Generalized Least Square (GLS) in the Random Effect method are efficient while the Ordinary Least Square (OLS) in the Common Effect method is inefficient. That is by testing the hypothesis in the form of:

H0 = E (Ci | X) = E (u) = 0 or there is a random effect model
H1 = fixed effect model

Lagrange Multiplier (LM) Test
A Lagrange Multiplier (LM) is a test to determine the most appropriate Random Effect Model or Common Effect (OLS) model to use. The Random Effect significance test was developed by Breusch and Pangan. The

Breusch Food method for the Random Effect significance test is based on the residual value of the OLS method.

RESULTS AND DISCUSSION

Overview of Research Objects

The object of this research is 11 local governments in North Maluku province with 2015-2019 data. The number of observations is 55 observations in 11 local governments. Sources of data used in this study is secondary data in the form of budget realization reports.

This study uses a panel data analysis tool which is a combination of cross section and time series data to examine the influence of internal and external variable indicators including PAD data, Balancing Funds, and Regional Financial Independence.

Descriptive statistics

Descriptive statistics are statistics that provide an overview or description of a data seen from the average (mean), standard deviation, maximum, and minimum. Descriptive statistics is the process of collecting, presenting and summarizing various characteristics of data to describe the data adequately. The results of the descriptive analysis can be seen in the table below:

Table 1. Statistical Description of Each Variable

	Regional Financial Independence (Y)	Regional Original Income (X1)	Balancing Fund (X2)
Mean	0.077120	0.059525	0.813869
Median	0.051000	0.041700	0.829600
Maximum	0.259700	0.165400	0.915300
Minimum	0.013500	0.010800	0.637000
Std. Dev.	0.064313	0.044438	0.068268
Skewness	1.238504	1.019135	-0.649143
Kurtosis	3.459323	2.859254	2.752535
Jarque-Bera	14.54416	9.566227	4.003053
Probability	0.000695	0.008370	0.135129
Sum	4.241600	3.273900	44.76280
Sum Sq. Dev.	0.223349	0.106636	0.251669
Observations	55	55	55

Source: Processed results of Eviews processed in 2021

Based on the table 1, the highest value of regional financial independence in North Maluku is in the North Halamahera district of 0.25%, and the lowest value of 0.01% is owned by the Taliabu island district. Furthermore, the highest PAD value was still in North Halamahera Regency at 0.16% and the lowest at 0.01% in Taliabu Island Regency. Meanwhile, the highest value of the Balancing Fund is in Pulau Morotai Regency at 0.91% and the lowest at 0.63% is owned by North Halamahera Regency.

Selection of Regression Model

Panel data regression can be done with three models, namely the Common Effect Model, Fixed Effect Model, and Random Effect Model with each model having advantages and disadvantages. The results of panel data regression testing are as follows:

Table 2. Common Effect Model (CEM) Results

Variable	Coefficient	t-Statistics	Prob.
C	0.096704	6.492798	0.0000
Regional Original Income (X1)	1.307697	50.34492	0.0000
Balancing fund (X2)	-0.119706	-7.079882	0.0000

Source: Processed results of Eviews processed in 2021

Table 3. Results of Fixed Effect Model (FEM)

Variable	Coefficient	t-Statistics	Prob.
C	0.077686	4.263178	0.0001
Regional Original Income (X1)	1.290994	25.05217	0.0000
Balancing Fund (X2)	-0.095118	-4.610923	0.0000

Source: Processed results of Eviews processed in 2021

Table 4. Results of Random Effect Model (REM)

Variable	Coefficient	t-Statistics	Prob.
C	0.086828	5.510704	0.0000
Regional Original Income (X1)	1.312560	41.96687	0.0000
Balancing Fund (X2)	-0.107928	-6.046799	0.0000

Source: Processed results of Eviews processed in 2021

Ratio Analysis
Fiscal Decentralization Ratio

The average result of the Fiscal Decentralization Ratio in 11 local governments in North Maluku Province for 2015 to 2019 was 5.9256% or included in the "Very Poor" level of fiscal decentralization (range 0.0000% to 10,000%). Among the 11 local governments, the Provincial Government of North Maluku has the highest average level of fiscal decentralization at 14.3738% ("Poor" group) while the Taliabu Island District Government has the lowest at 2.5917% ("Very Poor" group).

Regional Financial Dependency Ratio

The average result of the Regional Financial Dependency Ratio in 11 local governments in North Maluku Province for 2015 to 2019 was 81,3876% or included in the "High" regional dependency group (range 75,0000% to 100,000%). Among the 11 local governments, the Central Halmahera District Government has the highest average level of regional financial dependence, namely 87.4936% ("High") while the North Halmahera District Government has the lowest at 68.7153% ("Medium" group).

Regional Financial Independence Ratio

The average result of the Regional Financial Independence Ratio in 11 local governments in North Maluku Province for 2015 to 2019 was 7.7118% or included in the "Once Low" regional financial independence level group (range 0.0000% to 25,000%). Among the 11 local governments, the Provincial Government of North Maluku has the highest average level of regional financial independence, namely 18.9881% ("Once Low" group) while the Taliabu Island Regency Government has the lowest at 3.0479% ("Once Low" group).).

Ratio Analysis Conclusion

From the three graphic information above, it is concluded that Taliabu Island Regency is the local government with the lowest level of fiscal decentralization, namely 2.5917%. In addition, the Taliabu Island Regency Government is also the regional government with the lowest level of regional financial independence, namely 3.0479%.

Based on the BPK's LHP on the Audit of the Regional Government Financial Statements of the Taliabu Island Regency, it is associated with these two ratios by referring to the results of the examination of the Budget Realization Report for the 2019 Fiscal Year, it is known that:

a) PAD budgeting is very low compared to the Balancing Fund budgeting in the APBD structure.
b) There are potential sources of PAD that have not been managed as regulated by Law Number 28 of 2009 concerning Regional Taxes and Regional Levies such as Parking Taxes for Regional Taxes and Parking Retributions, and Route Permit Fees for Regional Levies;
c) Realization of PAD revenue is still low from both Regional Taxes and Regional Levies, including the realization of Hotel Tax 12.35%, Restaurant Tax 22.68%, Rural and Urban Land and Building Tax 0.72%, and Building Permit Levy 0.11%; and

d) There is PAD revenue that has been budgeted for in the APBD that is not realized or is realized in the amount of Rp. 0.00 (0%) including Ground Water Tax, Land and Building Rights Acquisition Fee, Garbage/Cleaning Service Retribution, Motor Vehicle Testing Fee, and Terminal Retribution.

Hypothesis testing
T test (partial)
The results of the T-test of independent variables on the dependent variable can be explained as follows:

a) Hypothesis 1 test results that X1 has a significant positive effect on Y is obtained from the t-statistical value. The Random Effect Model is 41.96687 and the profitability is 0.0000, which is smaller than the significance value of 0.05 or (0.00000 > 0.05). This means that H1 is accepted, H0 is rejected, which means that Regional Original Income has a significant positive direction on regional financial independence.

b) Hypothesis 2 test results that X2 has a significant negative effect on Y is obtained from the t-statistic value. The Random Effect Model is -6.046799 and the profitability of 0.0000 is smaller than the significance value of 0.05 or (0.0000 > 0.05). This means that H1 is accepted, H0 is rejected, which means that the balancing fund has a significant negative direction on regional financial independence

F Test (Simultaneous)
The results of the F test show the regression calculation with the F-statistic value of 1626.11 with a significant level or prob (F-statistic) of 0.000000. So it can be concluded that the value of F-statistic > prob F-statistic (1626,811 > 0.000000) which means that as a whole, the Regional Original Income and the Balanced Fund together (simultaneously) have a significant effect on the Regional Financial Independence variable.

DISCUSSION
The Influence of Regional Original Income on Regional Financial Independence
Based on the Eviews 10 test, the results for the PAD variable (X1) have a significant positive effect on the ratio of Regional Financial Independence in North Maluku Province with the T-statistical test results of 41.96687 and profitability of 0.0000 which is smaller than the significance value of 0.05 or (0.0000 > 0.05) . The results of this study are in line with previous research conducted by Machfud (2020) and Siti Raun Kristina (2021) which stated that PAD had a significant positive effect on regional financial independence. This proves that PAD is a predictor that can increase the ratio of regional financial independence. Based on agency theory, there are community organizations and mass groups or local governments. For example, local government acting as an agent (governor/regent/mayor) principally is the community projected through the Regional Representative Council (DPRD). In agency theory, it can be seen the relationship between local government and the community through the DPRD to make policies and ratify the budget to increase PAD.

The Effect of Balancing Funds on Regional Financial Independence
Based on the results of the Eviews 10 test for the Balanced Fund variable (X2), it has a significant negative effect on the ratio of Regional Financial Independence in North Maluku Province with the T-statistic test results of -6.046799 and profitability of 0.0000 which is smaller than the significance value of 0.05 or (0.0000 > 0 ,05). The results of the study are in line with previous research conducted by Machfud (2020), Mohammad Wasil (2020), and Rahmat Saleh (2020) which stated that the Balancing Fund had a significant negative effect on Regional Financial Independence. This shows that the Balancing Fund received is smaller than PAD will increase Regional Financial Independence, and vice versa.

CONCLUSIONS AND SUGGESTIONS
Based on the results of the research on the Analysis of the Effect of Regional Original Income and Balancing Funds on Regional Financial Independence in the Regional Government in North Maluku Province, the following conclusions are obtained:

1) PAD (X1) has a significant positive effect on the ratio of Regional Financial Independence in local governments in North Maluku Province. This proves that PAD is a predictor that can increase the ratio

of regional financial independence. High PAD shows the ability of the region to fund its needs with sources of funds originating from the region itself.

2) The Balancing Fund (X2) has a significant negative effect on the ratio of Regional Financial Independence in local governments in North Maluku Province. This shows that if the Balancing Fund received is smaller than PAD, it will increase regional financial independence, and vice versa.

SUGGESTIONS
1. The 11 local governments in North Maluku Province to increase the degree of Regional Financial Independence by:
   a) Efficiently use the Balancing Fund to stimulate an increase in PAD through the development of economic infrastructure as well as the improvement of education and health facilities;
   b) Extensive sources of income including PAD and regional levies that have not been managed by identifying potential subjects and objects of taxes/retributions and coordinating with DPRD for the preparation of legal umbrellas covering regional regulations; and
   c) Intensifying existing sources of income by maximizing all regional resources and apparatus in the realization of PAD achievement.
2. Recommends further researchers to consider the addition of other dependent variables that can affect Regional Financial Independence so as to produce a better influence than the results in this study.

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