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The Effect Of Capital Expenditure, Local Government Revenue And Balanced Funds On Regional Income Per Capita With Number Of Population As A Moderating Variable In The Region Of North Sumatera, East Kalimantan And East Java Province

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ABSTRACT

This study aims to analyze and determine Capital Expenditures, Local Goverentment Revenue, Balancing Funds on Per capita Regional Income moderated by Population in the Provinces of North Sumatra, East Kalimantan, and East Java. The population in this study were the provinces of North Sumatra, East Kalimantan, and East Java. And the samples in this study were all districts/cities in the provinces of North Sumatra, East Kalimantan, and East Java. The published data obtained and collected were then analyzed using the Eviews 10 tool. The analytical methods used were descriptive statistics, classical assumption tests, and multiple linear regression for hypothesis testing and moderation testing. Based on the results of data processing using a hypothesis test, it shows that partially Capital Expenditures have a positive and significant effect on Percapita Regional Income, PAD has a positive and significant effect on Per capita Regional Income, the Balancing Fund has an insignificant positive effect on Per capita Regional Income, and through the simultaneous test (F) , overall has a positive and significant effect. And through the moderation test with Population as the Moderating Variable, it shows that the results of Capital Expenditure on Per capita Regional Income can be moderated by Total Population, and Population is able to strengthen the relationship between Capital Expenditures on Per capita Regional Income, PAD on Per capita Regional Income can be moderated by Total Population, and Population is able to strengthen the relationship between PAD and Regional Income Per Capita PAD to Regional Income Per capita NOT able to be moderated by Total Population. The predictive ability of these four variables on Regional Income Per capita is 44.8%, while the remaining 65.2% is influenced by other factors outside this research model.

1. INTRODUCTION

The main purpose of implementing regional autonomy is to improve public services and advance the regional economy. By advancing the regional economy, of course, it can improve the welfare of the community. To measure the welfare of the community in an area, namely by knowing the income per capita in the area. Todaro (2006) states that income per capita basically measures the ability of a region to increase its output at a faster rate than its population growth rate.

One of the factors thought to have an effect on per capita income is capital expenditure. In line with the implementation of regional autonomy, regions must be able to develop their own regions so that the objectives of regional autonomy can be implemented. One form of community participation in development is reflected in Regional Original Income (PAD). For this reason, local governments must

be able to explore and process potential PAD sources as a source of income in local government for the realization of regional independence. PAD has a very important role in the regional economy which reflects the success of a region in fiscal decentralization. Regions that have a positive PAD growth rate have the possibility to have a better per capita income.

Another factor that is thought to have an effect on per capita income is the Balancing Fund. As a form of decentralization, a number of funds are allocated to regions (autonomous) to fund their needs. The funds are determined every fiscal year in the APBN. Realization of revenue from PAD in the fourth quarter of 2021 was 99.0%, lower than the previous year of 101.8%. From the PAD component, the largest decrease in realization from the same period the previous year came from the separated regional wealth management component, which fell by 28.8%, and was followed by a decrease in local tax revenue which had a share of up to 92.1%, amounting to 2.5. %. The decline in local tax revenues was not as high as in the previous quarter which reached 9.5%, this was in line with the increasing mobility of the people and the start of industrial movement so as to encourage the realization of local tax revenues in the current quarter.

The results of previous research conducted by Purba (2019) show that capital expenditure has a significant influence on per capita income in Regency/City Governments in Riau Province. Similarly, the results of research conducted by Suherlan (2017); and Jayanti (2013) who in their respective studies state that capital expenditure has a significant effect on per capita income. The results of previous research conducted by Siregar (2017) show that local revenue has a significant influence on per capita income. Likewise with the results of research conducted by Jayanti (2013) which in his research states that local revenue has a significant influence on per capita income. Meanwhile, the results of research by Mahdawi, et al., 2021, concluded "The results show that partially the local revenue variable has a significant negative effect on economic growth". The results of previous research conducted by Purba (2019) showed that the Balancing Fund had a significant influence on per capita income in Regency/City Governments in Riau Province.

In accordance with the background in this study, the formulation of the problem in this study is as follows, 1) Does Capital Expenditure affect per capita regional income? 2) Does PAD affect regional income per capita? 3) Does the Balancing Fund affect regional income per capita? 4) Is the Population able to moderate the effect of capital expenditure on regional income per capita?Faktor lainnya yang diduga berpengaruh terhadap pendapatan perkapita adalah Dana Perimbangan. Sebagai wujud dari Desentralisasi, sejumlah dana dialokasikan kepada daerah (otonom) untuk mendanai kebutuhannya. Dana tersebut ditetapkan setiap tahun anggaran dalam APBN. Realisasi penerimaan dari PAD di triwulan IV2021 sebesar 99,0%, lebih rendah dari tahun sebelumnya sebesar 101,8%. Dari komponen PAD, penurunan realisasi terbesar dari periode yang sama tahun sebelumnya berasal dari komponen hasil pengelolaan kekayaan daerah yang dipisahkan yang turun sebesar 28,8%, dan diikuti oleh penurunan pendapatan pajak daerah yang memiliki pangsa hingga 92,1%, sebesar 2,5%. Penurunan pendapatan pajak daerah tidak sedalam triwulan sebelumnya yang mencapai 9,5%, hal ini seiring dengan meningkatnya mobilitas masyarakat dan mulai bergeraknya industri sehingga mampu mendorong realisasi pendapatan pajak daerah di triwulan berjalan.

Theoretical basis, The theory of fiscal federalism as proposed by Musgrave (1980) reveals that fiscal decentralization can improve public welfare through intergovernmental revenue and expenditure management. The theory further states that economic growth can be achieved through fiscal decentralization or delegation of authority from the central government to local governments to manage their own regions according to their needs and priorities.

Government Grant Theory, government Grant is every state revenue in the form of foreign exchange, foreign exchange converted into rupiah, goods, services and/or securities obtained from the

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Grant Giver that does not need to be repaid, originating from within the country or abroad. Grants received by the Government are in the form of: a) Cash, b) Money to finance activities, c) Goods/services, d) Securities, e) Planned grants, f) Direct grants.

Income per capita, per capita income is the average income of a country's population in a certain period (generally one year). Per capita income is influenced by Gross Regional Domestic Product (GRDP) and population, in other words, per capita income reflects the average income earned in an area, so that if the income is large, people tend to have greater expenditures for their needs, so that they can meet their needs. (Kuncoro, 2010).

Capital Expenditure, Darise (2008) explains that capital expenditures are used for expenditures made in the context of purchasing/procuring or developing tangible fixed assets that have a useful value of more than 12 months to be used in government activities, such as land, equipment and machinery, buildings and buildings, roads, irrigation, and networks, and other fixed assets.

Locally-generated revenue, according to Halim (2012), Regional Original Revenue is all revenues originating from regional original economic sources which are separated into four types of income, namely: regional taxes, regional levies, separated regional wealth management results, other legitimate PAD.

Balancing Fund, "Balancing Funds are funds sourced from APBN revenues allocated to regions to fund regional needs in the context of implementing Decentralization." (Law Number 33 of 2004). "Balancing Funds are funds sourced from the State Revenue and Expenditure Budget (APBN) which are allocated to regions to finance regional needs in the context of implementing decentralization.

H1: Effect of Capital Expenditure on Regional Income Per capita
H2: The Effect of PAD on Regional Income Per capita
H3: The Effect of Balancing Funds on Per capita Regional Income
H4: Number of Population in Moderating Effect of Capital Expenditure on Regional Income Percapita

2. Method

2.1 Data Types and Sources

This type of research was conducted based on associative research. Associative research is research that aims to determine the relationship between two or more variables. Research using the associative method according to Sugiyono (2014) is a study that aims to determine the relationship between two or more variables. In this associative research, a theory can be built that can function to explain, predict and control a symptom.

The type of data that will be used in this research is secondary data. The source of data in this study is the district/city government budget report in North Sumatra, East Kalimantan and East Java during 2011-2020 which is accessed from the website of the Directorate General of Fiscal Balance www.djpk.depkeu.go.id and also data on population and income. per capita obtained through the website of the Central Statistics Agency, namely www.bps.go.id**.**

2.2 Population and Sample

The population of this study consisted of regencies/cities located in the provinces of North Sumatra, East Kalimantan and East Java. The sample selection in this study was carried out using purposive sampling method. Purposive sampling is a sampling technique using certain considerations (Sugiyono, 2014). Samples were selected using the following criteria**:**

a. Samples are districts/cities in the provinces of North Sumatra, East Kalimantan and East Java, which have APBD reports on the website of the Director General of Fiscal Balance for the 2011-2020 period.

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b. Regencies/cities in the Provinces of North Sumatra, East Kalimantan and East Java, which publish their financial statements of Capital Expenditures consistently from 2011 to 2020 and have data on per capita income and population available on the Central Statistics Agency (BPS) website.Populasi dan Sampel

2.3 Operational definition

Table 1
Operational Definition of Research Variables

Variable	Definition Variable	Measurement	Measuring Scale
Capital Expenditure (X1)	Capital expenditures are expenditures made in the context of capital formation which are to increase fixed assets/inventory that provide benefits for more than one accounting period, including expenditures for maintenance costs which are to maintain or increase the useful life, as well as increase the capacity and quality of assets.	Realization of Capital Expenditure 2011-2020	Ratio
Locally-generated revenue (X2)	Regional original income (PAD) is income obtained by the region which is collected based on regional regulations in accordance with applicable laws and regulations. Sources of PAD consist of: regional taxes, regional retributions, the results of the management of separated regional assets and other legitimate regional original income.	Realization of Regional Original Income in 2011-2020	Ratio
Balancing Fund (X3)	Balancing Funds are funds sourced from APBN revenues allocated to regions (autonomous) to fund regional needs in the context of implementing Decentralization. The balancing fund consists of: profit sharing fund, general allocation fund and special allocation fund.	Realization of Balancing Fund 2011-2020	Ratio
Regional Income Per capita (Y)	Regional income per capita is the average income for each resident in an area in a certain period.	Regional income divided by population in 2011-2020	Ratio
Total Population (Z)	The Central Statistics Agency (BPS) explains that the total population is all people who live in the geographical area of an area for 6 months or more and or those who live less than 6 months but aim to settle down..	Total population of each region in 2011-2020	Ratio

2.4 Data analysis technique

The data analysis technique uses the Eviews software tool. The data were analyzed using panel data regression analysis and moderating testing. Data analysis was carried out in this study using descriptive statistical methods, panel data model testing, classical assumption testing, and then hypothesis testing was carried out. In testing the research hypothesis using multiple linear regression analysis. The statistical model of the multiple linear regression equation that was built in this study is.

$$Y = \alpha + 1X1 + 2\ X2 + e$$

Information :

Y = Regional Income Per capita
α = Constant
β1, β2 = Independent variable regression coefficient
X1 = Capital Expenditure
X2 = PAD
e = Error term

The following is the research equation using moderating variables:

$$Y = \alpha + \beta 1X1Z + \beta 2X2Z$$

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Information:

Y	= Regional Income Per capita
α	= Constant
β1, β2	= Regression coefficient
X1	= Capital Expenditure
X2	= PAD
Z	= Total Population

3. Results And Discussion

3.1 Descriptive Statistical Test

Table 2
Descriptive Statistics Based on Variables

Mean	185.9702	38.40933	42.21520	42.98332	726454.7
Median	165.1500	28.81950	18.44350	17.14150	554849.0
Maximum	876.5150	754.0000	856.0000	996.0000	2896195.
Minimum	8.172000	1.396000	1.211000	1.299000	26062.00
Std. Dev.	120.6225	47.95143	95.44093	116.7125	639438.8
Skewness	1.996336	9.255270	5.529671	5.866164	1.388936
Kurtosis	9.884702	127.4363	37.12074	39.41584	4.637356
Jarque-Bera	1066.233	266421.7	21656.65	24639.97	175.0246
Probability	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	75131.97	15517.37	17054.94	17365.26	2.93E+08
Sum Sq. Dev.	5863562.	926634.0	3670915.	5489590.	1.65E+14

3.2 Panel Data Model Test

Determination of the Estimation Model between the Common Effect Model (CEM) and the Random Effect Model (REM) with the Lagrange Multiplier Test.Uji Model Data Panel

Null hypotheses: No effects
Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	41.77362	0.652217	42.42584
	(0.0000)	(0.4193)	(0.0000)

Based on the results of the Lagrange Multiplier test in Table 4.6, it is known that the probability value is 0.0353. Because the probability value is 0.000 < 0.05, the estimation model used is the Random Effect Model (REM). Due to the Breusch-Pagan Lagrange Multiplier test, the REM estimation model was selected, the regression model used in this study is Random Effect Model (REM), and because the Random Effect Model (REM) model has been selected, it is no longer necessary to test assumptions. classic in accordance with the provisions that have been used and written in the previous chapter.

3.3 Hypothesis test

In testing the hypothesis, using multiple linear regression analysis of panel data, and will be analyzed the coefficient of determination r square (R2), partial effect testing (t test) simultaneous effect testing (F test), and.

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Table 3
Statistical values of the coefficient of determination, t test and F test.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X1	0.200497	0.046962	4.269370	0.0000
X2	0.085225	0.023420	3.638891	0.0003
X3	0.009975	0.016372	0.005833	0.9953
Z	0.000136	7.814606	17.35188	0.0000
C	76.13944	7.323232	10.39697	0.0000
Cross-section random			40.90922	0.6164
Idiosyncratic random			32.27449	0.3836
Weighted Statistics				
R-squared	0.449387	Mean dependent var		61.90119
Adjusted R-squared	0.443867	S.D. dependent var		48.71361
S.E. of regression	36.36404	Sum squared resid		527615.1
F-statistic	81.41165	Durbin-Watson stat		1.465662
Prob(F-statistic)	0.000000			

3.4 Multiple Linear Regression Equation Panel Data

Based on the results of multiple regression analysis with panel data, so that the regression equation model obtained:

$$Y = 76.13944 + 0.200497X1 + 0.085225\ X2 + 0.900975X3 + e$$

3.5 Coefficient of Determination Analysis

Based on Table 4.7, it is known that the coefficient of determination (R-squared) is R2=0.4438. This value can be interpreted as Capital Expenditure, PAD, Balancing Costs, Total Population simultaneously or jointly affecting REGIONAL INCOME by 44.38%, the remaining 54.62% is influenced by other factors.Persamaan Regresi Linier berganda Data Panel

3.6 Partial Effect Significance Test (t Test)

It is known that the regression coefficient value of the Capital Expenditure variable is 0.200497, which is positive. This means that Expenditure M has a positive effect on Regional Income. Known the value of Prob. (p-value) is 0.0000, ie < 0.05 significance level, then Capital Expenditure has a significant effect on Regional Income. It is known that the regression coefficient value of the PAD variable is 0.085225, which is positive. This means that PAD has a positive effect on Regional Income. Known the value of Prob. (p-value) is 0.0003, which is < 0.05 level of significance, so it does not have a significant effect on Regional Income. So it can be concluded that PAD has a positive and significant effect on Regional Income. It is known that the regression coefficient value of the Balancing Cost variable is 0.009975, which is positive. This means that the Balancing Cost has a positive effect on Regional Revenue. Known the value of Prob. (p-value) is 0.9953, ie > the significance level of 0.05, then the Balancing Cost has no significant effect on Regional Revenue.

3.8 Simultaneous Effect Significance Test (F Test)

The F test aims to test the effect of the independent variables on Modala shopping together or simultaneously on the dependent variable. Based on Table 4.7, it is known that the value of Prob. (F-statistics), which is 0.000000 < 0.05 significant level, it can be concluded that all independent variables namely, Capital Expenditure, PAD, Balancing Costs have a significant effect on the Regional Income variable. Then the hypothesis is accepted.

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3.9 Moderating Test

Table 4
Capital Expenditure on Regional Income Moderated by Total Population

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	54.44946	8.095479	6.725910	0.0000
X1	0.906587	0.146999	6.167303	0.0000
Z	0.000153	7.62E-06	20.03063	0.0000
M1	-3.40E-07	6.80E-08	-4.999713	0.0000

Based on the results of the moderation test, it can be seen the value of Prob. M1 is 0.000, which is < from the sig. 0.05, so it has an effect. This means that the population variable is able to moderate the relationship between the capital expenditure variable and regional income.

Table 5
PAD Against Regional Income which is moderated by Population

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	87.41457	10.81747	8.080874	0.0000
X2	-0.029213	0.030609	-0.954368	0.3405
Z	0.000129	1.15E-05	11.13246	0.0000
M2	1.18E-07	2.49E-08	4.727680	0.0000

Based on the results of the moderation test, it can be seen the value of Prob. M2 is 0.000 which is < from the value of sig. 0.05, so it has an effect. This means that the population variable is able to moderate the relationship between the PAD variable and regional income..

Table 6
Balancing Cost of Regional Income which is moderated by the Number of Population

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	78.39426	11.17126	7.017498	0.0000
X3	0.007365	0.020164	0.365257	0.7151
Z	0.000147	1.16E-05	12.66291	0.0000
M3	7.60E-09	2.65E-08	0.287247	0.7741

4. Conclusion

Based on the comparison , it can be seen that the Adjust R-suared value from the moderating test results is 0.3368 which is > from the Adjust R-suared value from the variable test results before being moderated at 0.0202, so it can be interpreted that the Population is able to moderate and strengthen the relationship between PAD to regional income. Based on the results of the moderation test, it can be seen the value of Prob. M3 is 0.7741 which is > from the sig. 0.05, so it has no effect. This means that

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the population variable is not able to moderate the relationship between the variable balancing funds and regional income.

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