American Journal of Humanities and Social Sciences Research (AJHSSR) e-ISSN :2378-703X Volume-07, Issue-03, pp-187-201 www.ajhssr.com Research Paper

# The Influence of Local Own Income and balanced Fund on HDI With Capital Expenditure as an Intervening Variable in Districts / Cities of Central Java (2019-2021)

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**ABSTRACT:** This study aims to examine the effect of Regional Original Income and Balancing Funds on the Human Development Index with Capital Expenditure as an intervening variable. The population for this study is regencies/cities in Central Java from 2019 to 2021. Sampling was carried out using the purposive sampling method, based on the specified criteria a sample of 105 regencies/cities was obtained from 2019 to 2021. The data analysis technique used the classical assumption test and descriptive statistical analysis, classical assumption test, multiple linear regression analysis, Sobel test with SPSS 26. The results show that Local Own Income has an effect on the Human Development Index, Balancing Funds have an effect on the Human Development Index, Local Own Income has no effect on the Human Development Index , Balancing Funds have an effect on Capital Expenditures have an effect on the Human Development Index, Capital Expenditures do not mediate Regional Original Income on the Human Development Index, Capital Expenditures do not mediate Balancing Funds on the Human Development Index.

*Keywords* - regional original income, balancing funds, capital expenditures, human development index.

# I. INTRODUCTION

Humans are an important capital towards better economic development in the future. Humans are one of the objects of economic development, but humans are also one of the important objects in development goals. In the mandate of the 1945 Constitution of the Republic of Indonesia, it is stated that the purpose of being a state is, "to promote public welfare and educate the nation's life".

Human development as a stage in improving the standard of human life. According to (Sulastri & Efendri, 2021), HDI is measured by looking at 3 basic components in determining the level of success, which include longevity and healthy living, knowledge and a decent standard of living. Each component is measured by looking at each aspect. The high HDI in an area illustrates that a society is already prosperous.

Regional autonomy has the rights, authorities and obligations of the autonomous region in controlling and managing government affairs and the interests of the local community in accordance with laws and regulations (Di et al., 2015).

In the Government Accounting Standards (SAP), revenues, expenditures, transfers and financing systematically over a period are classified according to the guidelines in the budget to be implemented by the government. In implementing public services, the Regional Government prepares a financial plan for the Regional Revenue and Expenditure Budget (APBD) for provinces and cities or districts. Allocation of Regional Government funds is based on the need for regional facilities and infrastructure for public facilities and the smooth implementation of Regional Government tasks in the form of a Capital Expenditure budget in the APBD to increase fixed assets and other assets that provide benefits for more than one accounting period.

The government practices the Regional Autonomy policy with the freedom to advance each region according to its potential, so that the regions can take care of their own households. The application of regional autonomy controls the central point regarding the role of the Regional Government Law No. 22 of 1999 which was later refined into Law No. 23 of 2014. The implementation of regional autonomy gave rise to decentralization which aims at efficiency in public areas. With the existence of Regional Autonomy, it can accelerate the pace of development and regional economic development, reduce regional disparities and increase public services.

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Central Java Province has implemented regional autonomy by developing regional potential through Regional Original Revenue (PAD), Balancing Funds, Other Legal Income to finance capital expenditures. Regional government functions run optimally with funding from sufficient regional revenues for regional finances that are proportional, democratic, transparent and efficient. Based on Regional Regulations in accordance with Legislation, PAD as a source of income for each region varies according to the potential of each region itself.

The ability of the region to process its own resources can be used as a source of wealth for the region. Regional management can create new jobs and can stimulate the development of economic activity, and can increase revenue for the region. Autonomous regions can have revenue that is used to finance the implementation of their household affairs effectively and efficiently by providing services and development (Sembiring, 2019).

In the implementation of decentralization, the first regional revenue source is PAD. PAD is regional original income obtained in accordance with Regional Regulations and statutory regulations. The second source of regional revenue is the Balancing Fund. Balancing Funds are funds sourced from the APBN allocated to regions to fund regional needs in the context of implementing decentralization (Wiliantara, 2016). To reduce the level of regional dependence on balancing funds provided by the central government, regional governments must increase their own regional income. The amount of PAD is determined by the object of regional taxes and levies, if PAD increases, economic growth and the welfare of the regional community will also increase. Increasing regional revenues experienced problems related to limited facilities and infrastructure that did not support investment. Another source of funds for regional development is the balancing fund to address inequality in PAD. The government allocates balancing funds as additional revenue which provides the largest contribution to net income.

In regional economic development, the process of advancing the growth of a region is often indicated by the rate of increase in GRDP and APBD. Regional development with the APBD is a form of local government intervention in advancing the region (Sarkoro & Zulfikar, 2016).Regional governments allocate funds in the form of capital expenditures in the Regional Revenue and Expenditure Budget (APDB). This aims to increase capital investment in the form of fixed assets, namely equipment, buildings, infrastructure, and other fixed assets. The higher the level of capital investment is expected to be able to improve the quality of public services. According to (Williantara & Budiasih, 2016) Regional expenditure allocations should be able to improve people's welfare, but in theirpreparationthey are often mixed with political interests between the executive and legislative branches which result in less effective capital spending.

The difference from the results of previous studies prompted researchers to conduct another study regarding the effect of PAD and Balancing Funds on HDI with Capital Expenditure as an intervening variable. In this study, improvements will also be made by updating the research location and research model that is different from previous research, namely conducting research in the district / city government areas in Central Java Province.

#### **Agency Theory**

# II. LITERATURE REVIEW

Agency theory describes two conflicting economic actors, namely principals and agents. The theory of agency linkages in this study can be seen through the relationship between the central government and local governments in the distribution of balance funds as well as the relationship between the community represented by the DPRD as the principal and the local government as the agent. The central government delegates its authority to local governments in managing their own households. Therefore, as a consequence of the delegation of authority, the central government has channeled balancing funds, the purpose of which is to assist local governments in funding their day-to-day governance needs and in providing better public services to the people.

The theory of mentoring is in line with the autonomous system implemented in Indonesia, where in exercising this authority does not mean that the local government is arbitrary, even though the central and regional governments have their own interests, both of them still have the same goal, which is to improve people's welfare.

In addition, agency theory is also implicit in the relationship between local government and society. Society as a principle provides resources for the region by paying local taxes, regional levies and others to increase regional income itself.

### Locally-generated revenue

Regional Own Revenue is an income obtained based on the applicable laws and regulations. Local Own Revenue is an important income for regional financing, therefore the ability of economic administration can be measured from the contribution of regional Own Revenue to the Regional Revenue and Expenditure Budget. The greater the contribution of regional own-source revenue to the regional income and expenditure budget, the less dependence of local governments on the central government. In Law Number 33 of 2004 Article 6, sources of Local Own Revenue consist of: (1) regional taxes, (2) regional levies, (3) separated regional wealth management results and (4) other Regional Original Revenues which are legitimate.

### **Balancing Fund**

According to (Kelurahan et al., 1992), balancing funds are referred to as funds originating from income from the State Revenue and Expenditure Budget (APBN) which can be allocated to regions in the context of implementing decentralization.

### **Capital Expenditures**

Capital expenditure is the part that receives funds from the General Allocation Fund in the APBD which has taken into account long-term financial planning, especially the financing and maintenance of assets generated from capital expenditures including for the acquisition of land, buildings and structures, equipment and machinery (Raviyanti et al., 2017).

### Human Development Index

The Human Development Index (HDI) is a method to measure the success of human development. HDI uses three basic elements in measuring the success of human development, namely the dimensions of long and healthy life, knowledge and a decent life. These three sizes are measured using different methods (Sulastri & Efendri, 2021).

### Hypotesis

Regional taxes and levies are a source of Regional Original Revenue, which are paid by the community in accordance with statutory regulations. Allocations from Local Own Revenue will be used to improve facilities and infrastructure in the fields of education, health and the economy. Taxes and fees that have been paid by the community will be enjoyed by the community itself (Riviando, Agustin, & Halmawati, 2019). Thus increasing the quality of services in the fields of education, economy and health, people's welfare will increase. Community welfare is reflected in HDI figures.

H1. Regional Original Income influences the Human Development Index.

Balancing Funds are allocated from the central government to regional governments with funds sourced from the APBN. Balancing Funds are used as a tool to equalize/balance the financial capacity of the Central Government with the Regional Governments. The Central Government regulates the use of Balancing Funds in accordance with Laws and Regulations, the aim of which is to improve regional services to the community. Where when people's welfare increases, the HDI index in the area will also increase.

H2. Balance Fund has an effect on the Human Development Index.

The size of Locally-generated revenue funds in an area can reduce dependence on the central government. The realization of this Locally-generated revenue allocation is channeled for regional development, for example, transportation facilities and infrastructure, educational places, places of worship, and other developments. Locally-generated revenue can be used to build health facilities sourced from health service fees provided by the government, in addition to the construction of highways whose sources of funds come from fuel taxes, motor vehicle taxes. Although in other studies there are differences in the results of research that Locally-generated revenue is closely related to capital expenditure.

H3. Regional Original Income influences Capital Expenditures.

It is hoped that the use of the Balancing Fund will be for purposes oriented towards the welfare of the community which is the main demand of regional autonomy. When the condition of society gets better, human development will also increase. This is supported by the use of the Balancing Fund which is properly allocated to the government's Capital Expenditures by building facilities and infrastructure that are used by the community. So the progress of a region is not only about high Balancing Funds and seen from wealth alone, but whether the allocation of Balancing Funds is appropriate to improve people's welfare. One of the allocations of

the Balancing Fund is that it is used to finance capital expenditures, where the greater the ability of the Balancing Fund to finance Capital Expenditure, it can improve Infrastructure Development.

H4. Balancing Funds have an effect on Capital Expenditures.

Capital expenditure is part of fiscal policy, namely the behavior of the government to regulate economic functions by determining the amount of annual public revenue and spending, which is reflected in the public revenue and expenditure budget, which is used for national and regional budgeting as well as distribution of public spending that is appropriate and equitable in an area. regions must be able to encourage human development in the region, especially in terms of the distribution of direct spending consisting of spending on people, goods and services. The Regional Government in managing Capital Expenditure is used as a tool for procuring regional assets as investment, in the end being able to improve people's welfare due to an increase in public facilities and infrastructure so as to support improved services in the public sector. So that capital expenditure has an important role in increasing the human development index.

H5. Capital Expenditures Affect HDI

Realization of the allocation of Regional Original Income is channeled for development in the region, for example transportation facilities and infrastructure, places of worship and other developments that can increase the Human Development Index (HDI). The size of the Regional Original Revenue fund in an area can reduce dependence on the central government. Local Own Revenue can at least be used for the construction of highways where the funds come from motor vehicle taxes and fuel taxes, not only that the construction of health facilities comes from health service fees provided by the regional government to residents. So that in this case the measure of long and healthy life in HDI can be achieved by building health facilities. Regional Original Income universally affects capital expenditure, in other research there is a comparison of research results if the Regional Original Income is closely related to Capital Expenditures

H6. Capital Expenditure mediates the influence of the relationship between Regional Original Income and the Human Development Index (HDI).

Realization of the allocation of Balancing Funds in the Regions, for example, is used to build hospitals, schools and other infrastructure developments whose aim is to improve people's welfare so that the Human Development Index (HDI) will increase.

H7. Capital Expenditure mediates the influence of the relationship between the Development Fund and the Human Development Index (HDI).

#### METHOD

III.

This type of research uses descriptive quantitative research that aims to develop a theory related to the current phenomenon which is supported by patterns of relationships between variables, characteristics and statistical data. The population in this study are 35 regencies/cities in Central Java Province in 2019-2021. The sampling technique in this study was to use purposive sampling which is a sampling technique taking into account certain criteria. The type of data in this research is secondary data, which is data that is collected, obtained and has been processed beforehand by other parties. This study obtained data sources from the LRA (Budget Realization Report) which was published through the website of the Directorate General of Fiscal Balance, Ministry of Finance of the Republic of Indonesia and for Human Development Index data came from the website of the Central Bureau of Statistics.

To obtain relevant data so that it can be analyzed, it is necessary to collect data using the documentation method where the data used for this research is collected by the documentation method through studying the documents and data needed, then calculating and recording by gathering information to solve problems based on data -relevant data. Sources and statistical data are taken from external data, namely obtained from BPS (Central Bureau of Statistics). And the Director General of Regional Government Financial Balance. This data is quantitative, namely objective data and numbers.

# Data analysis method:

# Descriptive statistics

Descriptive statistics, namely statistics related to the presentation of informative data so that data users are easy to process. The data must be summarized properly and regularly so that it can be used as a basis for decision making. Descriptive statistics provide an overview or description of a data that can be seen through the average value (mean), standard deviation, maximum variance, minimum variance, sum, range, kurtosis, and skewness (distribution skewedness) (Ghozali, 2018). In this study the descriptive statistics analyzed were the average (mean), maximum, minimum, and standard deviation values.

### **Classic assumption test**

The classical assumption deviation test was carried out to find out some of the deviations that occur in the data used for research. The classic assumptions used in this study are:

#### a. Normality test

The normality test is used to determine whether the data is normally distributed or not. In this study, the normality test used the CLT (Central Limit Theorem) test, namely if the number of observations is large enough (n>30), then the assumption of normality can be ignored (Gujarati, 2003).

### b. Multicollinearity test

The multicollinearity test is an analysis used to test whether there is a relationship between the independent variables in the regression model. A good regression model is one that has no correlation between the independent variables. Multicollinearity testing can be done using the tolerance value and variance inflation factor (VIF). The following values are used to indicate the existence of multicollinearity, namely:

1. If the tolerance value is > 0.10 and the VIF value is < 10, it means that there is no multicollinearity.

2. If the tolerance value is <0.10 and the VIF value is > 10, it means that there is multicollinearity.

### c. Heteroscedasticity test

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residuals of one observation to another. A good regression model is homoscedasticity or where there is no heteroscedasticity, namely the residue from one observation to another observation remains (Ghozali, 2018).

Detection of the presence or absence of heteroscedasticity can be done with the Spearman test by looking at the significance level of the regression results of the absolute residual value. The regression model is said to not contain heteroscedasticity if it meets the p-value significance criteria (asymp.sig.) greater than 0.05.

### d. Autocorrelation test

Ghozali (2012: 110) autocorrelation test aims to test whether in the regression model there is a correlation between the confounding errors in the t-period and the confounding errors in the t-1 (previous) period. This exists because the residuals are not independent from one observation to another. The autocorrelation test in the linear regression model must be carried out if the data is time series data.

### Multiple linear regression analysis

Multiple linear regression analysis is used to determine or obtain an overview of the effect of the independent variables on the dependent variable either simultaneously or partially. The multiple regression model is a regression analysis technique used to test the effect of two or more independent variables on the dependent variable with an interval measurement scale.

### a. Simultaneous significance test (test statistic F)

The F test was carried out with the aim of testing whether the regression model is feasible to use or fit (Ghozali, 2018). The basis used in making decisions with the F test can be done by looking at the output value of the data processing regression shown in the ANOVA table with a significance level of 0.05 ( $\alpha = 5\%$ ). If the probability value is greater than  $\alpha$ , it means that the regression model is not fit. Meanwhile, if the probability value is less than  $\alpha$ , it means that the regression equation is fit or feasible to use.

### **b.** Coefficient of determination (**R**<sup>2</sup>)

The coefficient of determination R2 basically measures how far the model's ability to explain variations in the dependent variable (Ghozali, 2018). The small value of adjusted R2 means that the ability of the independent variables to explain the variation in the dependent variable is very limited. However, if the adjusted R2 value gets closer to one, it means that the independent variable is more comprehensive in explaining the dependent variable.

### c. Hypothesis test (t test)

The t test is used to find out whether each independent variable has a significant effect on the dependent variable (Ghozali, 2018). This influence can be seen based on the individual significance level of the independent variable on the dependent variable, assuming the other independent variables have a constant value. In this study using a significance level of 0.05 ( $\alpha = 5\%$ ) with the criterion if the significance value is less than

0.05 or t count is greater than t table, it means that the independent variables individually affect the dependent variable

### d. Sobel Test

The Sobel test is used to determine the effect of the intervening variable, namely capital expenditure. A variable is called an intervening variable if it affects the relationship between the independent variables and the dependent variable (Ghozali, 2018). The Sobel test can be calculated using the following formula:

$$S_{ab} = \sqrt{b^2 S a^2 + a^2 S b^2 + S a^2 S b^2}$$

IV.

T tabel:

 $T = \frac{ab}{sab}$ 

# DATA ANALYSIS & DISCUSSION

### **Descriptive Research Sample**

This research was conducted with the aim of knowing the effect of Regional Original Income (PAD) and Balancing Funds on the Human Development Index (IPM) with Capital Expenditure as an Intervening variable. In this study the purposive sampling technique is a sampling technique with predetermined criteria. The samples used in this study were all Regencies/Cities of Central Java 2019-2021 with a total of 105 samples. **Data analysis method:** 

# 1. Descriptive statistics

| Table 1                              |  |
|--------------------------------------|--|
| Descriptive Statistical Test Results |  |

|                  | Ν   | Minimum | Maximum | Mean    | Std. Deviation |
|------------------|-----|---------|---------|---------|----------------|
| PAD              | 105 | 21,84   | 28,50   | 26,6159 | 0,67279        |
| DANA PERIMBANGAN | 105 | 27,09   | 28,32   | 27,8826 | 0,30561        |
| BELANJA MODAL    | 105 | 25,35   | 27,68   | 26,3474 | 0,44963        |
| IPM              | 105 | 66,11   | 83,60   | 72,5834 | 4,38698        |

Source: Data processed with SPSS 26, 2023

Based on the data in table 1 it can be interpreted as follows:

1. locally-generated revenue

Dari data tersebut dapat dideskripsikan bahwa nilai minimum 21,8 sedangkan nilai maksimum sebesar 28,50 dan rata rata locally-generated revenue dari tahun 2019-2021 adalah 26,6159, standar deviasi data locally-generated revenue adalah 0,67279.

2. Balancing Fund

From these data it can be described that the minimum value is 27.09 while the maximum value is 28.32 and the average Balancing Fund is 27.8826, the standard deviation of the Balancing Fund is 0.30561.

### 3. Capital Expenditures

From these data it can be described that the minimum value is 25.35 while the maximum value is 27.68 and the average Balancing Fund is 26.2474, the standard deviation of the Balancing Fund is 0.44963

### 4. Human Development Index (HDI)

From these data it can be described that the minimum value is 66.11 while the maximum value is 83.60 and the average Balancing Fund is 72.5834, the standard deviation of the Balancing Fund is 4.38698.

### 2. Classic assumption test

a. normality test

The normality test is used to determine whether the data is normally distributed or not. In this study, the normality test used the CLT (Central Limit Theorem) test, namely if the number of observations is large enough (n>30), then the assumption of normality can be ignored. In this study, the number of n is 105 > 30. This shows that the data can be said to be normally distributed and can be called a large sample. b. Multicollinearity test

| Table 2                                |
|--|
| Model I Multicollinearity Test Results |

| Model                   | Collinerity Tolerance | Statistics VIF |
|-------------------------|-----------------------|----------------|
| PAD                     | 0,915                 | 1,093          |
| DANA PERIMBANGAN        | 0,915                 | 1,093          |
| Dependent Variable: IPM |                       |                |

Source: Data processed with SPSS 26, 2023

In the output of the VIF value of each variable Regional Original Income (PAD) and Balancing Funds < 10 and the tolerance value of Regional Original Income (PAD) and balancing funds > 0.10, it can be concluded that the data passes the multicollinearity test or the data does not occur multicollinearity.

| Table 3                                 |  |
|---|--|
| Model II Multicollinearity Test Results |  |

| Model                             | Collinerity Tolerance                 | Statistics VIF |
|-----------------------------------|---------------------------------------|----------------|
| PAD                               | 0,915                                 | 1,093          |
| DANA PERIMBANGAN                  | 0,915                                 | 1,093          |
| Dependent Veriable: Pelania medal | · · · · · · · · · · · · · · · · · · · | •              |

Dependent Variable: Belanja modal

Source: Data processed with SPSS 26, 2023

In the output of the VIF value of each variable Regional Original Income (PAD) and Balancing Funds < 10 and the tolerance value of Regional Original Income (PAD) and balancing funds > 0.10, it can be concluded that the data passes the multicollinearity test or the data does not occur multicollinearity.

# Table 4 Model III Multicollinearity Test Results

| Model                   | Collinerity Tolerance | Statistics VIF |
|-------------------------|-----------------------|----------------|
| PAD                     | 0,897                 | 1,115          |
| DANA PERIMBANGAN        | 0,666                 | 1,501          |
| BELANJA MODAL           | 0,674                 | 1,484          |
| Dependent Veriable, IDM | •                     |                |

Dependent Variable: IPM

Source: Data processed with SPSS 26, 2023

In the output of the VIF value of each variable Regional Original Income (PAD), Balancing Funds and Capital Expenditures < 10 and the tolerance value of Regional Original Income (PAD), Balancing Funds and Capital Expenditure > 0.10, it can be concluded that the data passes the multicollinearity test or the data does not occur multicollinearity.

c. Heteroscedasticity test

### Table 5 Heteroscedasticity Test Results

|                   |                     | Correlation<br>Coefficient | Unstandardized<br>Residual |
|-------------------|---------------------|----------------------------|----------------------------|
| Spearman`s<br>rho | PAD                 | Sig. (2-tailed)            | 0,899                      |
|                   | DANA<br>PERIMBANGAN | Sig. (2-tailed)            | 0,106                      |

Source: Data processed with SPSS 26, 2023

The results of the heteroscedasticity test in table 5 above show that each independent variable in this research, namely Local Own Revenue (PAD) and Balancing Funds, has a significance of >0.05 so that the

regression model in this study is free from variance inequality from one residual to the other observation. other or no heteroscedasticity occurs.

d. Autocorrelation test

| Table 6                                     |
|---|
| <b>Model I Autocorrelation Test Results</b> |

| Model                               | Durbin Watson |
|-------------------------------------|---------------|
| 1                                   | 1,050         |
| a. constanct. DANA PERIMBANGAN. PAD |               |

b. Dependent Variable: IPM

Source: Data processed with SPSS 26, 2023

The results of the autocorrelation test in table 6 above show that the Durbin Watson (DW) value in this research model I is 1.050. This shows that the value of 1.050 is between -2 and +2 so that the regression model does not have autocorrelation or there is no correlation between the confounding errors in period t and the confounding period t-1.

| Table 7                                   |
|---|
| Model II autocorrelation Test with Result |

| Model                               | Durbin Watson |
|-------------------------------------|---------------|
| 1                                   | 1,475         |
| a. constanct, DANA PERIMBANGAN, PAD |               |

b. Dependent Variable: BELANJA MODAL

Source: Data processed with SPSS 26, 2023

The results of the autocorrelation test in table 7 above show that the Durbin Watson (DW) value in this research model I is 1.475. This shows that the value of 1.475 is between -2 and +2 so that the regression model does not have autocorrelation or there is no correlation between the confounding error in period t and the confounding period t-1.

# Table 8 Model III autocorrelation test With Result

| Model                            | Durbin Watson |
|----------------------------------|---------------|
| 1                                | 1,129         |
| a. constanct, BELANJA MODAL DANA |               |

PERIMBANGAN, PAD b. Dependent Variable: IPM

Source: Data processed with SPSS 26, 2023

The results of the autocorrelation test in table 8 above show that the Durbin Watson (DW) value in this research model I is 1.129. This shows that the value of 1.129 is between -2 and +2 so that the regression model does not have autocorrelation or there is no correlation between the confounding error in period t and the confounding period t-1.

### 3. Multiple linear regression analysis

# Table 9Multiple linier regression Model I

Source: Data processed with SPSS 26, 2023

| В      | Std. Error      |
|--------|-----------------|
| 214,30 | 31,972          |
| 2,958  | 0,539           |
| -7,907 | 1,186           |
|        | 214,30<br>2,958 |

a. Dependent Variable: IPM

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The results of the Linear Regression Analysis are: IPM = 214,320 + 2,958 + (-7,907) + 31,927Information: IPM=  $\alpha + \beta_1 PAD + \beta_2 DP + e$ = Indeks Pembangunan Manusia IPM = Konstanta а PAD = Pendapatan Asli Daerah DP = Dana Perimbangan = Error е

### Table 10 Multiple linier regression Model II

Source: Data processed with SPSS 26, 2023

|                  | Unstandarized Coefficients |            |
|------------------|----------------------------|------------|
|                  | В                          | Std. Error |
| (Constance)      | -0,182                     | 3,780      |
| PAD              | 0,090                      | 0,064      |
| Dana Perimbangan | 0,865                      | 0,140      |

a. Dependent Variable: BELANJA MODAL

The results of the Linear Regression Analysis are:

 $BM = -0.182 + \beta_1 0.090 + \beta_2 0.865 + 3.780$ 

Information:

 $BM = \alpha + \beta_1 PAD + \beta_2 DP + e$ BM = Belanja Modal = Konstanta а  $\beta_1 - \beta_3$ = Koefisien Regresi PAD = Pendapatan Asli Daerah DP = Dana Perimbangan = Error е

### Table 11 Multiple linier regression Model III

|                  | Unstandarized Coefficients |            |
|------------------|----------------------------|------------|
|                  | В                          | Std. Error |
| (Constance)      | 214,630                    | 31,472     |
| PAD              | 2,805                      | 0,536      |
| Dana Perimbangan | -9,380                     | 1,368      |
| BELANJA MODAL    | 1,703                      | 0,824      |

Source: Data processed with SPSS 26, 2023

The results of the Linear Regression Analysis are:

IPM=  $214,630 + \beta_1 2,805 + \beta_2 (-9,380) + \beta_3 1,703 + 31,427$ 

Information:

 $IPM = \alpha + \beta_1 PAD + \beta_2 DP + \beta_3 BM + e$ 

IPM = Indeks Pembangunan Manusia

= Konstanta а

 $\beta_1 - \beta_3$ = Koefisien Regresi

- PAD = Pendapatan Asli Daerah
- DP = Dana Perimbangan
- BM = Belanja Modal
- = Error

е

a. Simultaneous significance test (test statistic F)

| Table 12                             |   |
|--------------------------------------|---|
| Simultaneous significance test Model | Ι |

|                            | F      | Sig.  |
|----------------------------|--------|-------|
| Regression                 | 29,077 | 0,000 |
| a. Dependent Variable: IPM |        |       |

b. Constant: DANA PERIMBANGAN, PAD

Source: Data processed with SPSS 26, 2023

Based on the SPSS output, it can be seen that the calculated F value is 29.077. From the results of the F test, a significance value of 0.000 <0.05 is obtained, so as to use the basis for decision making in the F test, it can be concluded that the hypothesis is accepted, or in other words, the variable Regional Original Income (PAD) and Balancing Funds simultaneously affect the Human Development Index (HDI)

| Table 13                                |
|---|
| Simultaneous significance test Model II |

|                                      | F      | Sig.  |
|--------------------------------------|--------|-------|
| Regression                           | 24,669 | 0,000 |
| a. Dependent Variable: BELANJA MODAL |        |       |

b. Constant: DANA PERIMBANGAN, PAD

Source: Data processed with SPSS 26, 2023

Based on the SPSS output, it can be seen that the calculated F value is 24.669. From the results of the F test, a significance value of 0.000 < 0.05 is obtained, so as to use the basis for decision making in the F test it can be concluded that the hypothesis is simultaneously accepted or in other words the Capital Expenditure variable affects the Human Development Index (IPM).

 Table 14

 Simultaneous significance test Model III

|                                  | F      | Sig.  |
|----------------------------------|--------|-------|
| Regression                       | 21,428 | 0,000 |
| a. Dependent Variable: IPM       |        |       |
| b. Constant: BELANJA MODAL, DANA |        |       |

b. Constant: BELANJA MODAL, DANA PERIMBANGAN, PAD

Source: Data processed with SPSS 26, 2023

Based on the SPSS output, it can be seen that the calculated F value is 21.428. From the results of the F test, a significance value of 0.000 < 0.05 is obtained, so as to use the basis for decision making in the F test it can be concluded that the hypothesis is simultaneously accepted or in other words the Capital Expenditure variable affects the Human Development Index (HDI).

b. Coefficient of determination (R2)

| Table 15                             |  |  |  |
|--------------------------------------|--|--|--|
| Coefficient of determination Model I |  |  |  |

| Model                            | R Square |
|----------------------------------|----------|
| 1                                | 0,363    |
| a Constant: Dana Perimbangan BAD |          |

a. Constant: Dana Perimbangan, PAD b. Dependent: IPM

Source: Data processed with SPSS 26, 2023

The results of the test for the coefficient of determination (R2) in the table above shows that the adjusted R2 value in the regression model is 0.363 or 36.33%. This means that the independent variables in this study, namely Regional Original Income (PAD) and Balancing Funds can explain the dependent variable of this study, namely the Human Development Index (IPM) of 36.33% and 63.37% explained by other factors outside the research model used.

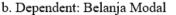
 Table 16

 Coefficient of determination Model II

2023

| - | 0 | 1 | 10 |
|---|---|---|----|
| 1 |   | 1 | 6  |
| _ | v | - | ~  |

| Model                              | R Square |
|------------------------------------|----------|
| 1                                  | 0,326    |
| a. Constant: Dana Perimbangan, PAD |          |



Source: Data processed with SPSS 26, 2023

The results of the test for the coefficient of determination (R2) in the table above shows that the adjusted R2 value in the regression model is 0.326 or 32.6%. This means that the independent variables in this study, namely Regional Original Income (PAD) and Balancing Funds, can explain the dependent variable of this study, namely Capital Expenditures of 32.6% and 67.4% explained by other factors outside the research model used.

# Table 17 Coefficient of determination Model III

| Model   | R Square |
|---|----------|
| 1   | 0,389    |
| a. Constant: Belanja Modal, Dana Perimbangan, PAD |          |

b. Dependent: IPM

Source: Data processed with SPSS 26, 2023

The results of the test for the coefficient of determination (R2) in the table above shows that the adjusted R2 value in the regression model is 0.389 or 38.9%. This means that the independent variables in this study, namely Regional Original Income, Capital Expenditures and Balancing Funds, can explain the dependent variable of this study, namely the Human Development Index (IPM) of 38.9% and 61.1%, explained by other factors outside the research model. used.

# c. Hypothesis test (t test)

# Table 18

Hypothesis Test Model I

Source: Data processed with SPSS 26, 2023

| t      | Sig.  |
|--------|-------|
| 5,490  | 0,000 |
| -6,666 | 0,000 |
|        | - ,   |

a. Dependent: IPM

1. Regional Original Income in the table above shows a significance t value of 0.000. This means that Regional Original Income has an effect on HDI. Because the t value of the significance of the Local Original Income (PAD) variable is 0.000, the value is <0.05, so it can be concluded that H1 is accepted.

2. Balancing Funds in the table above shows a significance t value of 0.000. This means that the Balancing Fund has an effect on HDI. Because the t value of the significance of the Balancing Fund variable is 0.000, the value is <0.05, so it can be concluded that H2 is accepted.

Table 19

| Hypothesis Test Model II |       |  |  |
|--------------------------|-------|--|--|
|                          | t     |  |  |
| PAD                      | 1,410 |  |  |

| DANA PERIMBANGAN            | 6,168 |
|-----------------------------|-------|
| a. Dependent: BELANJA MODAL |       |

Source: Data processed with SPSS 26, 2023

3. Regional Original Income (PAD) in the table above shows a significance t value of 0.162. This means that Regional Original Income (PAD) has no effect on Capital Expenditures. Because the significant t value of the Regional Original Income (PAD) variable is 0.162 with a value > 0.05 so it can be concluded that H3 is rejected. 4. Balancing Funds in the table above shows a significance t value of 0.000. This means that the Balancing Fund has an effect on HDI. Because the t value of the significance of the Balancing Fund variable is 0.000, the value is <0.05, so it can be concluded that H4 is accepted.

### Table 20

Sig. 0,162

0,000

|                   | t      | Sig.  |
|-------------------|--------|-------|
| PAD               | 5,238  | 0,000 |
| DANA PERIMBANGAN  | -6,856 | 0,000 |
| BELANJA MODAL     | 2,066  | 0,000 |
| a. Dependent: IPM | 2,000  | 0,000 |

Hypothesis Test Model II

# Source: Data processed with SPSS 26, 2023

5. Capital Expenditure in the table above shows a significance t value of 0.041. This means that the Balancing Fund has an effect on HDI. Because the t value of the significance of the Balancing Fund variable is 0.041, the value is <0.05, so it can be concluded that H5 is accepted.

### d. Sobel Test

# Table 21 Sobel Test I

Source: Data processed with SPSS 26, 2023

| Variabel | koefisien | Std.error | sig   |  |
|----------|-----------|-----------|-------|--|
| PAD→BM   | 0,090     | 0,064     | 0,162 |  |
| BM→IPM   | 1,703     | 0,824     | 0,041 |  |

$$S_{ab} = \sqrt{b^2 S a^2 + a^2 S b^2 + S a^2 S b^2}$$

Sab 
$$= \sqrt{(1,703)^2 (0,064)^2 + (0,090)^2 (0,824)^2 + (0,064)^2 (0,824)^2}$$
$$= \sqrt{0,016 + 0,0054 + 0,0027}$$
$$= \sqrt{0,0194}$$
$$= 0,444$$

6. Based on the data above, it can be interpreted that 0.444 < 1.982, Capital Expenditure does not mediate Regional Original Income to HDI, then H6 is rejected.

| Table 22Sobel Test II |           |           |       |  |
|-----------------------|-----------|-----------|-------|--|
| Variabel              | koefisien | Std.error | sig   |  |
| <i>DP</i> →BM         | 0,865     | 0,140     | 0,000 |  |
| $BM \rightarrow IPM$  | 1,703     | 0,824     | 0,041 |  |

Source: Data processed with SPSS 26, 2023

$$S_{ab} = \sqrt{b^2 S a^2 + a^2 S b^2 + S a^2 S b^2}$$

Sab 
$$= \sqrt{(1,703)^2 (0,140)^2 + (0,865)^2 (0,824)^2 + (0,140)^2 (0,824)^2}$$
$$= \sqrt{0,0551 + 0,507 + 0,012}$$
$$= \sqrt{0,575}$$
$$= 0,758$$

7. Based on the data above, it can be interpreted that 0.758 < 1.982, Capital Expenditure does not mediate Balancing Funds against HDI, then H7 is rejected.

Discussion

### The Effect of Regional Original Income on the Human Development Index.

Regional Original Income affects the Human Development Index in Central Java Province for 2019-2021. PAD can affect development in the area which is realized in the form of procurement of facilities and infrastructure intended for the public interest. The higher the income in an area, the allocation of regional original income (PAD) will also increase. These funds can be used to improve facilities and infrastructure in the fields of education, health, and the economy, by increasing facilities and infrastructure and improving community welfare, the Human Development Index (IPM) will increase (Wiliantara, 2016).

The results of this study are in line with research conducted by (Riviando, Agustin, & Halmawati, 2019), which states that Regional Original Income (PAD) has an effect on the Human Development Index. This is because the welfare of the community will increase if the Regional Original Income is greater.

### The Effect of Balancing Funds on the Human Development Index.

The Balancing Fund affects the Human Development Index in Central Java Province in 2019-2021. The reason is that the Balancing Fund is used as a tool to equalize/balance the financial capacity of the Central Government with the Regional Governments. The Central Government regulates the use of Balancing Funds in accordance with Laws and Regulations, the aim of which is to improve regional services to the community. Where when people's welfare increases, the HDI index in the area will also increase (T. A. Sembiring, 2020).

The results of this study are in line with research conducted by (Hanantoko, 2020), which states that Balancing Funds have an effect on the Human Development Index. This is because PAD growth affects HDI due to an increase in the economy which will have an ongoing impact on the human development index (IPM). The greater the PAD held for a region, the greater the public services provided by the local government to citizens and vice versa. As a form of decentralization, regional governments will not depend on the central government if they already have a large level of PAD.

### The effect of regional original revenue on capital expenditure.

Regional Original Income has no effect on the Human Development Index in Central Java Province for 2019-2021. The results of this study failed to prove previous research conducted by (Williantara & Budiasih, 2016). This is because Regional Original Revenue is used more to finance other direct expenditures than to finance capital expenditures. The use of Regional Original Revenue by the government should be used to make the region's ability to finance capital expenditures bigger.

# The Effect of Balancing Funds on Capital Expenditures.

The Balancing Fund affects Capital Expenditure in Central Java Province in 2019-2021. The reason is that the funds provided by the center through balancing funds have been allocated to capital expenditures to the maximum to fund regional needs. Balancing funds have ties to Capital Expenditure through regional development financing where there is a large regional government dependence on the central government (Febrianti, 2022).

Balancing Funds function to create a balance between Central and Regional Government finances. Balancing Funds provide large amounts of revenue for most local governments, these funds are then used to finance Capital Expenditures. Based on this statement and the results of the fourth hypothesis, it can be concluded that the Balancing Fund is used for capital expenditures. The results of this study support research (Hasan & Agung, 2018) and (Riviando, Agustin, Department of Accounting, Faculty of Economics, et al., 2019).

### Effect of Capital Expenditures on HDI

Capital Expenditures affect the Human Development Index in Central Java Province in 2019-2021. because capital expenditure has a direct impact on the development of public infrastructure such as roads, irrigation canals, electricity networks, transportation infrastructure and an increase in human resources as well as an investment position that is very necessary for the growth of underdeveloped areas as pioneers and opening pathways for investment entry(Di et al., 2015).

The results of this study are also supported by research conducted by (Sulistio Mirza, 2012), that the linkage between capital expenditure and the Human Development Index is very close where the policies carried out by the government to improve the quality of human resources are based on the idea that large capital expenditures can improve facilities and infrastructure that will improve the welfare of society.

The Effect of Regional Original Income on the Human Development Index through Capital Expenditures.

Regional Own Revenue does not affect the Human Development Index through Capital Expenditure in Central Java Province from 2019 to 2021. The proportion of regional original income allocated through capital expenditure has not sufficiently funded the construction of public facility infrastructure in education and health as well as other sectors that are sufficient to meet the needs and community services that can improve human welfare to achieve an increase in HDI.

The results of this research are supported by research conducted (Riviando, Agustin, & Halmawati, 2019), that capital expenditure is not able to mediate Regional Original Income to increase the human development index. This can be due to capital expenditures budgeted by the government that have not maximized sources of PAD revenues that support the quality of people's welfare with the basic dimensions of HDI. Regional original income received tends to be allocated for reciprocity for retribution payers and taxpayers so that it is not evenly distributed to meet needs in other fields such as education and health.

# The Effect of Balancing Funds on the Human Development Index through Capital Expenditures.

Balancing Funds have no effect on the Human Development Index through Capital Expenditures in Central Java Province from 2019 to 2021. Balancing Funds obtained by regions are fluctuating from APBN revenues according to the potential of the region itself so that they are not only for capital expenditure costs but also for sustainable development.

The results of this study support the results of research conducted by (Williantara & Budiasih, 2016), that capital expenditure does not mediate the effect of the Balance Fund on the achievement of the Human Development Index. This could be due to the percentage allocation of Balancing funds that does not contribute enough to support Capital Expenditure which is used to finance the construction of facilities and infrastructure which has an impact on the lack of improvement in people's welfare.

# V. CONCLUSION& SUGGESTION

### Conclusion

1. Regional Original Income (PAD) has an effect on the Human Development Index (IPM), meaning that H1 is accepted.

2. Balance Fund has an effect on the Human Development Index (IPM), meaning that H2 is accepted.

3. Regional Original Income (PAD) has no effect on Capital Expenditures, meaning H3 is Rejected.

4. Balancing Funds affect Capital Expenditures, meaning that H4 is accepted.

5. Capital Expenditures affect the Human Development Index, meaning that H5 is accepted.

6. Capital Expenditure does not mediate Regional Original Income to the Human Development Index (IPM), then H6 is rejected.

7. Capital Expenditures do not mediate Balancing Funds against the Human Development Index (IPM), then H7is rejected.

# Suggestions

1. It is advisable for further research to use samples from other regions and the observation period in the study is suggested to be increased so that it can clearly describe the range of influence of each variable on the Human Development Index.

2. Future research is expected to be able to explore a wider variety of independent variables that have the potential to affect the Human Development Index.

# **Research Limitations**

1. Sampling is only limited to the scope of districts / cities in Central Java during 2019-2021, so it does not reflect the overall Human Development Index.

2. The independent variables in this study are only local revenue (PAD) and balancing funds.

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