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The Effect of Natural Resource Profit Sharing Funds and Investment on Regional Gross Domestic Product through Regional Expenditure in Kutai Timur Regency

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Abstract. This study aims to analyze the effect of Natural Resource Profit Sharing Funds (DBH SDA) and investment on Gross Regional Domestic Product (GRDP) through regional expenditure in Kutai Timur Regency. The research employs path analysis with a multiple linear regression model using time series data from 2013-2022. The results indicate that DBH SDA has a significant positive effect on regional expenditure but a significant negative effect on GRDP. Conversely, investment has an insignificant negative effect on regional expenditure but a significant positive effect on GRDP. Furthermore, regional expenditure significantly and positively influences GRDP. Additional analysis reveals that the impact of DBH SDA on GRDP is more substantial through regional expenditure, while the direct effect of investment on GRDP is more pronounced. This study highlights the importance of efficient DBH SDA management and the optimization of investments to support regional economic growth.

Keywords: Investment, Economic, Growth.

1. INTRODUCTION

One important indicator to determine the economic conditions in a region in a certain period is Gross Regional Domestic Product (GRDP) data, both at current prices and at constant prices. GRDP is basically the amount of added value generated by all business units in a certain region, or is the amount of final goods and services produced by all economic units.

In general, government spending always increases in line with the increase in economic activity. This condition can be explained in the rule known as Wagner's Law, namely regarding the positive correlation between government spending and the level of national income. However, increasing government spending that always increases does not necessarily have a good effect on economic activity, for that it is necessary to see the allocation and efficiency of the use of government spending.

Regional government spending is measured from the total direct and indirect spending allocated in the Regional Budget or commonly referred to as the Regional Revenue and Expenditure Budget (APBD). Regional government spending is very much needed by the region. Its function is so that the region is able to grow and develop according to the capabilities of the region itself so that community welfare increases (Swaramarinda & Indriani, 2011).

Investment in this study is domestic investment (PMDN) and foreign investment (PMA). Investment is carried out to improve the welfare of the people in the country.

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Investment is useful in increasing employment opportunities, building facilities and infrastructure, developing technology and encouraging industrial development. East Kutai Regency is one of the regencies in East Kalimantan Province that has natural resources, especially in the mining and plantation sectors which contribute greatly to regional income. For this reason, researchers are interested in studying the influence of Natural Resource Revenue Sharing Funds and also investment on economic conditions as seen from Gross Regional Domestic Product through regional spending in East Kutai Regency.

2. LITERATURE REVIEW

According to Todaro, 2006, Gross Regional Domestic Product (GRDP) is the total gross value added arising from all economic sectors in the region. Calculating GRDP aims to help make regional policies or planning, evaluate development results, provide information that can describe the performance of the regional economy. Gross Regional Domestic Product is an important indicator to determine the economic conditions in a region in a certain period, either based on current prices or constant prices. GRDP is basically the amount of added value generated by all business units in a particular region, or is the total value of final goods and services produced by all economic units in a region. This study uses GRDP at constant prices to show the added value of goods and services calculated using prices prevailing in a particular year as the base year. Constant GRDP is used to determine real economic growth from year to year or economic growth that is not influenced by price factors.

Regional governments are given the authority to manage or regulate their own regional finances. Mustopadidjaya (2003) stated that one of the activities in preparing the Expenditure Budget is identifying needs, namely identifying needs and considering policies concerning allocations to programs that are linked to both overall economic goals and specific sectoral and regional targets.

Badrudin (2012) argues that regional government spending in the form of routine spending (apparatus spending/indirect spending) and development spending (direct spending) will create demand for goods and services which are then responded to by producers. Based on consumption and production activities, economic activities will occur that will form the absolute value of gross domestic regional and the relative value of changes in Gross Domestic Regional Product.

Endogenous growth theory explains that investment in physical capital and human capital plays a role in determining long-term economic growth (Ma'ruf, 2008). Investment plays an important role in driving the nation's economic life, because capital formation increases production capacity, increases national income and creates new jobs, in this case it will further expand employment opportunities (Torado in Sodik, 2005).

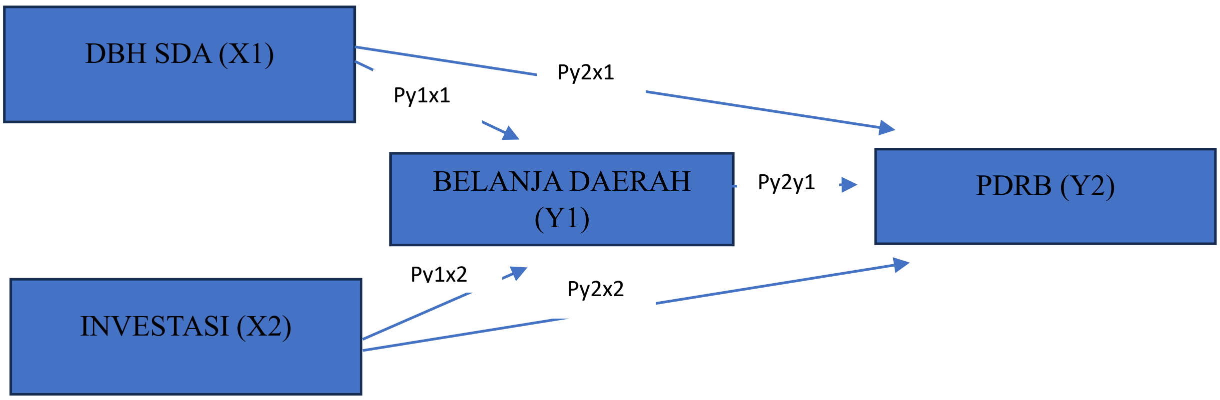
The development that occurs in Indonesia is uneven. Some regions achieve rapid growth, while some other regions experience slow growth. This is due to the lack of available resources, the tendency of capital (investors) to choose urban areas or areas that already have various facilities (Hartono, 2017). Investment aims to support the implementation of national development in order to increase the equality of economic growth and national stability towards increasing people's welfare.

The purpose of providing DBH is to increase economic growth which has become an important issue in every country's progress. This is because economic growth can be used as a benchmark for increasing or decreasing a country's ability to produce goods and services in a certain period. In addition, economic growth reflects the development of people's income which is ultimately used as an indicator of the level of people's welfare in a country (Nasir, 2019).

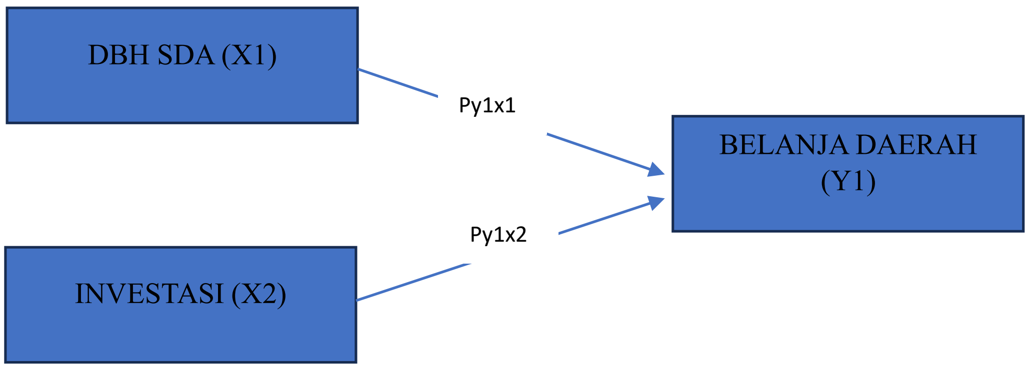
The existence of natural resources has a significant influence on an economy. With a high value, its existence can boost people's standard of living by encouraging public and private consumption at a higher level. The existence of natural resources can also increase investment, both from the income of the natural resources themselves and from loans that are made possible thanks to the income of natural resources.

3. RESEARCH METHODS

This study uses path analysis with multiple linear regression econometric modeling to determine the influence and relationship between Natural Resources Revenue Sharing Funds, Investment, on Regional Expenditure and PDRB. Ridwan and Sunarto (2009) explain the definition of Path Analysis by Bohrnstedt (1974 in Kusnendi 2005) is a path analysis model used to analyze the pattern of relationships between variables with the aim of determining the direct or indirect influence of a set of independent variables (exogenous) on dependent variables (endogenous). This study uses time series data from 2013 to 2022 in East Kutai Regency. With endogenous variables X1 being Natural Resources Revenue Sharing Funds and X2 being Investment. Exogenous variables Y2 being Gross Regional Domestic Product, and intervening variables Y1 being Regional Expenditure.

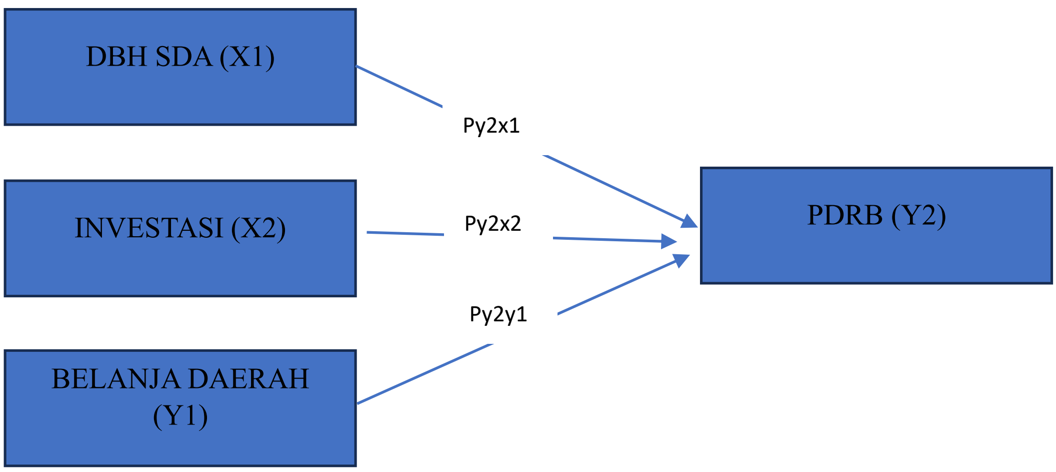


The sub-structure path model diagram – 1 in this study is as follows:



$Y1 = py1x1 + py1x2 + \varepsilon 1$

The sub-structure path model diagram – 2 in this study is as follows:



$Y2 = py2x1 + py2x2 + py2y1 + \varepsilon 2$

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4. RESEARCH RESULTS AND DISCUSSION

Path analysis is used to estimate the causal relationship of a number of variables in a series of causal relationship paths. However, to answer the problem of the influence between independent and dependent variables, the results of calculations from regression analysis are used.

Structure Result 1

Table 1

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.874[a]	.764	.696	278,776,228,571.715

a. Predictors: (Constant), INVESTASI, DBHSDA

Based on the correlation coefficient value of R of 0.874, it indicates that the DBH SDA and Investment variables have a strong relationship to regional spending. The terminated coefficient R2 is 0.764. This indicates that the independent variables (Natural Resource Revenue Sharing Funds and Investment) have an influence of 76.4 percent on the regional spending variable. While the remaining 23.6 percent is influenced by independent variables that are not in this model.

Table 2

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1757780059807102200000000.000	2	878890029903551100000000.000	11.309	.006[b]
	Residual	544013299316682100000000.000	7	77716185616668870000000.000		
	Total	2301793359123784300000000.000	9			

a. Dependent Variable: B.DAERAH
b. Predictors: (Constant), INVESTASI, DBHSDA

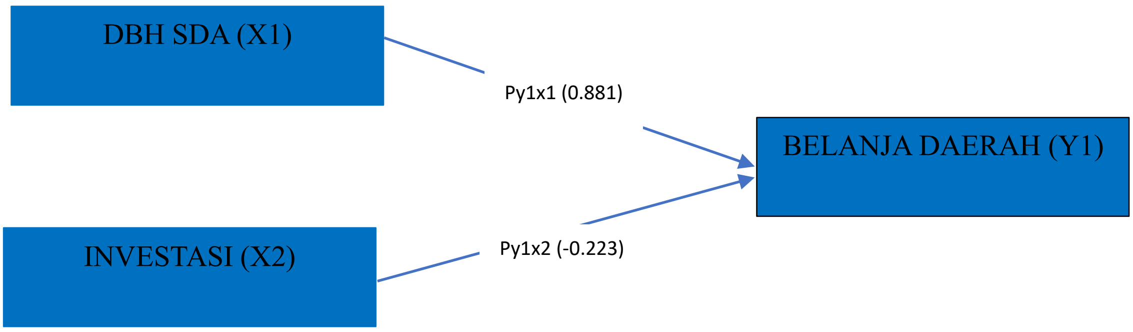
The results of the Anova F test have a value of 11.309 with a significance of 0.006 smaller than the alpha value of 0.05. This means that BDH SDA and Investment simultaneously have a joint effect on regional spending in East Kutai Regency.

Table 3

Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2448047430007.703	199749451189.487		12.256	<.001
	DBHSDA	.453	.096	.881	4.735	.002
	INVESTASI	-.028	.023	-.223	-1.199	.270

a. Dependent Variable: B.DAERAH



The statistical model of structure 1 is $Y1 = 0.881\ X1 - 0.223\ X2 + \varepsilon 1$

The Influence of Natural Resources Revenue Sharing Funds on Regional Expenditures

The results of the analysis show that the beta path coefficient between Natural Resources Revenue Sharing Funds (X1) and Regional Expenditures (Y1) is 0.881, this path has a significant positive effect on regional expenditures in East Kutai Regency. So it can be interpreted that the increasing Natural Resources Revenue Sharing Funds in East Kutai Regency will increase Regional Expenditures.

The positive and significant effect is due to the amount of revenue sharing funds received by East Kutai Regency from year to year, the amount tends to increase in distribution. This result is in line with the results of previous research conducted by Noordiawan (2007) which stated that Revenue Sharing Funds (DBH) sourced from APBN revenues are allocated to regions by considering the potential of producing regions based on a certain percentage figure to fund regional needs in the context of implementing decentralization.

The Influence of Investment on Regional Expenditures

The results of the analysis show that the beta path coefficient between Investment (X2) and Regional Expenditures (Y1) is -0.223, this path has a negative and insignificant effect on regional expenditures in East Kutai Regency.

This means that the increase or decrease in the amount of investment in East Kutai Regency will not necessarily increase or decrease the amount of regional spending. This is because investment in East Kutai Regency is still fluctuating. Investment also does not directly cause an increase in Regional Spending. Because the nature of investment has an influence in the years to come, such as the medium and long term. It has no impact on the year of implementation. Investment according to (Sukirno, 1997) is the accumulation of a form of assets with the hope of getting profit in the future. Sometimes, investment is also called capital investment.

Structure Results 2

The second regression model is used to test the influence of BDH SDA, Investment, and Regional Expenditure on GRDP.

Table 4

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.969[a]	.940	.909	1,698,253,290,420.794

a. Predictors: (Constant), B.DAERAH, INVESTASI, DBHSDA

Based on the results, it is known that the magnitude of the correlation coefficient R is 0.969, this means that the relationship between DBH SDA, Investment, Regional Expenditure has a strong relationship to PDRB in East Kutai Regency. The value of the determination coefficient (R2) is 0.940, which means that the contribution of BDH SDA, Investment, and Regional Expenditure to PDRB has an influence of 94 percent. The remaining 6 percent is influenced by other variables outside the model studied.

Table 5

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	269198175326456900000000000.000	3	89732725108818960000000000.000	31.113	<.001[b]
	Residual	17304385430550312000000000.000	6	2884064238425052000000000.000		
	Total	286502560757007200000000000.000	9			

a. Dependent Variable: PDRB
b. Predictors: (Constant), B.DAERAH, INVESTASI, DBHSDA

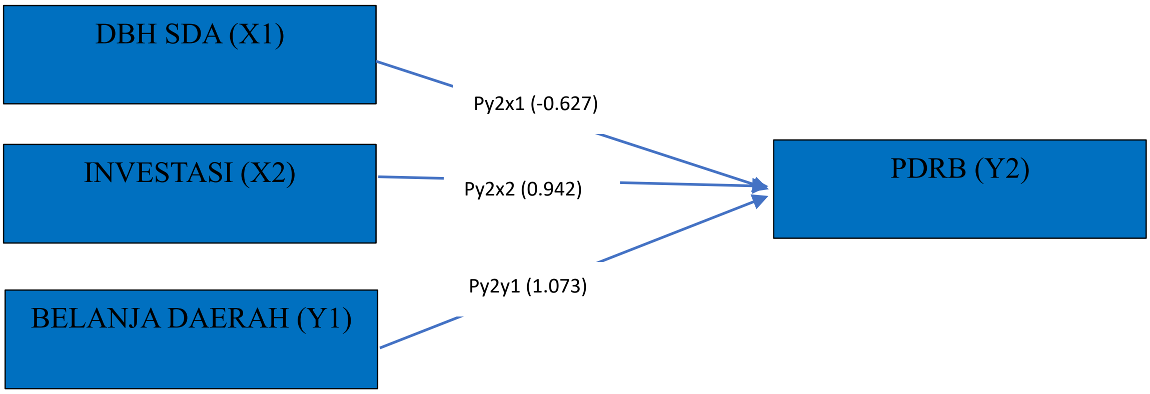
The results of the Anova F test have a value of 31.113 with a significance of 0.001 smaller than the alpha value of 0.05. This means that simultaneously BDH SDA, Investment, and Regional Expenditure have a joint effect on GRDP in East Kutai Regency.

Table 6

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	51994787956125.520	5766454522652.619		9.017	<.001
	DBHSDA	-3.595	1.196	-.627	-3.007	.024
	INVESTASI	1.327	.157	.942	8.442	<.001
	B.DAERAH	11.973	2.302	1.073	5.200	.002

a. Dependent Variable: PDRB



The statistical model of structure 2 is Y2 = -0.627 X1 + 0.942 X2 + 1.073 Y1 + ε2

The Effect of Natural Resources Revenue Sharing Funds on GRDP

The results of the analysis show that the beta path coefficient between Natural Resources Revenue Sharing Funds (X1) and GRDP (Y2) is -0.627, this path has a significant negative effect on GRDP in East Kutai Regency. So it can be interpreted that the increasing Natural Resources Revenue Sharing Funds in East Kutai Regency will reduce GRDP in East Kutai Regency.

This result is not in line with the results of previous research conducted by Nasir (2019) which stated that Revenue Sharing Funds (DBH) are one part of the balancing fund in addition to general and special allocation funds, which are transferred from the central government to the regions with the aim of maximizing regional development in accordance with the objectives of regional autonomy. In this case, it means that the use of Natural Resources Revenue Sharing Funds is still not on target in influencing GRDP in East Kutai Regency.

The Effect of Investment on GRDP

The results of the analysis show that the beta path coefficient between Investment (X2) and GRDP (Y2) is 0.942, this path has a positive and significant effect on GRDP in East Kutai Regency.

This means that the increasing amount of investment in East Kutai Regency will increase the amount of GRDP. This is because investment in East Kutai Regency has an effect on increasing economic activities in East Kutai. According to (Sukirno, 1997) investment can improve the economy through several things, including increasing the production of goods and services, creating jobs, improving infrastructure, transferring technology, encouraging economic diversification.

The Effect of Regional Spending on GRDP

The results of the analysis show that the beta path coefficient between Regional Spending (Y1) and GRDP (Y2) is 1.073, this path has a positive and significant effect on GRDP in East Kutai Regency.

This means that the increasing Regional Spending in East Kutai Regency will increase the amount of GRDP. According to (Sukirno, 1997) Regional spending carried out by the government can have a positive impact on GRDP. The realization of regional spending can improve the economy in the region and become a factor that can increase regional PAD. This is in line with research conducted by Badrudin (2012) Where regional spending will create demand for goods and services which are then responded to by producers.

The influence of DBH SDA on GRDP through Regional Expenditure is 0.945. This means that if the influence of DBH SDA on GRDP through regional expenditure has a greater influence than DBH SDA directly on GRDP. With a total influence of 0.318. Meanwhile, investment on GRDP through regional expenditure has a coefficient value of -0.239. This means that if the influence of investment on GRDP through regional expenditure gives a smaller influence value than directly. This means that investment has a greater influence on GRDP directly without going through regional expenditure. With a total influence of 0.225.

5. CONCLUSION

Natural Resources Revenue Sharing Fund (X1) on Regional Expenditure (Y1) has a significant positive effect in East Kutai Regency. So it can be interpreted that the increasing DBH SDA in East Kutai Regency will increase Regional Expenditure.

Investment (X2) on Regional Expenditure (Y1) has a negative and insignificant effect in East Kutai Regency.

Natural Resources Revenue Sharing Fund (X1) on GRDP (Y2) has a negative and significant effect in East Kutai Regency. So it can be interpreted that the increasing DBH SDA in East Kutai Regency will reduce GRDP in East Kutai Regency.

Investment (X2) on GRDP (Y2) has a positive and significant effect in East Kutai Regency. This means that the increasing amount of investment in East Kutai Regency will increase the amount of GRDP.

Regional Expenditure (Y1) on GRDP (Y2) has a positive and significant effect in East Kutai Regency. This means that the increasing Regional Expenditure in East Kutai Regency will increase the amount of GRDP.

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