The Influence of Human Development Index, Economic Growth and Allocation of Operational Expenditures to the Capital Expenditures in the Province of Banten

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Abstract—This article is aimed to find out the influence of the human development index (HDI), economic growth and the operating expenditure to the amount of capital expenditure in the province of Banten. The data used are IPM, economic growth, operational expenditure and capital expenditure in the last ten years. This study used multiple linear regression method. The results showed that only economic growth has a significant impact on the allocation of capital expenditures. While the direction of the relationship between operational expenditure with capital expenditure is negative so that if the number of operational expenditure in Banten province is high then the amount of capital expenditure low. The number of allocations of operational expenditure does not reflect the level of quality improvement progress of HDI and low economic growth. Therefore, to expand economic development in the province of Banten, it is necessary to increase the portion of capital expenditures in the budget of the priority areas in the infrastructure sector.

Keywords: human development index, economic growth, operational expenditure, capital expenditure, Banten

I. INTRODUCTION

A. Background of the Problem

Human Development Index is one of indicators applied in measuring the level of citizen’s physical and non-physical qualities. The physical quality; reflected in life expectancy; and the non-physical qualities (intellectual) is mirrored through the average length of education obtained by the population and the literacy rates; and by considering the people’s economic ability which reflected from the value of Purchasing Power Parity (PPP) index. Economic growth is defined as the increase in GDP/ GNP in spite of discerning whether the growth itself is larger or smaller than the rate of population growth or whether the changes in economic structures occurs or not [1,2].

Economic growth is the process of increasing in real gross national product or national income. Thus, economy is said as “Growing” or “Developing” if the real output growth occurs. Another definition of economic growth is Economic growth occurs when there is an increase in the output per capita. Economic growth illustrates the increase in the standard of living measured by real output per person. While poor-densely populated countries and numerous people live at the level of the life boundary, have experienced setback in raising it. Some developed countries have enjoyed a high standart of life quality that keeps growing continuously [3].

Operational expenditure is inseparable from the budget including the local government budget (APBD). An entity, particularly for a country, would require routine expenditures in regard to run the states’ operational. However, the amount of operational expenditure should not give too much burden on the budget. The reason is because the economic benefits derived from their operating expenditure tends to be short-term, only to fulfill the routine needs [4].

Therefore, the strategy of allocation budget of region plays an equally-important role in increasing local revenues. In an effort to increase the public contribution to the regions’ reception, capital expenditure should be increased. Capital expenditures is made by local governments, for example development and improvement in education, health and transportation sectors, so people would also enjoy the benefits of regional development [5].

The capital expenditure budget is based on the local needs for facilities and infrastructure, both for the streamlined-implementation of the government tasks and public facilities. Therefore, in an effort to improve the quality of public services, local government should change the composition of expenses. Until now, region’s expenses has been more widely used for relatively less productive spending. Utilization of spending should be allocated for productive things, for example to carry out some development activities. So, capital spending is done in order to establish the nature of capital which will add on the fixed asset/ inventory that benefits more than one
accounting-period, including the expenses for maintenance in regard to preserve or add benefits and increase the capacity & quality of the assets.

Human development index is reflected by the development of a wide range of infrastructure and informatics to improve the physical and non-physical qualities of the population and the welfare of society from the aspect of education, health and the need for the availability of adequate housing. Thus, the local governments require capital expenditure to demonstrate the achievement of good human development index as well as the economy growth.

To enhance human development index and economic growth, Banten provincial government needs to allocate its capital expenditures. So that the development of physical and non-physical quality that is reflected in the human development index and economic growth can go as expected.

Based on this background, the problem in this research is: Do human development index, economic growth and operating expenditure affect to the amount of capital expenditure?

The purpose of this study is to analyze the influence of the human development index, economic growth, and the operating expenditure to the amount of capital expenditure in the province of Banten?

Human Development Index (HDI) is a composite index calculated as the simple average of the three (3) index that describes the basic human ability to expand choices: life expectancy index, education index and index of living standards.

Based on Government Regulation (PP) No. 71 Year 2010 concerning the Government Accounting Standards, expenditures are defined as all expenses by the State Treasurer/Regional Public Treasurer in reducing More Budget Balance in the relevant fiscal year period that will not be earned back by the government payment. According to the same PP, expenditures are classified by economic classification (type of expenditure), organization, and function. Economic classification is a grouping of expenditure based on the type of expenditure to carry out an activity. The type of expenditure that exist on the government entities include but not limited to operational expenditures, capital expenditures, other expenditures and transfers.

In paragraph 37 Appendix 1:03 PP No. 71 Year 2010, capital expenditures are defined as expenditures budget for the acquisition of fixed assets and other assets that benefit more than one accounting period. Capital expenditure are capital expenditures for the acquisition of land, buildings, equipment, intangible assets. Capital expenditure is more long-term than operational expenditure.

The theoretical framework of the research began with theoretical studies by analyzing relevant theories, Theory of Welfare, Economic Growth Theory, Theory Operational Expenditure, and Capital Expenditure. The basic theoretical and empirical studies underlying the association between variables with another were described as follows Figure 1:

![Fig. 1. The framework influence the Human Development Index, Growth economy and Shopping operational to Capital expenditure in Banten.](image)

The study’s hypothesis is that human development index, economic growth, and operational spending have significant effect on the amount of capital expenditure.

To determine whether there is the influence of the human development index, economic growth and the operating expenditure to capital expenditure in Banten province. It will apply a multiple linear regression analysis with the following formula:

\[
Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e
\]

- \(Y\) = Allocating Capital Expenditures
- \(\beta_0\) = Intercept
- \(\beta\) = The regression coefficient
- \(X_1\) = Human development index
- \(X_2\) = Economic growth
- \(X_3\) = Operational expenditure
- \(e\) = Error

The hypothesis testing in multiple regression are as following:

- Ho: \(P = 0\), no real influence of independent variables on the dependent variable with \(\alpha = 5\%\).
- Ho: \(P = 0\), there is real influence of independent variables on the dependent variable with \(\alpha = 5\%\).

**B. Hypothesis Testing**

1) **Coefficient of determination**: The coefficient of determination (R2) measures to what extent is the ability of the model to explain variations in the independent variables. The coefficient of determination is used to explain the regression model predicting the dependent variable. The higher the coefficient of determination, the better the ability of independent variables explaining the dependent variable.

2) **Simultaneous test (test statistic F)**: Basically, Test Statistic F indicates whether all of the independent variables or inclusion in the model have influence altogether on the dependent variable.

3) **Partial test (test statistic t)**: Test Statistic T indicates whether each independent variable or free in the model have influence alone (partially) on the dependent variable.
II. DISCUSSION

This study was conducted to find out the effect of human development index (HDI), economic growth and the operating expenditure to the amount of capital expenditure in the province of Banten.

To find out whether all independent variables or free variables included in the model have influence on the dependent variable, it was tested simultaneously by multiple regression analysis with the test results as follows:

A. Coefficient of Determination

| Model | \( R \)  | \( R^2 \)  | \( \text{Adjusted } R^2 \) | \( \text{Std. Error of the Estimate} \) |
|-------|--------|----------|-----------------|-------------------------------|
| 1     | 0.914a | 0.835    | 0.753           | 163.691409                    |

TABLE I. TABLE COEFFICIENT OF DETERMINATION \( X_1 \), \( X_2 \) DAN \( X_3 \) TO \( Y \)

Model Summary Table 1 shows the amount of \( R^2 \) of 0.835. It means 83.5% of the variation Allocating Capital Expenditures (Y) can be explained by the variation of three independent variables, the Human Development Index (X1), Growth (X2) and Operational Expenditure (X3). While the rest (100% - 83.5% = 16.5%) is explained by other causes beyond the model.

- Hypothesis 1 informs that the human development index significantly influences the allocation of capital expenditure is proven. Because empirically, human development index data are used to test the direction and strength of the index relationship/human development with the allocation of capital expenditure in Banten Province which has a deviation standard that is not too large compared to the human development index coefficient of 2.306 (Table: distribution t) means that the contribution of human development index to the allocation of capital expenditure is fairly vast compared to the coefficient of economic growth and operational expenditures coefficient. The direction of relationship between human development index and capital expenditure allocation found in this research tends to be negative which means that if the rate of human development index is high in the province of Banten then the allocation of capital expenditures will be low and vice versa. This finding is fit to the logic and expectation in which slope is \( b_1 < 0. \)

- Hypothesis 2 informs that the economic growth did not affect to capital expenditure significantly. Because empirically economic growth data used to test the direction and strength of economic growth in relation to the allocation of capital expenditures in the province of Banten has a larger standard deviation (160.221) so as to form the smaller t-count than the t-table \( \alpha = 5\% \) (2.306).

The coefficient of economic growth of 0.535 means that the contribution of economic growth to the allocation of capital expenditure is minimum compared to the contribution of the human development index, but larger than the variable operational expenditure. The positive direction of relationship means that any improvements in the economic growth of 1 percent of the capital expenditure will increase by 0.09 per cent.

Another thing that causes partial economic growth is not so influential on capital expenditure, is allegedly because as an integral factor, economic growth has not reflected the growth rate as expected by the government of Banten Province. This condition is seen from Banten provincial economic growth rate, which is still below the national average value of national economic growth.

- Hypothesis 3 informs that operational expenditure is not significantly proven to influence the amount of capital expenditure. Because empirically, operational expenditure data used to test the direction and strength of the relationship of operational expenditure with capital expenditure in Banten province with standard deviation of 233.175, compared with a coefficient regression (0.120). So the t-count is smaller than the t-table with \( \alpha = 5\% \) (1.697).

The coefficient of -0.086 operational expenditures, means that the contributions of operational expenditures is not too large compared to the human development index coefficients and coefficients of economic growth. The direction of the relationship between operational expenditure with capital expenditure is significantly negative. If the amount of operating expenditure in Banten province is high, so the amount of capital expenditure is low and vice versa. In addition, the other factors that allows the operating expenditure not to affect the capital expenditure for the operational expenditure is because the allocations amount have not reflected the level of quality improvement of HDI progress both from a physical and non-physical, as well as the low achievement of economic growth.

The economic growth in every region, in terms of the usage, will increase private consumption (C), private investment spending (I), government spending (G) and expenditure on export and import (X-M) in the economy. The increased government spending will encourage increased demand for goods and services in the future economy which also boosts the increased production. The economic growth will also raise additional revenue. Additional revenue will increase the amount of savings as well as an increase in the amount of investment.
III. CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

- Human Development Index (HDI) affects significantly negative to the amount of capital expenditure. It means that if the index of human development in Banten Province was high, so the amount of capital expenditure would be low.

- Economic growth did not significantly influence to the amount of capital expenditure with a positive trend. The higher the economic growth, the higher the region's ability to allocate capital expenditures in the province of Banten.

- Operational expenditure did not influence significantly positive to the amount of capital expenditure. It means if the operating expenditure in Banten province was high, so the amount of capital expenditure would be low and vice versa.

B. Recommendations

- In an effort to accelerate and expand economic development in the province of Banten, it is necessary to increase the portion of capital expenditures in the Budget (APBD) prioritized to the infrastructure sector, which is part of the regional authority.

- Banten Provincial Government seeks to improve the Human Development Index (HDI), economic growth and efficiency of operational expenditure because from the simultaneous test results together, these three factors significantly influence to the allocation of capital expenditures (Y).

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