The Influence of Revenues and Capital Expenditures to the Human Development Index at 4 Provinces in Indonesia

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Abstract—The aim of this study is to prove empirically the influence of Revenues and Capital Expenditures to the Human Development Index at 4 Provinces in Indonesia. The research method is quantitative descriptive. By quantitative descriptive method, the researcher intends to analyse the relationship among variables with double regression technique. The population in this research will cover 4 provinces namely the Provinces of DKI Jakarta, Central Java, Nusa Tenggara Barat and Lampung since 2014 to 2017. Provinces of DKI Jakarta and Central Java will represent the provinces whose big amount of Revenues and Capital Expenditures. While the provinces of Nusa Tenggara Barat and Lampung will represent the provinces whose small amount of Revenues and Capital Expenditures. The following data of this study are downloaded from Government Websites and Central Agency of Statistics, namely Local Government Financial Reports and Human Development Index. This study will utilize the software of SPSS version 21. The result of the study indicates that Revenues and Capital Expenditures have positive, significant and simultaneously influence to the Human Development Index.

Keywords: Revenues, Capital Expenditures, Human Development Index

I. INTRODUCTION

Autonomy is the right, authority and obligation of local government to manage their own needs to serve the public based on the law. The aim of local autonomy is to give the local government the right to manage and to explore all potential local wealth and revenue in order to give excellent service to the public citizen. Best public service will be represented by high Human Development Index (HDI) [1].

Revenue has a significant influence to achieve high HDI. Revenues are generated from several sources e.g. local taxes and retributions, Local Government Owned Companies, Fund Transfer either from Central or other Local Government, etc.

Besides the optimization of revenue side, the proper policy of capital expenditures is also essential to achieve high HDI. Capital expenditures is the allocation of local government cash outflows to buy, to build or to provide the public with long term assets and public utilities.

This study is intended to analyse the influence of revenues and capital expenditures to the HDI at 4 provinces in Indonesia. The Provinces of DKI Jakarta and Central Java represent the local government whose high revenues and capital expenditures. The Provinces of Nusa Tenggara Barat (NTB) and Lampung represent the provinces whose low revenues and capital expenditures. They have only 10 percent of either revenues or capital expenditures if compared to the big provinces.

II. LITERATURE REVIEW

A. Human Development Index

Human Development Index (HDI) is a measure of human development at a certain region [2]. HDI is a measure to classify one country into developed or developing country and to measure the influence of economic policy to the public life quality [3]. Human development is shown by long life expectation, education and public knowledge, public health and better life quality. Certain region could be classified as prosperous region if it has well educated community, supported by adequate natural resources which is managed well by competent human resources to attain high human development level [4].

B. Revenues

"Region Own Source Revenue is a region revenue purely and the role is an indicator of the extent of autonomy has been implemented widely, tangible and accountable. Local revenue itself is very essential in its position for the operation of a local government” [5].

Revenues are entitled to the local government to raise the local wealth [6]. This is the application of local government autonomy to finance and to manage the development at the region as the consequence of the authority decentralization [7].

Revenues are derived from local taxes and retributions, local government owned companies, fund transfer either from central or other local government [6].
Previous research by Pratama and Kartika found the result that revenues have the positive and significant influence to HDI [8]. Ezkirianto and Findi found similar result [9]. While Edogbayana and Sule stated in their report, “There is a significant relationship between revenue generated and development effort of government, poor development of the areas, lack of basic social amenities to the rural people and lack of revenue to maintain the existing infrastructure” [10].

H1: Revenues have the significant positive influence to HDI

C. Capital Expenditures

Undang-Undang Republik Indonesia Nomor 23 [6] about local government describes that capital expenditures relate to cash outflows in order to get the asset with future economic value more than one book period.

Capital expenditures are intended to increase local government public service quality and human quality level.

Previous research by Pratama and Kartika found that capital expenditures have positive and significant influence to HDI [8].

H2: Capital Expenditures have the significant positive influence to HDI

III. METHOD

A. Type of Research

This research is a descriptive verificative study with quantitative approach.

B. Location and Schedule of Research

The research covers 4 provinces namely DKI Jakarta, Central Java, Nusa Tenggara Barat (NTB) and Lampung since 2014 to 2017.

C. Type and Sources of Data

The data for this study are the Financial Statements of Provinces Local Government of DKI Jakarta, Central Java, NTB and Lampung since 2014 to 2017. While HDI are taken from the report of Central Agency of Statistics/BPS.

D. Analysis of Data

| Table I. Statistics Descriptive Test |
|-------------------------------------|
| **N** | **Min** | **Max** | **Mean** | **Std.Dev** |
| REV  | 16      | 2,789,427,242,000.000 | 55,784,706,312.513 | 20,804,763,899.985 |
| CAPEX | 16      | 6,200,000.000 | 47,000,000,000.000 | 6,671,393,6099.52100 |
| IHDI  | 16      | 0.64 | 0.80 | 0.70 |
| Valid N (listwise) | | | | 0.55614 |

Variable of revenues, minimum value 2,789,427,242,000 for NTB province 2014. Maximum value 53,784,706,312,513 for DKI Jakarta province 2017. Average value is 20,804,763,899.985.

Variable of capital expenditures, minimum value 620,000 for Lampung province 2017. Maximum value 47,000,000,000,000 for DKI Jakarta year 2017. Average value is 6,671,393,6099.52100.

Variable of HDI, minimum value 0.64 for NTB province 2014. Maximum value 0.80 for DKI Jakarta province 2017. Average value is 0.70.

1) Normality test:

Graph P-Plot Fig. 1 shows the dots scattering around the line. It means that the data distribution is normal.

| Table II. Test of Multicolinearity |
|-----------------------------------|
| **Model** | **Collinearity Statistics** | **Collinearity Statistics** |
|          | **Tolerance** | **VIF** |
| Constanta | .584 | 1.713 |
| REV | .584 | 1.713 |

From table 2, test of multicolinearity:

a) Revenues: Tolerance value 0.584 and variance infaltion factor (VIF) 1,713, 0.584 < 1 and 1,713 < 10, no multicolinearity.

b) Capital expenditures: Tolerance value 0.584 and variance infaltion factor (VIF) 1,713, 0.584 < 1 and 1,713 < 10, no multicolinearity.
2) Test of heteroscedasticity:

![Figure 2: Test of heteroscedasticity](image)

From Fig. 2, test of heteroscedasticity shows the dots spreading relatively wide. It means no heteroscedasticity.

**TABLE III. TEST OF AUTOCORRELATION**

| Model | R  | R Square | Adj R Square | Std. Error of the estimate | Durbin Watson |
|-------|----|----------|--------------|----------------------------|---------------|
| 1     | .891<sup>a</sup> | .793 | .761 | .027174 | 1.382 |

<sup>a</sup> Predictors: (Constant), BM, PD

From table 3, the value of Durbin Watson (DW) is 1.382. From table of autocorrelation distribution, Durbin Lower (DL) = 1.4064 and Durbin Upper (DU) = 1.6708. The formula: (4 - DW<sub>calc</sub>) > DU equals to 4 - 1.4064 = 2.5936. The result is 2.5936 > 1.6708 which means no autocorrelation.

**TABLE IV. F TEST**

| Model | Df | Mean Square | F    | Sig  |
|-------|----|-------------|------|------|
| Regression | 2  | .018        | 24.914 | .000<sup>b</sup> |
| Residual  | 13 | .001        |       |      |
| Total     |    |             |       |      |

<sup>b</sup> Dependent Variable: IPM

Based on F test table 4, the value of f<sub>calc</sub> 24.914 with significant value of 0.000, f<sub>calc</sub> > f<sub>table</sub> or 24.914 > 2.80 which means that revenues and capital expenditures have simultaneous influence to HDI.

**TABLE V. T TEST**

| Model     | Beta | T     | Sig  |
|-----------|------|-------|------|
| Constanta | 66.200 | .000  |
| REV       | .770 | 4.661 | .000 |
| CAPEX     | .172 | 1.744 | .031 |

Based on table 5, Variable of revenues t<sub>calc</sub> 4.661 while t<sub>table</sub> 1.671 which t<sub>calc</sub> > t<sub>table</sub>. It means that revenues partially have the influence to HDI.

Variable of capital expenditures t<sub>calc</sub> 1.044 while t<sub>table</sub> 1.671 which t<sub>calc</sub> > t<sub>table</sub>. It means that capital expenditures partially have the influence to HDI.

**TABLE VI. TEST OF DETERMINATION COEFFICIENT (R²)**

| Model | R  | R Square | Adj R Square | Std. Error of the Estimate |
|-------|----|----------|--------------|----------------------------|
| 1     | .891<sup>a</sup> | .793 | .761 | .027174 |

<sup>a</sup> Predictors: (Constant), BM, PD

From table 6, value of R is 0.891 or 89.1%. Independent variables can explain about dependent variable 89.1%. It means that the model of the research is good.

**TABLE VII. TEST OF DOUBLE REGRESSION ANALYSIS**

| Model     | Beta | T     | Sig  |
|-----------|------|-------|------|
| Constanta | 66.200 | .000  |
| REV       | .770 | 4.661 | .000 |
| CAPEX     | .172 | 1.744 | .031 |

Revenues and Capital Expenditures have the influence to HDI at 4 Provinces in Indonesia.

Based on simultaneous f test, revenues and capital expenditures have the influence to HDI significantly at 4 provinces which f<sub>calc</sub> 24.914 > f<sub>table</sub> 2.80.

The research since 2014 to 2017 have shown the increase of HDI in term of longer life expectation, better life condition, more trainings and higher education to the public.

The similar conclusion is found by Yanto and Fattah whose research location at province of Central Sulawesi since 2013 to 2016 [11].

Revenues have the influence to HDI at 4 Provinces in Indonesia.

Partial test (t test) indicates the result t<sub>calc</sub> > t<sub>table</sub> namely 4.661 > 1.671 which concludes that revenues partially have the influence to HDI significantly.

This result is equal to the study of Pratama and Kartika which concludes that revenues have the influence positively significant to HDI [8].

Capital Expenditures have the influence to HDI at 4 Provinces Indonesia.

The partial test (t test) of data analysis has the result that t<sub>calc</sub> > t<sub>table</sub> namely 1.744 > 1.671. This result concludes that capital expenditures have the influence significantly to HDI at 4 provinces in Indonesia.

This result has the same conclusion with the previous study namely Yanto and Fattah whose analysed location at province of Central Sulawesi [11]. The value of f<sub>calc</sub> 2020.719 and f<sub>table</sub> 0.998229 and he concluded that revenues and capital expenditures have the influence to HDI significantly and simultaneously.

**IV. CONCLUSION**

Based on the result of the study, the conclusion are as the followings:

- Revenues have the influence to HDI positively and significantly at 4 Provinces in Indonesia.
- Capital Expenditures have the influence to HDI positively and significantly at 4 Provinces in Indonesia.
Revenues and Capital Expenditures have the influence to HDI simultaneously and significantly at 4 Provinces in Indonesia.

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