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Research Paper

The Role of Capital Expenditure Allocation in Mediating Regional Financial Performance on Regional Economic Growth Aceh Province

Fajrialshah Amarul Haq¹*, Lela Nurlaela Wati², Meita Istianda³

¹Universitas Terbuka, Indonesia

² Universitas Teknologi Muhammadiyah Jakarta, Indonesia

³ Universitas Terbuka, Indonesia

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Abstract

This study aims to examine the role of capital expenditure in mediating the relationship between regional financial performance and economic growth in Aceh Province. The data source for this research uses secondary data sources from the Ministry of Finance and the Central Bureau of Statistics. Respondents in this study were local governments in Aceh with a total of 24 provincial, district, and city governments for 12 years from 2011-2022 period. The results of the analysis show that regional financial performance, as represented by the independence ratio, effectiveness ratio, efficiency ratio, harmony ratio, and personnel expenditure ratio, simultaneously has a positive and significant effect on capital expenditure. Meanwhile, the direct effect of capital expenditure allocation and regional financial performance is represented by the independence ratio, effectiveness ratio, and personnel expenditure ratio, which simultaneously have a positive and significant effect on economic growth. This study found that the mediation of capital expenditure allocation on regional financial performance in Aceh province does not affect economic growth. Capital expenditure which is expected to be able to bridge regional financial performance indicators on economic growth, has not yet affected Aceh province.

Keywords Capital Expenditure, Regional Financial Performance, Economic Growth, Aceh Province, Data Panel Analysis

INTRODUCTION

Capital expenditure allocation plays an important role in driving regional financial performance and economic growth. This is a key mechanism through which governments invest in the development of infrastructure, public services, and other productive assets to stimulate economic activity and increase overall well-being in a region. Understanding the relationship between capital expenditure allocation, regional financial performance, and economic growth is very important for policymakers to make informed decisions and formulate effective fiscal strategies.

In the context of Aceh Province, a region in Indonesia with diverse economic sectors and development challenges, the role of capital expenditure allocation becomes even more significant. Aceh province is in the process of recovering from the devastating effects of the 2004 Indian Ocean earthquake and tsunami, so strategic investments are urgently needed to support reconstruction and promote sustainable economic growth. Therefore, examining the role of capital expenditure allocation in mediating the relationship between regional financial performance and economic growth in Aceh Province is very important for effective policy formulation and sustainable development planning.

The economic growth of the Aceh province from 2011 to 2022 is always below the average economic growth for the island of Sumatra, except during the pandemic in 2020. Figure I.1 shows

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the line of economic growth for the province of Aceh has a high gap compared to the average economic growth on the island of Sumatra, even for 2015 the gap in the economic growth of Aceh province with the average economic growth of the island of Sumatra looks very deep. On the other hand, the capital expenditure disbursed by the government fluctuated from IDR 2.8 trillion to IDR 9.9 trillion. From Figure I.1, we can see an increase in Aceh government capital expenditure, but Aceh's economic growth declined in the range of 2012 to 2015. The increase in capital expenditure in 2016 was able to be accompanied by a sharp increase in economic growth. On the other hand, in Figure 1. the decline and stagnation of capital expenditure from 2016 to 2022, Aceh's economic growth on average increases, although it is still from the average economic growth on the island of Sumatra.





Several studies have investigated the relationship between capital expenditure allocation, financial performance, and economic growth, providing valuable insights in this area. For example, Faguet (2014) emphasizes the importance of decentralization and the effective management of capital expenditures in promoting regional development (Faguet, 2014). Hung (2022) discusses the significance of capital expenditure allocations in driving economic activity and creating job opportunities (Hung & Thanh, 2022). Tanzi and Zee (2000) highlight the role of capital expenditure allocations in improving public services and attracting private investment (Tanzi & Zee, 2000).

However, research that specifically focuses on the mediating role of capital expenditure allocation between regional financial performance and economic growth in Aceh Province is still limited. Therefore, this study aims to fill this research gap by examining the dynamics and specific implications of capital expenditure allocations in Aceh Province from 2011 to 2022.

By adopting a data-driven approach and using panel data analysis, this study aims to provide empirical evidence on the relationship between capital expenditure allocation, regional financial performance, and economic growth in Aceh province. Panel data analysis enabled this study to comprehensively investigate the interactions between these variables over a longer period, taking into account the unique characteristics and complexity of this region.

The findings from this research will contribute to understanding the role of capital expenditure allocation in driving regional financial performance and economic growth, providing policymakers with valuable insights into effective fiscal management and appropriate resource allocation. By identifying the mediating effect of capital expenditure allocations, policymakers can prioritize productive investments and formulate targeted policies to improve regional financial

performance and stimulate sustainable economic growth in Aceh Province.

LITERATURE REVIEW

Capital Expenditure Allocation

Capital expenditure allocation refers to the process of determining and using funds for investment in long-term assets owned by an entity, such as physical infrastructure, production facilities, and human resources. This concept involves allocating available financial resources to provide long-term benefits for the entity concerned. According to Halim, capital expenditures are local government expenditures whose benefits exceed one fiscal year and will add to the resources or wealth of the province and will also expand routine use, for example, support costs in the operational expenditure group (Halim, 2007).

In the context of this study, the allocation of capital expenditure has an important role in mediating the relationship between regional financial performance and economic growth in Aceh Province. Through the proper allocation of capital expenditures, local governments can direct their investments to optimize the use of resources and promote sustainable economic development. Several important concepts related to the allocation of capital expenditures are as follows:

- 1. **Allocative efficiency**: Efficient allocation of capital expenditure refers to the optimal use of funds to maximize long-term returns and benefits. This involves selecting the right projects, careful risk assessment, and good management of the resources invested (Ishak, 2021)
- 2. **Development priority**: Capital expenditure allocation should be based on development priorities set by the local government. This involves selecting projects that meet the vision and mission of regional development and community needs (Lamba et al., 2020).
- 3. **Sustainable funding**: The allocation of capital expenditures must pay attention to the availability of sustainable financial resources. This involves good management of local revenues, sustainable financing, and control of debt and budget deficits (Poku et al., 2022).
- 4. **Evaluation of project performance**: Allocation of capital expenditure should be carried out involving an objective and systematic evaluation of project performance. This evaluation involves assessing the economic, social, and environmental impacts of the projects invested (Paradintya & Fauzi, 2022).

Regional Financial Performance

Regional financial performance refers to the ability of local governments to manage available financial resources and achieve set financial goals. This concept involves aspects such as revenue, spending, debt management, and regional financial sustainability.

Several important concepts related to regional financial performance are as follows:

- 1. **Regional revenues**: Regional revenues include sources of revenue generated by local governments, such as taxes, levies, and financial transfers. Regional financial performance can be assessed through regional revenue growth, diversification of income sources, and efficiency in tax collection (Meliawati et al., 2022).
- 2. **Regional expenditures**: Regional expenditures include regional government expenditures to finance various public activities and programs. Regional financial performance can be assessed through effective and efficient expenditure allocation, good spending control, and adherence to the principles of good financial management (Rizki Utama et al., 2019).
- 3. **Regional debt**: Regional debt is a financial obligation held by regional governments. Regional financial performance can be assessed through healthy debt levels, the ability to manage debt properly, and debt sustainability in the long term (Andersson Järnberg &

Värja, 2022).

4. **Regional financial sustainability**: Regional financial sustainability reflects the ability of local governments to maintain a balance between revenue and spending in the long term. This involves managing financial risks, diversifying income, controlling spending, and managing regional assets properly (Sahade, 2020)

Regional Economic Growth

Regional economic growth refers to changes that occur in the level of economic activity in a region within a certain period. Regional economic growth can be influenced by various factors such as investment, productivity, innovation, infrastructure, and government policies (Shapkova Kocevska, 2023). This concept has several variables that can be used to measure regional economic growth.

Gross regional domestic product (GRDP) is an important indicator for measuring regional economic growth. GRDP reflects the total added value of all economic activities produced in a region. GRDP growth can be measured using variables such as real GRDP growth, per capita GRDP, and the contribution of the economic sector to GRDP (Hardiningsih et al., 2020).

Conceptual Framework

The conceptual framework is a theoretical model that describes the relationship between relevant variables in research. In the context of this thesis, the conceptual framework will describe the relationship between capital expenditure allocation, regional financial performance, and regional economic growth. The following is a conceptual framework that can be used:



Figure 2. Conceptual Framework

Explanation:

- 1. **Capital Expenditure Allocation**: This variable reflects the use of the budget for investment in physical infrastructure, human resource development, and other sectors that can promote regional economic growth. This variable is a mediating variable in this study.
- 2. **Regional Financial Performance**: This variable includes the ratio of regional financial independence, the ratio of regional financial effectiveness, the ratio of regional financial efficiency, the ratio of expenditure harmony, and the ratio of personnel expenditure.

Good regional financial performance reflects the ability of local governments to manage finances properly. This variable is the independent variable in this study.

3. **Regional Economic Growth**: This variable describes changes that occur in the level of economic activity in a region within a certain period of time. This variable is the dependent variable in this study.

Research Hypothesis

In research that uses a quantitative approach, hypotheses are needed to make conjectures based on theories or research results that have been made. A hypothesis is a conjecture or a temporary answer to a research problem whose truth needs to be tested using empirical data (Wibowo, 2021). The hypothesis proposed in this study is:

- 1. H1: There is a significant influence of regional financial performance indicators on the allocation of capital expenditures.
- 2. H2: There is a significant influence of regional financial performance indicators and capital expenditure allocation on economic growth.
- 3. H3: The allocation of capital expenditure has a significant mediating role in the relationship between regional financial performance and economic growth.

RESEARCH METHOD

This study uses a quantitative research method with panel data for a time series covering the period 2011 to 2022 and cross-sectional data covering all local governments in Aceh province, as many as 24 district local governments, municipal local governments, and provincial-regional governments. Data sources come from the Ministry of Finance of the Republic of Indonesia and the Central Bureau of Statistics.

This study uses a path analysis model to show the relationship between capital expenditure allocation, regional financial performance, and regional economic growth. The following is the path analysis model used:

- 1. Capital Expenditure Allocation (X0) \rightarrow Regional Financial Performance (X1) Regression analysis is used to examine the relationship between capital expenditure allocation (X0) and regional financial performance (X1). The results of this analysis will provide a regression coefficient (β) which shows the strength and direction of the relationship between the two variables.
- 2. Regional Financial Performance $(X1) \rightarrow$ Regional Economic Growth (Y) Regression analysis is used to examine the relationship between regional financial performance (X1) and regional economic growth (Y). The results of this analysis will provide a regression coefficient (β) which shows the strength and direction of the relationship between the two variables.
- Capital Expenditure Allocation (X0) → Regional Economic Growth (Y) Regression analysis is used to test the direct relationship between capital expenditure allocation (X0) and regional economic growth (Y) without involving mediating variables. The results of this analysis will provide a regression coefficient (β) which shows the strength and direction of the relationship between the two variables.

Furthermore, to test the mediation of capital expenditure allocation on the relationship between regional financial performance and regional economic growth, path analysis can be carried out using methods such as PLS-SEM (Partial Least Squares Structural Equation Modeling) or SEM (Structural Equation Modeling). This analysis will provide information on the extent to which capital expenditure allocations mediate this relationship.



Based on the research hypothesis, the path model can be described as follows:

Figure 3. The path model

To find out the pattern of each of the variables above, it can be reduced to two sub-structural equations, namely:



Figure 4. The model

From the picture above, there are two model structures in this study, namely:

 $x0 = x1 + x2 + x3 + x4 + x5 + \varepsilon...(1)$ and $Y1 = x1 + x2 + x3 + x4 + x5 + x0 + \varepsilon...(2)$

Furthermore, these equations will be calculated using the E-Views program and statistical analysis using the output from the E-views application. By identification, operational definitions, formulation, and sources of observation data can be explained in the table as follows:

| Variable Name | Variable Definitions | Formulas | Sources |
|------------------|--------------------------|---|-------------|
| economic | Increase in GRDP | PE | Central |
| growth (Y1) | regardless of whether | $=\frac{PDRB(t)-PDRB(t-1)}{r} \times 100$ | Bureau of |
| | the increase is greater | PDRB(t-1) | Statistics, |
| | or less than the rate of | | |
| | population growth or | | |
| | changes in economic | | |
| | structure. | | |
| Independence | The ability of district | $PK = \frac{PAD}{r 100}$ | Local |
| ratio (X1) | and city regional | total expenditure x 100 | Government |
| | governments in Aceh | | |
| | | | |

| Table 1. Ta | able of variable | definitions, | formulas, and | sources of ob | servational data |
|-------------|------------------|--------------|---------------|---------------|------------------|
|-------------|------------------|--------------|---------------|---------------|------------------|

| | province to self- | | Financial |
|---|---|--|---|
| | finance government | | Reports |
| | activities, | | - |
| | development, and | | |
| | economic growth | | |
| | which is calculated by | | |
| | dividing total PAD by | | |
| | total expenditure | | |
| Effectiveness | the ratio used to | Revenue Realization | Local |
| ratio (X2) | measure effectiveness | $RE = \frac{1}{Revenue Budet} \times 100$ | Government |
| | in realizing regional | | Financial |
| | revenues and is the | | Reports |
| | level of achievement | | |
| | of the implementation | | |
| | of an activity or | | |
| | achievement achieved | | |
| | by the local | | |
| | government as | | |
| | measured by | | |
| | comparing revenue | | |
| | realization with | | |
| | revenue budget, in | | |
| | percent units. | | |
| Efficiency | the level of | REf | Local |
| Ratio (X3) | achievement of the | $=\frac{Operational Expenditure}{100}$ x 100 | Government |
| | implementation of an | Revenue Realization | Financial |
| | activity or | | Reports |
| | achievement achieved | | |
| | by the local | | |
| | government as | | |
| | manager ad by | | |
| | measureu by | | |
| | comparing | | |
| | comparing operational | | |
| | comparing operational expenditure with the | | |
| | comparing operational expenditure with the realization of | | |
| | comparing operational expenditure with the realization of predetermined | | |
| | comparing operational expenditure with the realization of predetermined revenues in units of | | |
| | comparing operational expenditure with the realization of predetermined revenues in units of percent. | | |
| Shopping | comparing operational expenditure with the realization of predetermined revenues in units of percent. describes how district | RKB | Local |
| Shopping compatibility | comparing operational expenditure with the realization of predetermined revenues in units of percent. describes how district and city governments | $\frac{RKB}{=\frac{Operational\ Exependiture}{T_{attrib}}} \times 100$ | Local Government |
| Shopping compatibility ratio (X4) | comparing operational expenditure with the realization of predetermined revenues in units of percent. describes how district and city governments in Aceh Province | $RKB = \frac{Operational Exependiture}{Total Expenditure} x 100$ | Local Government Financial |
| Shopping compatibility ratio (X4) | comparing operational expenditure with the realization of predetermined revenues in units of percent. describes how district and city governments in Aceh Province prioritize the optimal | $\frac{RKB}{=\frac{Operational\ Exependiture}{Total\ Expenditure}} x\ 100$ | Local Government Financial Reports |
| Shopping compatibility ratio (X4) | comparing operational expenditure with the realization of predetermined revenues in units of percent. describes how district and city governments in Aceh Province prioritize the optimal allocation of funds to | $\frac{RKB}{=\frac{Operational\ Exependiture}{Total\ Expenditure}} x\ 100$ | Local Government Financial Reports |
| Shopping compatibility ratio (X4) | comparing operational expenditure with the realization of predetermined revenues in units of percent. describes how district and city governments in Aceh Province prioritize the optimal allocation of funds to public service | RKB = <u>Operational Exependiture</u> Total Expenditure x 100 | Local Government Financial Reports |
| Shopping compatibility ratio (X4) | comparing operational expenditure with the realization of predetermined revenues in units of percent. describes how district and city governments in Aceh Province prioritize the optimal allocation of funds to public service spending as measured | RKB = <u>Operational Exependiture</u> Total Expenditure x 100 | Local Government Financial Reports |

| | realization of total | | |
|-------------|--------------------------|---|------------|
| | public spending to | | |
| | total regional | | |
| | spending in percent | | |
| | units. | | |
| Personnel | the expenditure | RBP | Local |
| spending | compatibility ratio | $-\frac{Personnel Expenditure}{r}$ r 100 | Government |
| ratio (X5) | illustrates how the | Total Expenditure | Financial |
| | district and city | | Reports |
| | governments in Aceh | | |
| | Province prioritize the | | |
| | optimal allocation of | | |
| | funds to public service | | |
| | spending as measured | | |
| | by comparing the | | |
| | realization of total | | |
| | public spending to | | |
| | total regional | | |
| | spending in percent | | |
| | units. | | |
| capital | Capital expenditure is | $BM = \frac{Capital Expenditure}{r} \times 100$ | Local |
| expenditure | budget expenditure to | Total Expenditure | Government |
| (X0) | acquire fixed assets | | Financial |
| | such as building | | Reports |
| | public facilities in the | | |
| | form of roads, | | |
| | irrigation, buildings, | | |
| | and equipment and | | |
| | machinery. | | |

FINDINGS AND DISCUSSION

This study used 288 observational data from a 12-year research period (2011-2022) with a total of 24 district and city governments. The model used in this research is panel data regression. In determining whether this research model used the common effect, fixed effect, and random effect approaches, three trials were carried out, namely the Chow test to decide whether the Common Effect Model (CEM) or Fixed Effect Model (FEM) model, along with the results of the chow test for the sub-structural equation I and substructure equation II:

| | 1 | | 1 | |
|--------------------------------------|-----------|---------|--------|--|
| Chow test sub-structural equation I | | | | |
| Effects Test | Statistic | d.f. | Prob. | |
| Cross-section F | 6.629122 | -23,259 | 0.0000 | |
| Chow test sub-structural equation II | | | | |
| Effects Test | Statistic | d.f. | Prob. | |
| Cross-section F | 2.037271 | -23,258 | 0.0042 | |
| | | | | |

Table 2. Chow test for the sub-structural equation I and substructure equation II

From the test results above, the probability value of cross-section F is 0.0000 for the substructural equation I and 0.0042 for the sub-structural equation II or below 0.05. So the two equations are concluded using the fixed effect model (FEM). As for the Lagrange multiplier test (LM), which decides whether the random effect model (REM) is better than the common effect model (CEM), the following are the results of the LM test for sub-structural equation I and substructural equation II:

| Lagrange Multiplier Tests sub-structural equation I | | | | | | |
|--|-----------------------|----------|----------|--|--|--|
| Test Hypothesis | Time | Both | | | | |
| Breusch-Pagan | Breusch-Pagan 82.6499 | | 531.4594 | | | |
| | (0.0000) | (0.0000) | (0.0000) | | | |
| Lagrange Multiplier Tests sub-structural equation II | | | | | | |
| Test Hypothesis | Cross-section | Time | Both | | | |
| Breusch-Pagan | 56.6209 | 74.91994 | 131.5408 | | | |
| | (0.0000) | (0.0000) | (0.0000) | | | |

Table 3. LM Test for the sub-structural equation I and substructure equation II

From the table above, it can be seen that the Breusch-Pagan (BP) probability value is 0.0000 or less than 0.05 for both the sub-structural equation I and the sub-structural equation II, so it can be concluded that the best model is the model using the random model effect. Finally, the Hausman test is a test to choose whether the fixed effect model (FEM) or random effect model (REM) is the most suitable for use; following are the results of the Hausman test for sub-structural equation I and sub-structural equation II:

| Hausman test sub-structural equation I | | | | | | |
|---|-----------|------|--------|--|--|--|
| Test SummaryChi-Sq. StatisticChi-Sq. d.fProb. | | | | | | |
| Cross-section random | 28.465069 | 5 | 0.0000 | | | |
| Hausman test sub-structural equation II | | | | | | |
| Effects Test | Statistic | d.f. | Prob. | | | |
| Cross-section F | 7.70038 | 6 | 0.2609 | | | |

Table 4. Hausman test for the sub-structural equation I and substructure equation II

From the table above, it is known that the probability value for random cross section is 0.0000 or less than 0.05, so it can be concluded that the model chosen for the sub-structural equation I is the fixed effect model. As for the sub-structure equation II, the probability value for a random cross-section is 0.2609 or greater than 0.05, so it can be concluded that the model chosen is a random effect model.

Based on the results of the above calculations and the testing of the three models, the selection of the panel data model to assess the panel data regression test uses the fixed effect model for sub-structure I and the random effect model for sub-structure II in determining the results of this study.

The application output results for the coefficient of determination test (R2), F test, and partial test are as follows:

| Table 5. The results of the sub-structural equation r | | | | | | |
|---|-------------|----------|----------|-------------|-------------|--|
| Variable | Coefficient | Std. | Error | t-Statistic | Conclusion | |
| X1 | 0.084613 | 0.014458 | 5.852471 | 0.0000 | take effect | |

Table 5. The results of the sub-structural equation I

| X2 | 0.091192 | 0.039978 | 2.281078 | 0.0234 | take effect | |
|-------------|--------------|----------|-----------|--------|-------------|--|
| Х3 | -0.366808 | 0.123023 | -2.981616 | 0.0031 | take effect | |
| X4 | 0.242108 | 0.127542 | 1.898270 | 0.0588 | No effect | |
| X5 | -0.035803 | 0.015484 | -2.312257 | 0.0215 | take effect | |
| С | 15.12468 | 4.274835 | 3.538073 | 0.0005 | | |
| R-squared | 0.482 | 2020 | | | | |
| Prob(F-stat | tistic) 0.00 | 0000 | | | | |

| Table 6. The results of the sub-structural equation II | | | | | | |
|---|-------------|----------|----------|-------------|-------------|--|
| Variable | Coefficient | Std. | Error | t-Statistic | Prob. | |
| X0 | 0.039589 | 0.024149 | 1.639391 | 0.1023 | No effect | |
| X1 | 0.005022 | 0.005988 | 0.838655 | 0.4024 | No effect | |
| X2 | 0.021957 | 0.018555 | 1.183387 | 0.2377 | No effect | |
| X3 | -0.15201 | 0.06084 | -2.49846 | 0.013 | take effect | |
| X4 | 0.171498 | 0.06231 | 2.752318 | 0.0063 | take effect | |
| X5 | 0.00756 | 0.006411 | 1.179206 | 0.2393 | No effect | |
| С | -0.8183 | 2.014972 | -0.40611 | 0.685 | | |
| R-squared | 0.048753 | 3 | | | | |
| Prob(F-statistic) | 0.028067 | 7 | | | | |
| | | | | | | |

From the table above, the F test can be used to test the significance of the entire model or the influence of the independent variables together on the dependent variable. For substructure I, it is known that the probability value is 0.00000. Because the probability value is smaller than the significance level, which is 0.05, the simultaneous effect of the independent variables is the regional financial independence ratio, the effectiveness ratio, the efficiency ratio, the expenditure harmony ratio, and the ratio of personnel expenditure to capital expenditure. significant. For substructure II, it is known that the probability value is 0.028067 because the probability value is smaller than the significance level, which is 0.05, then the simultaneous effect of the independent variables is the regional financial independence ratio, the effectiveness ratio, the effect of the independent variables is the regional financial independence ratio, the simultaneous effect of the independent variables is the regional financial independence ratio, the effectiveness ratio, the efficiency ratio, the ratio of spending harmony, the ratio of personnel spending and spending capital to significant economic growth.

The R-squared test (R²) is used to measure how well the model that has been built matches the existing empirical data. R2 provides information about the proportion of variation in the dependent variable that can be explained by the independent variables in the model. From the results of the analysis above, it can be seen that the coefficient of determination or goodness of fit is 0.482020 for structure 1 and 0.048753 for structure 2. This means that the contribution of all independent variables in explaining the dependent variable is 48%, and the rest, 52%, is explained by other variables outside the model for Structure 1. While the contribution of all independent variables in explaining the dependent variable is 5%, and the remaining 95% is explained by other variables outside the model for Structure 2.

A partial test or t-test is a test that is intended to determine the effect of the independent variables (x1,x2,x3,x4,x5) partially on the dependent variable (x0) for structure 1 and the effect of the independent variables (x0,x1,x2,x3,x4,x5) partially to the dependent variable (y) for structure 2. This test is carried out by looking at the magnitude of the probability value of each independent variable with the following assessment criteria:

a. If the probability value is <0.05, then it is declared to take effect

b. If the probability value is > 0.05, then it is declared to have no effect

It is known that the substructural equation I for all variables except the compatibility ratio has a direct effect on the allocation of capital expenditure. As for substructural equation II, only the efficiency ratio and compatibility ratio have a direct effect on economic growth.

This study did not carry out classical assumption tests because the research method using panel data can minimize bias that is likely to arise in the analysis results, providing more information, variation, and degree of freedom (Gujarati, 2012). So that the results from the panel data obtained the equation for Substructure I and Substructure II as follows:

(1) x0 = 0.084613x1 + 0.091192x2 - 0.366808x3 + 0.242108x4 - 0.035803x5 + 15.12468(2)Y1 = 0.039589x0 + 0.005022x1 + 0.021957x2 - 0.152006x3 + 0.171498x4 + 0.00756x5 - 0.818304

Sobel equation

The Sobel test is a statistical method used to test the significance of the effect of mediating variables on the relationship between the independent variable and the dependent variable in path analysis. This method is designed to test whether the effect of the independent variable on the dependent variable through the mediating variable is significant. In this case, we want to examine the significance of the mediating effect of capital expenditure allocation on the relationship between the independent variables (regional financial independence ratio, regional financial effectiveness ratio, regional financial efficiency ratio, expenditure compatibility ratio, personnel expenditure ratio) and the dependent variable (economic growth).

The basic concept in the Sobel test is to obtain the path coefficient between the independent variable and the mediating variable (a) and between the mediating variable and the dependent variable (b) through linear regression. Furthermore, the Sobel test calculates the z statistic using the path coefficient and the variance of the path coefficient obtained from the regression model.

The z statistic is calculated by the following formula:

$$z = \frac{a * b}{\sqrt{b^2 * sa^2 + a^2 * sb^2}}$$

With the explanation:

- *a* is the path coefficient between the independent variable and the mediating variable.
- *b* is the path coefficient between the mediating variable and the dependent variable.
- *var*(*a*) is the variance of the path coefficient between the independent variable and the mediating variable.
- *var*(*b*) is the variance of the path coefficient between the mediating variable and the dependent variable.

After the z value is calculated, the hypothesis test can be carried out. If the z value is greater than the specified critical value (usually using a significance level of $\alpha = 0.05$), then mediation is considered significant. That is, the mediating variable plays an important role in explaining the relationship between the independent variable and the dependent variable. Following are the results of calculations and conclusions from the Sobel equation for this study:

| Tuble 7. Sober equation calculation table | | | | | | | |
|---|----------|----------|----------|----------|----------|----------|------------|
| variable | а | b | Sa | Sb | t-count | t-table | conclusion |
| X1 | 0.084613 | 0.039589 | 0.014458 | 0.024149 | 1.578599 | 1.968442 | no effect |
| X2 | 0.091192 | 0.039589 | 0.039978 | 0.024149 | 1.331229 | 1.968442 | no effect |
| | | | | | | | |

Table 7. Sobel equation calculation table

| X3 | -0.366808 | 0.039589 | 0.123023 | 0.024149 | -1.43654 | 1.968442 | no effect |
|----|-----------|----------|----------|----------|----------|----------|-----------|
| X4 | 0.242108 | 0.039589 | 0.127542 | 0.024149 | 1.240722 | 1.968442 | no effect |
| X5 | -0.035803 | 0.039589 | 0.015484 | 0.024149 | -1.33735 | 1.968442 | no effect |

From the table above, it can be concluded that all indicators do not show any effect because the value of the t count is from the t table.

The Relationship between Capital Expenditures and Regional Financial Performance

Panel data analysis shows that there is a positive relationship between capital expenditure and regional financial performance indicators in Aceh Province. 48% of financial performance indicators in this study affect the allocation of capital expenditure, and 52% of other variables outside of this study. Appropriate allocation and effective management of capital expenditures have resulted in better revenues, better control over spending, and better debt management. This suggests that higher levels of capital expenditure contribute to stronger financial performance at the local level.

This finding is in line with previous studies which emphasized the importance of capital expenditure in improving regional financial performance (Faguet, 2014). Investments in infrastructure, public facilities, and productive assets have the potential to generate additional revenue streams, attract private investment, and improve public service delivery. Therefore, policymakers should prioritize capital expenditures as a means to strengthen regional financial performance.

Analysis of previous research shows that regional financial performance variables, such as regional financial independence ratios, regional financial effectiveness ratios, regional financial efficiency ratios, expenditure compatibility ratios, and personnel expenditure ratios, have a significant influence on capital expenditure allocation (Muhammad Zulkarnain, Yulina Astuti, 2019; Yunus & Amirullah, 2019). The results of this study also support that regional financial performance indicators simultaneously influence the allocation of capital expenditure, where an increase in regional financial performance allows for an increase in the allocation of capital expenditure.

This study supports regional financial performance as represented by the ratio of regional financial independence, the ratio of regional financial effectiveness, the ratio of regional financial efficiency, the ratio of expenditure compatibility, and the ratio of personnel expenditure, which has a significant positive effect on the allocation of capital expenditure. This shows that the higher level of achievement of regional financial performance in the province of Aceh can increase the allocation of capital expenditures.

Relationship between Financial Performance and Capital Expenditures with Economic Growth

Panel data analysis shows that there is a positive relationship between capital expenditure and regional financial performance indicators on economic growth in Aceh Province. However, only 5% of the variables in this study affect economic growth, and 95% of other variables are outside this study. Previous studies have shown that regional financial performance can influence regional economic growth. Good regional financial performance, such as a high level of independence, the effectiveness of good financial management, the efficient use of resources, the harmony of spending allocations, and the right expenditure for employees, can make a positive contribution to regional economic growth (Asfar et al., 2021).

Meanwhile, the relationship between Capital Expenditure Allocation and Economic Growth shows that adequate and efficient capital expenditure allocation has also been associated with higher economic growth at the regional level. Through investments in infrastructure and other development projects, capital spending can boost economic growth by increasing productivity, encouraging private investment, creating jobs, and increasing regional competitiveness (Lidayat, 2020).

This study supports the allocation of capital expenditures and regional financial performance as represented by the ratio of regional financial independence, the ratio of regional financial effectiveness, the ratio of regional financial efficiency, the ratio of spending harmony, and the ratio of personnel expenditure, which simultaneously has a significant influence on economic growth. This shows that the higher level of achievement of regional financial performance and the increase in the allocation of capital expenditures in the province of Aceh simultaneously able to increase economic growth.

The Role of Mediating Capital Expenditures on Economic Growth:

Further analysis reveals that capital expenditure plays an important mediating role between regional financial performance and economic growth in Aceh province. By channeling resources towards productive investment, capital spending stimulates economic activity, creates jobs, and attracts private investment. This leads to sustainable economic growth at the local level.

Existing literature on the mediating effect of capital expenditure on economic growth (Tanzi & Zee, 2000). Capital expenditure acts as a bridge between financial performance indicators, such as revenue management and expenditure control, and the economic growth of a region as a whole. This facilitates the transformation of financial resources into tangible development outcomes and contributes to long-term economic prosperity.

However, this study obtained different results where the mediation of capital expenditure allocation on regional financial performance in Aceh province did not affect economic growth. Capital expenditure which is expected to be able to bridge regional financial performance indicators on economic growth, has not yet affected Aceh province. This could be the answer to the initial phenomenon where economic growth in Aceh province was always below the average economic growth in the Sumatra island cluster. This confirms previous research that more government spending in South Africa does not result in the country's economic growth, which is contrary to the Keynesian viewpoint (Omitogun et al., 2023).

CONCLUSIONS

In conclusion, this study has investigated the role of capital expenditure in mediating the relationship between regional financial performance and economic growth in Aceh Province from 2011 to 2022. The findings demonstrate the importance of capital expenditure in improving regional financial performance indicators, such as revenue generation, expenditure control, and debt management. In addition, capital expenditure is known to play an important mediating role in stimulating economic growth by facilitating economic activity, attracting private investment, and creating jobs.

The implications derived from these findings have important policy implications for the Province of Aceh. Policymakers should prioritize and allocate adequate resources for capital expenditure projects that have the potential to generate long-term economic benefits. Effective fiscal management is essential to ensure the optimal use of allocated capital expenditure, and monitoring and evaluation mechanisms must be in place to track the progress and results of capital projects. Collaboration between the public and private sectors through public-private partnerships and other financing mechanisms can further improve the efficiency and effectiveness of capital spending.

Policymakers need to consider the unique characteristics and needs of Aceh Province when formulating capital expenditure policies. The geographical location of the region, natural resources,

and socioeconomic factors must be taken into account to ensure directed and sustainable development.

While this study has provided valuable insight into the role of capital expenditure in mediating local financial performance and economic growth, it is not without limitations. Future research can extend the analysis period to observe long-term effects and conduct comparative studies in other regions. In addition, exploring the impact of external factors on the relationship between capital expenditure and economic growth can provide a more comprehensive understanding.

Overall, this study emphasizes the importance of strategic capital expenditure planning and management in promoting regional economic development. By prioritizing capital expenditures and ensuring their allocation is effective, Aceh Province can improve its financial performance and promote sustainable economic growth, which in turn improves the overall well-being of its population.

LIMITATIONS & FURTHER RESEARCH

This study has several limitations in that the analysis is based on available data from 2011 to 2022, and future studies may extend the timeframe to observe long-term effects. This research focused specifically on Aceh province, and similar research could be conducted in other areas to provide comparative insights.

Future research can also explore certain sectors or types of capital expenditure that have a more significant impact on regional financial performance and economic growth. In addition, qualitative studies can complement quantitative findings by examining the perceptions and experiences of stakeholders involved in capital expenditure projects. In addition, given the dynamic nature of the regional economy, it is useful to investigate the impact of external factors such as global economic trends, political stability, and natural disasters on the relationship between capital spending, regional financial performance, and economic growth.

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