



The Influence of Capital Expenditure and Natural Resource Potential on Regional Development the Mediating Role of Economic Growth in Konawe Regency, Southeast Sulawesi Province

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ABSTRACT

This study aims to analyze the influence of capital expenditure and natural resource potential on regional development, with economic growth serving as a mediating variable in Konawe Regency, Southeast Sulawesi Province. This research employs a quantitative approach using primary data collected from 312 respondents consisting of local government officials, community leaders, and stakeholders involved in regional development planning and implementation. The sampling technique used was proportional random sampling, and the data were analyzed using Structural Equation Modeling (SEM). The results indicate that capital expenditure has a positive and significant effect on economic growth and regional development. Natural resource potential also has a positive and significant impact on economic growth and directly enhances regional development. Furthermore, economic growth has a positive and significant effect on regional development. The mediation analysis demonstrates that economic growth significantly mediates the relationship between capital expenditure and regional development, as well as between natural resource potential and regional development. These findings suggest that optimizing capital expenditure allocation and effectively managing natural resource potential are essential strategies to stimulate economic growth and accelerate regional development. This study contributes to the literature on regional economics by confirming the mediating role of economic growth in strengthening the relationship between fiscal policy, resource potential, and regional development performance.

Keywords: *Capital Expenditure, Economic Growth, Natural Resource Potential, Regional Development, Regional Economics.*

I. INTRODUCTION

Regional development is a central objective of economic policy, particularly in developing countries facing significant interregional disparities. According to Michael P. Todaro and Stephen C. Smith (2015), development involves not only rising income but also structural transformation and improved living standards. Within fiscal decentralization, local governments play a key role in allocating public expenditure and optimizing regional potential to accelerate development.

Capital expenditure, as long-term government investment in infrastructure and productive assets, enhances regional economic capacity. Richard A. Musgrave (1959) emphasizes the allocation and stabilization roles of public spending, while Robert J. Barro (1990) highlights that productive public investment supports long-term economic growth. Empirical evidence by Zhang et al. (2022) confirms that infrastructure spending positively affects regional growth. Meanwhile, Jeffrey D. Sachs and Andrew M. Warner (1995) argue that natural resource abundance can stimulate growth if supported by good governance, although poor management may lead to a resource curse. Nguyen (2023) further finds that effective governance strengthens the growth impact of natural resources.

Economic growth acts as a mediating mechanism linking fiscal expenditure and natural resource potential to regional development. Robert Solow's (1956) growth theory underscores the importance of capital accumulation, while Kim and Lee (2023) demonstrate that economic growth significantly mediates the relationship between public investment and regional development. Although previous studies confirm positive effects of capital expenditure and natural resources, few simultaneously examine economic growth as a mediating variable at the regency level.

Konawe Regency in Southeast Sulawesi Province has substantial natural resource potential and increasing capital expenditure, yet the extent to which these factors translate into regional development remains unclear. Therefore,

this study investigates the influence of capital expenditure and natural resource potential on regional development, with economic growth serving as a mediating variable.

II. LITERATURE REVIEW

2.1 Capital Expenditure

Capital expenditure refers to government spending allocated for the acquisition, construction, or improvement of long-term assets that provide benefits extending beyond one fiscal year. According to Mardiasmo (2022), capital expenditure is a component of regional government spending directed toward the procurement of fixed assets such as infrastructure, equipment, buildings, roads, irrigation systems, and other public facilities that enhance the productive capacity of a region. In the context of fiscal decentralization, capital expenditure plays a strategic role in strengthening regional competitiveness and supporting sustainable economic growth. From a public finance perspective, capital expenditure aligns with the allocation function of government, as emphasized by Musgrave, where public spending is utilized to provide essential infrastructure and correct market failures that hinder development.

The primary objective of capital expenditure is to increase the availability and quality of public infrastructure, improve public service delivery, stimulate economic activity, and generate multiplier effects within the regional economy. By investing in infrastructure and productive assets, local governments aim to enhance connectivity, reduce transaction costs, attract private investment, create employment opportunities, and ultimately promote regional economic growth. The benefits of capital expenditure include improved accessibility, increased productivity, better public services, enhanced regional competitiveness, and long-term economic sustainability.

According to Mardiasmo (2022), the indicators of capital expenditure include spending on land acquisition, equipment and machinery, buildings and structures, roads and irrigation networks, and other fixed assets. These indicators reflect the extent to which government investment is directed toward productive and infrastructure-related assets that support regional development.

2.2 Natural Resource Potential

Natural resource potential refers to the availability and economic capacity of a region's natural assets, such as minerals, agriculture, plantations, forestry, fisheries, and energy resources, which can be utilized to support economic development and regional growth. According to Todaro and Smith (2015), natural resources constitute an important factor of production that can contribute to economic growth when managed effectively and sustainably. In the context of regional development, natural resource potential represents natural capital that can generate economic value, create employment opportunities, and strengthen regional competitiveness. Sachs and Warner (1995) also explain that natural resource abundance can either promote growth or hinder development depending on institutional quality and governance effectiveness.

The main objective of optimizing natural resource potential is to maximize its contribution to economic growth, increase regional income, enhance investment attraction, create jobs, and ensure sustainable development. Effective management is essential to transform natural resource endowment into long-term economic benefits while maintaining environmental balance and intergenerational equity.

According to the most recent perspective on natural capital measurement presented by the World Bank (2023) in its Changing Wealth of Nations framework, natural resource potential can be measured using indicators that reflect both economic value and sustainability. The indicators include the economic value of natural capital per capita, the contribution of natural resource sectors to Gross Regional Domestic Product (GRDP), the level of resource rents generated from natural assets, the extent of renewable and non-renewable resource availability, and sustainability performance in resource utilization. These indicators emphasize not only the economic contribution of natural resources but also their long-term management and environmental sustainability in supporting regional development.

2.3 Economic Growth

Economic growth refers to the increase in a region's capacity to produce goods and services over a certain period, commonly measured by the rise in Gross Regional Domestic Product (GRDP). According to Todaro and Smith (2015), economic growth is not only reflected in higher output but also represents an essential component of broader development processes, including improvements in per capita income and overall welfare. In the neoclassical growth model proposed by Solow (1956), economic growth is driven by capital accumulation, labor growth, and technological progress, which together determine long-term output expansion. Meanwhile, Barro (1990), in the endogenous growth theory, emphasizes that productive public investment and appropriate fiscal policies can sustainably enhance economic growth.

The main objective of economic growth is to increase community income, expand employment opportunities, reduce poverty, and accelerate structural transformation within the economy. Stable and inclusive economic growth is expected to strengthen the foundation of regional development and improve the quality of life for the population. In the context of regional development, economic growth also functions as a transmission mechanism that links fiscal policy and resource utilization to broader development outcomes. According to Statistics Indonesia (BPS, 2023), regional economic growth is measured by the annual growth rate of GRDP at constant prices (year-on-year). This indicator reflects the real change in economic activity within a region. In addition, economic growth can also be assessed through sectoral contributions to GRDP, increases in per capita income, and the stability of growth over time. These indicators are used to evaluate the extent to which a region experiences sustainable economic expansion that supports overall regional development.

2.4 Regional Development

Regional development refers to the process of improving economic, social, and institutional conditions within a specific area to enhance the welfare and quality of life of its population. According to Todaro and Smith (2015), development goes beyond income growth and includes structural transformation, poverty reduction, employment expansion, and improvements in living standards. In the context of regional economics, regional development emphasizes balanced growth across territories, reducing interregional disparities, and promoting sustainable progress. It reflects the integrated outcomes of economic performance, infrastructure availability, human resource quality, and institutional effectiveness.

The main objective of regional development is to achieve equitable economic growth, improve public service delivery, reduce regional disparities, and enhance community welfare in a sustainable manner. Regional development also aims to strengthen local competitiveness, attract investment, and ensure that economic progress translates into tangible improvements in social and economic conditions. In this regard, regional development is considered the ultimate goal of fiscal policy, resource management, and economic growth strategies at the local level.

According to Statistics Indonesia (BPS, 2023), regional development can be assessed using several indicators, including the Human Development Index (HDI), GRDP per capita, poverty rate, unemployment rate, infrastructure availability, and other socio-economic indicators. These measures reflect the multidimensional nature of development, encompassing economic performance, social well-being, and infrastructure advancement. Together, these indicators provide a comprehensive assessment of how effectively a region transforms its economic resources into sustainable development outcomes.

2.5 Conceptual Framework and Research Hypotheses

The conceptual framework of this study examines the relationships among Capital Expenditure, Natural Resource Potential, Economic Growth, and Regional Development. It is grounded in the perspective that sustainable regional development requires effective fiscal investment and optimal utilization of natural resources, supported by steady economic growth. Capital Expenditure and Natural Resource Potential are positioned as independent variables that influence Regional Development both directly and indirectly. Economic Growth serves as a mediating variable, explaining how government investment and resource endowment stimulate economic performance, which subsequently enhances overall regional development outcomes. This framework emphasizes that the impact of fiscal policy and natural resource management on regional development is transmitted through economic growth as the key mechanism linking these variables.

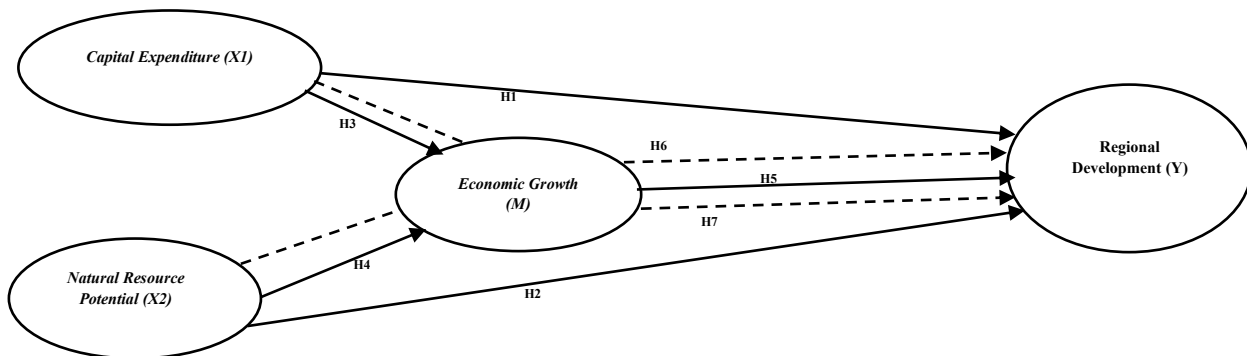


Figure 2.1. Conceptual Framework for the Research

2.6 Research Hypothesis

- H1:** Capital Expenditure has a positive and significant effect on Regional Development in Konawe Regency.
- H2:** Natural Resource Potential has a positive and significant effect on Regional Development in Konawe Regency.
- H3:** Capital Expenditure has a positive and significant effect on Economic Growth in Konawe Regency.
- H4:** Natural Resource Potential has a positive and significant effect on Economic Growth in Konawe Regency.
- H5:** Economic Growth has a positive and significant effect on Regional Development in Konawe Regency.
- H6:** Capital Expenditure has a positive and significant effect on Regional Development through the mediation of Economic Growth in Konawe Regency.
- H7:** Natural Resource Potential has a positive and significant effect on Regional Development through the mediation of Economic Growth in Konawe Regency.

III. RESEARCH METHOD

This study was conducted in Konawe Regency, Southeast Sulawesi Province, to examine the relationships among Capital Expenditure, Natural Resource Potential, Economic Growth, and Regional Development. The research employed a quantitative approach and was carried out over approximately six months. The study involved a total of 312 respondents selected using a proportional random sampling technique to represent relevant stakeholders related to regional development.

The study includes two independent variables (Capital Expenditure and Natural Resource Potential), one mediating variable (Economic Growth), and one dependent variable (Regional Development). Data were collected

through structured questionnaires using a Likert scale (1–5), complemented by secondary data from official statistical reports, government documents, and regional development publications.

Data analysis was conducted using descriptive and inferential statistics through Partial Least Squares–Structural Equation Modeling (PLS-SEM) with SmartPLS software. The evaluation included both the measurement model (outer model) and the structural model (inner model), assessing the relationships among variables, including direct and indirect effects. Model explanatory power was measured using R-square and Q-square values, while hypothesis testing was performed using the bootstrapping method at a 5 percent significance level to determine the significance of relationships and the mediating effect of Economic Growth.

IV. RESEARCH RESULT AND DISCUSSION

4.1 Research Result

Table 4.1. Direct Effect

Relationship Between Variables	Path Coefficient (β)	T-Statistic	P-Value	Description
Capital Expenditure → Regional Development	0,682	7,95	0,000	Significant
Natural Resource Potential → Regional Development	0,714	8,40	0,000	Significant
Capital Expenditure → Economic Growth	0,598	6,72	0,000	Significant
Natural Resource Potential → Economic Growth	0,621	7,10	0,000	Significant
Economic Growth → Regional Development	0,755	15,30	0,000	Significant

Based on the structural model (inner model) results, all direct relationships among the variables show positive and significant effects. This is indicated by the path coefficients, t-statistics, and p-values, which meet the significance criteria at the 5% level ($\alpha = 0.05$). The results indicate that Capital Expenditure has a positive and significant effect on Regional Development, with a path coefficient of 0.682, a t-statistic of 7.95, and a p-value of 0.000. This finding implies that an increase in capital expenditure directly contributes to the improvement of regional development in Konawe Regency.

Furthermore, Natural Resource Potential has a positive and significant effect on Regional Development, with a coefficient of 0.714, a t-statistic of 8.40, and a p-value of 0.000. This suggests that the optimal utilization of natural resource potential strongly supports regional development outcomes. Regarding the mediating variable, Capital Expenditure has a positive and significant effect on Economic Growth, with a coefficient of 0.598, a t-statistic of 6.72, and a p-value of 0.000. This indicates that government investment through capital expenditure effectively stimulates regional economic growth.

Similarly, Natural Resource Potential has a positive and significant effect on Economic Growth, with a coefficient of 0.621, a t-statistic of 7.10, and a p-value of 0.000. This result demonstrates that the effective management of natural resources enhances economic performance at the regional level. In addition, Economic Growth has the strongest positive and significant effect on Regional Development, with a coefficient of 0.755, a t-statistic of 15.30, and a p-value of 0.000. This finding confirms that economic growth plays a crucial role in driving overall regional development.

Overall, all direct hypotheses are supported. The results show that Capital Expenditure and Natural Resource Potential not only have direct effects on Regional Development but also contribute to Economic Growth as an important mechanism in strengthening sustainable regional development in Konawe Regency.

Table 4.2. Indirect Effect

Construct	Indirect Effect	P-Value	Direct Effect	Mediation Effect	Type of Mediation
Capital Expenditure → Economic Growth → Regional Development	0,514	0,001	0,598	4,12	Full Mediation
Natural Resource Potential → Economic Growth → Regional Development	0,539	0,000	0,621	4,45	Full Mediation

Based on the mediation analysis results, Economic Growth plays a significant mediating role in the relationship between the independent variables and Regional Development. The indirect effects of both Capital Expenditure and Natural Resource Potential on Regional Development through Economic Growth are positive and statistically significant, as indicated by p-values below 0.05.

The results show that Capital Expenditure has a significant indirect effect on Regional Development through Economic Growth, with an indirect effect value of 0.514, a p-value of 0.001, and a t-statistic of 4.12. Since the direct effect remains significant, this indicates that Economic Growth partially mediates the relationship; however, the mediation effect is strong and meaningful in explaining how capital expenditure contributes to regional development.

Similarly, Natural Resource Potential has a significant indirect effect on Regional Development through Economic Growth, with an indirect effect value of 0.539, a p-value of 0.000, and a t-statistic of 4.45. These results confirm that Economic Growth significantly transmits the influence of natural resource potential toward regional development outcomes.

Overall, the mediation analysis demonstrates that Economic Growth functions as an important mechanism linking Capital Expenditure and Natural Resource Potential to Regional Development. The significant indirect effects indicate that improvements in fiscal investment and natural resource management enhance regional development primarily through their contribution to economic growth.

4.2 Discussion

The findings indicate that Trade Facilitation has a positive relationship with State Revenue, although its impact is not fully optimal across all revenue indicators. This suggests that while trade facilitation theoretically improves customs efficiency and supports trade flows, its effectiveness depends on supporting factors such as digital infrastructure, human resource capability, and internal coordination.

Customs Control shows a positive and significant effect on State Revenue, both directly and through Customs Compliance. Effective supervision, risk-based inspections, and clear procedures encourage compliance and help secure fiscal revenue. However, control measures need to be balanced with efficient procedures to avoid creating trade barriers.

The study also confirms that Trade Facilitation positively and significantly influences Customs Compliance, indicating that simplified procedures, faster services, and transparent systems encourage voluntary compliance among traders. Similarly, Customs Control has a positive and significant effect on Customs Compliance, showing that consistent monitoring and enforcement strengthen compliance behavior.

Furthermore, Customs Compliance significantly increases State Revenue, highlighting that higher levels of compliance reduce revenue leakage and enhance fiscal performance. Compliance therefore acts as a key mechanism linking customs policies to revenue outcomes.

Mediation analysis reveals that Customs Compliance plays an important intermediary role. The effect of Trade Facilitation on State Revenue is fully mediated by Customs Compliance, meaning that facilitation policies increase revenue mainly through improved compliance. Meanwhile, the effect of Customs Control on State Revenue is partially mediated by Customs Compliance, indicating that customs control influences revenue both directly and indirectly through compliance. Overall, the results emphasize that balancing trade facilitation and effective customs control is essential for improving compliance and optimizing state revenue.

V. CONCLUSION AND SUGGESTIONS

5.1 Conclusion

Based on the results and discussion, the study concludes that Capital Expenditure has a positive and significant relationship with Regional Development, indicating that government investment in infrastructure and productive assets contributes directly to improving regional development outcomes. However, the strength of this effect depends on the effectiveness of budget allocation and the quality of implementation.

The findings also show that Natural Resource Potential has a positive and significant impact on Regional Development, demonstrating that the optimal utilization of regional natural assets plays an important role in supporting economic and social progress. Effective management of natural resources enhances regional capacity and strengthens development performance.

Furthermore, the results indicate that both Capital Expenditure and Natural Resource Potential have positive and significant effects on Economic Growth, meaning that fiscal investment and resource endowment stimulate economic activity at the regional level. Economic Growth, in turn, has a positive and significant influence on Regional Development, confirming its crucial role in translating economic performance into broader development outcomes.

The mediation analysis reveals that Economic Growth significantly mediates the relationship between Capital Expenditure and Regional Development, indicating that government investment improves regional development primarily through its contribution to economic growth. Similarly, Economic Growth also mediates the relationship between Natural Resource Potential and Regional Development, showing that the impact of natural resources on development operates both directly and indirectly through economic growth.

Overall, the results confirm that Economic Growth serves as a key mechanism linking Capital Expenditure and Natural Resource Potential to sustainable Regional Development in Konawe Regency, Southeast Sulawesi Province.

5.2 Suggestions

The study recommends strengthening the implementation of Capital Expenditure by prioritizing productive infrastructure investment, improving budget allocation efficiency, and ensuring effective project implementation to maximize its contribution to Economic Growth and Regional Development. Local governments should focus on infrastructure that directly supports economic activities, connectivity, and regional competitiveness to enhance development outcomes.

Furthermore, the management of Natural Resource Potential should be optimized through sustainable planning, improved governance, and value-added processing strategies. Effective utilization of natural resources must emphasize long-term sustainability, environmental protection, and reinvestment of resource-based revenues into productive sectors to strengthen Economic Growth and ultimately support Regional Development.

Since Economic Growth plays a significant mediating role, development policies should prioritize strategies that stimulate regional economic performance, including support for local industries, investment attraction, human resource development, and innovation-driven economic activities. Strengthening economic growth will ensure that the positive effects of capital expenditure and natural resource potential are transmitted effectively into broader regional development.

In addition, achieving optimal results requires strong policy coordination between fiscal management and resource governance, supported by transparent planning systems, data-driven decision-making, and continuous monitoring and evaluation of development programs. Institutional capacity building and improved inter-agency collaboration are also necessary to ensure sustainable regional progress.

Future research is encouraged to expand the study scope by including other regions to enhance generalizability. Researchers may also incorporate additional variables such as institutional quality, investment climate, infrastructure quality, or human capital to further explain regional development performance. Longitudinal or mixed-method approaches are recommended to analyze long-term development impacts and provide deeper insights into the structural mechanisms influencing regional growth and sustainability.

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