

Zaki Rahmatullah

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Analysis Of The Impact Of Government Expenditure On The Human Development Index And Poverty Levels In North Aceh Regency

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Abstract; This study analyzes the relationship between government expenditure, the Human Development Index, and poverty in North Aceh Regency. It employs a quantitative approach using secondary time-series data sourced from official statistics and regional budget realization documents. The analysis encompasses descriptive statistics, classical assumption testing, simple linear regression, partial testing, and the coefficient of determination. The results indicate a positive and significant relationship between government expenditure and the Human Development Index, whereas the relationship with poverty levels is negative and significant. These findings highlight the importance of the quality and precision of regional expenditure allocation, particularly regarding education, healthcare, basic infrastructure, and social protection services. Budget increases must be accompanied by effective planning, implementation, oversight, and evaluation to ensure that fiscal benefits translate into enhanced community capabilities and sustainable poverty reduction. This study provides empirical insights for strengthening regional fiscal policies oriented toward human development and public welfare.

Keywords: Government expenditure, Human Development Index, Poverty

Abstrak; Penelitian ini menganalisis hubungan antara pengeluaran pemerintah, Indeks Pembangunan Manusia, dan kemiskinan di Kabupaten Aceh Utara. Penelitian ini menggunakan pendekatan kuantitatif dengan data sekunder deret waktu (*time-series*) yang bersumber dari statistik resmi dan dokumen realisasi anggaran daerah. Analisis yang dilakukan meliputi statistik deskriptif, uji asumsi klasik, regresi linear sederhana, uji parsial, dan koefisien determinasi. Hasil penelitian menunjukkan adanya hubungan positif dan signifikan antara pengeluaran pemerintah dan Indeks Pembangunan Manusia, sedangkan hubungan dengan tingkat kemiskinan bersifat negatif dan signifikan. Temuan ini menyoroti pentingnya kualitas dan ketepatan alokasi belanja daerah, khususnya yang terkait dengan pendidikan, kesehatan, infrastruktur dasar, dan layanan perlindungan sosial. Peningkatan anggaran harus dibarengi dengan perencanaan, pelaksanaan, pengawasan, dan evaluasi yang efektif guna memastikan bahwa manfaat fiskal dapat mewujudkan peningkatan kapasitas masyarakat serta pengurangan kemiskinan yang berkelanjutan. Penelitian ini memberikan wawasan empiris untuk memperkuat kebijakan fiskal daerah yang berorientasi pada pembangunan manusia dan kesejahteraan masyarakat.

Kata kunci: Pengeluaran pemerintah, Indeks Pembangunan Manusia, Kemiskinan

1. BACKGROUND

Human development lies at the core of the development process, as it entails expanding people's choices through improvements in health, knowledge, and standards of living. The Human Development Index (HDI) is used to measure achievements in these dimensions. At the regional level, government expenditure serves as a fiscal instrument capable of influencing education, health, basic infrastructure, and public welfare.

North Aceh Regency presents an interesting case for study because local government spending has increased, yet challenges regarding human development

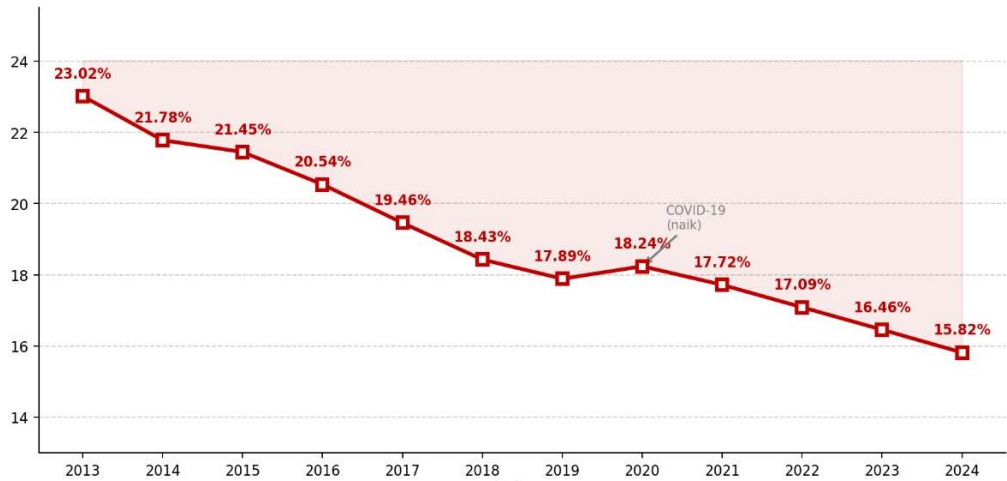
outcomes and poverty persist. Research data indicates that the HDI rose from 59.30 in 2013 to 68.94 in 2024, though it remains below the average for Aceh Province. The poverty rate declined from 24.73 percent to 16.12 percent during the same period but remains higher than the national average. Total realized regional budget (APBD) expenditure grew from approximately IDR 1.423 trillion in 2013 to IDR 2.605 trillion in 2024. The disparity between rising expenditure and changes in welfare indicators raises questions regarding the effectiveness and appropriateness of government spending allocations.

This study addresses two primary questions: whether government expenditure influences the HDI of North Aceh Regency, and whether it affects the regency's poverty rate. The research aims to analyze the impact of government expenditure on both the HDI and poverty levels. Theoretically, this study contributes to the literature on development economics and regional fiscal policy. Practically, the findings can inform the formulation of more effective and well-targeted budget policies. HDI trends showed an upward trajectory throughout the observation period. A relatively modest increase occurred during the pandemic, followed by a renewed acceleration during the recovery phase. These changes provide an empirical context for examining the relationship between government expenditure and human development.



Graph 1: Trends in HDI of North Aceh Regency, 2025

The poverty rate shows a downward trend, despite an increase during the pandemic. Subsequently, poverty declined again in line with economic recovery and increased government spending.



Graph 2: Trends in the Poverty Rate of North Aceh Regency, 2025

2. THEORETICAL REVIEW

Keynesian fiscal theory posits that government spending can generate a multiplier effect on economic activity by boosting demand, income, and employment. Wagner’s Law complements this perspective by explaining the tendency for government spending to rise alongside economic development and the growing demand for public services. Human capital theory regards education, health, and skills as forms of investment that enhance individual productivity. Since these dimensions are integral to the Human Development Index (HDI), public spending in these sectors can theoretically improve human development outcomes.

Sen’s capability approach views development as the expansion of people’s substantive freedoms to lead lives they value. Within this framework, public services help expand capabilities, particularly for groups facing limited access. The concept of pro-poor growth emphasizes that economic growth and public spending should yield greater benefits for the poor. The fiscal incidence perspective also assesses who benefits from government expenditure. Basic education, primary healthcare, rural infrastructure, and social protection serve as crucial pathways for poverty reduction.

Government spending is expected to be positively correlated with the HDI through improvements in the access to and quality of healthcare, education, and infrastructure. Healthcare spending supports longevity and healthy living, while education spending contributes to expected and mean years of schooling. Infrastructure and economic activity also influence living standards. Regarding poverty, government spending is expected to have a negative relationship. Public expenditure can expand economic opportunities, lower access costs, raise incomes, and provide social protection. This directional relationship forms the basis of the second hypothesis.

Existing research generally supports the link between government spending, the HDI, and poverty, although the influence may vary across sectors. Studies focused on Indonesia and Aceh highlight the importance of education, health, and spending

composition in determining fiscal impacts. The research framework positions government expenditure as the independent variable tested against the Human Development Index (HDI) and the poverty rate as the two dependent variables. The first hypothesis posits a positive and significant effect on the HDI. The second hypothesis posits a negative and significant effect on the poverty rate.

3. RESEARCH METHODOLOGY

This study employs a quantitative approach with descriptive and associative characteristics. The research focuses on North Aceh Regency. The data utilized consists of secondary time-series data sourced from the Central Statistics Agency (BPS), Budget Realization Reports, the Regional Financial and Asset Management Agency (BPKD), the Regional Development Planning Agency (Bappeda), and government data portals used for verification.

The independent variable is Government Expenditure, measured by the total realized regional budget (APBD) spending. The dependent variables comprise the Human Development Index (HDI) and the poverty rate. HDI data reflects dimensions of health, education, and standard of living, while poverty is measured by the percentage of the population living in poverty.

Data collection was conducted through document review, online data searches, and data verification. The analysis includes descriptive statistics, tests for normality, heteroscedasticity, autocorrelation, and multicollinearity, as well as simple linear regression, t-tests, and the coefficient of determination. Testing criteria utilize a five percent significance level. A regression model is employed to measure the direction and magnitude of the relationship between Government Expenditure and each dependent variable.

4. RESULTS AND DISCUSSION

North Aceh Regency is a regency in Aceh Province characterized by a coastal area and a history of industry-based economic activity. In the context of regional finance, revenue sources comprise Locally-Generated Revenue (PAD), government transfers, and other sources as stipulated by regulations. This study focuses on the realization of government expenditure and its relationship with the Human Development Index (HDI) and poverty.

Descriptive statistics provide an overview of the minimum, maximum, and mean values, as well as the standard deviation, for each variable. The results reveal variations in the HDI, poverty rates, and government expenditure throughout the observation period.

Table 1: Descriptive Statistical Analysis Results

Variabel	N	Minimum	Maksimum	Mean	Std. Deviasi
IPM	15	59,30	68,94	64,3140	2,89962
Tingkat Kemiskinan	15	16,12	24,73	19,2127	2,60588

Pengeluaran Pemerintah (Ln)	15	27,56	28,58	28,0838	0,31355
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The average HDI is 64.3140, while the average poverty rate is 19.2127 percent. Government expenditure, expressed as a natural logarithm, has an average of 28.0838. The variation in this data serves as the basis for further analysis.

Table 2: Normality Test Results

Variabel	K-S Statistic	K-S Sig.	Shapiro-Wilk Statistic	Shapiro-Wilk Sig.
HDI	.117	.200*	.976	.933
Tingkat Kemiskinan	.153	.200*	.908	.125
Pengeluaran Pemerintah	.130	.200*	.950	.518

All significance values are above the testing threshold; therefore, the assumption of normality is met.

Table 3: Heteroskedasticity Test Results

Model	t-Hitung	Sig.	Conclusion
Model 1 ($X \rightarrow Y1$)	.961	.354	Heteroscedasticity is not present
Model 2 ($X \rightarrow Y2$)	-.473	.644	

Table 4: Autocorrelation Test Results

Model	DW Value	Autocorrelation-free range	Conclusion
Model 1	1,688	1,361 < DW < 2,639	No autocorrelation occurs
Model 2	1,959	1,361 < DW < 2,639	

Table 5: Multicollinearity Test Results

Model	Tolerance	VIF	Conclusion
Model 1 ($X \rightarrow Y1$)	1,000	1,000	Multicollinearity is not present
Model 2 ($X \rightarrow Y2$)	1,000	1,000	

The tolerance and VIF values meet the established criteria. Since each model employs only one independent variable, there is no issue of multicollinearity.

4.1 Government Expenditure on the Human Development Index (HDI)

The regression analysis yielded the equation $Y1 = -187.883 + 8.980X$. The positive coefficient indicates a direct relationship between Government Expenditure and the HDI within the research model. An R-squared value of 0.943 indicates that the model explains 94.3 percent of the variation in the HDI.

Table 6: Output Regression Model 1
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-187.883	17.202		-10.922	.000
Pengeluaran Pemerintah	8.980	.613	.971	14.661	.000

a. Dependent Variable: Indeks Pembangunan Manusia (IPM)

4.2 Government Spending on Poverty

The regression analysis yielded the equation $Y2 = 226.645 - 7.386X$. The negative coefficient indicates an inverse relationship between government expenditure and the poverty rate within the research model. The R-squared value of 0.790 indicates that the model explains 79.0 percent of the variation in the poverty.

Table 7: Output Regression Model 2
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	226.645	29.678		7.637	.000
Pengeluaran Pemerintah	-7.386	1.057	-.889	-6.990	.000

a. Dependent Variable: Tingkat Kemiskinan

The constant in the model serves as a component of the statistical equation and is not interpreted as representing a realistic policy scenario in which government spending is zero. The primary focus of interpretation lies in the direction and magnitude of the government spending coefficient within the range of the study data.

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Table 9: Uji t (Parsial)

Hipotesis	t-Hitung	t-Tabel	Sig.	Decision	Conclusion
H1: $X \rightarrow Y1$	14,661	2,3060	0,000	Ho Ditolak	Signifikan
H2: $X \rightarrow Y2$	-6,990	2,3060	0,000		

Partial testing indicates that government expenditure has a positive and significant effect on the Human Development Index (HDI). Regarding the poverty rate, the effect is negative and significant.

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Table 10: Coefficient of Determination Test Results

Model	R	R ²	Interpretation
Model 1 ($X \rightarrow Y1$)	0,971	0,943 (94,3%)	Government expenditure explains 94.3% of the HDI.
Model 2 ($X \rightarrow Y2$)	0,889	0,790 (79,0%)	Government expenditure explains 79.0% of poverty.

The Adjusted R-squared values are 0.939 for Model 1 and 0.774 for Model 2, respectively, demonstrating the models' strong explanatory power regarding the research data.

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4.3 The Impact of Government Expenditure on the Human Development Index

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The research results indicate a positive and significant relationship between government expenditure and the Human Development Index (HDI) during the study period. A regression coefficient of 8.980 and an R-squared value of 0.943 demonstrate that changes in government expenditure within the model move in the same direction as increases in the HDI.

These findings align with fiscal and human capital theoretical frameworks, which view public spending on education, health, and basic services as an investment to enhance the quality of human resources. The data also show that the HDI rose from 59.30 to 68.94 during the observed period, coinciding with an increase in realized local government budget (APBD) expenditure.

This relationship does not imply that all changes in the HDI are solely attributable to government expenditure; 5.7 percent of the variation in the HDI within the model remains unexplained by the government expenditure variable. Other contributing factors

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may include economic conditions, public income, investment, service quality, employment, and social factors. The implication drawn from these results is the importance of directing spending toward programs that directly address the community's basic needs, while simultaneously strengthening budget planning, implementation, oversight, and evaluation.

4.4 The Impact of Government Expenditure on Poverty Levels

Government expenditure shows a significant negative relationship with the poverty rate. A regression coefficient of -7.386 indicates an inverse relationship, while an R-squared value of 0.790 indicates that the model explains 79.0 percent of the variation in poverty rates.

Empirically, the poverty rate declined from 24.73 percent to 16.12 percent during the observation period. These findings align with fiscal mechanisms indicating that government spending can support economic activity, expand access to basic services, boost purchasing power, and strengthen social protection.

Infrastructure spending can reduce barriers to accessing markets and public services, while spending on education, health, and transfers can help enhance the capabilities and protection of low-income groups. However, the quality of the spending composition remains crucial, as the size of the budget does not automatically guarantee an equitable distribution of benefits.

Overall, both models provide empirical evidence that government expenditure is linked to improvements in human development and poverty indicators. Fiscal policy needs to be directed toward effectiveness, efficiency, equity, and accurate targeting.

5. Conclusions and Recommendations

Government expenditure has a positive and significant impact on the Human Development Index (HDI) of North Aceh Regency. This result indicates that an increase in government expenditure within the research model aligns with an increase in the HDI. Government expenditure has a negative and significant impact on the poverty rate in North Aceh Regency. This result indicates that an increase in government expenditure within the research model aligns with a decrease in the poverty rate.

The North Aceh Regency government needs to strengthen the quality of expenditure allocations for education, health, basic infrastructure, and social protection. Budget increases should be accompanied by measurable performance indicators so that the effectiveness of spending can be evaluated.

Program evaluations need to consider the equitable distribution of benefits, particularly for low-income communities and areas with limited access to public services. Future research could consider variables other than government expenditure to explain the variations in HDI and poverty not yet captured by the model.

The research findings provide an empirical basis for considering government expenditure as a crucial instrument in regional development. Effective fiscal management

requires a combination of budget magnitude, expenditure composition, implementation quality, and oversight.

List of References

- Bandiyono. (2018). Pengaruh belanja pemerintah daerah terhadap peningkatan IPM dan pengentasan kemiskinan di kabupaten/kota Provinsi Aceh.
- Becker, G. S. (1964). Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education. University of Chicago Press.
- Ghozali, I. (2018). Aplikasi Analisis Multivariate dengan Program IBM SPSS. Badan Penerbit Universitas Diponegoro.
- Keynes, J. M. (1936). The General Theory of Employment, Interest and Money.
- Mongan, J. J. S. (2019). Pengaruh pengeluaran pemerintah sektor pendidikan terhadap Indeks Pembangunan Manusia di Indonesia.
- Ningrum, J. W., Khairunnisa, H., & Huda, N. (2020). Pengaruh kemiskinan, pengangguran, pertumbuhan ekonomi, dan pengeluaran pemerintah terhadap Indeks Pembangunan Manusia.
- Ravallion, M., & Chen, S. (2003). Measuring pro-poor growth. Economics Letters.
- Sen, A. (1999). Development as Freedom. Oxford University Press.
- Sugiyono. (2019). Metode Penelitian Kuantitatif, Kualitatif, dan R&D.
- Todaro, M. P., & Smith, S. C. (2015). Economic Development. Pearson.
- UNDP. (1990). Human Development Report.
- Utara, Pemerintah Kabupaten Aceh. (2022). Laporan Keuangan Pemerintah Daerah Kabupaten Aceh Utara.
- Yusri, M. (2022). Does Government Expenditure Affect Poverty, Health, and Education? Evidence From Aceh, Indonesia.