



## The Impact of Government Expenditure on Improving the Quality of Human Development in Papua Province

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### ABSTRACT

This study aims to examine trends in the quality of human development, budget allocation, and spending patterns, and their impacts on improving the quality of human development in Papua Province. The study uses secondary data obtained from the Regional Development Planning Agency (Bappeda) of Papua Province, the Central Statistics Agency (BPS), Gross Regional Domestic Product (GRDP/PDRB) data, and the Regional Financial and Asset Management Agency (BKAD), and employs descriptive analysis methods. This analysis provides an overview of human development conditions and regional expenditure trends based on education, health, economic, and infrastructure functions. The study seeks to analyze trends in human development quality, examine the relationship between government expenditure and improvements in human development, and assess the impact of government spending on human development outcomes in Papua Province. Furthermore, the analysis identifies leading sectors based on correlation strength and examines the effects of government spending on income and labour in support of the realization of human development in Papua Province.

**Keywords:** Budgeting Policy; Government Expenditure; Human Development; Papua Province

## 1. Introduction

Economic growth indicates the extent to which economic activity generates additional income for the community over a given period. Economic activity is essentially the process of using production factors to generate output. This process, in turn, generates a flow of rewards to the community's production factors. Economic growth is driven by increased demand in the production sector, both for goods and services. This increased demand is met by additional investment and labour, or through imports. Additional investment can come from the private sector, including households, or from the government. Government sector investment is included in government spending. The use of money to carry out government functions is what is meant by government spending. Government spending can also be defined as the use of a country's money and resources to finance programs and activities that advance its welfare-promoting function.

Therefore, the government's stance significantly determines the direction of development in a region or country. In Papua Province, local government spending plays a crucial role in driving the economy. Therefore, government spending patterns significantly determine the direction of development. When government spending focuses on economic issues, economic growth will naturally be more robust. Conversely, when the government focuses on social issues, development will be directed accordingly. Therefore, government spending patterns are crucial.

Regional governments' spending priorities should be outlined in regional development planning documents. When spending priorities are directed towards social issues, economic growth and development will undoubtedly slow. Regarding this development direction, policy plays a crucial role. Policy should serve as a compass for determining the direction in which development will be implemented. Regarding regional governments' spending, a strong policy basis is needed to guide resource allocation. Spending priorities are important because it is impossible to complete all lines simultaneously due to limited resources. When spending priorities focus on economic issues, social issues are naturally not prioritized. Similarly, when social issues take priority, economic development is delayed. Papua Province has the lowest human development index, at 65.86; this figure places it in 33rd place out of 33 provinces in Indonesia ([Badan Pusat Statistik, 2013](#)). A more detailed examination by district/city reveals that most of the newly established districts in Papua Province, especially in the central highlands, have low levels of human development. In 2012, Nduga Regency was recorded at 48.80, making it the regency with the lowest human development in Indonesia.

Meanwhile, in the last three years, starting in 2010, the realization of the Papua Provincial Regional Budget (APBD) has been around Rp 5.7 trillion. Meanwhile, over the last 9 years up to 2010, total revenue from special autonomy funds reached Rp 25.37 trillion, a very large figure ([Bappeda, 2013](#)). Furthermore, given the size of the budget and the commitment to education and health outlined in various planning documents, progress in these two areas should have been rapid. In reality, this is not the case.

One of the goals of development is to position humans as the subject of development. Therefore, the goal of development is to improve human quality. In theory, human quality is reflected in adequate calories, intelligence, education, health, and productivity. A person's quality of life can also be reflected in the quality of housing, income level, and the fulfillment of other needs. A high income can meet nutritional needs for children's intellectual development and open up opportunities for higher education. If the quality of education and health is good, economic growth and development will accompany it ([Todaro & Smith, 2020](#)). Furthermore,

Todaro stated that education and health are complementary investments and are closely related to economic development.

From the above description, it is increasingly clear that human resource development must be a priority. Therefore, spending allocations should align with policies. When policies favour human development, budget allocations should follow suit. This reality, further confirmed by the views of experts who advocate human development as an alternative measure of societal welfare, inspired the author to propose a study titled “The Impact of Government Spending on Improving the Quality of Human Development in Papua Province.”

This study analyses the impact of government spending on improving human development in Papua Province. It aims to provide actionable insights to analyze and improve the impact of government spending on human development in Papua Province.

## **2. Literature Review**

### **2.1. Policy Concept**

Public policy reflects the state’s capacity to carry and serve its people—referred to as the nation’s *carrying capacity*—which describes how a nation ensures that all citizens are accommodated within the development process and, if necessary, extends its capacity beyond its borders (Nugroho & Dahuri, 2004). Effective public policy should encourage citizens to build their own competitiveness rather than deepen structural dependency patterns.

Public policy generally consists of three core components: policy formulation, policy implementation, and policy evaluation, which operate as an integrated cycle to ensure policy effectiveness and accountability.

The Inclusive Economic Development Index (IPEI) is an indicator used to assess and monitor the inclusivity of development in Indonesia at national, provincial, and district/city levels. This index measures development inclusivity through three primary aspects: economic growth, inequality and poverty, and access and opportunity. Structurally, the IPEI comprises three pillars, eight sub-pillars, and 21 indicators that cover the economic, social, environmental, and institutional dimensions.

### **2.2. Government Expenditure Theory**

The Regional Revenue and Expenditure Budget (APBD) functions as the primary fiscal policy instrument of regional governments. Its role is central in strengthening governmental capacity and effectiveness in development planning and decision-making processes (Mardiasmo, 2005).

Government expenditure is also one component of aggregate demand within the national income framework. Using the expenditure approach, national income can be formulated as follows:

$$Y = C + I + G + X - M$$

Where:

Y = National Income

C = Consumption

I = Investment

G = Government Expenditure

X = Exports

M = Imports

Thus, government spending directly contributes to macroeconomic output and economic activity (Boediono, 1999).

### 2.3. Macro Theory

From a macroeconomic perspective, government expenditure reflects public policy priorities. When governments adopt policies requiring the procurement of goods and services, the associated fiscal spending represents the financial consequences of implementing those policies. Government spending, therefore, functions as an instrument for stimulating economic growth, redistributing income, and promoting public welfare (Boediono, 1999).

### 2.4. Micro Theory

From a microeconomic standpoint, government expenditure theory analyses factors that generate demand for public goods and those that influence their provision. This perspective emphasizes allocation efficiency, cost structures, and the effectiveness of public service delivery in meeting societal needs (Boediono, 1999).

### 2.5. Human Development Index

The Human Development Index (HDI) is widely used to classify countries into developed, developing, and underdeveloped categories and to measure the impact of economic policies on quality of life.

Hunger is not primarily caused by food scarcity but by unequal distribution systems that reflect structural injustice in social and economic arrangements, including wage declines, unemployment, rising food prices, and weak distribution mechanisms (Kurien & Sen, 1983).

The human development paradigm was formally introduced in the *Global Human Development Report*, which defined development as a process of expanding people's choices. Human development is viewed both as a process of enlarging human capabilities and as an outcome reflected in improved welfare (United Nations Development Programme, 1990).

Human development includes improving health, knowledge, and skills while enabling individuals to utilize these capabilities productively. Compared with growth-oriented economic development, the human development concept is broader because it positions humans as the central objective of development (United Nations Development Programme, 1990).

Within this framework, governments act as facilitators by providing policies and fiscal support that enable people to expand and exercise their choices. Public expenditure in the education and health sectors is therefore among the most decisive factors in achieving human development outcomes, as these sectors strengthen human capital and support broader development processes.

Human resources constitute the most critical determinant of a nation's development trajectory. While physical capital and natural resources function as passive production factors, humans serve as active agents who accumulate capital, utilize resources, and implement development (Todaro & Smith, 2020).

To achieve human development objectives, four key principles must be considered: productivity, equity, sustainability, and empowerment (United Nations Development Programme, 1990).

**Table 1. Human Development Performance Ranking Measures**

No	HDI Category	HDI Scale
1	High	> 80.0
2	Upper Middle	66.0 – 79.9
3	Lower Middle	55.0 – 65.9
4	Low	< 50.0

Source: (Badan Pusat Statistik, 2013)

### 3. Research Methodology

This study employs both primary and secondary data obtained from the Ministry of National Development Planning/National Development Planning Agency (Bappenas) and other relevant governmental institutions. Secondary data were collected from various regional agencies, including Regional Work Units (SKPD), the Central Statistics Agency (BPS), the Regional Financial and Asset Management Agency (BPKAD), and the Regional Development Planning Agency of Papua (BAPPEDA Papua). These data sources provide comprehensive information related to regional development indicators, fiscal capacity, and sectoral performance.

The analytical approach focuses on impact analysis, which examines the effects of changes in final demand within a given sector. This analysis describes how shifts in final demand influence the sector itself, other interconnected sectors, and the economy as a whole. Through this approach, the study identifies sectoral linkages and evaluates the broader economic implications of government expenditure and development policies.

### 4. Results

The demand for inputs in the production sector is influenced by demand originating from other sectors. The greater and more diverse the demand for inputs generated by one sector, the wider the opportunities for other sectors to supply goods and services required in the production process. This intersectoral relationship reflects the strength of economic linkages within the regional production system.

**Table 2. Ten Largest Sectors According to the 2013 Papua Province Dispersion Power Index Ranking**

No	Sector Code	Sector	Dispersion Power (DP)	Dispersion Power Index (DPI)
1	27	Government Health Services and Social Activities	3.06411	1.38460
2	24	General Government Services	3.00922	1.35980
3	25	Government Education Services	2.92045	1.31968
4	5	Fishery	2.57249	1.16245
5	26	Private Education Services	2.53610	1.14601
6	20	Accommodation and Food and Beverage Services	2.52891	1.14276
7	22	Financial Services	2.47299	1.11749
8	10	Wood Products Industry and Furniture, Bamboo, Rattan, and the Like	2.36234	1.06749

No	Sector Code	Sector	Dispersion Power (DP)	Dispersion Power Index (DPI)
9	8	Food, Beverage, and Tobacco Industry	2.35857	1.06578
10	31	Middle-Income Households - Urban	2.33643	1.05578

Source: Miyazawa Papua Input-Output Table 2013 (processed)

Based on **Table 2**, the sector with the highest dispersion power is the Government Health Services and Social Activities sector, with a value of 3.06411. This indicates that an increase in unit demand for this sector will stimulate an increase in output demand across all economic sectors. In aggregate terms, this expansion will raise total economic output by 3.06411 units.

The second-ranked sector is General Government Services, with a dispersion power value of 3.00922. The Government Education Services sector ranks third, with a value of 2.92045. These findings indicate that government-related service sectors possess strong forward linkage effects, meaning that growth in these sectors significantly stimulates production activities in supporting sectors.

The remaining sectors listed in **Table 2** also exhibit dispersion power values above the average, indicating their capacity to generate intersectoral output expansion through increased final demand.

**Table 3. Ten Largest Sectors According to the Papua Province Sensitivity Index Ranking, 2013**

No	Sector Code	Sector	Degree of Sensitivity (DK)	Sensitivity Index (SSI)
1	32	Upper-Income Households - Urban	9.29425	4.19985
2	5	Fishery	5.14966	2.32701
3	34	Middle-Income Households - Rural	4.38268	1.98043
4	1	Food Crops	4.12809	1.86539
5	15	Trade	3.39391	1.53363
6	33	Low-Income Households - Rural	3.30382	1.49292
7	31	Middle-Income Households - Urban	3.27902	1.48171
8	35	Upper-Income Households - Urban	3.00298	1.35698
9	14	Construction	2.84465	1.28543
10	21	Information and Communication Services	2.61591	1.18207

Source: Miyazawa Papua Input-Output Table 2013 (processed)

From **Table 3**, it can be observed that the three sectors with the highest sensitivity index values in Papua Province in 2013 are, respectively, the Upper-Income Household sector in urban areas, with a sensitivity index of 4.19985; the Fishery sector, with a value of 2.32701; and the Middle-Income Household sector in rural areas, with a value of 1.98043.

A sensitivity index greater than one indicates that the sector has strong backward linkages. This means that the sector is highly responsive to increases in output originating from other sectors. When final demand increases in these sectors, the resulting production expansion will stimulate output growth in downstream sectors through interindustry linkage mechanisms. Consequently, an increase in final demand in these sectors will lead to an overall rise in sectoral output throughout Papua Province's economy.

**Table 4. Ten Largest Sectors According to Output Multiplier Ranking, Papua Province, 2013**

No	Sector	Initial Impact	Direct Effect	Indirect Effect	Type I	Type II	Consumption Impact
1	Accommodation and Food and Beverage Services	1.0000	0.42307	0.17498	1.59805	2.52891	0.93087
2	Food, Beverage, and Tobacco Industry	1.0000	0.44691	0.07781	1.52472	2.35857	0.83385
3	Wood Products Industry and Furniture, Bamboo, Rattan, and the Like	1.0000	0.41651	0.07904	1.49554	2.36234	0.86680
4	Fishery	1.0000	0.33957	0.14531	1.48488	2.57249	1.08761
5	Electricity, Gas, and Clean Water	1.0000	0.36252	0.10792	1.47044	2.02598	0.55540
6	Textile, Apparel, Leather, Leather Goods, and Footwear Industry	1.0000	0.32050	0.09817	1.41868	2.14223	0.72355
7	Private Education Services	1.0000	0.31519	0.09477	1.40996	2.53610	1.12615
8	Land Transportation Services	1.0000	0.26215	0.08008	1.34222	2.19475	0.85252
9	Other Industries	1.0000	0.25654	0.06784	1.32439	2.10296	0.77858
10	Construction	1.0000	0.25430	0.06355	1.31785	1.96504	0.64719

Source: Miyazawa Papua Input-Output Table 2013 (processed)

From these calculations, ten sectors were identified as having the largest Type I output multipliers. The sector with the highest Type I output multiplier is the Accommodation and Food and Beverage Services sector, with a value of 1.59805.

This value indicates that an additional increase of 1 unit in final demand in this sector will generate a total increase in economic output of 1.59805 units. The total increase consists of the initial impact of one unit, combined with direct and indirect impacts distributed across economic sectors.

When associated with government expenditure, an additional allocation of one billion rupiah in this sector is estimated to increase total economic output by 1.59805 billion rupiah.

The direct impact value of 0.42307 implies that an additional 1 billion rupiah in government spending in this sector will generate approximately 423.07 million rupiah in immediate output.

The indirect impact, valued at 0.17498, reflects the effect of industrial support beginning in the second production round. This impact arises from increased demand for intermediate inputs required to sustain production expansion. Thus, an additional one billion rupiah in government spending is estimated to generate 174.98 million rupiah in indirect output growth.

The consumption ripple effect represents the increase in household income resulting from additional final demand, including government expenditure, in the Accommodation and Food and Beverage Services sector or other related sectors. Production activities require not only intermediate inputs but also primary inputs, including labour. Labour receives wages and salaries as compensation for the work it performs.

Because labour supply originates from households, all wages received contribute directly to household income. When household income increases due to expanded sectoral output driven by government spending, household consumption also rises. This mechanism explains how increases in government expenditure ultimately generate broader multiplier effects on the national economy through expanded consumer spending.

## 5. Discussion

An increase in intermediate and primary inputs will accompany this increase in output. This increase in output drives an increase in primary inputs (wages/salaries). Because wages/salaries are a source of household income, changes in final demand in a sector will indirectly increase community income. Increased community income impacts the economy, as well as education and health. Therefore, local governments should direct programs and activities toward the private healthcare sector, as analysis shows it has the largest income multiplier among sectors.

The analysis reveals problems in Papua Province, particularly the slow and uneven progress in human development. Therefore, the Papua Provincial Government must revise its spending patterns, taking this study and other similar studies into account, to establish a solid foundation. Previous research confirms that regional spending significantly impacts economic growth, but economic growth has no significant effect on the quality of human development. This finding indicates that regional spending directly impacts the quality of human development, but is not mediated by economic growth. This means that economic growth cannot yet mediate the influence of regional spending on the quality of human development (Baldacci et al., 2008; Fan et al., 2000; Rajkumar & Swaroop, 2008). This underscores the need for policies that consider equality in development in the fields of education and health in the future.

Government expenditure plays a direct role in improving the quality of human resources, particularly through investments in education, health, and public services. In contrast, government spending that is not strategically allocated may fail to enhance human development outcomes, even when reflected in increases in Gross Regional Domestic Product (GRDP) per capita. Similarly, investment does not automatically translate into improvements in human development quality. In some cases, investment contributes to economic growth without significantly affecting human welfare indicators, suggesting weak transmission from income growth to human development (Baldacci et al., 2008; Ranis et al., 2000; Suri et al., 2011).

Substructure 1 shows that government spending in the education sector and capital expenditure have a positive and significant effect on economic growth, whereas spending in the health sector has a negative effect. Then, substructure II shows that government spending in the education and health sectors, and capital expenditure, have a positive but insignificant effect on the HDI, while economic growth has a positive and significant effect on the HDI. Then, the path

coefficient indicates that economic growth is an intervening variable for government spending in the education sector and capital expenditure on the HDI. This underlines the need for allocation mechanisms and for the realization of North Sulawesi Provincial Government expenditure, especially in the education, health, and capital expenditure sectors, which require closer monitoring, as research indicates that inefficiency and rampant corruption cause the budget function to be off-target.

Expenditure on economic, education, and health functions has a positive and significant effect on the Human Development Index. These three functions influence the Human Development Index through different pathways: the economic and education functions operate through productivity enhancement and human capital formation (Sintong Ariansyah, 2018). This underscores the need to sharpen economic function allocation toward productive sectors that reflect the province's distinct characteristics, so that it can more effectively drive improvements in human development outcomes. However, given its indirect effect on the Human Development Index and its smaller coefficient of influence compared to the other two functions, if the regional government focuses on development, government expenditure on this function should be used more efficiently, or some of it can be diverted to other functions that directly influence development. Provincial governments can consider spending in the health sector to increase development rather than increasing per capita income. Allocations for health should also be sharpened to improve health outcomes and minimize allocations to economic development, as their impact on per capita income is not significant. Allocation of health functions, such as providing basic immunisations, improving nutrition, and providing family planning counselling, must be maintained and increased.

In contrast, health allocations that affect the economy, such as increasing medical personnel salaries and operational health costs, must be minimised and reviewed. If the local government focuses on development, allocations in the health function can be a priority because it has the greatest influence on the Human Development Index among the three functions. It is necessary to redesign the allocation of the education function so that it not only influences per capita income but also directly influences development. Education allocations can be focused on improving the quality of education, such as school rehabilitation, enhanced training and development, and improved educational facilities and infrastructure.

Partially, the regional government's spending by function, including health, housing, and public facilities, through infrastructure (roads and bridges), significantly influences the human development index. Meanwhile, the realization of regional government spending by function, education, does not significantly influence it. However, it also influences the human development index (Halim et al., 2022). This underscores the need for regional governments to take policies, so that regional government spending becomes more effective in increasing the human development index in the health sector, because it has a significant influence on increasing the human development index in Indonesia.

Provincial government spending on education and health does not significantly affect economic growth in Indonesia, whereas spending on infrastructure does. Furthermore, provincial government spending on education and health has a significant impact on poverty levels in Indonesia, whereas spending on infrastructure does not (Wahyudi, 2020). This underscores the need to optimize the budget for mandatory spending in an effort to improve public access to education and health. Given that economic activity requires adequate facilities and infrastructure, the composition of provincial government spending on infrastructure needs to be continuously improved, taking into account its stimulus effects on economic growth and poverty levels in Indonesia.

Government spending on economic, health, education, and infrastructure functions has a statistically significant impact on the human development index. Furthermore, the results of each component of the human development index (life expectancy, average years of schooling, and per capita income) are significant. The government needs to pay attention to spending on education, health, the economy, and infrastructure by increasing capital expenditures for human resource capacity. Furthermore, investment in human capital in the form of research and development is specifically targeted at school dropouts. Meanwhile, anti-corruption enforcement in the public sector must be strengthened to ensure that budget allocations for human resource development are effective and efficient, particularly for human capital development (Murni, 2016; Wardhana et al., 2021). This underscores the need to increase capital spending on human resource capacity, in line with endogenous growth theory, which holds that investment in human capital generates knowledge spillovers that drive economic growth. Human capital investment in the form of research and skills development is an targeted project aimed at school dropouts. Anti-corruption enforcement in the public sector is crucial to ensuring that budget resources for human resource development are effective and efficient, particularly for human capital development.

Government expenditure in the health sector has been shown to have a positive and significant effect on the quality of human resources, particularly through improvements in health outcomes and productivity. However, social assistance programs such as non-cash food assistance often exhibit a positive but statistically insignificant impact on human development outcomes when targeting and implementation mechanisms are weak. Similarly, education assistance programs may produce heterogeneous or even negative short-term effects if institutional capacity and beneficiary selection are not optimal. Empirical studies suggest that while health spending consistently contributes to human capital formation, the effectiveness of social protection and education subsidy programs depends heavily on governance quality and targeting accuracy (Baird et al., 2011; Baldacci et al., 2008; Rajkumar & Swaroop, 2008).

These findings underscore the need to maintain and strengthen effective health programs, particularly in provinces with low human development indicators such as West Papua and Papua. In addition, social assistance programs must improve beneficiary targeting and monitoring systems to ensure that the intended recipients fully benefit from the programs and that fiscal resources translate into measurable improvements in human resource quality.

Empirical findings indicate that government expenditure in the education sector increases GDP by approximately 1.19% in the long term and 1.58% in the short term. Government expenditure in the health sector accounts for 0.37% in the long term and 0.32% in the short term, while agricultural spending accounts for 0.06% in the long term and 0.09% in the short term. Simultaneously, expenditure in the education, health, and agricultural sectors significantly affects GDP in both the short and long run. The Error Correction Term (ECT) coefficient of  $-0.784920$  suggests a relatively rapid adjustment toward long-run equilibrium, with convergence occurring within approximately one year and seven months.

These findings are consistent with empirical evidence showing that sectoral public expenditure – particularly in education and health – plays a crucial role in stimulating economic growth through human capital accumulation and productivity enhancement (Baldacci et al., 2008; Barro, 1991; Fan et al., 2000). This underscores the importance of an active public policy framework that promotes strategic and productive investment to accelerate sustainable economic development (Todaro & Smith, 2020).

Government spending in the health and corruption sectors has a positive and significant influence on the human development index. Meanwhile, government spending in the education

and economic growth sectors has a negative and significant influence on the human development index (Anantika & Sasana, 2020). This underscores the need for increasing per capita income, which will have an impact on improving the quality of the education and public health sectors, which will further increase the human development index in the country, increasing supervision of the use of government allocation funds to minimize corruption that will affect policy making for the welfare of the community.

Government spending on the health sector does not affect the Human Development Index (HDI). Conversely, government spending on the education sector affects the HDI and its components, namely life expectancy, education, and per capita expenditure. This study implies that the management of health and education funds should be optimized to improve human development (Damayanti & Suryaningrum, 2023). This underscores the need to allocate spending in the health and education sectors, not only by increasing budgets but also by focusing on programs that improve human development standards in each region.

Government expenditure in the health sector negatively influences poverty in Indonesia, with a probability of 0.9476. Government expenditure in the education sector has a significant negative effect on poverty in Indonesia, with a probability of 0.0030. Index Expenditure government in the infrastructure sector is positively influential on poverty in Indonesia, with a probability of 0.5756. Index (Hidayat & Azhar, 2022). This underscores the need for government health expenditure to have a negative influence on poverty in Indonesia. This means that when government expenditure on the health sector increases, poverty in Indonesia can decrease; on the other hand, if government expenditure on the health sector decreases, poverty will increase. Expenditure on the government education sector is negatively and significantly influential on poverty in Indonesia. This means the expenditure on the government education sector has a correct influence on poverty in Indonesia. If government expenditure on the education sector increases, then poverty in Indonesia will decrease; on the other hand, if government expenditure on the education sector decreases, then poverty will increase. Expenditure on government infrastructure shows a positive influence on poverty in Indonesia. This means that government spending on infrastructure does not affect poverty in Indonesia. Based on the analysis, if government expenditure on the infrastructure sector increases, poverty in Indonesia will also increase; on the other hand, if government expenditure on the infrastructure sector decreases, poverty will decrease.

Government expenditure in the field of education is negatively influential and not significant to the Human Development Index in Boven Digoel Regency. Meanwhile, government expenditure in the field of health has a positive and significant influence on the Human Development Index in Boven Digoel Regency. However, in a way, simultaneously or together, influential and significant to the Human Development Index (Mahuze et al., 2022). This underscores the need for the government in allocate budget expenditures in improve field education and health in accordance with the laws and regulations in force in the Unitary State of the Republic of Indonesia, namely 20 percent for field education and 15 percent for field health. So that the quality of education and services improves, so that we can produce qualified and empowered human beings, competitive and capable of competing with other areas, in particular, special regions in Papua, and in general, with the rest of Indonesian.

Expenditure government in the sector education has a negative and significant influence on the index of development of people in Indonesia; expenditure government in the sector health has a positive and significant influence on the index of development of humans in Indonesia; and the level of participation force Work has a positive influence, but is not significant, on the index of development of humans in Indonesia. In general, simultaneous expenditure by the

government in the education, health, and workforce participation sectors has a positive and significant influence on the index of human development in Indonesia (Maulina & Andriyani, 2020). This underscores the need for government spending in every sector by implementing targeted policies, so that government spending will consistently increase the HDI in Indonesia.

Government expenditure and economic growth do not have a significant effect on the HDI in Aceh Province. Meanwhile, fiscal decentralization has a positive and significant effect on the HDI in Aceh Province. Simultaneously, government expenditure, economic growth, and fiscal decentralization have a positive and significant effect on the HDI in Aceh Province. The Aceh Government is expected to be more consistent and intensive in improving the HDI through programs focused on economic, health, and education (Putri & Ichsan, 2023). This underscores the need for the Aceh Provincial Government and district/city governments in Aceh Province to be able to implement programs and activities that support improving the quality of health and education, as well as creating jobs for the community, to increase the HDI in districts/cities in Aceh Province, spur regional economic growth and increase PAD by creating a conducive investment climate (security, licensing, incentives, etc.), and improve the performance of Regionally-Owned Enterprises (BUMD).

Government expenditure yielded a significant multiple linear regression analysis of 12,478 points, with the Education sector as the most influential (11.13 points), followed by the Health sector (0.73 points) and the Economic sector (0.018 points). It was concluded that there is an influence of government expenditure on the growth of the Human Development Index (HDI), with expenditure in the Education sector emerging as the most influential factor in driving growth in Paser Regency (Renaldi & Agustina, 2024). This underscores the need to review budget execution in Paser Regency to more efficiently absorb funds. Although government expenditure in all sectors contributes to the growth of the HDI, the Education sector has been shown to have the greatest impact, so better monitoring and a more balanced distribution of expenditure between sectors are needed to avoid over-reliance on a single sector.

Increased government spending in the education and health sectors is followed not only by an increase in the Human Development Index (HDI) but also by a decrease in the percentage of people living in low-income households. Interestingly, this study shows that the HDI is more often a “pure moderator” than an intervening variable. This concludes that the HDI strengthens the relationship between government spending on education, health, and poverty alleviation. Consequently, government spending on the education and health sectors does not directly affect poverty alleviation (Widodo et al., 2011). This underscores the need for government spending in the public sector to provide basic capacities such as education and health for its people, especially people experiencing poverty. Proportional fiscal policy is crucial for local governments to implement.

Simultaneously, the variables of employee expenditure, goods & services expenditure, and capital expenditure have a significant effect on improving the quality of human resources, as measured by the human development index (HDI) in Papua Province. The regression results show that 99.9011%. This means that 99.9011% of the variation in the Human Development Index (HDI) in 29 Regencies/Cities in Papua Province can be explained by the independent variables (employee expenditure, goods & services expenditure, and capital expenditure). Other variables outside the model explain the remaining 0.099%. Partially, the variables of goods & services expenditure and capital expenditure have a positive and significant effect on improving the quality of human resources in Papua Province, as indicated by the HDI. While employee expenditure has a positive but insignificant effect on the quality of human resources in Papua Province, as indicated by the HDI (Kreuta et al., 2020). This underlines the need to

increase and maximize the allocation of employee, goods & services, and capital expenditure so that the Regency or City can improve the quality of human resources, as reflected in the human development index figures.

The impact of all government spending on human development is projected by the Human Development Index (HDI). Furthermore, other research indicates that total government spending positively affects average years of schooling (an education indicator), life expectancy (a health indicator), and per capita income (Wardhana et al., 2021). This underscores the need to strengthen infrastructure and health spending in line with each region's needs, and to evaluate government spending in other sectors to achieve a more effective allocation that improves public welfare.

## 6. Conclusion

This study analyses the impact of government expenditure on improving the quality of human development in Papua Province. The analysis places particular emphasis on how public spending allocation influences sectoral performance, income generation, employment absorption, and ultimately human development outcomes within the regional economy.

The findings indicate that government spending at both the provincial and district/city levels has not yet fully complied with the mandates stipulated in the Education Law and the Papuan Special Autonomy Law, especially regarding expenditure allocations for human development sectors. This condition suggests that fiscal policy implementation has not been optimally aligned with regulatory requirements intended to accelerate improvements in education, health, and broader welfare indicators.

The impact of government expenditure on improving the quality of human development in Papua Province can be observed through the multiplier analysis results. The Accommodation and Food and Beverage Services sector has the largest output multiplier, at 2.52891. This indicates that increases in government spending in this sector generate substantial expansion in total economic output. Furthermore, the sector with the largest income multiplier is the Private Health Services sector, with a value of 4.47032, reflecting its strong capacity to generate household income. Meanwhile, the Food Crops sector demonstrates the highest labour absorption capacity, with a workforce coefficient of 0.14509, highlighting its strategic role in employment creation.

These findings imply that regional governments need to restructure their expenditure patterns by placing greater priority on education and infrastructure as strategic drivers of human development. Strengthening investment in these sectors is essential to improve the quality of human capital and expand access to basic services. In addition, research-based policymaking must be reinforced, as development decisions grounded in empirical evidence are more likely to produce targeted, efficient, and sustainable policy outcomes.

Finally, a strong and consistent commitment between provincial and district or city governments is essential to create effective development synergy. Human development objectives will be difficult to achieve without sustained coordination, fiscal alignment, and policy consistency across levels of government. Long-term commitment, therefore, becomes a critical prerequisite for ensuring that public expenditure translates into measurable improvements in human development quality.

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## 8. Declaration of Conflicting Interests

The authors declare that they have no financial or personal affiliations that could have influenced the research or findings presented in this article.

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