

The Influence of Capital Expenditure, Farmer Exchange Rate, and Economic Growth on The Human Development Index in Jambi Province Districts/Cities

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ABSTRACT

This research aims to analyze the effects of capital expenditure, farmers' exchange rates, and economic growth on the Human Development Index in the districts/cities of Jambi Province during the period 2020–2024. The research method used is panel data regression consisting of CEM, FEM, and REM models, with Chow test, Hausman test, and Lagrange multiplier test approaches. The model selection results indicate that the FEM model shows that farmers' exchange rates and economic growth have a significant effect on the human development index. In contrast, the capital expenditure variable does not have a significant effect on the human development index of the districts/cities of Jambi Province during the years 2020-2024. These results suggest that improvements in farmers' purchasing power and inclusive economic growth play a more direct role in enhancing human development outcomes than aggregate capital spending. The study highlights the importance of strengthening agricultural welfare policies and promoting inclusive regional growth to improve human development performance, particularly in agrarian-based regions.

Keywords: capital expenditure, farmers' exchange rate, economic growth, and human development index

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1.0 INTRODUCTION

The government, as the executor of development, certainly needs quality human capital as the basic capital for development. To produce quality individuals, efforts are needed to improve human resource quality. The quality of individuals can be measured through the Human Development Index. (Purnamawati, 2021) states that enhancing human quality can be fulfilled through various policies, namely that education development will take into account the direction of economic development in the future, health development will receive attention by instilling a healthy lifestyle culture and expanding the scope and quality of health services, for the poor, quality improvement is achieved by providing practical skills, fostering a productive attitude, and encouraging the spirit of self-reliance and independence to jointly free themselves from poverty while suppressing population growth by improving the implementation of family planning movements, and enhancing the balance of population density and distribution.

The Human Development Index (HDI) measures human development achievements based on several basic components of quality of life. The Human Development Index (HDI) is calculated based on data that can reflect the four components, namely the achievement of long and healthy life representing the health sector, literacy rates, school participation, and average duration of schooling measuring the performance of education development, and the purchasing power of the community for several basic needs viewed from the average per capita expenditure as an income approach (BPS, 2018).

The Human Development Index (HDI) serves as a tool to measure the success of human development, which is assessed based on the fundamental components of quality of life, namely Life Expectancy Index, Education Index, and Decent Standard of Living Index. With improvements in human development, countries will experience progress and growth (Hasyim, 2017). The government policy is to allocate funds in the form of capital expenditure in the Regional Budget (APBD) in the hope of enhancing community welfare. According to Halim & Kusufi (2013), capital expenditure is the regional government's spending that will add assets or regional wealth; capital expenditure is one of the ways to realize the goals of regional autonomy, which are to improve welfare and enhance services to the community by providing facilities directly related to public services.

According to Rostow and Mugrave (Setiawan & Budiana, 2015), who connect government expenditure development with stages of economic development, distinguishing between early, intermediate, and advanced stages. At the subsequent economic levels, Rostow states that government activities shift from infrastructure provision to expenditures on social activities such as elderly welfare and healthcare service programs. The impact of community capital expenditure is further clarified by Wagner's law in the economy, which states that as per capita income increases, government expenditure will also increase relatively (Setiawan & Budiana, 2015).

The increase in the Human Development Index is in line with the rising terms of trade for farmers, thus meeting a person's basic needs. The Terms of Trade for Farmers (NTP) is an indicator used to measure the welfare level of farmers based on the comparison between the price index received by farmers (I_t) and the price index paid by farmers (I_b). In simple terms, NTP indicates the purchasing power of farmers; if NTP is above 100, it means farmers are experiencing a surplus because the prices they receive from agricultural products are higher than their household consumption and production costs. Conversely, if the NTP is below 100, then farmers experience a deficit or a decline in purchasing power. NTP is an important tool for the government and policymakers to assess the economic condition of the agricultural sector and to establish appropriate strategies to improve farmers' welfare, especially in facing the dynamics of fluctuating commodity prices and production costs. (Andriany et al., 2025b).

Economic growth is the process of increasing the production capacity of a country or region, as reflected in the sustained increase in Gross Domestic Product (GDP) or Gross Regional Domestic Product (GRDP) over time. This growth indicates an economy's ability to create additional goods and services, thereby enhancing society's income and overall well-being (Mankiw, 2013). In practice, economic growth is often used as a key indicator to assess the success of a country's development, as it reflects increased economic activity, job creation, and improved people's purchasing power.

The impact of economic growth on the Human Development Index (HDI) is very significant, as both are closely interconnected (Primandari, 2020). The HDI is a composite indicator that measures human development achievements from three main dimensions: health (life expectancy), education (mean years of schooling and expected years of schooling), and standard of living (per capita income). Positive economic growth can increase per capita income, which in turn enables the government and society to improve access to better healthcare, education, and nutrition services. Therefore, inclusive and sustainable economic growth will drive improvements in the quality of life of the population, as reflected in the increase in HDI values. However, it is important to note that uneven or non-inclusive economic growth can worsen social inequalities, thus making its impact on HDI suboptimal. Therefore, it is important for the government to ensure that the results of economic growth can be widely enjoyed by all layers of society so that it truly has a positive impact on improving the quality of human development.

The Human Development Index (HDI) in Jambi Province describes the quality of life of the community, which includes aspects of health, education, and income. The Human Development Index (HDI) of Jambi, which measures the extent to which people in the province can access basic services and live decently, has continued to improve in recent years. The education sector in Jambi, one of the main indicators in measuring the HDI, has improved through increases in expected years of schooling and literacy rates. Meanwhile, the health sector, as reflected in life expectancy, also shows positive developments, although it still faces challenges related to access and the quality of healthcare services in remote areas. However, despite the progress, the gap between regions, especially between urban and rural areas, remains a major issue that needs to be addressed to achieve a more equitable Human Development Index (HDI). With ongoing efforts in education, health, and economics, the HDI of Jambi Province is expected to continue improving, providing a better quality of life for all levels of society.

Capital expenditure, farmer exchange rates, and economic growth are expected to improve the community's quality of life. Government capital expenditure on infrastructure and public facility development directly impacts progress in the health, education, and economic sectors, which are the main components in calculating the Human Development Index (HDI). A stable and favorable foreign exchange rate increases farmers' purchasing power, which improves their welfare, especially in rural areas. Meanwhile, positive economic growth accelerates job creation, increases community income, and expands access to education and healthcare services. These three factors interact to improve quality of life and increase the Human Development Index (HDI) in an area. Thus, policies that support effective capital expenditures, strengthen farmers' exchange rates, and encourage inclusive economic growth are crucial in enhancing the HDI and the overall welfare of the community.

Despite extensive studies examining the relationship between government expenditure, economic growth, and human development, empirical findings remain inconclusive, particularly at the subnational level. Previous studies tend to focus on aggregate national data or single explanatory variables, with limited attention given to the combined role of capital expenditure, farmer welfare indicators, and economic growth within a regional panel data framework. Moreover, empirical evidence on the Human Development Index at the district and city level in agrarian-based provinces such as Jambi remains scarce. This study addresses this gap by simultaneously examining these three determinants using recent panel data, thereby providing region-specific insights that can inform more targeted development policies.

2.0 LITERATURE REVIEW

Human Development Index

The United Nations Development Program (UNDP) defines human development as a process of expanding choices for the population. In this concept, the population is placed as the ultimate end, while development efforts are viewed as the principal means to achieve that goal.

Capital Expenditure

Capital expenditure is local government spending whose benefits extend beyond one fiscal year and increase the region's assets or wealth, subsequently adding routine expenses such as maintenance costs within the general administrative expenditure group (Hanafi & Halim, 2012). Capital expenditure for each district/city can be seen in the Realization Report of the Regional Budget (APBD).

Farmer Exchange Rate

The farmers referred to in the concept of the farmer exchange rate by the Central Statistics Agency are farmers who operate in the food crop sub-sector (rice and secondary crops), horticulture (vegetables, fruits, ornamental plants, and medicinal plants), smallholder plantation crops (coconut, coffee, cloves, tobacco, and kapok), livestock farmers (large livestock, small livestock, poultry, and livestock products as well as the fisheries sub-sector both capture fisheries and aquaculture).

Economic Growth

According to Mankiw (2013), the theory of economic growth explains the factors that determine economic growth and its processes in the long term, including how these factors interact with each other to produce growth.

Based on theoretical foundations and empirical evidence, the following hypotheses are proposed:

- **H1:** Capital expenditure has a significant effect on the Human Development Index in districts/cities of Jambi Province.
- **H2:** Farmer exchange rates have a positive and significant effect on the Human Development Index in districts/cities of Jambi Province.
- **H3:** Economic growth has a positive and significant effect on the Human Development Index in districts/cities of Jambi Province.

3.0 METHODOLOGY

The research method is designed with the operationalization of variables, determining the type and source of data, data collection or research methods, and the research model, which ends with data design, data analysis, and hypothesis testing. When conducting research, researchers require methods, ways, or tactics. In other words, these are the necessary steps for researchers to solve problems to achieve their goals. The method used in this research is a quantitative descriptive method.

Panel data regression is a statistical analysis method used to process data that has both time series and cross-sectional dimensions simultaneously. In panel data regression, there are three main approaches that are often used, namely the fixed effect model (Fixed Effect Model/FEM), the random effect model (Random Effect Model/REM), and ordinary least squares panel data regression (Pooled OLS).

The selection of the appropriate model in panel data regression is usually carried out through specific tests, such as the Chow test to compare Pooled OLS with the Fixed Effect Model, the Hausman test to choose between the Fixed Effect Model and the Random Effect Model, and the Breusch-Pagan test to determine whether the random effects model is more suitable than Pooled OLS. If the Chow test indicates that the fixed effects model is better than Pooled OLS, then FEM is recommended. Furthermore, if the Hausman test indicates that the fixed effects model is more appropriate than the random effects model, then FEM is prioritized. However, if the assumptions in the Hausman test are not met, then REM can be used as it provides more efficient estimates. Thus, panel data regression allows for more accurate and comprehensive analysis of the relationships between variables in economic, social, and various other fields of research.

In this study, the independent variables are capital expenditure, farmer exchange rates, and economic growth, while the dependent variable is the human development index. To determine the research results on the research objectives

regarding the human development index in the districts/cities of Jambi Province, the following panel data regression equation is used :

$$HDI_{it} = \beta_0 + \beta_1 GCE + \beta_2 TERF + \beta_3 EG + \varepsilon_{it}$$

Captions :

β_0	=	intersep,
β_1 dan β_2	=	the suspected parameter that describes the relationship between independent variables and dependent variables,
ε_{it}	=	Error Term,
GCE_{it}	=	Government Capital Expenditure in province i during period t,
$TERF_{it}$	=	The exchange rate of farmers in province i during period t,
EG_{it}	=	Economic growth in province i during period t,
HDI_{it}	=	Human Development Index in province i during period t,

Analysis of the coefficient of determination (R^2)

The coefficient of determination (R^2) is used to determine the extent of the influence of independent variables on the dependent variable. The coefficient of determination (R^2) is essentially a measure of the accuracy of the regression model. If R^2 approaches 1, the model is reasonable, indicating that the independent variables are closely related to the dependent variable. A good model is one that minimizes residues. In other words, changes in independent variables can explain the dependent variable with α greater than 0.75 (Ghozali, 2018), thus creating a high correlation between the dependent variable and the independent variable. However, the model may contain coefficients of determination that support independent variables. Every time you add an independent variable, R^2 increases (having a significant t value) regardless of whether the variable has a significant effect on the dependent variable or not.

Statistical Test F

The F-test examines the influence of independent variables collectively on the dependent variable. In the context of panel data, the F-statistic is used to analyze regression models involving data from several individuals or entities observed over a certain period of time. Panel data combines two dimensions: the time dimension and the individual dimension.

Statistical Test t

Used to test the significance of the independent variable on the dependent variable of the t-statistical equation (Ghozali, 2018). If statistically significant, it indicates that the independent variable has a partial effect on the dependent variable. This study adopts a 10 percent significance level ($\alpha = 0.10$), which is commonly applied in regional and development economics studies involving limited observations and heterogeneous regional characteristics. Given the relatively short observation period and cross-sectional variation across districts and cities, using a 90 percent confidence level is considered appropriate to capture meaningful socio-economic relationships without increasing the risk of Type II errors.

4.0 FINDINGS AND DISCUSSION

This section will explain how capital expenditure, the farmer's exchange rate, and economic growth affect the Human Development Index in the districts/cities of Jambi Province for the years 2020-2024, utilising panel data regression analysis. This involves time series data for the years 2020-2024 and cross-sectional data from 11 districts/cities in Jambi Province. The estimation results of the panel data equation regarding the influence of capital expenditure, the farmer's exchange rate, and economic growth on the Human Development Index in the districts/cities of Jambi Province for the years 2020-2024 are as follows:

Table 1

Results of Fixed Effects Model Estimation (FEM)

VARIABLE	COEFFICIENT	STD. ERROR	T-STATISTIC	PROB.
C	70.84724	0.811396	87.31525	0.0000
GCE?	-6.75E-06	1.45E-05	-0.466059	0.6436
TERF?	0.011632	0.006689	1.738979	0.0895
EG?	0.078291	0.040208	1.947168	0.0584
Fixed Effects (Cross)				
_KERINCI--C	0.320670			
_MERANGIN--C	-1.687952			
_SAROLANGUN--C	-0.416249			
_BATANGHARI--C	-0.908491			
_MUARIJAMBI--C	-1.422760			
_TANJABTIM--C	-4.051191			
_TANJABBAR--C	-2.096914			
_TEBO--C	-1.550377			
_BUNGO--C	0.106938			
_KOTAJAMBI--C	7.644489			
_SUNGAIPENUH--C	4.061836			
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.976018	Mean dependent var		72.66345
Adjusted R-squared	0.968414	S.D. dependent var		3.186628
S.E. of regression	0.566345	Akaike info criterion		1.916102
Sum squared resid	13.15060	Schwarz criterion		2.427060
Log likelihood	-38.69281	Hannan-Quinn criter.		2.113694
F-statistic	128.3539	Durbin-Watson stat		2.375608
Prob(F-statistic)	0.000000			

Source: Processed Data, Eviews 9 (2025)

Based on the results of the capital expenditure estimation in Table 1, the explanation of each variable in the study can be determined, namely the influence of capital expenditure, farmers' exchange rate, and economic growth on the human development index in regencies/cities in Jambi Province from 2020 to 2024 can be explained by the following model equation:

$$\text{HDI}_{it} = 70,84724 - 0,0000675 \text{ GCE}_{it} + 0,011632 \text{ TERF}_{it} + 0,078291 \text{ EG}_{it} + e$$

Based on the Model Equation above, it can be explained that the estimate for the Fixed effect indicates that if there are changes in Capital Expenditure, Farmers' Exchange Rate, and Economic Growth both across regions and over time, then the constant value is 70.84724. This means that if Capital Expenditure, Farmers' Exchange Rate, and Economic Growth remain unchanged, the Human Development Index in Jambi Province for the years 2020-2024 will be 70.84724.

The coefficient value of capital expenditure is -0.0000675, but its coefficient cannot be explained because this variable does not have an impact on the human development index. This insignificance indicates that changes in capital expenditure do not have a significant effect on changes in the HDI. This could be due to several factors, such as misallocation of capital expenditure, low effectiveness of budget usage, or the time lag in realizing the impact of capital expenditure, which requires a longer period. Thus, although capital expenditure theoretically has the potential to improve human development, in the context of this research, its contribution is not visibly significant to changes in the HDI.

The coefficient value of the farmer exchange rate is 0.011632 and other variables remain constant, which means that when the farmer exchange rate increases by one, the human development index of districts/cities in Jambi Province experiences an increase of 0.011632. This is because the farmer exchange rate reflects the welfare level of farmers, who are a significant part of the population in that area. When the farmer exchange rate rises, the purchasing power and real income of farmers also increase, giving them better access to education, health, and other basic needs. This condition directly contributes to the improvement of the main components of the Human Development Index (HDI), such as life expectancy, average years of schooling, and per capita expenditure. Therefore, the increase in the farmer exchange rate reflects an improvement in the quality of life of rural communities, which positively impacts the overall increase in HDI.

The coefficient of economic growth is valued at 0.078291 and with other variables held constant, it can be interpreted that when economic growth increases by one percent, the human development index of districts/cities in Jambi Province experiences an increase of 0.078291. This is because economic growth reflects an increase in production capacity and regional income that can be used to finance various development sectors, including education, health, and infrastructure. With the increase in economic growth, job opportunities and public income also tend to rise, which ultimately encourages improved welfare and quality of life for the community. The improvement in access to and quality of public services driven by economic growth also supports the achievement of components of the HDI, such as life expectancy, average years of schooling, and per capita expenditure. Therefore, positive economic growth directly contributes to the improvement of the HDI.

Coefficient of Determination

Based on the results of the estimation of capital expenditure using the FEM model, it is obtained that the R-Squared value is 0.976018, which means that the variables of capital expenditure, exchange rate of farmers, and economic growth influence the human development index of regencies/cities in Jambi Province by 97.60 percent, while 2.4 percent is influenced by other variables outside this study.

Hypothesis Testing

Hypothesis testing is a statistical method used to test assumptions or claims about a population based on sample data. The goal is to determine whether there is enough evidence in the data to support a particular hypothesis, with the results explained as follows.:

Statistic Test F

Based on the results of the estimation of capital expenditure using the FEM model, it was found that the value of Prob (f statistic) $0.00000 < 0.1$, which means H_0 is rejected and H_a is accepted, indicating that the test collectively shows that capital expenditure, the exchange rate of farmers, and economic growth together have a significant effect on the human development index of districts/cities in Jambi province.

Statistic Test t

To test the significance of the influence of Capital Expenditure, Farmer Exchange Rate, and Economic Growth on the Human Development Index of districts/cities in Jambi Province partially, a t-statistic test was used. The t-statistic test is useful for assessing the magnitude of the influence of each independent variable on the dependent variable partially. A confidence level of 90 percent with a probability of 0.1 can be seen in the following table.:

Table 2

Value of t Statistic in FEM Method

VARIABLE	PROB.	DESCRIPTION
Capital expenditure (GCE)	0.3989	Not Significant
Farmer exchange rate (TERF)	0.0895	Significant
Economic growth (EG)	0.0584	Significant

Source: Processed Data, Eviews 9 (2025)

Based on Table 2, it can be explained that the results of the t-test statistics show that, looking at the Prob value of 0.3989, since $\text{Prob} > 0.1$, H_0 is accepted and H_a is rejected. This indicates that capital expenditure does not have a significant effect on the human development index of districts/cities in Jambi Province. Looking at the Prob value of 0.0895, since $\text{Prob} < 0.1$, H_0 is rejected and H_a is accepted. This indicates that the farmer's exchange rate has a positive and significant effect on the human development index of districts/cities in Jambi Province. Looking at the Prob value of 0.0584, since $\text{Prob} < 0.1$, H_0 is rejected and H_a is accepted. This indicates that economic growth has a positive and significant effect on the human development index of districts/cities in Jambi Province.

4.1 The influence of capital expenditure on the Human Development Index

Based on the research findings, capital expenditure does not have a significant effect on the human development index of regencies/cities in Jambi Province. This result is in agreement with the research conducted by (Simamora et al., 2024) which states that capital expenditure does not significantly affect the human development index. This indicates that capital expenditure in regencies/cities of Jambi Province has not yet been able to spur the rate of the human development index of regencies/cities in Jambi Province.

In theory, capital expenditure has a significant influence on the Human Development Index (HDI) because capital expenditure is usually used for projects that support the improvement of the quality of life of the community, such as infrastructure, education, and health (Setiawan & Budiana, 2015). The HDI is an indicator that reflects the level of community welfare, which includes three main dimensions: life expectancy, education, and standard of living. An increase in capital expenditure in these sectors can enhance all three dimensions, which in turn increases the HDI value of a country or region. For example, investment in the health sector through the construction of hospitals, community health centers, or public health programs can increase life expectancy, one of the main components in the calculation of the HDI. The lack of influence of capital expenditure in the districts/cities of Jambi Province on the human development index is due to the fact that the realization of capital expenditure across all districts/cities in Jambi Province is still very low, and the districts/cities in Jambi Province heavily rely on transfer funds from the central government or other sources of income from outside the region, such as export commodities or national projects. Therefore, capital expenditure may not provide an accurate picture of the local human development index potential.

The lack of influence of capital expenditure in the districts/cities of Jambi Province on the Human Development Index (HDI) is caused by several interrelated factors. First, the allocation of capital expenditure in many areas has not been focused on strategic sectors that directly affect the improvement of HDI, such as education, health, and the improvement of community living standards. Most of the capital expenditure budget is actually used for the development of physical infrastructure such as roads, drainage, and government offices that do not directly improve the quality of human resources. Second, the implementation of projects funded by capital expenditure is often less effective and efficient, from planning, implementation, to supervision, so the benefits of such development are not felt maximally by the community. Third, there is a gap in the equitable distribution of development between regions, especially between urban and rural areas, so the impact of capital expenditure on improving the Human Development Index (HDI) tends to be unbalanced. In addition, weak coordination between agencies and minimal community participation in the development planning process also hinder the achievement of human development goals. On the other hand, the realization time for the impacts of capital expenditure usually takes a relatively long time, so it is not seen in the short term when measuring the HDI.

4.2 The influence of farmers' exchange rates on the Human Development Index

Based on the research results, it is found that the farmer exchange rate has a positive and significant effect on the human development index of districts/cities in Jambi Province. This finding is in agreement with the study conducted by (Wiryawan et al., 2024) which states that there is a positive relationship between the farmer exchange rate and the HDI. This indicates that if the farmer exchange rate increases, the human development index can also improve. A high farmer exchange rate shows that farmers' income is relatively larger compared to their consumption and production expenditures, thereby increasing farmers' welfare. When farmers' income increases, they have a better economic capacity to meet basic needs such as education and health. This directly impacts the components of the Human Development Index (HDI), namely education (average length of schooling and expected years of schooling), health (life expectancy), and the purchasing power of the community. The increase in farmers' exchange rates must be accompanied by policies that support the sustainability of the agricultural sector so that its influence on the HDI can be optimal.

The impact of the Farmer's Exchange Rate on the Human Development Index (HDI) is due to the close relationship between farmers' welfare and the improvement of the community's quality of life, especially in areas dependent on the agricultural sector such as districts/cities in Jambi Province. The Farmer's Exchange Rate reflects the purchasing power and welfare level of farmers; the higher the farmer's exchange rate, the greater the farmers' ability to meet basic needs such as food, education, and health. When the farmer's exchange rate increases, farmers' income also increases, allowing them better access to educational services for their children and family health facilities.

The increase in the farmer's exchange rate also affects the increase in the purchasing power of the rural community as a whole, which ultimately drives local economic circulation and strengthens the socio-economic resilience of the community. On the other hand, with the increased welfare of farmers, the likelihood of urbanization or migration of people to the city can be reduced because the community feels sufficiently prosperous in the village. This also has a positive impact on social stability and equitable development among regions.

In addition, more prosperous farmers tend to have more time and resources to participate in social and community education activities, thus contributing to improvements in education and health indices, which are key components of the Human Development Index (HDI). Therefore, an increase in the Farmers' Exchange Rate significantly encourages improvements in HDI, especially in areas where the economy heavily relies on the agricultural sector.

4.3 The influence of economic growth on the Human Development Index

Based on the research findings, economic growth has a positive and significant impact on the human development index of districts/cities in Jambi Province. This result aligns with Primandari (2020) and Retnasari & Cahyono (2015), who stated that economic growth does not influence the human development index.

The influence of economic growth on the Human Development Index (HDI) is due to the growing economic capacity to provide greater resources and opportunities to enhance the quality of life for the community. Positive economic growth reflects an increase in overall output and income for the community. With the increase in regional revenue, the government has a wider fiscal space to allocate the budget to strategic sectors such as education, health, and social protection which directly affect the Human Development Index (HDI). In addition, economic growth creates more job opportunities and reduces unemployment rates, thereby encouraging an increase in public purchasing power. Communities with adequate income are more likely to access quality education and health services, two main components in the measurement of HDI.

On the other hand, equitable economic growth also allows for the distribution of development across regions, thereby reducing social disparities and enhancing inclusive welfare. A growing economy encourages increased investment in various sectors, including social infrastructure such as hospitals, schools, and public transportation, which supports the mobility and productivity of the community. Thus, sustainable and inclusive economic growth becomes one of the main

drivers in improving the Human Development Index (HDI) by enhancing the socio-economic conditions of the community and strengthening human development capacity in the region.

5.0 CONCLUSION

Based on the research results, it shows that the t-test results or partial test results indicate that the variables of farmers' exchange rate and economic growth have a significant effect on the human development index. While the variable of capital expenditure does not have a significant effect on the human development index of regencies/cities in Jambi Province during the years 2020-2024. The recommendation given is that although capital expenditure does not significantly affect the HDI during the research period, local governments still need to evaluate the effectiveness and efficiency of its use. Capital expenditure should be focused on sectors that directly contribute to improving the quality of life, such as education, health, and basic infrastructure. Considering that the exchange rate of farmers has been proven to significantly affect the Human Development Index (HDI), there is a need for serious efforts to strengthen the position of farmers. This includes stabilizing prices of agricultural products, access to technology, capital, and strengthening supply chains and marketing of agricultural products. The district/city government needs to create a conducive investment climate, develop local potential, and expand quality job opportunities to encourage sustainable economic growth and have a real impact on the welfare of the community.

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7.0 CONFLICT OF INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in the paper.

8.0 AUTHOR CONTRIBUTION STATEMENT

Author 1 contributed to the conceptualization, research design, and writing of the original draft.

Author 2 was responsible for data collection, analysis, and validation of the results.

Author 3 provided supervision, critical review, and editing of the final manuscript.

All authors have read and approved the final version of the manuscript.

9.0 ETHICS STATEMENT

This research was conducted in accordance with the ethical standards of University of Jambi and adhered to the principles outlined in the Declaration of Helsinki. Ethical approval was obtained from the [**Institutional Ethics Committee/Review Board**] under reference number [**Approval Number, if applicable**]. All participants were informed about the purpose of the study and provided written informed consent prior to participation. Participants' privacy and confidentiality were strictly maintained, and data collected were used solely for academic purposes.

REFERENCES

- Andriany, V., Elfadhli, & Fernando, G. (2025a). Nilai tukar petani dan pertumbuhan ekonomi terhadap indeks pembangunan manusia di Sumatera Barat: Studi kuantitatif 2010–2022. *JPRO*, 6(1), 111–121.
- Andriany, V., Elfadhli, & Fernando, G. (2025b). Pengaruh nilai tukar petani dan pertumbuhan ekonomi terhadap indeks pembangunan manusia di Provinsi Jawa Timur. *JPRO*, 6(1), 1–6.
<https://jurnalmahasiswa.unesa.ac.id/index.php/jupe/article/view/12545>
- Bahri, S. (2018). *Metode penelitian bisnis: Lengkap dengan teknik pengolahan data SPSS*. ANDI.
- Badan Pusat Statistik. (2018). *Data dan informasi kemiskinan kabupaten/kota tahun 2018*. Badan Pusat Statistik.
- Darwin, D., Madris, & Fatmawati. (2022). The influence of government expenditure in the health sector, education sector, and capital expenditure on the human development index in South Sulawesi Province. *Enrichment: Journal of Management*, 12(5), 3758–3767. <https://enrichment.iocspublisher.org/index.php/enrichment/article/view/853>
- Dewi, A. (2006). *Kajian penerapan akuntansi biaya pada anggaran belanja daerah Kota Singkawang* [Unpublished undergraduate thesis]. Universitas Islam Indonesia.
- Dewi, N., Yusuf, Y., & Iyan, R. Y. (2017). Pengaruh kemiskinan dan pertumbuhan ekonomi terhadap indeks pembangunan manusia di Provinsi Riau. *JOM Fekon*, 4(1), 870–882.
- Ghozali, I. (2018). *Aplikasi analisis multivariate dengan program IBM SPSS 25*. Universitas Diponegoro.
- Gunawan, R., Yarsah, W. N., & Arsyah, T. D. (2022). Pertumbuhan kemiskinan dan upah minimum regional terhadap indeks pembangunan manusia. *PARETO: Jurnal Ekonomi dan Kebijakan Publik*, 5(1), 125–142.
- Halim, A., & Kusufi, M. S. (2013). *Akuntansi sektor publik: Akuntansi keuangan daerah*. Salemba Empat.
- Hanaf, M., & Halim, A. (2012). *Analisis laporan keuangan*. UPP STIM YKPN.
- Hastanti, E. S., & Ariani, K. R. (2023). Pengaruh pendapatan asli daerah dan luas wilayah terhadap indeks pembangunan manusia (IPM) dengan belanja modal sebagai variabel intervening pada pemerintah daerah Provinsi Jawa Timur. *Journal Universitas Muhammadiyah Surakarta*, 1(1).
- Hasyim, A. I. (2017). *Ekonomi makro*. Prenada Media Group.
- Huda, N. (2015). *Ekonomi pembangunan Islam*. PT Adhitya Andrebina Agung.
- Ibrahim, Z. (2016). *Pengantar ekonomi makro*. Koperasi Syariah Baraka.
- Khikmah, Z., Sarfiah, S. N., & Prasetyanto, P. K. (2020). Pengaruh kemiskinan, pertumbuhan ekonomi, dan belanja modal terhadap indeks pembangunan manusia di Pulau Sulawesi tahun 2011–2018. *Directory Journal of Economic*, 2(4), 1127–1142.
- Kiha, E. K., Seran, S., & Seuk, G. (2021). Pengaruh inflasi, produk domestik regional bruto, dan upah minimum regional terhadap indeks pembangunan manusia Provinsi Nusa Tenggara Timur. *INVEST: Jurnal Inovasi Bisnis dan Akuntansi*, 2(1), 41–56. <https://doi.org/10.55583/invest.v2i1.128>
- Latifah, N. (2017). Pertumbuhan ekonomi dan indeks pembangunan manusia terhadap tingkat pengangguran terbuka dan dampaknya pada jumlah penduduk miskin di Kota Manado (2006–2015). *Jurnal Ekonomi*, 17(2).
- Mankiw, N. G. (2013). *Pengantar ekonomi makro*. Salemba Empat.
- Murbanto Sinaga, & Zalukhu, R. S. (2022). The impact of poverty and capital expenditure on the human development index in North Sumatra. *International Journal of Economics and Management Research*, 1(1), 109–121.
<https://doi.org/10.55606/ijemr.v1i1.88>
- Nasution, Z., Rizal, K., & Lubis, J. (2021). Farmer exchange rate, government expenditure on education and health, and the human development index in North Sumatera Province. *Journal of Agri Socio-Economics and Business*, 3(1), 21–32. <https://doi.org/10.31186/jaseb.3.1.21-32>
- Nordiawan, D. (2010). *Akuntansi sektor publik*. Salemba Empat.

- Nuroso, W., & Hidayat, R. (2024). Analisis pengaruh PDRB per kapita, upah minimum, penyerapan tenaga kerja, dan jumlah penduduk miskin terhadap indeks pembangunan manusia di Provinsi Jawa Barat tahun 2017–2020. *Ekonomikawan: Jurnal Ilmu Ekonomi dan Studi Pembangunan*, 24(1), 89–101. <https://doi.org/10.30596/ekonomikawan.v24i1.18551>
- Pinem, A. A., Saleh, M., & Effendy, A. S. (2021). The effect of profit-sharing fund, export value, and capital expenditure investment on economic growth and unemployment in East Kalimantan. *International Journal of Entrepreneurship and Business Development*, 4(5), 689–699. <https://doi.org/10.29138/ijebd.v4i5.1472>
- Primandari, N. R. (2020). Pengaruh pertumbuhan ekonomi dan pengangguran terhadap indeks pembangunan manusia (IPM) di Provinsi Sumatera Selatan periode 2004–2018. *PARETO: Jurnal Ekonomi dan Kebijakan Publik*, 2(2), 25. <https://doi.org/10.32663/pareto.v2i2.1020>
- Purnamawati, I. G. A. (2021). *Ekonomi makro: Teori dan kebijakan*. PT RajaGrafindo Persada.
- Riduwan. (2012). *Cara menggunakan dan memaknai path analysis*. Alfabeta.
- Sanusi, A. (2018). *Metodologi penelitian bisnis* (4th ed.). Salemba Empat.
- Setiawan, G. B. K. P., & Budiana, D. N. (2015). Pengaruh belanja modal terhadap indeks pembangunan manusia melalui pertumbuhan ekonomi sebagai variabel intervening Provinsi Bali. *E-Jurnal Ekonomi Pembangunan Universitas Udayana*, 4(10), 1276–1303.
- Simamora, S. E., Marbun, D. P. S. B., Zahra, F. H., Asnidar, & Ridha, A. (2024). Pengaruh pendapatan asli daerah dan belanja modal terhadap pertumbuhan ekonomi dan kesejahteraan masyarakat di Provinsi Sumatera Utara. *Jurnal Riset Ekonomi dan Akuntansi*, 2(4), 394–416.
- Syaiful. (2008). *Pengertian dan perlakuan akuntansi belanja barang dan belanja modal dalam kaidah akuntansi pemerintahan*. Bappenas.
- Todaro, M. P., & Smith, S. C. (2011). *Pembangunan ekonomi di dunia ketiga* (9th ed.). Erlangga.
- Todaro, M. P., & Smith, S. C. (2013). *Pertumbuhan ekonomi di dunia ketiga*. Erlangga.
- Wijayanti, D. (2024). Dampak kemiskinan, PDRB, pengangguran, dan pengeluaran pemerintah terhadap indeks pembangunan manusia (IPM): Studi empiris di Provinsi Riau tahun 2018–2023. *Jurnal Aplikasi Bisnis*, 21(2), 595–602.
- Wiryawan, K. J., Ayu, I., & Pratiwi, M. (2024). Pengaruh PDRB dan upah minimum provinsi terhadap kemiskinan dan IPM di provinsi-provinsi Indonesia. 20(September).