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DRIVING FACTORS OF ECONOMIC DEVELOPMENT IN EAST JAVA: GOVERNMENT EXPENDITURE, PER CAPITA INCOME, AND INFRASTRUCTURE INVESTMENT

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Abstract: This study aims to elucidate the impact of government spending, per capita income, and infrastructure investment on economic development in East Java Province. The research employs a descriptive quantitative approach, utilizing secondary data in the form of cross-sectional data obtained from the Central Statistics Agency (BPS) website. The sample encompasses all districts in East Java. Data analysis is conducted using multiple linear regression methods for testing purposes. The individual findings indicate that government spending does not significantly affect economic development; per capita income has a positive and significant influence on economic development; and infrastructure investment is statistically insignificant. The implications of these three points suggest that the government should adopt a more strategic and efficient approach to national financial management.

Keywords: Economic Development; Infrastructure Investment; Government Expenditure; Per Capita Income.

Abstrak: *Penelitian ini bertujuan untuk menjelaskan pengaruh belanja pemerintah, pendapatan per kapita, dan investasi infrastruktur terhadap pembangunan ekonomi di Provinsi Jawa Timur. Jenis penelitian ini adalah kuantitatif deskriptif yang memanfaatkan data sekunder berupa crossection yang diperoleh dari situs web Badan Pusat Statistik (BPS). Sampel yang digunakan dalam penelitian ini mencakup seluruh kabupaten di Jawa Timur. Analisis data dilakukan dengan metode regresi linear berganda untuk pengujian data. Hasil penelitian secara individual menunnjukkan bahwa Belanja Pemerintah tidak signifikan terhadap pembangunan ekonomi; Pendapatan per kapita memiliki pengaruh positif dan signifikan terhadap pembangunan ekonomi; Investasi infrastruktur tidak signifikan secara statistik. Implikasi dari ketiga poin adalah bahwa pemerintah harus lebih strategis dan efisien dalam pengelolaan keuangan negara.*

Kata Kunci: *Belanja Pemerintah; Investasi Infrastruktur; Pendapatan Per Kapita; Pembangunan Ekonomi.*

INTRODUCTION

In the context of economic development, it is crucial to consider the interplay between government spending, per capita income, and infrastructure investment (Udo & Chukwu, 2020). These three factors are interconnected and can influence each other in accelerating a nation's economic growth (Nurkodri et al., 2024). For instance, appropriate government expenditure in infrastructure can enhance productivity and promote long-term economic growth (Oladele et al., 2017); (d'Agostino et al., 2016). Similarly, an increase in per capita income can create opportunities for the government to boost investments in superior infrastructure, thereby strengthening the economic foundation of the country (Schumpeter & Swedberg, 2021); (Barrier, 2017).

However, it is essential to recognize that the effects of these three factors are not always linear or unidirectional (Azolibe, 2021); (Younis, 2014). Other elements may also influence the relationship between government spending, per capita income, and infrastructure investment within the framework of economic development (Palei, 2015); (Bhattacharya et al., 2015); (Todaro & Smith, 2020). For example, political factors, monetary policies, global economic conditions, as well as the social and cultural context of a country can significantly impact the effectiveness of government interventions and the success of infrastructure investments in fostering economic growth (Palei, 2015); (Bhattacharya et al., 2015); (Todaro & Smith, 2020).

Numerous research has been undertaken to investigate the effects of government spending, per capita income, and infrastructure investment on economic development. Research concerning government spending, including studies by Nurlina (2015); Ahuja & Pandit (2020); Ansari et al. (2021); Kaur (2023), indicates that government expenditure has a beneficial impact on economic development. Conversely, studies by Connolly & Li (2016); Ağırman & Yılmaz (2018); Cenc (2022) suggest government expenditure has adverse effects economic development.

In terms of per capita income, research conducted by Rahmawati et al. (2024); Sari & Setyowati (2022); Subroto et al. (2021) demonstrates a positive influence of per capita income on economic development. However, the study by Anwar & Cooray (2014) indicates the adverse effects of per capita income on economic development.

Regarding infrastructure investment, studies by Ibahimov et al. (2023); (Sky & Azwardi, 2023); Du et al. (2022); Nugroho et al. (2022); Seidu et al. (2020); (Iqbal et al., 2019); (Djadjuli, 2018); Tripathy et al. (2016); Maryaningsih et al. (2014) demonstrate a favorable relationship between infrastructure investment and economic development. In contrast, research by Younis (2014); Roy (2018); Apurv & Uzma (2020); Edobor et al. (2023) points to a negative effect of infrastructure investment on economic development.

The conclusions drawn from the findings of previous studies, there exists a variation in research outcomes. In light of this, the researcher utilizes cross-sectional data independent variables (at the same time, government spending, per capita income, infrastructure investment) and a dependent variable (economic development) in this study to identify research gaps. The aim of this research is to elucidate the impact of government spending, per capita income, and infrastructure investment on economic development in East Java Province. The findings of this study are anticipated to enhance understanding in policy-making, thereby

facilitating the creation of effective and efficient policies aimed at accelerating economic development and improving the overall welfare of the community.

LITERATURE REVIEW

Economic development

Economic development is a multifaceted process that encompasses various elements, including economic growth, income distribution, and the enhancement of societal welfare (Deffrinica & Sugianto, 2022); (ILO, 2017). Numerous economic development theories have been formulated to elucidate the dynamics and factors influencing the development process within a nation.

Government Expenditure

The Keynesian theory, proposed by economist John Maynard Keynes, underscores the significant role of government spending in addressing imbalances within the economy, particularly during periods of recession or depression (Chen et al., 2022); (Aziz et al., 2024). Keynes contended that the government could act as a primary driver in mitigating economic instability through fiscal policies, such as public expenditure on infrastructure projects and social programs.

Per Capita Income

Convergence theory refers to the notion that nations with lower per capita income often exhibit a more rapid rate of economic growth compared to those with higher per capita income, resulting in a harmonization of income levels among nations (Masoud, 2014); (Anitasari et al., 2024). This theory is predicated on the assumption that nations with lower levels of capital or efficiency will achieve higher returns on investment, thereby fostering more rapid economic growth.

Infrastructure investment

Infrastructure investment theory highlights the critical role of infrastructure in enhancing productivity and economic growth (Ellis et al., 2022); (GS, 2020). Investments in high-quality infrastructure, such as transportation networks, energy systems, and telecommunications, can improve efficiency in the production and distribution products and offerings, as well as reduce logistics and transportation costs.

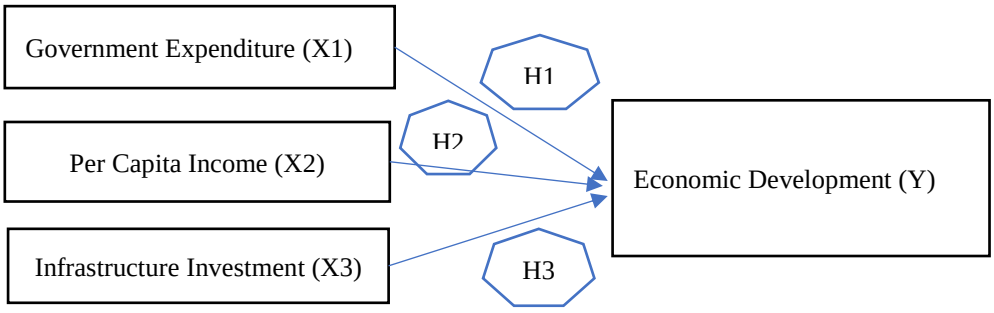

Figure 1. Conceptual Framework
Source: processed data, 2024.

Description:

H1 : It is believed that government expenditure exerts a beneficial influence on the economic development of East Java.

H2 : It is also suggested that per capita income positively influences the economic development of East Java.

H3 : It is presumed that infrastructure investment contributes positively to the economic development of East Java.

RESEARCH METHODOLOGY

This study employs a quantitative approach characterized by a descriptive methodology. The research is conducted in East Java. The focus of study is on government expenditure data, per capita income, infrastructure investment, and economic development, all sourced from the East Java Central Statistics Agency website. The sample for this research consists of 30 districts in East Java. The type of data utilized in this study is secondary information in the form of cross-sectional data. The analysis method involves multiple linear regression analysis, using EViews as the analytical tool.

Table 1. Operational Definitions of Variables

Variable	Definition	Measurement	Scale
Economic Development	A process that encompasses sustainable changes and growth in the economy of a country or region.	An assessment of a country or region's success in enhancing the welfare of its population.	Nominal
Government Expenditure	Funds disbursed by the government to fulfill its responsibilities and serve the public.	A quantitative analysis to determine the total amount of expenditures made by the government over a specific period.	Nominal
Per Capita Income	The result of dividing the total income of a country by its Population.	Per Capita Income = Total National Income / Population.	Nominal
Infrastructure Investment	All forms of spending or capital investment aimed at constructing, improving, or expanding physical assets that support the economic activities of a region.	A quantitative evaluation of the resources allocated.	Ratio

Source: processed data, 2024.

RESULT AND DISCUSSION

Research Findings

Following the collection and analysis of data, the researcher presents the findings that have been obtained:

Classical Assumptions

Assessment of Normality

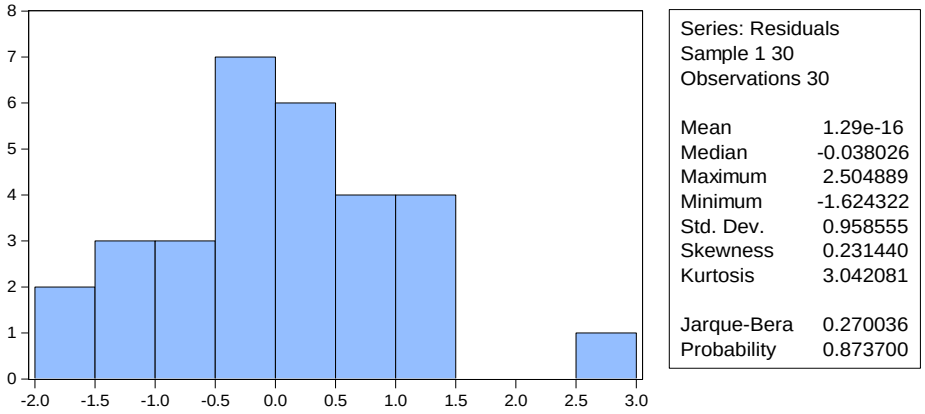

Figure 2. Assessment of Normality
Source: processed data, 2024

According to provided information, the Jarque-Bera statistic of 0.270 suggests that the deviation of the data from a normal distribution is relatively minor. The probability value of 0.870 significantly surpasses the importance level of 0.05. Based on the results of this normality test, it can be inferred that the data conforms to a normal distribution. In other words, the assumption of normality is satisfied. This indicates that it is appropriate to proceed with statistical techniques that assume a normal distribution, such as linear regression analysis.

Examination of Multicollinearity

Table 2. Multicollinearity Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
Government Expenditure	0.239570	1199.904	1.476340
Per Capita Income	0.231960	774.1026	1.683827
Infrastructure Investment	0.025629	2.947863	2.253488

Source: processed data, 2024

Based on the results of the multicollinearity test, the VIF values for all variables are 1.47, 1.68, and 2.25, all of which are below 10. This indicates that there are no multicollinearity issues present in the regression model utilized in this study. Consequently, the classical assumptions of linear regression are satisfied. This implies that the independent variables in your model do not exhibit a high degree of correlation with one another.

Autocorrelation Test

Table 3. Autocorrelation Test

Mean dependent var	7.736016
S.D. dependent var	1.095348
Akaike info criterion	2.985985
Schwarz criterion	3.172811
Hannan-Quinn criter.	3.045752
Durbin-Watson stat	2.056207

Source: processed data, 2024

According to the outcomes of the Durbin-Watson test, the DW value is 2.05. This value is close to 2, indicating that there is no strong evidence to suggest the presence autocorrelation can be either positive or negative. The results of this test demonstrate that there is no autocorrelation in the regression model employed.

Hypothesis Testing

Testing the Coefficient of Determination

Table 4. Coefficient of Determination Test

R-squared	0.234175
Adjusted R-squared	0.145811

Source: processed data, 2024

According to Table 4, the R-squared value indicates that approximately 23.42% of the total variation in the dependent variable can be expressed as fluctuations in the outcome measure (economic development) can be explained by the independent variables (government expenditure, per capita income, infrastructure investment) included in the model. This suggests that the regression model accounts for about one-quarter of total data variation. The lower adjusted R-squared value compared to the R-squared indicates that the inclusion of additional independent variables in the model does not significantly enhance the model's ability to explain data variation.

Simultaneous Test (F)

Table 5. F Test

F-statistic	2.650104
Prob(F-statistic)	0.069849

Source: processed data, 2024

In Table 5, the F-statistic value is 2.650104, which is less than the critical F value of 2.74, indicating that the calculated F value is insufficient to reject the null hypothesis. To put it differently, there is not enough strong evidence to assert that the independent variables within the model collectively exert a significant influence on the dependent variable. The probability of the F-statistic is 0.069849, the value surpasses the significance level of 0.05. This further confirms the failure to reject the null hypothesis.

Partial Test (t)

Table 6. Linear Regression Test

Variable	Coefficient	Std. Error	*t-Statistic*	*Prob.*
Government Expenditure	0.358641	0.489459	0.732730	0.4703
Per Capita Income	1.228177	0.481622	2.550085	0.0170
Infrastructure Investment	-0.158588	0.160091	-0.990616	0.3310

Source: processed data, 2024

Based on the calculations, the following results were obtained: For X1, the calculated t value (0.732730) is below the table t value (1.706); the significance value (0.4703) exceeds the significance level (0.05), indicating government expenditure has a beneficial impact; however, it also presents certain challenges insignificant effect on economic development, thus H1 is accepted. For X2, the calculated t value (2.550085) surpasses the table t value (1.706); the significance value (0.0170) is less than the significance level (0.05), suggesting that per capita income exerts a beneficial and substantial influence on economic development, leading to the acceptance of H2. For X3, the calculated t value (-0.990616) is lower than the table t value (1.706); the significance value (0.3310) is greater than the significance level (0.05),

infrastructure investment demonstrates a negative yet negligible impact on economic development, resulting in the rejection of H3.

Research Discussion

Based on the research findings and the objectives outlined in this study, the subsequent discussion can be articulated.

Government expenditure has an impact on economic development

Based on partial testing, the impact of government expenditure on economic development is favorable, although it is not substantial. This indicates that an increase in government spending does not yield a significant effect, which aligns with theoretical expectations (Chen et al., 2022) and is supported by previous research conducted (Nurlina, 2015); (Ahuja & Pandit, 2020); (Ansari et al., 2021); (Kaur, 2023).

Per capita income affects economic development

Per capita income has a positive influence on economic development. This result suggests that increasing per capita income should be a primary objective of development policies, consistent with theoretical frameworks (Masoud, 2014) and supported by earlier studies (Rahmawati et al., 2024); (Sari & Setyowati, 2022); (Subroto et al., 2021).

Infrastructure investment impacts economic development

Infrastructure investment exerts a detrimental impact on the economy development. This finding infrastructure investment is signified is not always an effective solution for enhancing economic growth. This result contradicts theoretical expectations (Ellis et al., 2022); (GS, 2020) and previous research (Ibahimov et al., 2023); (Sky & Azwardi, 2023); (Du et al., 2022); (Nugroho et al., 2022); Seidu et al. (2020); (Iqbal et al., 2019); (Djadjuli, 2018); Tripathy et al. (2016); (Maryaningsih et al., 2014); however, it is supported by other studies (Younis, 2014); (Roy, 2018); (Apurv & Uzma, 2020); (Edobor et al., 2023).

CONCLUSION

Based on the findings and discussions of the research, it can be inferred that per capita income the sole independent variable that demonstrates a positive and significant impact on economic development. In contrast, government spending and infrastructure investment do not exert a significant influence on economic growth. These results indicate that the government needs to formulate policies aimed at enhancing productivity, creating job opportunities, and promoting economic development. It is important to note that this study has limitations regarding the variables utilized and the type of data timeframe. Therefore, future researchers are encouraged to incorporate additional variables or employ different testing methods to achieve more varied and in-depth results.

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