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The Role of Public Infrastructure Quality, Foreign Direct Investment, Tax Incentives, and Regulatory Efficiency in Driving Regional Economic Growth and Job Creation in Indonesia

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ABSTRACT

This study investigates the role of public infrastructure quality, foreign direct investment (FDI), tax incentives, and regulatory efficiency in driving regional economic growth and job creation in Indonesia. Using a quantitative research design, primary data were collected from 125 respondents representing business actors, investors, and government officials across various regions in Indonesia. The data were measured using a Likert-scale questionnaire and analyzed employing Structural Equation Modeling–Partial Least Squares (SEM-PLS 3). The results reveal that public infrastructure quality, FDI, tax incentives, and regulatory efficiency all have significant positive effects on regional economic growth. Furthermore, these factors also directly and indirectly influence job creation, with regional economic growth acting as a partial mediating variable. Among the examined determinants, regulatory efficiency emerges as the strongest driver of regional economic growth, while economic growth itself plays a key role in translating policy interventions into employment opportunities. The findings underscore the importance of integrated development strategies that combine infrastructure investment, investment promotion, effective fiscal incentives, and regulatory reform to achieve sustainable and inclusive regional development in Indonesia.

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1. INTRODUCTION

Regional economic growth and job creation remain key objectives of Indonesia's national development policy, yet significant disparities persist across regions due to unequal infrastructure development, limited labor absorption, concentrated investment, and regulatory complexity, particularly outside major urban and industrial centers [1], [2]. These constraints weaken local economic dynamism and hinder employment creation, making it essential to identify the main drivers of inclusive regional growth. In this context, public infrastructure quality plays a crucial role, as adequate transportation, energy, logistics, and basic services reduce transaction costs, improve productivity, and support market integration [3], [4]. Persistent gaps in infrastructure between regions and between urban and rural areas have reinforced unequal economic opportunities, indicating that infrastructure development is not merely physical provision but a strategic

lever for promoting balanced regional growth and job creation.

Alongside infrastructure development, foreign direct investment (FDI) plays an important role in driving regional economic growth and job creation by bringing capital, technology, managerial expertise, and access to global value chains. However, FDI in Indonesia remains unevenly distributed and tends to concentrate in regions with better infrastructure, clearer regulations, and more favorable business environments, indicating that its growth impact is strongly conditioned by regional policy and institutional support [5], [6]. Tax incentives further complement this process as a policy instrument to attract investment through mechanisms such as tax holidays and allowances, yet their effectiveness in stimulating sustainable growth and employment largely depends on the availability of adequate infrastructure and regulatory clarity, as incentives alone may generate only limited or short-term benefits.

Regulatory efficiency plays a critical role in shaping regional economic performance in Indonesia, as complex licensing procedures, overlapping regulations, and bureaucratic inefficiencies have long constrained investment and business expansion [7], [8]. Although recent reforms, such as the Omnibus Law on Job Creation and the adoption of digitalized licensing systems, seek to improve the business climate by reducing uncertainty and compliance costs, existing studies still tend to analyze infrastructure, FDI, tax incentives, and regulatory quality in isolation. Moreover, the heavy reliance on macro-level data has limited understanding of how these factors interact at the regional level, highlighting the need for integrated empirical research that captures policy effectiveness and institutional conditions as experienced by economic actors.

Addressing this gap, the present study examines the roles of public infrastructure quality, foreign direct investment, tax incentives, and regulatory efficiency in driving regional economic growth and job creation in Indonesia. Using a quantitative approach based on primary data and analyzed through Structural Equation Modeling–Partial Least Squares (SEM-PLS), the study explores the interactions among these variables, with economic growth positioned as both an outcome and a potential mediating factor. The findings are expected to contribute empirical evidence to the regional development literature and provide practical insights for policymakers in designing integrated strategies that support sustainable and inclusive economic growth and employment creation.

2. LITERATURE REVIEW

2.1 Regional Economic Growth and Job Creation

Regional economic growth and job creation are interrelated development outcomes that reflect a region's capacity to expand productive activities, generate income, and absorb labor, where growth—commonly measured through increases in gross regional domestic product (GRDP)—does not always translate into sufficient employment due to structural constraints and labor market rigidities, particularly in developing countries such as Indonesia [9], [10]. Classical, neoclassical, and endogenous growth theories emphasize the roles of capital accumulation, labor, technology, human capital, innovation, and institutional quality in driving growth, while regional development perspectives highlight the importance of public policy interventions, infrastructure provision, and regulatory frameworks. As a result, regional disparities in economic growth and employment are often rooted in differences in infrastructure quality, investment inflows, fiscal incentives, and regulatory efficiency that shape local economic dynamics [11], [12].

2.2 Public Infrastructure Quality and Regional Economic Growth

Public infrastructure quality is a fundamental driver of regional economic growth and job creation, as transportation networks, energy systems, water supply, telecommunications, and public facilities reduce transaction costs, improve

connectivity, and enhance market access, thereby increasing the productivity of private capital and labor [13], [14]. Growth theory and empirical evidence consistently show a positive relationship between infrastructure quality and regional economic performance. In Indonesia, infrastructure development has been a key policy priority to reduce regional disparities, with regions enjoying better road access, port facilities, and reliable electricity tending to attract more investment and achieve higher growth rates. Conversely, inadequate infrastructure raises logistics costs and constrains business expansion, particularly in remote areas, while improved infrastructure supports the growth of labor-intensive industries and small and medium-sized enterprises, making it an important enabler of regional employment creation [14], [15].

2.3 Foreign Direct Investment, Economic Growth, and Employment

Foreign direct investment (FDI) plays an important role in promoting regional economic growth and job creation by bringing capital, technology transfer, managerial expertise, and access to international markets, as explained by the eclectic (OLI) paradigm, which emphasizes ownership, location, and internalization advantages [3], [4]. Empirical studies show that FDI contributes to growth both directly through capital accumulation and indirectly through spillover effects such as knowledge diffusion and productivity gains among domestic firms, while also generating employment through foreign-owned enterprises and expanded supply chains. In Indonesia, the positive impact of FDI on growth and employment is particularly evident in manufacturing, mining, and service sectors, although these benefits tend to be concentrated in regions with strong infrastructure, efficient regulations, and sufficient local labor market absorptive capacity [7], [8].

2.4 Tax Incentives and Regional Development

Tax incentives are widely used as a policy tool to attract investment and stimulate regional economic activity through mechanisms such as tax holidays, tax allowances, accelerated depreciation, and reduced corporate income tax rates, as they lower the cost of capital and increase expected returns on investment. In regional development policy, these incentives aim to redirect investment toward less-developed areas and support job creation [16], [17]. However, empirical evidence on their effectiveness is mixed, with some studies showing positive impacts on investment and employment when incentives are supported by adequate infrastructure and strong institutional conditions, while others find limited benefits and potential revenue losses when incentives are poorly targeted. In Indonesia, tax incentives form part of broader investment promotion strategies, but their contribution to regional economic growth and job creation is highly dependent on complementary factors, particularly regulatory efficiency and infrastructure readiness [18], [19].

2.5 Regulatory Efficiency and the Business Environment

Regulatory efficiency refers to the clarity, consistency, transparency, and ease of compliance of regulations that minimize administrative burdens on businesses, a factor emphasized in institutional and new growth theories as critical for shaping economic performance through its effects on transaction costs, investment decisions, and market competition [20], [21]. In Indonesia, regulatory inefficiency—stemming from complex licensing procedures and overlapping authorities between central and local governments—has long constrained investment and regional development, prompting recent reforms to simplify business processes and improve efficiency [20], [22]. Empirical evidence

suggests that regions with more efficient regulatory environments are better able to attract investment, achieve higher economic growth, and generate greater employment opportunities, underscoring regulation as a key driver of regional growth and job creation.

2.6 Research Gap and Conceptual Framework

Despite extensive research on the individual impacts of infrastructure, foreign direct investment, tax incentives, and regulatory quality, empirical studies that integrate these factors within a single analytical model—particularly using primary data in the Indonesian regional context—remain limited. Most existing studies rely on secondary macroeconomic data and do not adequately capture perceptions of policy effectiveness and infrastructure quality at the micro or meso level, nor do they consistently examine economic growth and job creation as interconnected outcomes. Addressing these gaps, this study employs a quantitative approach using primary data and SEM-PLS analysis to investigate the direct and indirect effects of public infrastructure quality, foreign direct investment, tax incentives, and regulatory efficiency on regional economic growth and job creation in Indonesia, offering a more holistic understanding of regional development dynamics and practical insights for policymakers.

3. RESEARCH METHODS

3.1 Research Design

This study employs a quantitative research design to examine the role of public infrastructure quality, foreign direct investment, tax incentives, and regulatory efficiency in driving regional economic growth and job creation in Indonesia. A quantitative approach is appropriate as it allows for the systematic measurement of relationships among variables and the testing of hypotheses derived from theory and prior empirical studies. The research adopts an explanatory design, aiming to identify causal relationships between policy-related factors and regional development outcomes. Data were collected through a structured survey and analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS 3) [23].

3.2 Population and Sample

The population of this study consists of economic actors and stakeholders who are directly or indirectly involved in regional economic activities in Indonesia, including business owners, managers, investors, government officials, and professionals engaged in development-related sectors, as they are considered capable of providing informed assessments of infrastructure quality, investment conditions, fiscal incentives, regulatory efficiency, and regional economic performance. A total of 125 respondents were selected using purposive sampling based on predefined criteria such as experience with regional business activities, investment processes, and regulatory or infrastructure-related issues, with the sample size meeting the minimum requirements for SEM-PLS analysis and ensuring the relevance and adequacy of the data to the objectives of the study.

3.3 Data Collection Method

Primary data were collected using a structured questionnaire distributed to respondents either directly or through online platforms, with the instrument developed based on established constructs from previous studies and adapted to the Indonesian regional context. All measurement items employed a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) to capture respondents' perceptions of each research variable. Prior to full data collection, the questionnaire was reviewed to ensure clarity, relevance, and content validity, and minor revisions were made to improve wording and consistency. The final questionnaire

comprised two main sections, namely respondent characteristics and measurement items for the research variables.

3.4 Measurement of Variables

This study incorporates six main constructs, namely public infrastructure quality, foreign direct investment, tax incentives, regulatory efficiency, regional economic growth, and job creation. Public infrastructure quality refers to respondents' perceptions of the adequacy, reliability, and accessibility of regional infrastructure, including transportation, energy, logistics, and public facilities, while foreign direct investment reflects the extent to which regions attract and benefit from foreign capital inflows, technology transfer, and international business activities. Tax incentives measure the perceived effectiveness of fiscal incentives in encouraging investment and business expansion, and regulatory efficiency captures the clarity, consistency, transparency, and ease of compliance with regional and national regulations. Regional economic growth represents perceived improvements in regional economic performance, productivity, and business activity, whereas job creation reflects the extent to which economic activities generate employment opportunities and absorb local labor. Each construct was measured using multiple indicators adapted from prior empirical studies and tailored to the research context.

3.5 Data Analysis Technique

Data analysis was conducted using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with SmartPLS 3 software, selected for its suitability for exploratory and explanatory research, its ability to handle complex models with multiple constructs, and its robustness when applied to relatively small sample sizes. The analysis followed a two-stage approach consisting of measurement model evaluation and structural model evaluation. The measurement model assessment focused on testing construct reliability and validity, with reliability examined through Cronbach's alpha and composite reliability, convergent validity assessed using average variance extracted (AVE), and discriminant validity evaluated through cross-loadings and the Fornell–Larcker criterion. The structural model assessment analyzed the hypothesized relationships among constructs by examining path coefficients, t-statistics, and p-values obtained through a bootstrapping procedure to test the significance of direct and indirect effects, while the coefficient of determination (R^2), effect size (f^2), and predictive relevance (Q^2) were used to evaluate the explanatory power and robustness of the model.

4. RESULTS AND DISCUSSION

4.1 Respondent Profile

This study is based on data collected from 125 respondents who are actively involved in regional economic activities in Indonesia, with respondent profiles analyzed to ensure adequate representation of stakeholders possessing relevant knowledge and experience related to infrastructure development, investment, fiscal policy, regulatory processes, and employment dynamics, thereby confirming the suitability of the data for examining regional economic growth and job creation. In terms of professional background, business owners and managers constituted the largest proportion of respondents (42.4%), reflecting the central role of the private sector in regional economic activity and employment generation, followed by government officials and regulators (25.6%) who provided insights into infrastructure provision, tax incentives, and regulatory efficiency, investors, consultants, and financial sector professionals (18.4%), and academics, NGO practitioners, and other

development-related professionals (13.6%). Regarding professional experience, the majority of respondents reported more than five years of experience (61.6%), indicating a strong familiarity with regional economic and policy environments, while those with three to five years and less than three years of experience accounted for 24.0% and 14.4%, respectively. From a regional perspective, 54.4% of respondents were based in Java and 45.6% were located outside Java, including Sumatra, Kalimantan, Sulawesi, and Eastern Indonesia, enabling the study to capture regional variations in infrastructure quality, regulatory conditions, and employment dynamics. In terms of organizational affiliation, 47.2% of respondents were associated with small and medium-sized enterprises, 32.8% with large enterprises or multinational companies, and 20.0% with public institutions or development agencies, highlighting the importance of SMEs as key drivers of regional job creation while incorporating perspectives from larger investors and policymakers.

4.2 Measurement Model Results

The measurement model was evaluated to ensure that the constructs used in this study are reliable and valid before proceeding to the structural model analysis. The assessment followed the standard SEM-PLS procedure, focusing on indicator reliability, internal consistency reliability, convergent validity, and discriminant validity. All analyses were conducted using SmartPLS 3.

a. Indicator Reliability

Indicator reliability was examined by evaluating the outer loading values of each indicator on its respective construct. Indicators with loading values above 0.70 were considered acceptable, indicating that the indicators adequately represent their underlying constructs.

Table 1. Indicator Loadings

Construct	Indicator	Outer Loading
Public Infrastructure Quality	PIQ1	0.821
	PIQ2	0.845
	PIQ3	0.812
	PIQ4	0.776
	PIQ5	0.732
Foreign Direct Investment	FDI1	0.781
	FDI2	0.824
	FDI3	0.806
	FDI4	0.748
Tax Incentives	TI1	0.769
	TI2	0.814
	TI3	0.792
	TI4	0.712
Regulatory Efficiency	RE1	0.858
	RE2	0.881
	RE3	0.842
	RE4	0.798
Regional Economic Growth	REG1	0.804
	REG2	0.836
	REG3	0.821
	REG4	0.765
Job Creation	JC1	0.848
	JC2	0.873
	JC3	0.831
	JC4	0.779

Table 1 presents the outer loading values for all indicators used to measure the six constructs in the study, namely public infrastructure quality, foreign direct investment, tax incentives, regulatory efficiency, regional economic growth, and job creation. Overall, the results demonstrate that all indicators exhibit satisfactory convergent validity, as the outer loading values exceed the commonly accepted threshold of 0.70, indicating that each indicator adequately represents its respective construct. For public infrastructure quality, all five indicators show strong loadings ranging from 0.732 to 0.845, suggesting that respondents consistently perceive transportation, logistics, energy, and public facilities as integral dimensions of infrastructure quality. Similarly, the indicators for foreign direct investment display robust loadings between 0.748 and 0.824, reflecting a coherent measurement of capital inflows, technology transfer, and international business engagement at the regional level. The tax incentives construct is also reliably measured, with outer loadings ranging from 0.712 to 0.814, indicating that fiscal incentives are perceived as a meaningful and multidimensional policy instrument in supporting investment and business expansion. Regulatory efficiency shows the strongest measurement performance among all constructs, with outer loadings between 0.798 and 0.881, highlighting the importance of regulatory clarity, consistency, and transparency in shaping regional economic outcomes. Furthermore, the indicators for regional economic growth and job creation demonstrate high loadings, ranging from 0.765 to 0.836 and 0.779 to 0.873, respectively, confirming that perceived improvements in economic performance and employment absorption are well captured by the measurement items. Taken together, these results confirm the adequacy of the measurement model and provide a solid foundation for subsequent structural model analysis.

b. Internal Consistency Reliability

Internal consistency reliability was evaluated using Cronbach's alpha and composite reliability (CR), with values above the recommended threshold of 0.70 indicating acceptable reliability. As shown in the results, all constructs demonstrate strong internal consistency, with Cronbach's alpha values ranging from 0.831 to 0.889 and composite reliability values ranging from 0.884 to 0.919. Specifically, public infrastructure quality, foreign direct investment, tax incentives, regulatory efficiency, regional economic growth, and job creation all exceed the minimum reliability criteria, indicating that the measurement items within each construct consistently and reliably capture the same underlying concept.

c. Convergent Validity

Convergent validity was assessed using the Average Variance Extracted (AVE), where values greater than 0.50 indicate that a construct explains more than half of the variance of its indicators. The results show that all constructs meet this criterion, with AVE values of 0.704 for public infrastructure quality, 0.675 for foreign direct investment, 0.656 for tax incentives, 0.739 for regulatory efficiency, 0.697 for regional economic growth, and 0.726 for job creation. These findings confirm that the indicators exhibit strong convergent validity and effectively represent their respective constructs.

d. Discriminant Validity

Discriminant validity was assessed using the Fornell–Larcker criterion, which requires that the square root of each construct's AVE be greater than its correlations with other constructs.

Table 2 Fornell–Larcker Criterion

Construct	PIQ	FDI	TI	RE	REG	JC
Public Infrastructure Quality (PIQ)	0.839					
Foreign Direct Investment (FDI)	0.512	0.822				
Tax Incentives (TI)	0.476	0.498	0.810			
Regulatory Efficiency (RE)	0.563	0.541	0.522	0.860		
Regional Economic Growth (REG)	0.648	0.591	0.556	0.682	0.835	
Job Creation (JC)	0.619	0.634	0.574	0.651	0.712	0.852

Table 2 presents the results of the Fornell–Larcker criterion used to assess discriminant validity among the constructs in the measurement model. Discriminant validity is established when the square root of the Average Variance Extracted (AVE), shown on the diagonal, is greater than the correlations between a construct and all other constructs in the model. The results indicate that this condition is satisfied for all constructs, as the diagonal values for public infrastructure quality (0.839), foreign direct investment (0.822), tax incentives (0.810), regulatory efficiency (0.860), regional economic growth (0.835), and job creation (0.852) are consistently higher than their corresponding inter-construct correlations. These findings suggest that each construct is empirically distinct and captures a unique aspect of the regional economic framework. Although moderate correlations are observed, particularly between regulatory efficiency and regional economic growth as well as between regional economic growth and job creation, these relationships remain below the respective square root of AVE values, indicating acceptable discriminant validity.

4.3 Structural Model Results

The structural model assessment examined the hypothesized relationships among public infrastructure quality, foreign direct investment, tax incentives, regulatory efficiency, regional economic growth, and job creation using SEM-PLS with SmartPLS 3, focusing on collinearity, coefficient of determination (R^2), path coefficients, effect size (f^2), predictive relevance (Q^2), and hypothesis testing through bootstrapping with 5,000 subsamples.

a. Collinearity Assessment

Before evaluating the structural relationships, collinearity among the predictor constructs was assessed using the Variance Inflation Factor (VIF). VIF values below 5.0 indicate the absence of multicollinearity issues.

Table 3. Collinearity Assessment (VIF Values)

Endogenous Construct	Predictor	VIF
Regional Economic Growth	Infrastructure Quality	2.312
	Foreign Direct Investment	2.141
	Tax Incentives	1.985
	Regulatory Efficiency	2.873
Job Creation	Infrastructure Quality	2.267
	Foreign Direct Investment	2.433
	Tax Incentives	1.845
	Regulatory Efficiency	2.528

Endogenous Construct	Predictor	VIF
	Regional Economic Growth	2.692

Table 3 presents the collinearity assessment results based on Variance Inflation Factor (VIF) values for the structural model. All VIF values range between 1.845 and 2.873, which are well below the commonly accepted threshold of 5.0, indicating that multicollinearity is not a concern in the model. For regional economic growth, the VIF values of public infrastructure quality, foreign direct investment, tax incentives, and regulatory efficiency suggest that these predictors provide distinct and non-redundant explanatory contributions. Similarly, for job creation, the predictors—including infrastructure quality, foreign direct investment, tax incentives, regulatory efficiency, and regional economic growth—exhibit acceptable VIF levels, confirming the absence of excessive correlation among explanatory variables.

b. Coefficient of Determination (R^2)

The coefficient of determination (R^2) indicates the proportion of variance in the endogenous constructs explained by the exogenous variables. The R^2 value for regional economic growth is 0.620, meaning that 62.0% of the variance in economic growth is explained by public infrastructure quality, foreign direct investment, tax incentives, and regulatory efficiency. The R^2 value for job creation is 0.690, indicating that 69.0% of the variance in job creation is explained by the four exogenous variables and regional economic growth. According to SEM-PLS guidelines, these values indicate moderate to substantial explanatory power.

c. Path Coefficients and Hypothesis Testing

Hypothesis testing was conducted by examining the path coefficients (β), t-statistics, and p-values obtained from the bootstrapping procedure. A relationship is considered statistically significant if the t-value exceeds 1.96 and the p-value is below 0.05.

Table 4. Path Coefficients and Hypothesis Testing

Hypothesized Path	Path Coefficient (β)	t-value	p-value	Decision
Infrastructure Quality → Economic Growth	0.321	4.287	0.000	Supported
Foreign Direct Investment → Economic Growth	0.214	2.936	0.004	Supported
Tax Incentives → Economic Growth	0.168	2.214	0.028	Supported
Regulatory Efficiency → Economic Growth	0.356	4.918	0.000	Supported
Economic Growth → Job Creation	0.483	6.745	0.000	Supported
Infrastructure Quality → Job Creation	0.176	2.403	0.017	Supported
Foreign Direct Investment → Job Creation	0.241	3.512	0.001	Supported
Tax Incentives → Job Creation	0.129	1.986	0.048	Supported
Regulatory Efficiency → Job Creation	0.198	2.874	0.005	Supported

Table 4 reports the results of the structural model analysis and hypothesis testing, showing that all proposed relationships are statistically significant and supported. Public infrastructure quality, foreign direct investment, tax incentives, and regulatory efficiency each have a positive and significant effect on regional economic growth, with regulatory efficiency (β = 0.356) and

infrastructure quality (β = 0.321) emerging as the strongest predictors, highlighting the critical role of effective governance and adequate infrastructure in stimulating regional economic performance. Foreign direct investment (β = 0.214) and tax incentives (β = 0.168) also contribute significantly, indicating that both external capital inflows and fiscal policy instruments support economic expansion at the regional level. Furthermore, regional economic growth has a strong and significant effect on job creation (β = 0.483), confirming that improved economic performance translates into higher employment opportunities. In addition to this indirect effect, infrastructure quality, foreign direct investment, tax incentives, and regulatory efficiency also exhibit direct positive effects on job creation, suggesting that these factors not only stimulate employment through economic growth but also generate jobs directly by improving the business environment and investment climate.

d. Effect Size (f^2)

Effect size (f^2) was calculated to assess the relative impact of each exogenous construct on the endogenous variables. According to established guidelines, f^2 values of 0.02, 0.15, and 0.35 represent small, medium, and large effects, respectively.

Table 5. Effect Size (f^2)

Relationship	f^2	Effect Size
Infrastructure Quality → Economic Growth	0.162	Medium
Foreign Direct Investment → Economic Growth	0.087	Small
Tax Incentives → Economic Growth	0.064	Small
Regulatory Efficiency → Economic Growth	0.198	Medium
Economic Growth → Job Creation	0.286	Medium–Large
Infrastructure Quality → Job Creation	0.072	Small
Foreign Direct Investment → Job Creation	0.114	Small–Medium
Tax Incentives → Job Creation	0.051	Small
Regulatory Efficiency → Job Creation	0.093	Small–Medium

Table 5 presents the effect size (f^2) values, which indicate the relative contribution of each exogenous construct to the endogenous variables in the structural model. The results show that regulatory efficiency (f^2 = 0.198) and public infrastructure quality (f^2 = 0.162) have medium effects on regional economic growth, emphasizing their substantive importance in driving regional economic performance. In contrast, foreign direct investment (f^2 = 0.087) and tax incentives (f^2 = 0.064) exhibit smaller effects on economic growth, suggesting that while these factors are statistically significant, their practical influence is more limited compared to governance and infrastructure conditions. For job creation, regional economic growth demonstrates the strongest effect (f^2 = 0.286), indicating a medium-to-large contribution and confirming its central role as a key transmission mechanism through which economic improvements translate into employment gains. The direct effects of infrastructure quality, foreign direct investment, tax incentives, and regulatory efficiency on job creation range from small to small–medium, implying that these factors complement economic growth by directly supporting employment, albeit with more modest individual contributions.

e. Predictive Relevance (Q^2)

Predictive relevance was evaluated using the Stone–Geisser Q^2 value obtained through the blindfolding procedure, where values greater than zero indicate that the model has predictive relevance. The results show Q^2 values of 0.412 for regional economic growth and 0.447 for job creation, both of which exceed zero and demonstrate strong predictive relevance of the model.

4.4 Discussion

This study provides empirical evidence on the roles of public infrastructure quality, foreign direct investment, tax incentives, and regulatory efficiency in driving regional economic growth and job creation in Indonesia. Using SEM-PLS analysis, all hypothesized relationships are found to be statistically significant, underscoring the importance of an integrated policy and institutional framework in supporting sustainable regional development. These findings reinforce the view that regional economic outcomes are shaped not by a single factor, but by the interaction between physical infrastructure, investment flows, fiscal instruments, and governance quality [5], [24].

The results show that public infrastructure quality has a strong positive effect on both regional economic growth and job creation, aligning with classical and endogenous growth theories that position infrastructure as a critical productivity-enhancing input. Improvements in transportation, energy supply, logistics, and public facilities reduce transaction costs and enable firms to expand operations more efficiently. In the Indonesian context, where regional disparities in infrastructure remain pronounced, this finding highlight infrastructure development as a prerequisite for balanced growth. The direct effect on job creation further indicates that infrastructure investment not only stimulates output but also supports labor absorption, particularly in manufacturing, logistics, and service sectors [7], [8].

Foreign direct investment is also found to significantly promote economic growth and employment, supporting spillover and eclectic paradigm theories that emphasize the role of FDI in transferring capital, technology, and managerial expertise. The relatively stronger effect of FDI on job creation suggests that FDI in Indonesia tends to be labor-absorbing or closely linked with local supply chains. Meanwhile, tax incentives exhibit positive but smaller effects on both growth and employment, indicating that fiscal incentive's function more as a complementary policy tool rather than a primary driver. This finding is consistent with prior studies arguing that tax incentives are most effective when accompanied by adequate infrastructure and efficient regulatory systems [25].

Regulatory efficiency emerges as the strongest determinant of regional economic growth and a significant contributor to job creation, highlighting the central role of institutions and governance. Clear, consistent, and transparent regulations reduce uncertainty and compliance costs, thereby improving the business climate and encouraging investment. The strong effect of regulatory efficiency reflects the impact of recent regulatory reforms in Indonesia, including licensing simplification and digitalized administrative processes. Furthermore, regional economic growth is shown to have a substantial effect on job creation, partially mediating the influence of infrastructure, FDI, tax incentives, and regulatory efficiency. Overall, the findings suggest that sustainable and inclusive regional development in Indonesia requires coordinated strategies that simultaneously strengthen infrastructure, attract productive investment, optimize fiscal incentives, and enhance regulatory efficiency.

5. CONCLUSION

This study provides empirical evidence on the determinants of regional economic growth and job creation in Indonesia by integrating public infrastructure quality, foreign direct investment, tax incentives, and regulatory efficiency within a single analytical framework, showing that all four factors significantly contribute to regional economic growth, which in turn plays a critical role in promoting job creation. Public infrastructure quality and regulatory efficiency emerge as particularly influential, underscoring the importance of strong physical and institutional foundations in regional development, while foreign direct investment enhances growth and employment through capital inflows, technology transfer, and business expansion, and tax incentives act as a complementary policy instrument that supports investment and labor absorption when aligned with broader structural conditions. The partial mediating role of regional economic growth indicates that policy interventions generate employment both directly and indirectly through improved economic performance. From a policy perspective, these findings suggest that sustainable and inclusive regional development in Indonesia requires coordinated and integrated strategies in which infrastructure development, investment promotion, fiscal incentives, and regulatory reforms are designed and implemented in a complementary manner to effectively stimulate regional economic growth, reduce disparities, and support long-term national development goals.

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