INTERRELATION OF REGIONAL FINANCIAL PERFORMANCE ON INCLUSIVE ECONOMIC GROWTH IN EAST JAVA

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ABSTRACT

This study aims to analyze the interrelation patterns between regional financial performance indicators and inclusive economic growth achievement, determine the correlation between regional financial performance and inclusive economic growth, also estimate the impact magnitude of regional financial performance on inclusive economic growth levels. The research population consists of all regencies and cities in East Java, resulting in a sample of 38 region during 2013-2023, forming 418 panel data observations. The quantitative approach employed with descriptive statistical analysis tools, Klassen typology analysis, correlation analysis, and panel data regression analysis. Independent variables comprise four regional financial performance indicators: independence ratio, effectiveness ratio, efficiency ratio, and PAD growth ratio, while the dependent variable is the index of inclusive economic growth that integrates GRDP growth, unemployment rate, poverty level, and Gini Index. Key findings reveal complex and varied interrelation patterns across regions, with significant correlations between efficiency and independence ratios toward inclusive economic growth. Estimation results confirm significant positive effects of independence, effectiveness, and efficiency ratios, while growth ratio negatively affects inclusive economic growth. The study concludes achieving inclusive economic growth requires a holistic approach in managing regional financial performance by considering specific characteristics and institutional capacity of each region to create sustainable development.

***Keywords**: Inclusive Economic Growth; Interrelation Patterns; Panel Data Analysis; Quadrant Classification Analysis; Regional Financial Performance*

A. INTRODUCTION

The dynamics of economic development in the era of fiscal decentralization have introduced a new paradigm in regional financial management as a strategic instrument to achieve sustainable and inclusive economic growth. Fiscal decentralization theory emphasizes that granting financial autonomy to regional governments can improve resource allocation efficiency and responsiveness to local community needs (Brodjonegoro, 2009). In this context, regional financial performance not only serves as an indicator of fiscal management capability but also as a crucial determinant in realizing welfare equity and reducing economic disparities between regions.

Inclusive economic growth emphasizes broad participation from all layers of society in the economic development process, as well as equitable distribution of benefits from such growth achievements (Ahmad et al., 2019). This concept aligns with endogenous growth theory, which explains that investments in public infrastructure, education, and health services financed through regional budgets can stimulate long-term economic growth while reducing inequality (Yin et al., 2022). From this perspective, optimizing regional financial performance becomes a fundamental prerequisite for creating ikoliniplier effects that promote economic inclusiveness.

Recent empirical research shows consistent evidence of positive relationships between regional financial performance and inclusive economic growth. Kim et al. (2020) found that fiscal decentralization positively affects inclusive economic growth in developing countries with adequate institutional development levels. Kumar et al. (2012) indicated that the effectiveness of regional financial management in promoting growth depends heavily on administrative capacity and budget management transparency. In the Indonesian context, Rusydi et al. (2022) demonstrated that fiscal independence ratios and PAD (Regional Original Revenue) effectiveness positively correlate with human development indices. Purbadharmaja et al. (2019) found that regional financial independence positively affects economic growth and community welfare in Bali Province.

The phenomenon of economic growth in East Java over the past decade shows paradoxical trends. This province recorded significant contributions to national Gross Domestic Product with consistent average economic growth. However, economic disparities between regencies/cities still show concerning patterns, with relatively high Gini coefficients and uneven development distribution. Although East Java experiences positive economic growth in aggregate, poverty rates in several regencies remain above the national average, indicating a gap between economic growth and development inclusiveness.

The identified research gap lies in the minimal comprehensive studies that specifically analyze the interrelation between various dimensions of regional financial performance and inclusive economic growth indicators in the Indonesian geographical context, particularly East Java. Most previous research tends to focus on relationships between financial performance and conventional economic growth without considering inclusiveness and equity aspects. Additionally, no study has systematically identified heterogeneity patterns of regional financial performance impacts on inclusive economic growth among regencies/cities with diverse

characteristics.

This research becomes important because it provides significant contributions in three main aspects. First, theoretically, this study integrates fiscal decentralization theory with inclusive economic growth concepts in Indonesia's empirical context. Second, practically, research findings can serve as a scientific basis for regional governments in formulating more effective financial management policies to promote welfare equity. Third, methodologically, this research uses inclusive economic growth indicators published by Bappenas as a more comprehensive dependent variable compared to conventional economic growth indicators.

Based on the theoretical framework and identified research gaps, this study aims to analyze interrelation patterns between regional financial performance indicators and inclusive economic growth achievement, determine correlations between regional financial performance and inclusive economic growth, and estimate the impact magnitude of regional financial performance on inclusive economic growth levels in 38 regencies/cities in East Java. The research originality lies in the comprehensive analysis of four regional financial performance dimensions (independence ratio, effectiveness ratio, efficiency ratio, and growth ratio) toward inclusive economic growth during the 2014-2023 period.

This research adopts fiscal decentralization theory integrated with endogenous growth theory to explain the transmission mechanism of regional financial performance toward inclusive economic growth. This theoretical framework provides a strong conceptual foundation for understanding how optimizing regional financial management can create greater fiscal space for regional governments in allocating budgets to programs supporting inclusive growth and community welfare equity.

B. LITERATURE STUDY

Theoretical Foundation of Regional Financial Performance

Fiscal decentralization theory provides conceptual foundations for understanding the role of regional financial performance as an economic development instrument. Brodjonegoro (2009) emphasized that fiscal decentralization enables more efficient resource allocation through increased regional government responsiveness to local needs. In this context, regional financial performance represents the level of achievement of a regional government in managing its regional finances, reflecting the region's capability and independence in implementing regional autonomy (Mahmudi, 2019).

Regional financial performance ratio analysis is an evaluation method using numerical comparisons in financial reports to assess regional financial conditions and performance. This concept is adapted from corporate financial analysis with adjustments for specific characteristics of regional governments that are not profit-oriented but focused on community welfare and regional development.

The concept of regional financial performance encompasses four main interacting dimensions. First, the financial independence ratio measures the region's ability to finance government activities and development using regional original revenue (Halim, 2018). The regional financial independence ratio shows the extent

to which regions do not depend on assistance and transfers from central, provincial, or regency governments. High financial independence indicates that regions have good capabilities in exploring and optimizing their resource potential. Second, the effectiveness ratio measures the level of regional original revenue realization compared to established targets. Third, the efficiency ratio describes the comparison between costs incurred to obtain revenue and realized revenue obtained. Fourth, the growth ratio shows the region's ability to maintain and improve financial performance achievements over time (Mardiasmo, 2021).

Interpreting regional financial ratios requires deep understanding of the context and specific characteristics of each region. Interpretation criteria can be categorized based on performance levels: independence ratio very good (>20%), good (15-20%), adequate (10-15%), poor (5-10%), and bad (<5%); effectiveness ratio very good (>100%), good (95-100%), adequate (85-95%), poor (70-85%), and bad (<70%); efficiency ratio very good (<85%), good (85-90%), adequate (90-95%), poor (95-105%), and bad (>105%).

Contemporary regional financial management paradigm transformation no longer solely focuses on achieving budget targets but emphasizes outcomes and impacts on community welfare. This aligns with performance-based budgeting principles that prioritize achieving work results from planned cost allocation (Prasetyia, 2021).

Conceptualization of Inclusive Economic Growth

Inclusive economic growth is a development paradigm that integrates economic growth achievement with equitable distribution of development benefits. Ahmad et al. (2019) defined inclusive economic growth as a development process capable of creating broad economic opportunities, reducing income inequality, and ensuring active participation of all social layers in productive economic activities. This concept differs from pro-poor strategies focused on populations below the poverty line, as inclusive growth encompasses welfare equity across all socioeconomic levels of society.

The inclusive growth analytical framework developed by Ali & Son (2007) combines two fundamental dimensions: the average level of opportunities available to the population and the distribution of these opportunities among various community groups. This approach emphasizes that economic growth must be accompanied by expanded access to education, health, employment, and other productive resources for all social layers. Yin et al. (2022) strengthened this argument by showing that investments in public infrastructure, education, and health services financed through regional budgets can stimulate long-term economic growth while reducing inequality.

In the Indonesian context, inclusive growth indicators published by Bappenas include five main pillars: productive job creation, community economic empowerment, human resource capacity enhancement, comprehensive social protection, and equitable access to basic infrastructure and financing The interrelation between regional financial performance and inclusive economic growth can be explained through complex fiscal transmission mechanisms. When a region achieves high fiscal independence levels, reflected in the PAD ratio to total

regional revenue, that region has greater flexibility in designing and implementing policies that promote economic equity and inequality reduction (Mardiasmo, 2021). Kim et al. (2020) confirmed these findings by showing that fiscal decentralization positively affects inclusive economic growth in developing countries with adequate institutional development levels.

Regional expenditure quality plays a crucial role in realizing inclusive economic growth. Appropriate expenditure allocation for basic infrastructure development, human resource development, and MSME sector strengthening will create multiplier effects in the regional economy. Kumar et al. (2012) emphasized that the effectiveness of regional financial management in promoting growth depends heavily on administrative capacity and budget management transparency.

C. RESEARCH METHOD

The approach used in this research is quantitative research methodology. The analysis unit consists of panel data comprising 418 observations. Specifically, the data period is 2013-2023, forming a panel data structure that combines cross-sectional dimensions of 38 regencies/cities in East Java with time-series of 11 years of observation. This research uses secondary data sourced from the Directorate General of Fiscal Balance (DJPK) and the National Development Planning Agency (Bappenas). The analytical tools used in this research are descriptive statistical analysis, Klassen typology analysis, correlation analysis, and panel data regression analysis (including classical assumption tests and hypothesis testing).

The independent variables (X) in this research are regional financial performance measured through four main indicators. First (X1), the independence ratio describes the level of regional ability to self-finance government activities and development. Second (X2), the effectiveness ratio measures regional government ability to realize regional original revenue compared to established targets. Third (X3), the efficiency ratio shows the comparison between costs incurred to obtain revenue and realized revenue received. Finally (X4), the PAD growth ratio measures how much regional government ability to maintain and improve achievements from period to period. Meanwhile, the dependent variable (Y) is inclusive economic growth that has integrated four indicators: GRDP growth as an indicator of regional economic activity, unemployment rate reflecting labor absorption, poverty rate describing community welfare, and Gini Index measuring income inequality levels.

D. RESULTS AND DISCUSSION

Descriptive Analysis

This study uses a sample of 418 observations consisting of one dependent variable, namely the Inclusive Economic Growth Index (Y), and four independent variables: Independence Ratio (X1), Effectiveness Ratio (X2), Efficiency Ratio (X3), and Growth Ratio (X4). The Inclusive Economic Growth Index (Y) shows an average value of 5.56 with a standard deviation of 0.45. This variable has a range of values between 4.28 to 6.85, showing relatively small variation with a coefficient of variation around 8.1%. The Shapiro-Wilk normality test results show a

probability value of 0.073 ($p > 0.05$), indicating that the Y variable data is normally distributed at the 5% significance level.

Table 1.
Descriptive Statistics Results

Variable	Inclusive Economic Growth Index (Y)	Independence Ratio (X1)	Effectiveness Ratio (X2)	Efficiency Ratio (X3)	Growth Ratio (X4)
Mean	5.5559	25.6153	118.0913	69.3772	123.6323
Std. dev	0.4502	26.6129	23.1957	20.7045	589.4158
Minimum	4.28	7.35	59.18	18.92	-96.59
Maximum	6.85	250.39	271.20	108.44	5454.78
Shapiro-Wilk test (Prob>z)	0.0728	0.00000	0.00000	0.00000	0.00000
Obs	418	418	418	418	418

Source: Author Calculation

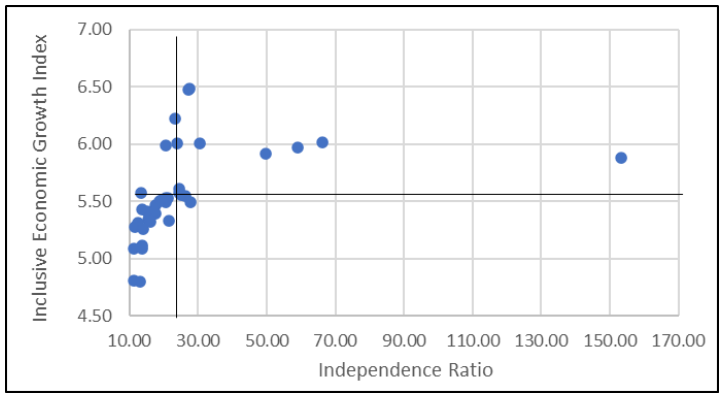
The descriptive statistical results of independence ratio (X1), effectiveness ratio (X2), efficiency ratio (X3), and growth ratio (X4) indicate high heterogeneity across observations. This high variation indicates the presence of significant outliers in the data. These findings suggest the need for special consideration in selecting advanced analytical methods, which may have implications for choosing appropriate regression methods.

The data characteristics shown through descriptive statistics indicate the need for deeper exploration of interrelation patterns between regional financial performance indicators and inclusive economic growth achievement. The high variability in the four financial performance ratios, reflected by large standard deviations and normality test results showing non-normal distributions ($p < 0.05$), indicates significant heterogeneity across regions in financial management. This condition contrasts with the relatively stable Inclusive Economic Growth Index showing normal distribution with low coefficient of variation (8.1%). Therefore, analysis of the interaction between extreme variations in regional financial performance and relatively stable inclusive economic growth achievement is necessary. Thus, quadrant classification approach analysis to identify spatial patterns and performance typology in 38 regencies/cities of East Java is important to conduct.

Quadrant Classification Analysis

Based on quadrant classification using independence ratio boundary of 25.62 and IEIG of 5.56, the distribution of 38 regions in East Java shows significant inequality in fiscal independence, where the majority of regions (65.8% or 25 regions) are in Quadrant 4 with characteristics of low independence and low IEIG, indicating still high dependence on central transfers with suboptimal inclusive economic development quality. Only 7 regions (18.4%) successfully achieved Quadrant 1 as the best category with high independence and IEIG, namely Sidoarjo, Mojokerto, Gresik, Kediri City, Malang City, Madiun City, and Surabaya City (with Surabaya City having the highest independence ratio of 153.29), while 6 regions

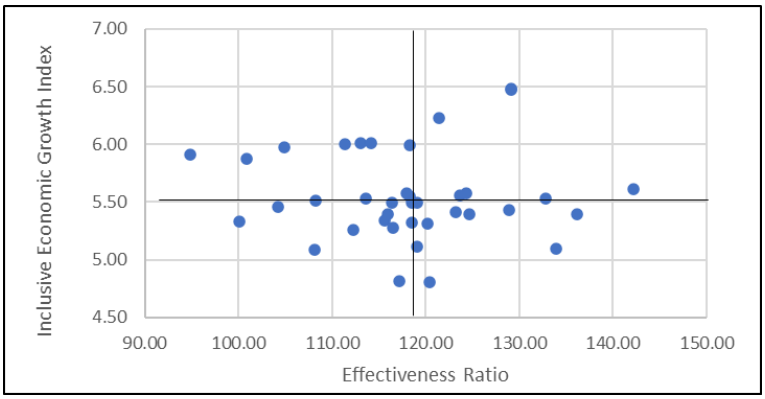
(15.8%) are in Quadrant 2 showing high IEIG but low independence, and only 1 region (Mojokerto City) is in Quadrant 3 with high independence but relatively low IEIG.



Source: Author Calculation

Figure 1.
Quadrant of Inclusive Economic Growth Index with Independence Ratio

Based on quadrant classification using effectiveness ratio boundary of 118.09 and IEIG of 5.56, the distribution of 38 regions in East Java shows an interesting pattern where most regions (36.8% or 14 regions) are in Quadrant 3 with characteristics of high effectiveness but low IEIG, indicating good target achievement but with inclusive economic development quality that still needs improvement. Meanwhile, only 5 regions (13.2%) successfully achieved Quadrant 1 as the best category with high effectiveness and IEIG, namely Tulungagung, Jombang, Kediri City, Blitar City, and Madiun City, while 8 regions (21.1%) are in Quadrant 2 showing high IEIG but low effectiveness, and 11 regions (28.9%) are in Quadrant 4 as the category with weakest performance in both indicators.

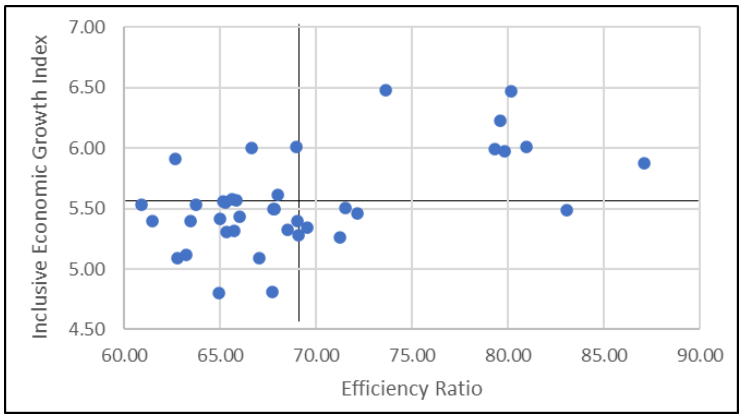


Source: Author Calculation

Figure 2.
Quadrant of Inclusive Economic Growth Index with Effectiveness Ratio

Based on quadrant classification using efficiency ratio boundary of 69.38 and IEIG of 5.56, the distribution of 38 regions in East Java shows a unique pattern in

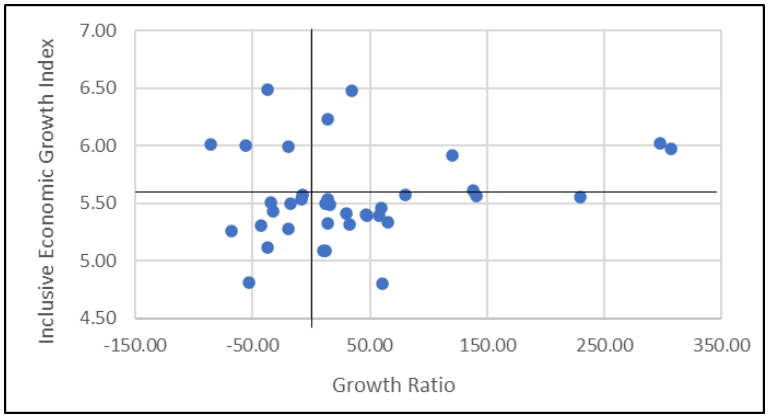
the context of regional financial management efficiency, where the majority of regions (52.6% or 20 regions) are in Quadrant 3 with characteristics of high efficiency (low ratio indicates good efficiency) but low IEIG, indicating relatively efficient financial management but not yet capable of producing optimal inclusive economic development. Meanwhile, there are 7 regions (18.4%) in Quadrant 2 dominated by major cities such as Kediri City, Blitar City, Malang City, Probolinggo City, Pasuruan City, Madiun City, and Surabaya City with characteristics of relatively low efficiency but high IEIG, 6 regions (15.8%) in Quadrant 1 with good efficiency and IEIG (Tulungagung, Sidoarjo, Mojokerto, Jombang, Magetan, and Gresik), and 5 regions (13.2%) in Quadrant 4 with low efficiency and low IEIG.



Source: Author Calculation

Figure 3.
Quadrant of Inclusive Economic Growth Index with Efficiency Ratio

Based on quadrant classification using positive/negative growth ratio boundary and IEIG of 5.56, the distribution of 38 regions in East Java shows high variability in regional financial growth performance. Most regions (42.1% or 16 regions) are in Quadrant 3 with characteristics of positive growth but low IEIG, indicating good growth momentum but not yet capable of transforming it into optimal inclusive economic development. Quadrant 1 as the best category is achieved by 8 regions (21.1%) consisting of Tulungagung, Sidoarjo, Jombang, Gresik, Blitar City, Malang City, Madiun City, and Surabaya City (with Surabaya City having an extraordinarily high growth ratio of 3373.83), while 9 regions (23.7%) are in Quadrant 4 with negative growth and low IEIG as the weakest condition, and 5 regions (13.2%) in Quadrant 2 that despite experiencing negative growth still manage to maintain high IEIG, namely Mojokerto, Magetan, Kediri City, Probolinggo City, and Pasuruan City.



Source: Author Calculation

Figure 4.
Quadrant of Inclusive Economic Growth Index with Growth Ratio

Based on comprehensive analysis of four regional financial performance indicators in East Java, complex and diverse patterns in inclusive economic development achievement in 38 regencies/cities are revealed. Findings show that there is no consistent linear correlation between the four ratios (effectiveness, independence, efficiency, and growth) and IEIG levels, where regions such as Sidoarjo, Surabaya City, and Malang City successfully maintain relatively good performance in most indicators, while the majority of regencies still face challenges in transforming financial target achievements into inclusive economic development. Overall, quadrant distribution in the four indicators indicates that inclusive economic development achievement (high IEIG) does not always align with optimal financial performance.

The findings from quadrant analysis showing heterogeneity in performance among 38 regions in East Java indicate the complexity of relationships between regional financial performance indicators and inclusive economic growth achievement. Significant variation in regional distribution in each quadrant shows that these interrelation patterns are not uniform and require deeper analysis to understand the strength and direction of actual statistical relationships between each financial performance indicator and inclusive economic growth levels.

Correlation Analysis

Based on pairwise correlation analysis results presented in Table 2, it is evident that the relationship between inclusive economic growth index and four regional financial performance indicators in East Java shows diverse patterns. Regional financial independence ratio shows significant positive correlation ($r = 0.3349$, $p < 0.001$), indicating that regions with higher financial independence levels tend to have more inclusive economic growth. Effectiveness ratio shows very weak and statistically insignificant correlation ($r = -0.0514$, $p = 0.2941$), indicating that effectiveness of regional revenue management does not have meaningful relationship with inclusive economic growth. Conversely, efficiency ratio shows significant positive correlation ($r = 0.3645$, $p < 0.001$), showing that the more

efficient regional expenditure management, the higher the level of inclusive economic growth achieved. Meanwhile, financial balance ratio shows weak but significant positive correlation (r = 0.1361, p = 0.0053), showing that regional financial stability contributes positively to inclusive economic growth achievement, although with relatively low relationship level.

Table 2.
Correlation Results of Inclusive Economic Growth Index with Four Regional Financial Performance Indicators

Variable	Pairwise Value	Sig.
Independence Ratio	0.3349	(0.000)
Effectiveness Ratio	-0.0514	(0.294)
Efficiency Ratio	0.3645	(0.000)
Growth Ratio	0.1361	(0.000)

Source: Author Calculation

The correlation analysis results revealing significant relationships between three of four regional financial performance indicators (efficiency, independence, and growth ratios) and inclusive economic growth index, albeit with varying strength levels, provide strong empirical basis for conducting further analysis in estimating specific impact magnitude of each variable. Considering that correlation only shows relationship strength and direction without being able to explain causality and actual influence magnitude, panel data regression analysis approach is needed that can accommodate heterogeneity characteristics across regions and temporal variation to provide more comprehensive estimation regarding quantitative impact of regional financial performance on inclusive economic growth achievement in 38 regencies/cities in East Java.

Panel Data Analysis

Panel data regression model selection was conducted to choose among several formed models. Methods that can be used are Chow test, Hausman test, and LM test. Chow test is used to compare common model with fixed model, Hausman test is used to compare fixed model with random model, and LM test to compare random model with common model. The research uses LM test and Hausman test to determine the panel data regression model.

Based on panel data estimation model selection test results, two stages of testing have been conducted to determine the most appropriate model. The Lagrange Multiplier (LM) test comparing Common Effect Model with Random Effect Model concluded that Random Effect Model is more appropriate for use in this research. Furthermore, Hausman test comparing Fixed Effect Model with Random Effect Model also shows that Random Effect Model is the best choice for panel data analysis in this research. Thus, both tests consistently direct toward using Random Effect Model as the optimal estimation model.

Table 3.
Model Selection Conclusion Results

No	Test	Testing	Model Conclusion
1	LM Test	Common Effect Model vs Random Effect Model	Random Effect Model
2	Hausman Test	Fixed Effect Model vs Random Effect Model	Random Effect Model

Source: Author Calculation

The consequence of this model selection is the use of Cross-sectional time-series Generalized Least Squares (FGLS) regression capable of accommodating complex variance-covariance structures in panel data. FGLS method automatically corrects heteroscedasticity and autocorrelation problems commonly appearing in panel data, thus producing efficient estimators with homoscedastic and independent residual assumptions. Nevertheless, to ensure estimation result validity, multicollinearity testing is still required as fundamental requirement in multiple regression analysis to evaluate independence among predictor variables.

Table 4.
Multicollinearity Test Results

Variable	Uncentered VIF
Efficiency Ratio	7.58
Effectiveness Ratio	7.26
Independence Ratio	4.96
Growth Ratio	2.69
Mean VIF	5.62

Source: Author Calculation

Based on the multicollinearity test results show that all independent variables in the research model meet requirements for use in panel data regression analysis. Variance Inflation Factor (VIF) values for the four independent variables are within acceptable range, with efficiency ratio showing highest VIF value of 7.58, followed by effectiveness ratio (7.26), independence ratio (4.96), and growth ratio (2.69). Although effectiveness and efficiency ratios show relatively high VIF values, they are still below the critical limit of 10. This indicates that although there are correlations among independent variables, multicollinearity level is not severe enough to disrupt stability and interpretability of model estimation results. With this non-multicollinearity assumption fulfilled, Random Effect model with FGLS estimation can proceed to analyze regional financial performance impact on inclusive economic growth in East Java.

Table 3.
Model Estimation Results

Variable	Coefficient	Std. Error	z	P>|z|
Independence Ratio	0.00934	0.00115	8,07	0.000
Effectiveness Ratio	0.00150	0.00085	1,17	0.077
Efficiency Ratio	0.00744	0.00096	7,73	0.000

Variable	Coefficient	Std. Error	z	P>|z|
Growth Ratio	-0.00025	0.00005	-4,89	0.000
Constant	4.65357	0.13886	33,51	0.000
Obs	418			
R-squared (overall)	0.2027			
Wald chi2(4)	100.59			
Prob > chi2	0.0000			

Source: Author Calculation

The panel data regression analysis results using the Random Effect Model with FGLS estimation presented in Table 3 show significant findings regarding the influence of regional financial performance on inclusive economic growth in 38 regencies/cities in East Java. The overall regression model shows strong statistical significance with a Wald chi-square value of 100.59 ($p < 0.001$), indicating that the independent variables simultaneously have a meaningful influence on the Inclusive Economic Growth Index. Although the overall R-squared value of 0.2027 shows that the model can only explain about 20.27% of the variation in IPEI, this is still within a reasonable range for panel data containing the complexity of heterogeneity between regions.

Individually, the three regional financial performance variables show positive and significant effects on IPEI with different levels of significance. The independence ratio has the strongest positive impact with a coefficient of 0.00934 ($p < 0.001$), indicating that every 1% increase in the independence ratio will increase IPEI by 0.00934 points. The efficiency ratio also shows a significant positive effect with a coefficient of 0.00744 ($p < 0.001$), showing that more efficient regional expenditure management contributes positively to achieving inclusive economic growth. The effectiveness ratio shows a positive coefficient of 0.00150 which is significant at the 10% level ($p = 0.077$), indicating that although its effect is relatively weaker compared to the other two variables, achieving regional revenue targets still provides a positive contribution to improving the quality of inclusive economic growth.

Contradictory results are found in the growth ratio which shows a negative and significant effect with a coefficient of -0.00025 ($p < 0.001$). This finding indicates that regional financial growth that is too fast or fluctuative can actually have a negative impact on the stability and quality of inclusive economic growth. The model constant of 4.654 ($p < 0.001$) shows the baseline IPEI level that will be achieved when all financial performance variables are at zero value, while the moderate coefficient of determination indicates that there are still other factors outside regional financial performance that contribute to achieving inclusive economic growth. Overall, the panel data regression results provide strong empirical evidence that regional financial performance, particularly in aspects of independence and efficiency, has a strategic role in driving inclusive economic growth in East Java.

Interrelation Pattern of Regional Financial Performance on Inclusive Economic Growth

The complex interrelation pattern between regional financial performance and

inclusive economic growth revealed in this study aligns with findings by Karim et al. (2022) which confirm that the relationship between financial inclusion and economic growth is nonlinear and has certain thresholds. The inconsistency of quadrant distribution patterns in the four indicators (effectiveness, independence, efficiency, and growth) indicates that achieving high IPEI does not always depend on optimizing one dimension of financial performance partially, but requires a holistic approach that considers synergy between dimensions. The quality of government institutions, including government effectiveness and political stability, has a crucial role in transforming financial development into sustainable economic inclusion. The finding that urban-characterized regions such as Surabaya City and Sidoarjo tend to show better performance in achieving balance between financial indicators and IPEI, while most regencies experience gaps, reflects structural complexity in Indonesia's fiscal decentralization system.

The theoretical implications of these findings strengthen the view that the effectiveness of regional fiscal policy in driving inclusive economic growth cannot be understood through a mechanistic approach that emphasizes optimization of financial ratios alone, but requires deep understanding of institutional context and local governance capacity. Siddiki & Bala-Keffi (2024) in their study using panel threshold regression on 153 countries show that there is an optimal level in the relationship between financial inclusion and economic growth, where achievement above or below certain thresholds can produce different impacts. In the context of regions in East Java, the identified performance heterogeneity shows that each region has different 'optimal paths' in configuring their financial resources to achieve inclusive development goals. This strengthens the argument for the importance of differentiation and customization policies in regional development strategies, which not only focus on standardizing financial indicators but also consider specific characteristics, institutional capacity, and local economic potential of each region.

Correlation of Regional Financial Performance with Inclusive Economic Growth

The results of this study confirm theoretical arguments proposed in development economics literature that regional financial performance has a strategic role in driving inclusive economic growth, but with complex and varied mechanisms. The finding of significant positive correlation between efficiency and financial independence ratios with inclusive economic growth aligns with endogenous growth theory which emphasizes the importance of efficient resource allocation in accelerating long-term growth (Ahmad et al., 2019). Research findings related to the role of efficiency ratios in driving economic inclusivity support the results of Okunlola et al. (2024) study. That study shows that effective government spending can increase real economic growth. The absence of significant correlation in the effectiveness ratio indicates that regional ability to achieve revenue targets does not necessarily correlate directly with achieving inclusive growth, but rather depends on how these resources are allocated and utilized for pro-poor and pro-inclusive programs.

Significant correlation variations between regions reflect heterogeneity of economic characteristics and institutional capacity that affect the effectiveness of

fiscal policy in driving inclusivity. The findings of this study align with the results of Ihwandi & Khoirunurrofik (2023) study which found that regional context has an important role in determining the effectiveness of the relationship between regional financial performance and inclusive development. Regions with more diverse economic structures and better governance capacity tend to show stronger positive correlations, while regions with high dependence on certain sectors or limited institutional capacity show different patterns. This implies that strategies for improving inclusive economic growth through optimizing regional financial performance need to be adjusted to the specific conditions of each region, considering geographical characteristics, economic structure, and existing governance capacity.

Effect of Independence Ratio on Inclusive Economic Growth Level

The positive and significant effect of the independence ratio on the Inclusive Economic Growth Index aligns with fiscal federalism theory which emphasizes the importance of fiscal autonomy in driving resource allocation efficiency and responsiveness to local needs (Oates, 1999). This result confirms the argument that in fiscal decentralization systems, fiscal capacity building is very important because regional governments must be able to manage their own financial resources effectively to meet local population needs and advance regional development (Sakti, 2024). The findings in this study align with research by Canare (2020) which identified a negative relationship between fiscal independence of regional governments and poverty levels in Philippine provinces. This indicates that fiscal independence not only contributes to aggregate economic growth, but also to the quality of inclusive development. Research by Ihwandi & Khoirunurrofik (2023) also shows that regional financial performance, including fiscal independence ratios, significantly affects inclusive economic development, while fiscally independent regions are better at reducing poverty and unemployment. This mechanism can be explained through the enhanced accountability hypothesis, which means that low dependence on central transfers encourages regional governments to be more accountable in financial management and more responsive to local community preferences, ultimately contributing to achieving higher quality and inclusive growth.

Effect of Effectiveness Ratio on Inclusive Economic Growth Level

The positive and significant effect of the effectiveness ratio on the Inclusive Economic Growth Index shows that regional government ability to achieve revenue targets contributes to inclusive economic development. This finding aligns with government effectiveness theory which emphasizes that government administrative ability to implement established fiscal policies is an important prerequisite for achieving development goals (Kaufmann et al., 2010). The results of this study support the study by Zein et al. (2024) which identified significant effects of effectiveness ratios on economic growth. That research shows that effectiveness in achieving regional revenue targets contributes to fiscal stability needed to support sustainable development programs. However, relatively weak significance compared to independence and efficiency ratios indicates that achieving revenue

targets alone is not sufficient to guarantee inclusive growth quality without being supported by optimal management capacity. This is consistent with findings by Muhtar (2023) which show that regional government contribution to inclusive economic development in Indonesia does not only depend on fiscal target achievement. Transformative ability in allocating resources for programs that directly impact community welfare improvement also affects inclusive economic development. This phenomenon can be explained through the adaptive efficiency hypothesis perspective, which emphasizes that high administrative effectiveness enables regional governments to be more responsive to local economic dynamics and optimize budget allocation to support sectors that can increase economic growth inclusivity.

Effect of Efficiency Ratio on Inclusive Economic Growth Level

The positive and significant effect of the efficiency ratio on inclusive economic growth shows that efficient regional expenditure management plays a role in quality economic development. This finding aligns with public expenditure efficiency theory which states that governments capable of using budgets efficiently will produce better outputs for society. Research in Latin American countries shows that government expenditure efficiency can improve socio-economic performance by using fewer resources but producing greater impact (Afonso & Fraga, 2024). The study by Purwanti & Nurhidayati (2025) shows that efficient regional government expenditure, especially for education and road infrastructure, proves to strengthen the inclusive economic development index. This can be explained through the productive efficiency concept where efficient regional governments are able to allocate budgets to productive sectors that provide direct benefits to society, such as improving human resource quality and infrastructure supporting economic activities. Thus, high efficiency ratios not only reflect technical ability in budget management, but also show regional government commitment to maximizing development impact for comprehensive community welfare.

Effect of Growth Ratio on Inclusive Economic Growth Level

The negative and significant effect of the growth ratio on inclusive economic growth shows that regional financial growth that is too fast can harm the quality of economic development. This finding aligns with sustainable growth theory which states that excessive economic growth without balanced mature planning can cause instability (Stiglitz, 2019). Recent research in developing countries shows that very high fiscal growth is often unsustainable and can create distortions in resource allocation (Prasetyia, 2021). Studies in Indonesia also support this finding, where analysis of fiscal policy shows that uncontrolled budget growth can disrupt macroeconomic stability and reduce the effectiveness of inclusive development programs (Indrawati et al., 2024). This phenomenon can be explained through the fiscal volatility theory concept which shows that extreme financial growth fluctuations create uncertainty in development planning and reduce regional government ability to make long-term investments supporting inclusivity. Research in ECOWAS countries also shows that government expenditure effectiveness in driving real economic growth heavily depends on good stability and control, not on

the magnitude of growth alone (Okunlola et al., 2024). This shows that regional financial management quality is more important than budget growth speed in creating inclusive and sustainable economic development.

E. CONCLUSIONS

Based on research objectives and discussion results that have been outlined, it can be concluded that the interrelation between regional financial performance and inclusive economic growth in 38 regencies/cities in East Java shows complex and varied patterns, where optimal achievement of the Inclusive Economic Growth Index (IPEI) does not depend on optimizing one dimension of financial performance partially, but requires a holistic approach that considers synergy between dimensions with specific characteristics of each region. The significant correlation identified between efficiency and financial independence ratios with inclusive economic growth confirms that regional ability to manage resources efficiently and independently plays a strategic role in driving quality and inclusive economic development. Impact analysis shows that independence, effectiveness, and efficiency ratios provide significant positive effects on inclusive economic growth levels, while growth ratios actually have negative effects, indicating that stability and quality of regional financial management are more important than budget growth speed in creating inclusive and sustainable economic development. These findings provide empirical contributions to fiscal decentralization literature by emphasizing the importance of differentiation and customization policies in regional development strategies that not only focus on standardizing financial indicators, but also consider institutional capacity and local economic potential to achieve more inclusive and sustainable economic growth. Future research should prioritize longer-term longitudinal analysis to capture dynamic changes in the relationship between regional financial performance and inclusive economic growth, particularly examining how external shocks such as economic crises or policy changes affect these relationships, while employing threshold regression models to identify optimal levels of financial performance ratios that maximize inclusive economic growth as suggested by the nonlinear relationship patterns observed in this study.

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