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DOES GOVERNANCE MATTER? THE CONDITIONAL IMPACT OF FISCAL DECENTRALIZATION ON PUBLIC WELFARE

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Abstract

Fiscal decentralization has been widely implemented in Indonesia with the objective of improving public welfare through greater local autonomy and more responsive public service delivery. Empirical results remain inconsistent, implying that the welfare implications of fiscal decentralization depend on complementary institutional arrangements. This study aims to examine the effect of fiscal decentralization and governance quality on public welfare in Indonesia, as well as to assess whether governance quality moderates the relationship between fiscal decentralization and public welfare outcomes. The study employs a quantitative approach using static panel data covering 29 provinces over the period 2015–2024. A fixed effects model is applied following a series of model selection tests, and mean-centering is used to address multicollinearity arising from interaction terms. The findings from FEM mean-centering (FEM_c) estimation indicate that fiscal decentralization and governance quality each exert a positive influence on public welfare, while the interaction results suggest that better governance strengthens the welfare-enhancing effect of fiscal decentralization. These results highlight that the benefits of fiscal decentralization are conditional upon institutional quality rather than automatic. The study contributes to the literature by integrating governance quality as a critical moderating factor, expanding existing theoretical frameworks on fiscal decentralization. It underscores that enhancing governance capacity at the local level is essential for ensuring that fiscal decentralization effectively improves public welfare in Indonesia.

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INTRODUCTION

Welfare disparity in Indonesia is a persistent issue, marked by significant differences in economic output and access to basic services across the country's regions. Economic activity and development are disproportionately concentrated in Java-Bali, which accounts for around 56–58 percent of Indonesia's total Gross Domestic Product (GDP) (Statistics Indonesia, 2025), leaving other regions, such as Kalimantan, Sulawesi, and Maluku, with far lower contributions. This imbalance is reflected not only in income disparities but also in access to critical services like education and healthcare. Data shows that regions outside Java-Bali consistently experience lower per capita income and poorer access to basic infrastructure, creating a widening gap in living standards. These inequalities are closely linked to broader challenges in poverty alleviation and regional development, highlighting the need for targeted policy interventions to address the structural disparities that hinder more balanced economic growth across Indonesia.

Fiscal decentralization is a public policy instrument designed to enhance the efficiency and effectiveness of public resource utilization by transferring financial management authority from the central government to local governments, thereby promoting improvements in public welfare through more responsive and efficient public services. In the public economics and fiscal federalism literature, delegation of fiscal authority to subnational governments allows the provision of public goods and services that are better aligned with local preferences, which theoretically can enhance the efficiency of resource allocation and social welfare (Avcı & Karasoy, 2020; Ayala et al., 2021; Nasrullah et al., 2021). This theoretical framework suggests that fiscal decentralization, when effectively implemented, could lead to better-targeted interventions that address regional disparities in welfare, ultimately fostering more inclusive and balanced development.

In Indonesia, fiscal decentralization aims, among other things, to improve public welfare by strengthening the role of local governments in managing public expenditure that is more responsive to local needs. Its main mechanism works through increased spending on social infrastructure, particularly the health and education sectors, which tend to be prioritized in communities with strong social cohesion and traditions of local democracy because they have a direct impact on citizens quality of life (Pal & Wahhaj, 2017). In addition, fiscal decentralization affects welfare through the channels of economic growth and income distribution, but its impact is heterogeneous across regions; in some areas, such as East Kalimantan, increased fiscal authority has not been able to significantly improve welfare and may even widen income inequality (Roy et al., 2019). From the human development perspective, local spending in education and economic sectors drives convergence in the Human Development Index (HDI), while poverty, unemployment, and the effectiveness of health spending become limiting factors in welfare improvements (Susilo et al., 2026). Furthermore, fiscal decentralization also operates through infrastructure development, but the effectiveness of village funds and infrastructure spending heavily depends on budget management capacity, where only regions with high fiscal autonomy and competitiveness can convert fiscal resources into improvements in public welfare (Tasum et al., 2025).

Although fiscal decentralization provides broader policy space for local governments, the magnitude of its benefits for public welfare is largely determined by the quality of governance. Good governance serves as a filtering mechanism that ensures that increased authority and fiscal resources are translated into productive, targeted public spending oriented toward the public interest (Afonso et al., 2024; Hung & Thanh, 2022; Rejeki & Yasa, 2024; Wang et al., 2024). Effective governance functions as a key mechanism to maximize the benefits of fiscal decentralization through transparency and accountability in public decision-making processes, which in turn builds public trust and ensures the efficient and targeted use of resources (Avcı & Karasoy, 2020). Moreover, active citizen participation in local planning and budgeting processes is the foundation of good governance because it allows the alignment of fiscal policies with real community needs, thereby increasing the effectiveness of public spending and the welfare impact of fiscal decentralization.

Furthermore, strengthening the institutional capacity of local governments is an important prerequisite for supporting the success of fiscal decentralization. This capacity encompasses the technical and administrative abilities of local officials to manage decentralized fiscal functions, which require support in training, adequate human resources, and strong institutional systems (Mesfin & Teka, 2023; Sanyare et al., 2025). The existence of a clear and consistent regulatory framework also plays a crucial role in defining roles and responsibilities across levels of government, thereby minimizing conflicts of authority and political interference that can hinder the implementation of decentralization policies (Sanyare et al., 2025). In addition, increasing local financial autonomy through the authority to generate own-source revenue can strengthen fiscal accountability and encourage more responsible financial management while reducing dependence on central transfers (Kim et al., 2022). Thus, strong governance, encompassing transparency, participation, institutional capacity, a robust regulatory framework, and financial autonomy, becomes a crucial factor in ensuring that fiscal decentralization can indeed enhance public welfare.

Empirical literature on fiscal decentralization and public welfare still shows inconsistent results, with findings ranging from positive effects to weak or even negative ones. This inconsistency suggests that the impact of fiscal decentralization on welfare is non-linear and highly contingent upon institutional conditions. However, most previous studies analyze fiscal decentralization and governance separately, without explicitly testing how the quality of governance moderates or strengthens the impact of fiscal decentralization on community welfare. In the context of Indonesia, studies that simultaneously examine the effects of fiscal decentralization and governance on community welfare, especially those emphasizing their interaction effects, are still limited. Therefore, research that integrates both aspects is needed to more comprehensively explain the variation in welfare outcomes across regions.

Based on the above descriptions, the hypotheses that can be constructed in this study are as follows.

H_1: Fiscal decentralization has a positive effect on public welfare

H_2: The quality of governance has a positive effect on public welfare

H_3: Fiscal decentralization accompanied by good governance quality has a positive effect on public welfare

RESEARCH METHOD

This study uses a quantitative approach with a static panel data model to analyze the influence of fiscal decentralization and governance on public welfare, estimated using STATA-16 software. The unit of analysis in this study is all provinces in Indonesia, excluding provinces with special autonomy status and administrative specialness. Aceh, Papua, West Papua, Jakarta, and Yogyakarta are excluded from this study due to their unique administrative and political statuses, which distinguish them from other provinces in Indonesia. Aceh holds special autonomy under Law No. 11/2006, granting it greater governance and resource management authority. Papua and West Papua are also granted special autonomy through Law No. 21/2001, allowing them more control over their political and economic affairs. Jakarta, as the national capital, operates under a distinct administrative structure linked directly to the central government. Yogyakarta, while not fully autonomous, has a special status that grants the Sultan the role of governor, further differentiating it from other provinces. These unique characteristics could introduce biases in the analysis, particularly in terms of governance and resource allocation, and therefore, excluding these provinces ensures a more homogeneous and representative dataset for the study. Thus, the number of observations in this study includes 29 provinces observed over ten years, from 2015 to 2024.

This study uses a static panel data analysis approach to estimate the relationships among the study variables. The use of static panel data allows the combination of cross-section and time series dimensions simultaneously, thereby capturing variation between provinces as well as dynamics of

change over time. Within the static panel analysis framework, selecting the most appropriate estimation model is a crucial stage to obtain consistent and unbiased results. Therefore, this study considers three alternative estimation models, namely pooled least squares (PLS), fixed effects model (FEM), and random effects model (REM).

The first stage in model selection is conducted through the Chow Test, which aims to determine whether the panel data can be estimated using the PLS model or requires a model with individual effects. The Chow Test examines the null hypothesis that the regression coefficients are the same across groups, so the PLS model is considered valid. Conversely, if there are significant differences between groups, then the PLS model is not appropriate and the use of a model with individual effects, such as FEM or REM, is required (Granger & Newbold, 1974). In this test, the null hypothesis will be rejected if the p-value is less than the 5 percent significance level, indicating that a model with individual effects is more appropriate.

Furthermore, if the Chow Test indicates that a model with individual effects is more suitable, the Hausman Test is performed to decide between FEM and REM. The Hausman Test is used to examine whether there is a correlation between unobserved individual effects and the independent variables in the model. If such a correlation exists, using REM will produce inconsistent estimates, making FEM the more appropriate choice. Conversely, when individual-specific effects are uncorrelated with the explanatory variables, REM is considered more efficient because it yields estimates with smaller variances (Frondel & Vance, 2010). Operationally, the model selection decision is based on the Hausman Test p-value, where a value below 0.05 indicates the selection of FEM, while a value above 0.05 points to the use of REM.

After the most appropriate static panel model is determined, this study then conducts classical assumption tests to ensure the reliability of the estimation results. These tests include multicollinearity tests to ensure there is no high correlation among independent variables, and heteroskedasticity tests to detect unequal error variances in the model. Meeting these assumptions is important to ensure that the estimated model produces unbiased coefficients and can be validly interpreted in explaining the relationship between fiscal decentralization, governance quality, and public welfare.

Table 1.
Variable Description

No	Variables	Indicator	Unit	*Source*
Dependent Variable				
1	Public Welfare (*pubwelf*)	Human Development Index	unit	Statistics Indonesia
Independent Variables				
2	Fiscal Decentralization (*FD*)	$\frac{Local\ Own\ Source\ Revenue}{Total\ Regional\ Revenue}$	unit	Ministry of Finance of the Republic of Indonesia
3	Quality of Governance (*gov*)	Institutional Capacity Aspect of Democracy in the Indonesian Democracy Index	unit	Statistics Indonesia
4	Interaction of Fiscal Decentralization and Quality of Governance (*FDxgov*)	FD × gov	unit	Statistics Indonesia

Source: Data Processed, 2026

Based on Table 1, the dependent variable in this study is public welfare (*pubwelf)*, proxied by the Human Development Index (HDI). HDI is chosen because it reflects multidimensional welfare, encompassing health, education, and a decent standard of living. This broad measure allows for a more comprehensive assessment of public welfare, as it goes beyond traditional income-based indicators to capture a more holistic view of societal well-being. By incorporating factors such as life expectancy, educational attainment, and income levels, HDI provides a nuanced understanding of how fiscal and institutional policies impact the quality of life across different regions. Additionally, HDI's wide

acceptance in academic research and policy evaluation makes it a robust and reliable proxy for public welfare, ensuring that the study's findings are grounded in a well-established framework that reflects the complex interplay of various socio-economic factors.

The main independent variable is fiscal decentralization (*FD*), measured using the ratio of Local Own Source Revenue (local revenue) to total regional revenue (Zukhri, 2020). The use of the ratio of Local Own Source Revenue (local revenue) to total regional revenue as a measure of fiscal decentralization (*FD*) is grounded in its ability to reflect the degree of financial autonomy that local governments have in generating their own revenue. Local revenue represents the revenue generated independently by regional governments through taxes, levies, and other local sources, while total regional revenue encompasses all financial resources available, including transfers from the central government. By focusing on the Local revenue-to-total revenue ratio, this measure captures the proportion of financial resources that are locally controlled versus those reliant on central government transfers, providing a clear indication of the level of fiscal independence and decentralization at the regional level. This approach allows for a nuanced understanding of how much authority local governments have in managing their financial resources, which is central to assessing the effectiveness of fiscal decentralization policies.

Furthermore, the quality of government governance (*gov*) is measured using the institutional capacity aspect of democracy in the Indonesian Democracy Index. This indicator reflects the institutional quality of local government in performing governance functions that are transparent, accountable, and participatory, as measured by the capacity of democratic institutions to respond to citizen demands and execute their roles effectively (Gismar, 2021; Setiawan et al., 2022). Finally, to test the role of government governance in strengthening the effectiveness of fiscal decentralization, this study also includes an interaction variable between fiscal decentralization and the quality of government governance (*FD*×*gov*). This interaction variable is used to capture conditional effects, that is, whether the impact of fiscal decentralization on public welfare becomes stronger when supported by better governance quality.

This study examines the impact of fiscal decentralization on public welfare by incorporating an interaction term between fiscal decentralization and government governance quality. The use of an interaction variable can potentially cause high multicollinearity between the main variables and the interaction variable due to their mechanical relationship in formation. Therefore, this study applies a mean-centering procedure to the fiscal decentralization and government governance variables before forming the interaction variable. Mean-centering is performed by subtracting the variable's value by its mean, thereby increasing estimation stability and facilitating interpretation of regression coefficients without changing the substantive meaning of the relationships among variables (Aiken et al., 1991).

The application of mean-centering in this study is not intended to eliminate multicollinearity, but to reduce the mechanical correlation between the main variables and the interaction variable and clarify the interpretation of conditional effects. Consistent with Echambadi & Hess (2007), mean-centering does not change the significance or direction of the interaction coefficient, but helps produce numerically more stable estimates. Additionally, following Boehmke (2006), the coefficient of fiscal decentralization in the interaction model is interpreted as its effect on public welfare at the average level of governance quality, while the interaction coefficient indicates how the quality of governance strengthens or weakens the effect of fiscal decentralization. This approach aligns with the research objective, namely, to test whether fiscal decentralization becomes more effective in improving public welfare when supported by better government governance.

Based on the above description, the empirical model that can be developed in this study is as follows.

$$pubwelf_{it} = \beta_0 + \beta_1 FD_{it} + \beta_2 gov_{it} + \beta_3 (FD \times gov)_{it} + \delta_{it} \quad \text{..... (1)}$$

where, $pubwelf_{it}$ represents the level of public welfare in the province i in the year t. Variable FD_{it} indicates the level of fiscal decentralization, while gov_{it} reflects the quality of government governance. To capture the role of governance in shaping the effectiveness of fiscal decentralization, this model includes the interaction variable $(FD \times gov)_{it}$. Coefficient β_1 and β_2 respectively measure the direct effects of fiscal decentralization and government governance on public welfare, while the coefficient β_3 represents the moderating effect of government governance in that relationship. A positive value β_3 indicates that the quality of government governance strengthens the influence of fiscal decentralization on public welfare. Meanwhile, δ_{it} is the error component that includes other factors outside the model that also affect interprovincial and intertemporal public welfare.

RESULT AND DISCUSSION

Descriptive statistics are employed to summarize the distributional patterns and key characteristics of the study variables before econometric estimation. This presentation aims to identify tendencies in mean values, levels of variation, and data ranges across provinces and over time, thereby helping to understand the initial condition of the panel data analyzed in the next stage.

Table 2.
Descriptive Statistics

Variables	N	Mean	Std. Dev	Min	Max
pubwelf	290	70.83	2.921	62.67	78.83
FD	290	0.405	0.145	0.131	0.735
gov	290	72.97	8.846	47.25	93.98

Source: Data Processed, 2026

Table 2 presents descriptive statistics for all research variables observed in 29 provinces in Indonesia during the period 2015–2024, with a total of 290 observations. The public welfare variable (*pubwelf*) proxied by the Human Development Index (HDI) has a mean value of 70.83, with a standard deviation of 2.921. The wide HDI range, from 62.67 to 78.83, indicates significant variation in welfare levels across provinces, suggesting regional disparities in human development. Next, the fiscal decentralization variable (*FD*) has a mean value of 0.405 with a standard deviation of 0.145. The minimum value of 0.131 and the maximum of 0.735 indicate considerable differences in levels of fiscal autonomy across provinces. This variation reflects the heterogeneity of regional fiscal capacity to finance public expenditures independently, making it relevant for further analysis in relation to public welfare. Meanwhile, the government governance quality variable (*gov*) shows a mean value of 72.97 with a standard deviation of 8.846. The wide value range, from 47.25 to 93.98, indicates marked differences in institutional quality and governance capacity across provinces. The high variation in this governance variable strengthens the empirical justification to test its role as a moderating factor in the relationship between fiscal decentralization and public welfare. Overall, the descriptive statistics show adequate variation in all research variables, supporting the feasibility of panel regression analysis conducted in the next stage.

In static panel data analysis, selecting the appropriate estimation model is an important step to obtain consistent and unbiased results. Therefore, the selection of the optimal panel data model—PLS, FEM, or REM—is based on the results of the Chow and Hausman tests (Arigya et al., 2025; Kharisma et al., 2024; Verbeek, 2021).

Table 3.
Static Panel Model Estimation Results

Variables	PLS	FEM	REM
FD	-1.148	6.375	5.054
	(7.600)	(5.086)	(4.938)
Gov	-0.0295	0.00663	0.00283
	(0.0444)	(0.0278)	(0.0274)
FDxgov	0.168	0.110*	0.117*
	(0.104)	(0.0642)	(0.0634)
Constant	68.46***	64.51***	65.10***
	(3.197)	(2.168)	(2.144)
Observations	290	290	290
R-squared	0.332	0.333	0.333
Number of prov	29	29	29

*Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1*
Source: Data Processed, 2026

The initial stage was carried out by the Chow test to compare the suitability of the PLS and FEM models. The Chow test result, as seen from the PLS estimation, shows a Prob > F value of 0.000, which is smaller than the 5 percent significance level, so the null hypothesis stating that the PLS model is more appropriate is rejected. Thus, this result indicates significant differences in characteristics across provinces, making the use of an individual effects model, namely FEM, more appropriate.

Furthermore, to choose between FEM and REM, this study conducted a Hausman test. Based on the FEM model estimation results, the Prob > Chi² value was 0.000, which is also below the 5 percent significance level, so the null hypothesis is rejected. This finding indicates a correlation between unobserved individual effects and the independent variables in the model, meaning REM may produce inconsistent estimates. Therefore, the FEM is considered more appropriate because it can control for individual heterogeneity that is constant over time. Based on the Chow and Hausman test results, it can be concluded that the fixed effect model (FEM) is the most suitable estimation model for this study.

The multicollinearity test was carried out to ensure that the explanatory variables in the regression model do not have excessively strong correlations with each other, which could undermine the reliability of the estimation results. High multicollinearity can increase the variances of regression coefficients, making estimates unstable and standard errors larger, even if the overall model appears significant. The Variance Inflation Factor (VIF) is widely used as a diagnostic measure for identifying multicollinearity, which measures how much the variance of a regression coefficient is increased due to correlation among explanatory variables. The VIF value is calculated by regressing one independent variable against the other independent variables and using the coefficient of determination (R^2) from that regression, with the equation $VIF = \frac{1}{1-R^2}$ (J. H. Kim, 2019; Tamura et al., 2019). In general, VIF values above 5 or 10 are often used as indications of significant multicollinearity, although these thresholds are conventional and should be interpreted carefully according to the model context and research objectives (Kalnins & Praitis Hill, 2025).

Table 4.
Multicollinearity Test

Variables	VIF	VIF (mean-centering)
FD	73.38	1.03
gov	60.54	1.03
FDxgov	7.75	1.01

Source: Data Processed, 2026

Table 4 presents the multicollinearity test results using the Variance Inflation Factor (VIF) before and after mean-centering. Before mean-centering, the VIF values for fiscal decentralization (FD) and

governance (gov) were very high, above common thresholds, indicating serious multicollinearity in the model. This condition is mainly caused by the interaction variable between fiscal decentralization and governance (FD×gov), which mechanically has a high correlation with its component variables. However, after mean-centering the FD and gov variables before forming the interaction variable, all VIF values dropped substantially to around 1. This indicates that multicollinearity was substantially reduced without changing the model structure or the substantive meaning of the relationships between variables. These findings confirm that mean-centering enhances estimation stability and ensures that the estimated regression model is not affected by multicollinearity, which could undermine the reliability of the analysis results.

Furthermore, the heteroskedasticity test in this study was conducted using the Kezdi test, which is specifically designed to detect heteroskedasticity and error dependence in panel data, both cross-sectionally and over time. This test evaluates three alternative hypotheses, namely cross-sectional homoskedasticity, absence of error autocorrelation, and the joint condition of homoskedasticity and lack of error dependence, each compared to the null hypothesis that states the presence of heteroskedasticity (Dwipatna et al., 2025)

Table 5.
Heteroskedasticity Test

Test for	Statistic	P-value
H_1 vs. H_0	10.666	0.154
H_2 vs. H_0	6.225	0.514
H_3 vs. H_0	4.934	0.668

Note: H_1: Cross-sectional homoskedasticity; H_2: Serially uncorrelated: e_it, x_it or both; H_3: Homoskedasticity and serially uncorrelated; H_0: Heteroskedasticity
Source: Data Processed, 2026

The test results presented in Table 5 show that all p-values are above the 5 percent significance level, namely 0.154 for H_1 vs. H_0, 0.514 for H_2 vs. H_0, and 0.668 for H_3 vs. H_0. These findings indicate there is not enough statistical evidence to reject the hypotheses supporting homoskedasticity and error independence. Thus, based on the Kezdi test, it can be concluded that the panel regression model used does not suffer from heteroskedasticity problems, so the classical assumption regarding equal error variance is met, and the fixed effects model estimation results can be interpreted validly.

After the regression model was found to meet the classical assumptions, including no multicollinearity and heteroskedasticity issues, the subsequent analysis focused on estimating relationships between variables using a fixed effect model (FEM). Estimation was carried out by first applying a mean-centering process to the fiscal decentralization and quality of governance variables before forming the interaction variable, to improve estimation stability and clarity of coefficient interpretation. With this approach, the FEM estimation results presented in the following section provide a more reliable empirical picture of the direct effects of fiscal decentralization and governance quality, as well as the role of governance quality in strengthening the relationship between fiscal decentralization and societal welfare. Below are the FEM estimation results using the mean-centering approach.

Table 6 presents the fixed effect model (FEM) estimation results after mean-centering was applied to the fiscal decentralization and governance quality variables. The constant value of 70.81, significant at the 1 percent level, represents the average value of societal welfare when all independent variables are at their mean values, which is a direct implication of applying mean-centering. Overall, the model can explain about 33.3 percent of the variation in welfare, as indicated by the R-squared value of 0.333. Specifically, the within R-squared for the Fixed Effects Model (FEM) reflects the proportion of variation in welfare explained by differences within provinces over time. This measure focuses on the variation occurring within each province, isolating the effects of time-varying factors while controlling for unobserved, time-invariant heterogeneity between provinces. With 290 observations covering 29

provinces, these estimation results suggest that the FEM used has adequate explanatory power and produces coefficient estimates that are stable and statistically reliable, highlighting the model's effectiveness in capturing within-province variation.

Table 6.
FEM Estimation Results (Mean-Centering)

Variables	FEM_c
FD_c	14.38***
	(1.512)
gov_c	0.0510***
	(0.00955)
FDxgov_c	0.110*
	(0.0642)
Constant	70.81***
	(0.0733)
Observations	290
Number of prov	29
R-squared	0.333

*Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1*
Source: Data Processed, 2026

The estimation results show that fiscal decentralization (FD_c) has a positive and significant effect on societal welfare. The fiscal decentralization coefficient of 14.38, significant at the 1 percent level ($p<0.01$), indicates that increases in fiscal decentralization are statistically associated with increases in societal welfare, holding other factors constant. Theoretically, the relationship between fiscal decentralization and societal welfare can be explained by Oates's Decentralization Theorem, which argues that fiscal decentralization enhances welfare when there is heterogeneity in community preferences for public goods across regions. In this context, local governments are in a better position to respond to local needs and preferences compared to the central government, improving the efficiency and effectiveness of public service delivery. This aligns with the idea that devolving fiscal authority allows local governments to tailor the provision of public services to the specific needs of local communities, thereby improving societal welfare (Miyazaki, 2025). Cross-country and regional empirical evidence supports this view, where fiscal decentralization has been shown to improve welfare and poverty reduction in Papua (Hiktaop et al., 2020), and increased Human Development Index in North Sumatra (Pangaribuan, 2019). Similar findings in Nigeria indicate that fiscal decentralization can enhance social welfare when public spending is effectively directed to economic and social services that support income redistribution (Nnamdi et al., 2025).

Furthermore, the quality of governance (*gov_c*) also shows a positive and significant influence on public welfare. A coefficient of 0.051, significant at the 1 percent level ($p<0.01$), indicates that improvements in the quality of governance statistically contribute to increases in public welfare. This finding confirms that institutional quality plays an important role in explaining variations in welfare across provinces. The Laffer Curve of Decentralization explains that the relationship between fiscal decentralization and public welfare is not linear but nonlinear, with an optimal point. At low levels of decentralization, the limited authority and fiscal capacity of regions hinder the provision of public services that are responsive to local needs. Conversely, excessive decentralization can create inefficiencies, policy fragmentation, and weak intergovernmental coordination, ultimately reducing welfare. Therefore, a moderate level of fiscal decentralization—especially when supported by good governance—is considered the optimal condition capable of maximizing public welfare and improving income distribution (Aslim & Neyapti, 2017). Studies in Pakistan show that without adequate institutional quality, decentralization can worsen poverty and inequality, although these effects can be mitigated when local institutions function well (Shahzad & Yasmin, 2016). Likewise, evidence from

transition economies indicates that a combination of good governance and high human development significantly enhances economic prosperity (Aktas, 2022). In the Indonesian context, effective budget governance has been shown to improve regional financial performance and public welfare, although the impact of fiscal decentralization is not always consistent without adequate governance support (Adnan et al., 2025).

Moreover, high governance quality broadly impacts improvements in people's quality of life, covering housing, income, job security, environmental quality, education, health, life satisfaction, and work–life balance (Karataş, 2026). Findings from OECD countries reinforce this argument by showing that good governance can reduce income inequality and improve overall economic conditions for the population (Khosroabadi et al., 2015). Overall, the literature affirms that the quality of governance is a key prerequisite for public policies—including fiscal decentralization—to be effectively translated into improvements in public welfare.

Finally, the interaction variable between fiscal decentralization and governance ($FD \times gov\_c$) has a positive coefficient of 0.110 and is significant at the 10 percent level ($p < 0.1$). This result indicates a moderating effect, where the influence of fiscal decentralization on public welfare becomes stronger in provinces with better governance quality, although the moderating effect is modest statistically. In general, the literature shows that fiscal decentralization yields positive impacts on public welfare when supported by high institutional quality. To deepen the analysis, it is essential to consider regional heterogeneity, as the impact of fiscal decentralization and governance quality may vary across different regions. For instance, in provinces in Java, which generally have better infrastructure and governance capacity, fiscal decentralization tends to have a more significant positive effect on welfare. In contrast, in provinces outside Java with lower governance quality, fiscal decentralization may not yield optimal outcomes or could even result in negative effects, due to inefficiencies in managing resources effectively.

The combination of devolved fiscal authority and strong institutions has been shown to increase economic growth, reduce poverty, and strengthen social stability in various regional and national contexts (Digdowiseiso, 2022). The presence of effective and accountable institutions enhances local governments' capacity to manage public resources efficiently, thereby strengthening the effectiveness of fiscal decentralization in producing better welfare outcomes (Visković et al., 2021). Empirical evidence supports this finding; for example, in Pakistan, fiscal decentralization without institutional quality support can increase poverty and income inequality, but these negative effects can be curtailed when institutional quality improves (Shahzad & Yasmin, 2016). Additionally, in developing countries, fiscal decentralization has been shown to reduce routine conflicts, particularly in areas with good institutional quality, thus contributing to social stability and overall welfare (Sugiyanto et al., 2018). The main mechanisms explaining this relationship include governance quality characterized by accountability and effective public management (Visković et al., 2021), as well as increased autonomy and responsiveness of local governments in meeting local needs through more independent revenue and expenditure management (Martynenko et al., 2025; Panao, 2021). Overall, the welfare benefits of fiscal decentralization are not uniform across regions. The interaction between fiscal decentralization and governance quality is highly context-dependent, with provinces in Java and those with higher governance quality likely to experience more substantial benefits, while provinces with lower governance quality may face challenges in realizing the potential advantages of decentralization. Thus, regional heterogeneity plays a crucial role in determining the effectiveness of fiscal decentralization policies.

CONCLUSION AND RECOMMENDATION

This study aims to analyze the effect of fiscal decentralization and the quality of government governance on public welfare in Indonesia. Using a panel data approach at the provincial level, this research provides a comprehensive picture of how the delegation of fiscal authority and the institutional capacity of local governments play a role in determining public welfare outcomes. The results show that fiscal decentralization has the potential to improve public welfare, especially when accompanied by good governance quality. Effective, accountable, and responsive governance is shown to be important in ensuring that the fiscal powers and resources delegated to local governments can be optimally utilized to meet community needs. These findings confirm that fiscal decentralization is not an automatically impactful policy, but rather highly dependent on institutional strength and governance capacity at the regional level. Overall, this study emphasizes the importance of synergy between fiscal decentralization and the quality of government governance in efforts to improve public welfare. The primary implication of this study is that strengthening institutions and improving local government governance are crucial prerequisites for fiscal decentralization policies to operate effectively and sustainably in supporting welfare development in Indonesia.

Based on these findings, it is recommended that Indonesia's fiscal decentralization policies be accompanied by strengthening the quality of local government governance, particularly in aspects of accountability, transparency, and budget management capacity, to ensure that delegated fiscal authority can be effectively translated into improvements in public welfare. Given the limitations of the present study, which still uses provinces as the unit of analysis and does not fully capture variation in fiscal capacity and institutional quality at lower levels of government, future research is recommended to use regency/city-level data to represent the dynamics of fiscal decentralization in more detail and contextually. In addition, future studies need to integrate more specific governance indicators at the local level and consider methodological approaches capable of capturing heterogeneity and the long-term welfare implications of fiscal decentralization. Improvements in the quality, consistency, and openness of fiscal and institutional data at the regency/city level are also important prerequisites to support more comprehensive analyses and the formulation of more targeted fiscal decentralization policies.

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