

V. CONCLUSION AND IMPLICATION

A. Conclusion

Based on the results of panel data regression analysis using the Fixed Effect Model (FEM) and Random Effect Model (REM), as well as Sobel mediation test, this study examines the effects of road infrastructure, electricity, and internet access on the degree of fiscal decentralization across Indonesian provinces, with economic growth as a mediating variable, over the period 2018-2023. The conclusions of this study are as follows:

1. Road infrastructure and internet infrastructure do not have a statistically significant effect on provincial economic growth. Electricity infrastructure shows a positive relationship and is marginally significant at the 10 percent level, indicating that its contribution to economic growth is relatively stronger than that of the other infrastructure variables. Overall, these findings suggest that infrastructure alone is not sufficient to drive provincial economic growth, as its effect depends on broader structural conditions such as human capital, industrial structure, and institutional capacity.
2. Economic growth has a positive but relatively weak effect on the degree of fiscal decentralization. Although the coefficient is positive, its statistical significance is limited, which indicates that higher economic growth does not automatically lead to stronger fiscal autonomy at the provincial level. This finding suggests that economic growth must be supported by stronger

local fiscal institutions and more effective revenue capture mechanisms in order to contribute to fiscal decentralization.

3. The Sobel test results show that the mediating role of economic growth differs across infrastructure types. Economic growth significantly mediates the relationship between road infrastructure and fiscal decentralization, but the indirect effect is negative. Meanwhile, economic growth does not significantly mediate the effects of electricity infrastructure and internet infrastructure on fiscal decentralization. These findings indicate that the contribution of electricity and internet infrastructure to fiscal decentralization occurs primarily through direct fiscal, administrative, and institutional channels rather than through economic growth.

B. Implication

Based on the findings of this study, several practical implications can be drawn for relevant stakeholders as follows:

1. Implications for the Government

The results indicate that electricity and internet infrastructure should be prioritized as part of a fiscal decentralization strategy, not only as instruments of development policy. Investment in reliable electricity and wider internet access can strengthen local fiscal capacity by supporting formal economic activity, digital administration, and more effective revenue collection. In contrast, road infrastructure development should be more closely integrated with local economic development strategies so that

improvements in connectivity can generate fiscal benefits that are more directly captured by provincial governments.

2. Implications for Local Governments

The findings highlight the importance of strengthening the institutional capacity needed to convert infrastructure development into fiscal autonomy. Regional governments should not rely solely on economic growth as a pathway toward stronger fiscal decentralization. Instead, they need to improve local tax administration, expand the own-source revenue base, promote business formalization, and enhance the digitalization of fiscal management so that the benefits of infrastructure can be more effectively translated into local revenue.

3. Implications for Future Research

Future studies are encouraged to incorporate institutional and governance-related variables, such as bureaucratic quality, fiscal capacity indices, or tax administration effectiveness, to provide a more comprehensive understanding of the determinants of fiscal decentralization. Further studies may also apply spatial panel models or other advanced approaches to better capture regional heterogeneity and spillover effects of infrastructure development across provinces.