

ABSTRACT

Agglomeration plays an important role in driving regional productivity, yet this spatial concentration has the potential to trigger structural inequality across regions. This study aims to empirically analyze the effect of agglomeration, proxied by industrial density, on regional economic growth. This research uses panel data from 34 provinces in Indonesia over the 2015–2023 period. Using the One-Step System Generalized Method of Moments (System GMM) dynamic panel regression method to address endogeneity issues, the main results find that agglomeration has a positive and significant relationship with regional economic growth. In addition to agglomeration, trade openness, total investment, and population growth are also proven to be drivers of regional economic growth. Conversely, human capital (Human Development Index) shows a negative and significant effect, indicating the occurrence of a skilled labor flight (brain drain) phenomenon from the region of origin toward agglomeration centers. Furthermore, the estimation results confirm a strong degree of economic persistence, where past output achievements are the primary determinants for current growth. Overall, this study confirms that agglomeration is important as a driver of productivity, but the strong historical effect indicates a stagnant regional development process, thereby requiring long-term structural policy interventions to break the cycle of inter-provincial inequality.

Keywords: Agglomeration, Economic Growth, Industrial Density, Dynamic Panel Regression, System GMM.