Exploring the Locality of Manufacturing Agglomerations in Turkey

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Abstract
Determinants of manufacturing agglomerations have created a wide literature based on different empirical studies. (Marshall, 1920; Krugman, 1991; Ellison and Glasser, 1997; McCann, 2001; Fujita and Thisse, 2002; Rosenthal and Strange, 2006; Puga, 2009; Guimaraes et al., 2000). It has actually found renewed interest with the emergence of NEG. Regarding the assumptions of new economic geography, agglomerations are the outcome of a cumulative process involving both the supply and demand sides, while the space economy is an outcome of interplay between centripetal and centrifugal forces (Krugman 1991; Fujita and Thisse 2002; Ottaviano and Thisse 2003). However, the critiques of neglecting the spatial aspect on explaining the concentration of industries have been overcome by the improvements of spatial statistics. Local models assume that relationships differ across the space and try to figure out the differences rather than the similarities (Fotheringham, 2000).

Therefore, this paper aims to explore the factors of manufacturing agglomerations in Turkey in the 21st century, by assuming the relationships between variables are likely to vary across space. The dependent variable is manufacturing employment for the first model, whereas high and medium-high technology manufacturing employment for the second model. Explanatory variables are defined related to literature as the market potential, accessibility- natural advantages, human capital, advanced services and public policy. The results of the analysis underline that GWR exposes significant local variations, which hindered by global regression. First model (aggregated manufacturing) indicates that the relationships are stronger in the western part of Turkey considering the trade; and the relationships are stronger in the east considering the financial support.