

## **Borrowing Performance: A Network Connectivity Analysis of Second-Tier Cities in Turkey**

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**Abstract :** The decline of large cities and the rise of second-tier cities have been observed as a global trend with significant implications for economic development and urban planning. In this context, the concepts of agglomeration shadow and borrowed size have gained importance as network externalities that affect the growth and development of surrounding areas. Istanbul, Izmir, and Ankara are Turkey's most significant metropolitan cities and play a significant role in the country's economy. The surrounding cities rely on these metropolitan cities for economic growth and development. However, the concentration of resources and investment in a single location can lead to agglomeration shadows in the surrounding areas. On the other hand, network connectivity between metropolitan and second-tier cities can result in borrowed function and performance, enabling smaller cities to access resources, investment, and knowledge they would not otherwise have access. The study hypothesizes that the network connectivity between second-tier and metropolitan cities in Turkey enables second-tier cities to increase their urban performance by borrowing size through these networks. Regression analysis will be used to identify specific network connectivity parameters most strongly associated with urban performance. Network connectivity will be measured with parameters such as transportation nodes and telecommunications infrastructure, and urban performance will be measured with an index, including parameters such as employment, education, and industry entrepreneurship, with data at the province levels. The contribution of the study lies in its research on how networking can benefit second-tier cities in Turkey.

**Keywords :** network connectivity, borrowed size, agglomeration shadow, secondary cities

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