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The Evolutionary Characteristics and Mechanisms and of Multi-scale Intercity Innovation Enclave Networks in China’s Yangtze River Delta Region

Authors : Yuhua Yang, Yingcheng Li

Abstract : As a new form of intercity economic cooperation, innovation enclaves have received much attention from governments and scholars in China, which are of great significance in promoting the flow of innovation elements and advancing regional integration. Utilizing inter-city linkages of innovation enclaves within and beyond the Yangtze River Delta Region, we construct multi-scalar innovation enclave networks in 2018 and 2022, and analyze the evolutionary characteristics and underlying mechanisms of the networks. Overall, we find that: (1) The intercity innovation enclave networks have the characteristics of preferential connection and are gradually forming a clear multi-scale and hierarchical structure, with Shanghai, Hangzhou and Nanjing as the core and other cities as the general nodes; (2) The intercity innovation enclave networks exhibit local clustering dominated by geographical proximity connections, and are becoming more noticeable in the effect of distance decay and functionally polycentric as the spatial scale decreases; (3) The intercity innovation enclave networks are influenced by both functional distance and multidimensional proximity. While the innovation potential differences caused by urban attributes internally drive the formation of innovation enclave cooperation, geographic proximity, technological proximity and institutional proximity externally affect the selection of cooperation partners.

Keywords : economic enclave, intercity cooperation, proximity, yangtze river delta region
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