

MASTER'S THESIS

Temporal process and spatial organization of Japanese automotive investment in Guangzhou

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Date of Award:
2019

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ABSTRACT

The production network of automotive industry is a case in lead firm-led. When automotive lead firms invested in less developed countries, they used to built and organize their reconfigured production networks with their “follow-source” suppliers and intermediaries according to the requirements of local government. Accordingly, a rich body of literature exists on the characteristics of temporal process and spatial organization of automotive lead firm-led reconfigured production networks because their organization is directly significant for local economic development. Additionally, the underlying dynamics mainly emphasize the role of the automotive lead firms or local government and governance with their “follow-source” suppliers focused on a firm-centered analysis. However, these studies overlook the different characteristics of the temporal process and spatial organization of the various automotive lead firms-led reconfigured production networks formed that can dynamically trigger diverse local economic development. Additionally, the underlying dynamics behind the formation of reconfigured production networks ignore the intra-firm dynamics such as assemblers, R&D centers and engines of lead firms and the extra-firm dynamics such as different lead firms interplaying with various levels of states in host regions.

This thesis employs quantitative methods such as firm-level data analysis and indicators measuring by Location Quotient index, Global Moran’s I and Geographic Information System techniques, as well as semi-structured in-depth interviews analyzing by coding. It examines the temporal process and spatial organization of Japanese reconfigured production networks, particularly the organization with their suppliers in the automotive industry led by various lead firms. It illustrates that the organization of reconfigured production networks of various Japanese lead firms-led in Guangzhou can be regarded as “exclusive networks” characterized by close organization with their “follow-source” suppliers in the formation of trust and long-term relationship whilst displaying relatively weak ties with local suppliers, although the extent of them are different. The most exclusive network is Toyota, followed by

Honda and Nissan. Spatially, there exist close inter-firm supply linkages in Japanese automotive firms, centering on their lead firms, having shaped tripartite confrontation of Japanese automotive investment within Guangzhou in terms of the extent of agglomeration, co-location effects, firm-size distribution within the agglomerations, and the effect of spatial autocorrelation.

Drawing upon the “strategies” concept of global production networks (GPNs) theory, this thesis further demonstrates the differing extent of exclusive networks led by various lead firms can be interpreted by the different inter-firm partnership strategies between Japanese lead firms and their suppliers or intermediaries; the different agglomeration of spatial organization in the tripartite confrontation can be elucidated by the different three intra-firm coordination strategy of Japanese lead firms, and extra-firm bargaining strategy between Japanese firms (usually lead firms and largest suppliers) and local government. As a result of weak organization with local suppliers, the reconfigured Japanese automotive production networks cannot substantially accelerate the development of Guangzhou’s local suppliers industry.

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