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Headquarter Services in the Global Integration of Production[☆]

Marilyn Ibarra-Caton[a], Raymond J. Mataloni Jr[b,*]

[a] Former research economist at U.S. Bureau of Economic Analysis, 4600 Silver Hill Road, Washington, DC 20233, United States
[b] U.S. Bureau of Economic Analysis, 4600 Silver Hill Road, Washington, DC 20233, United States

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ABSTRACT

This study examines knowledge management within multinational enterprises (MNEs) by analyzing whether greater interdependence of production between U.S. parent firms and their foreign subsidiaries increases the provision of headquarter (HQ) services from the home country. The findings suggest that U.S. parents provide more assistance to their foreign subsidiaries that are linked in a global value chain than to those that are not involved in production sharing. This study builds on the earlier studies of the relationship between intra-MNE product flows and knowledge flows in multiple ways. First, it separately examines the relationship for high-tech and low-tech manufacturing industries, and finds that knowledge services from HQ that could be combined with knowledge of the subsidiary, such as R & D services, are primarily associated with production sharing with subsidiaries in high-tech manufacturing industries, which are assumed to be more technologically capable. Likewise, it finds that knowledge services from HQ that might be considered to be more passively received from the parent, such as industrial-type maintenance and design, are primarily associated with subsidiaries in low-tech manufacturing industries, which are assumed to be less technologically capable. Second, this study is the first one, to our knowledge, that gauges intra-firm knowledge flows using dollar-denominated measures of HQ services provided by parents to their subsidiaries.

1. Introduction

The role of multinational enterprises (MNEs) in the U.S. economy has grown over the last four decades. The MNE share of U.S. receipts from foreign persons, representing intra-MNE exports and profits earned on sales abroad by U.S. MNEs, has grown from 30% in 1982 to 36% in 2014, and the MNE share of U.S. payments to foreign persons has grown from 27% to 32% (see Fig. 1). The rising importance of MNEs in U.S. international transactions partly reflects the rising complexity of these transactions, such as the rise of global value chains (GVCs) and corporate inversions. These new models of production and ownership present new opportunities for globally-engaged firms to create value by tailoring their activities and corporate structure to the local economic endowments and institutional settings, but maintaining MNE ownership in these contexts can be critical. In the case of GVCs, organizing production within the firm can overcome the risks, such as conflicting goals and added transactions costs, that can be associated with a value chain comprised of unaffiliated firms. In the case of corporate inversions, ownership is essential to realizing the associated tax advantages. The rising scope and complexity of MNE operations can also create opportunities for the headquarters of the MNE to add value to the firm by leveraging the economic endowments of the headquarters (HQ) location. In the case of U.S. MNEs, the HQ is

☆ The analysis of firm level data on the operations of U.S. multinational enterprises was conducted under arrangements that maintained legal confidentiality requirements.

* Corresponding author.
E-mail address: raymond.mataloni@bea.gov (R.J. Mataloni).

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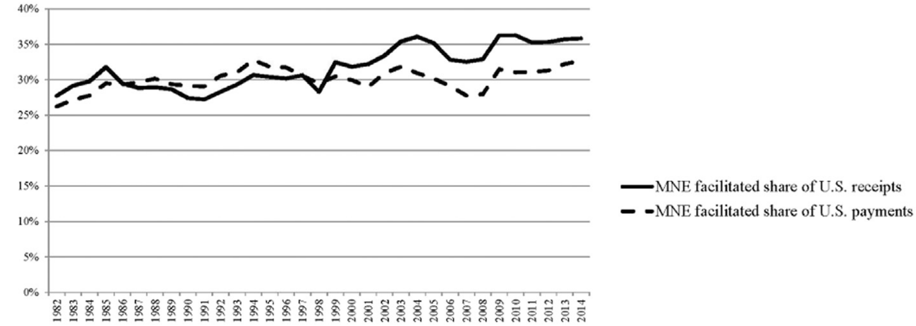

MNE Multinational enterprise
U.S. receipts are U.S. exports of goods and services plus investment and other income receipts.
U.S. payments are U.S. imports of goods and services plus investment and other income payments.
Source: Hossiso (2017)

Fig. 1. U.S International Transactions Facilitated by Multinational Enterprises 1982–2014.

often situated in a location that is conducive to skill-intensive activities, such as a cluster of innovation, and/or a labor market abundant in highly-skilled workers. This study explores the connection between the provision of skill intensive HQ services by the U.S. parent company to its foreign subsidiaries and whether or not the parent and the subsidiary are linked in a GVC. The findings suggest that GVC linkages create demand by the foreign subsidiaries for skill-intensive HQ services from the parent, but that the specific type of service demanded is related to the role of the foreign subsidiary in the GVC.

A GVC is a production arrangement in which the firm strategically assigns the stages of production to different internal and external suppliers at home or abroad. Mudambi (2008) describes production as a sequential process from product development at the upstream end, to manufacturing or standardized services at midstream, and marketing and distribution at the downstream end. He notes that the rise of global competition, particularly for midstream activities, has led globally-engaged firms to focus on upstream and downstream activities where they can realize the competitive advantages of their firm-specific resources and competencies. In these production arrangements, managers serve as a coordinator of comparative advantages, allocating stages of the production process to the most efficient unit. Geographic locations are based on the comparative advantages of the host environments. The internalization/externalization decision is based on considerations such as the tacit-ness of knowledge (Kogut and Zander, 1993) and the vulnerability of firm-specific assets. A dimension of the internalization decision, which Mudambi calls "linkage economies," is the potential to realize efficiencies by maintaining control of multiple stages of production. Particularly relevant to this study is ability to realize efficiencies when transferring product and process innovations between units of the firm that are engaging in R & D and the units of the firm engaging in manufacturing. Mudambi notes that these linkage economies are gains that are above and beyond the traditional notion of gains from trade based on comparative advantage.

The role of HQ in the MNE is a topic in need of further study, particularly with the rise of GVCs over the last several decades. Parmigiani and Holloway (2011, p. 457) note that "the impact of corporate parents has been understudied." The topic is particularly underexplored with respect to MNEs. Menz et al. (2015) note that much of the HQ research that has been done tends to treat the operations of the parent firm and foreign subsidiaries as 'independent nodes' ignoring, in particular, 'bi-directional relationships,' such as shared production and shared product design. Shared production is particularly relevant in the context of GVCs, where we might expect to see high levels of intrafirm product flows representing intermediate goods going from the parent to its foreign subsidiaries and finished goods returning to parent. Along with these product flows, we might expect to see intrafirm knowledge flows, such as intellectual property, as parents either provide or collaborate on new product designs. Despite the rise of GVCs, there are only a small number of empirical studies of the relationship between product flows and knowledge flows within MNEs (Gupta and Govindarajan, 2000; Harzing and Noorderhaven, 2006, and Berry (2014)).

Like those empirical studies, we find that manufacturing subsidiaries that are engaged in production sharing with their parent tend to rely more on HQ services from the parent than those that are not. We also build on the existing literature by separately examining the relationship for high-tech and low-tech manufacturing industries, and we find that services that could suggest more participation with the parent, such as R & D services, are primarily associated with production sharing with technologically capable subsidiaries, represented by high-tech manufacturing industries. Likewise, we find that the services that might be considered to be more passively received, such as industrial-type maintenance and design, are primarily associated with less technologically capable subsidiaries, represented by low-tech manufacturing industries. In addition to contributing to this under researched aspect of MNE activity, this study may be among the first to measure intra-firm knowledge flows using dollar-denominated measures of HQ services provided by parents to their subsidiaries.

2. Related literature and hypotheses

This study is focused on the comparative advantage, or specialization, aspect of parent transfers of knowledge to subsidiaries, but others have examined the orchestration role of parents in the internal distribution of knowledge within the MNE. Foss (1997) recognizes the role of the parent in managing the flow of shared knowledge within the organization to exploit the strategic flexibility