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ENABLING NEW ORGANIZATIONAL FORMS: A CHANGING PERSPECTIVE ON INFRASTRUCTURE

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Global competition is mandating faster cycle times, cost effective operations, and responsiveness to customer needs. Many large, formerly decentralized firms are responding to these challenges by adopting federalist structures, intended “to make things big by keeping them small; to encourage autonomy but within bounds...” (Handy 1992, p. 60). Two characteristics of federalist structures are (1) a strong core organization that coordinates the activities of (2) responsive, flexible local offices.

Federalism requires intensive communication and sharing of information to facilitate shared expertise. In large, globally dispersed organizations, the information technology infrastructure is critical to the firm’s information sharing capabilities (Keen 1991). Consisting of both technologies and managerial expertise, the IT infrastructure provides the base capability for effectively shrinking the distance between sites and making common data easily accessible (Weill 1993).

Given that IT management structure typically mirrors that of the larger organization (Ein-Dor and Segev 1982), we might anticipate that IT infrastructure management would embody characteristics of federalism in many global firms. But rethinking the IT infrastructure is a daunting task for any firm, and particularly for large, global, traditionally decentralized firms. These firms have both a distributed base of legacy systems and an autonomous managerial decision-making culture acting as barriers to efforts to develop coordinated IT infrastructures (Ross 1995). This study is intended to examine how global manufacturing firms are building and managing their IT infrastructures. Specifically, the study examines two questions:

- 1) How are global manufacturing firms approaching IT infrastructure development?
- 2) What are the objectives and outcomes of changes in their approaches to IT infrastructure management?

In the first phase of this study, we interviewed the person responsible for infrastructure strategy at eight large (revenues greater than \$2.5 billion US), global (manufacturing capabilities on at least three different continents), decentralized (at least three distinct business divisions operating out of 100 or more total sites) manufacturing firms. The interviews captured the firms’ stated objectives and current strategies for IT infrastructure development. We then conducted in-depth case studies of two of the initial firms to understand outcomes associated with infrastructure changes.

Findings indicate that the firms in the study are adopting many characteristics of federalist organizations in their approaches to infrastructure management. They are relying upon standard technologies and processes to coordinate data and communications across sites, while simultaneously attempting to address the unique needs of individual units. Their efforts are focused on providing timely access to data and integrated systems, thereby enabling flexible but tightly coordinated and cost effective organizational processes. They are both responding to, and acting as drivers of, their firms’ movement toward federalist structures.

We will review the objectives and strategies of IT infrastructure management intended to support the transition to a federalist organization. It will then examine the early outcomes of two firms’ changes in infrastructure strategy and offer insights into the role of IT infrastructure in enabling new organizational forms.

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