MISQ Archivist

Fit and Misfit of Plural Sourcing Strategies and IT-Enabled Process Integration Capabilities: Consequences for Firm Performance in the U.S. Electric Utility Industry

Arun Rai, Ilgaz Arikan, Jessica Pye, and Amrit Tiwana

Abstract

Recent work has shown that a firm’s plural sourcing strategy that determines how much it chooses to make versus how much it chooses to buy requires consideration of the complementarities and constraints that affect the differential advantages of making and buying. Elaborating on this perspective, we theorize how (mis)fit between a firm’s plural sourcing strategy of simultaneously making and buying and its development of information technology (IT) enabled interfirm and intrafirm process integration capabilities influences firm performance in deregulated markets. We position our theory development and empirical tests in the context of the power-generation segment of the U.S. electric utility industry (EUI), an asset-intensive industry that has been deregulated to promote the separation of key value chain activities (i.e., generation, transmission, and distribution) and the development of wholesale energy markets. We draw on the transaction cost economics, coordination costs, and IT capabilities perspectives to theorize that a firm achieves (1) fit (realizing performance benefits) by increasing market sourcing intensity (MSI)—or, how much it buys relative to how much it makes—and developing IT-enabled interfirm process integration capability for external coordination with the market, and (2) misfit (realizing performance penalties) by increasing MSI and developing IT-enabled intrafirm process integration capability for coordinating internal production. We collated data from archival sources for 342 utility firms in the power-generation segment to construct a panel dataset for the period 1994–2004 on (1) firms’ MSI from wholesale electricity markets, (2) firms’ IT investment decisions to develop interfirm and intrafirm process integration capabilities, (3) measures of firm performance, and (4) several control variables related to exogenous shocks (i.e., regulatory change, oil crisis), region of operation, and firm-level factors. Our results suggest that fit between MSI and the development of IT-enabled interfirm process integration capability improves firm profitability, assessed by returns on assets, and misfit between MSI and the development of IT-enabled intrafirm process integration capability extracts penalties in firm profitability. We also find evidence that fit between MSI and the development of IT-enabled interfirm process integration capability improves market valuation, assessed by Tobin’s Q, and asset turnover, assessed by operating revenue/total assets. We discuss the implications of our findings for the development of IT capabilities to accompany a firm’s plural sourcing strategy and the literature on IT business value.

Keywords: Plural sourcing, market sourcing intensity, IT-enabled process integration, IT capabilities, firm performance, IT business value