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The relationships between supplier development, commitment, social capital accumulation and performance improvement

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Abstract

This study investigates the relationships between U.S. buying firms' supplier development efforts, commitment, social capital accumulation with key suppliers, and buying firm performance. We identify linkages between supply chain management research on supplier development and organization theory research on social capital to consider how buying firm commitment to a long-term relationship, cognitive capital (goals and values), structural capital (information sharing, supplier evaluation, supplier development), and relational capital (length of relationship, buyer dependency, supplier dependency) are related to buying firm performance improvements (cost improvements, and quality, delivery, flexibility improvements). Analysis of buying firms from the U.S. automotive and electronics industries provides support for the theory that buyer commitment and social capital accumulation with key suppliers can improve buying company performance. Moreover, the findings suggest that the relationships of structural and relational capital vary depending on the type of performance improvement considered.

Keywords: Supply management; Purchasing; Supplier development; Social capital; Buyer–supplier relationship

1. Introduction

Previous research has shown that Japanese firms have, at minimum, been able to gain temporary competitive advantage from resource investments in supplier relationships (Liker and Choi, 2004). However, the empirical evidence is less complete for U.S. firms. Across the various fields associated with organizational research there is growing recognition of the importance of inter-organizational relationships as a source of competitive advantage and value creation (Osborn and Hagedoorn, 1997; Powell, 1996; Smith et al., 1995). Using a social capital lens, this study was initiated to better understand the value created by U.S. firms willing to commit to long-term relationships and to develop social capital with key suppliers through supplier development.

The relationship between value creation and inter-organizational relationships has been explored using resource dependence theory (Pfeffer and Salancik, 1978), marketing channel theory (Frazier, 1983; Stern et al., 1977); transaction cost economics (Williamson, 1985), transactional value analysis (Dyer, 1997; Zajac and Olsen, 1993), resource-based theory (Tyler, 2001; Wernerfelt, 1995), social capital theory (Granovetter,

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1985; Jones et al., 1997; Tsai and Ghoshal, 1998), and information processing theory (Hult et al., 2004). A central proposition of these theories is that when organizations invest in relation-specific assets, engage in knowledge exchange, and combine resources through governance mechanisms, a supernormal profit can be derived on the part of both exchange parties. In this study we leverage social capital theory to explain the value created for buying firms committed to supplier development.

One tangible form of inter-organizational exchange that falls under the auspices of supply chain management research is a practice initiated by industrial firms called ''supplier development.'' Supplier development is any activity initiated by a buying organization[1] to improve the performance of its suppliers (Krause et al., 1998). Supplier development is an important strategy for examination because it encapsulates two of the most evident features of social capital: shared knowledge and shared asset investments. Supplier development may include goal setting, supplier evaluation, performance measurement, supplier training, and other related activities. Although this type of activity has been prevalent in Japanese and Korean firms for a number of years, it has been less evident in U.S. firms, or at least, less studied (Krause and Handfield, 1999; MacDuffie and Helper, 1997; MacDuffie, 1995). Perhaps U.S. firms have been reluctant to invest in supplier development due to a perceived lack of immediate return on investment associated with deploying the resources required to make it successful (Liker and Wu, 2000; Dyer and Nobeoka, 2000; Smock, 2001). Alternatively, perhaps U.S. firms work in different ways to improve supplier performance.

This research was undertaken to better understand the nature of supplier development efforts in the U.S. and to better understand the specific form of returns gained from investments by U.S. firms in supplier development activities. The results of this study provide two principal contributions to the extant literature. First, we argue, and subsequently demonstrate, that supplier development can conceptualized through a social capital theory lens, and that this effort provides valuable insights into the different dimensions of social capital as they pertain to relationships between industrial buying firms and their suppliers. Second, the results indicate that the importance of the dimensions of social capital varies depending on the type of buyer performance improvements being emphasized, either in the form of cost and total cost, or in terms of quality, delivery and flexibility. More broadly, the paper provides important insights into the relationship between buyer social capital commitments and buyer value creation.

The remainder of the paper briefly reviews the literature on supplier development, buyer performance goals, and the three types of social capital buying firms may establish with key suppliers to improve buyer performance: cognitive capital, structural capital, and relational capital. Next, we draw associations between supplier development practices and the different dimensions of social capital, and develop a set of hypotheses that identify relationships between the three types of social capital and buyer performance improvements. In the following sections, we describe the data, the measures, and the analysis. Finally, we present the results and discuss implications for further research.

2. Supplier development

The term ''supplier development'' was first used by Leenders (1966) to describe efforts by manufacturers to increase the number of viable suppliers and improve suppliers' performance. More specifically, supplier development has been defined as any effort by an industrial buying firm to improve the performance or capabilities of its suppliers (Krause et al., 1998). The practice of supplier development in Japan and its application globally has been well documented (Asanuma, 1989; Clark and Fujimoto, 1991; Turnbull et al., 1992). Interestingly, the practice was documented early in the 1900s in the U.S. automotive industry when Ford sought to improve suppliers' capacity and performance (Seltzer, 1928).

At about the same time supply chain management researchers began discussing supplier development, organizational theorists began arguing that complex-product industries tend to be characterized by a high degree of reciprocal interdependence on the part of intermediate component makers and final assemblers (Pfeffer and Salancik, 1978; Thompson, 1967). More recently they have also recognized that investments in relation-specific assets and knowledge sharing routines are often necessary to coordinate non-routine tasks that are reciprocally interdependent (Celly et al., 1999; Clark and Fujimoto, 1991). Examples of industries that fit these characteristics include automobiles, aircraft, electronics, heavy machinery, machine tools and robotics.

[1] The terms buying organization, buying firm and buyer are used interchangeably throughout this paper to refer to industrial firms in their role of purchasing inputs from suppliers.