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The effects of supplier-to-buyer identification on operational performance—An empirical investigation of inter-organizational identification in automotive relationships

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ABSTRACT

Over the past decade conceptual and empirical research in operations management has embraced the idea that collaborative supplier–buyer relationships are a source of competitive advantage for manufacturing firms. Anecdotal evidence from the Japanese and U.S. automotive industry and emerging research suggests that inter-organizational identification of suppliers with their buyers, termed supplier-to-buyer identification, is an unexplored factor of relational advantage. This study presents a model and empirical test that supplier-to-buyer identification fosters superior operational performance by enhancing trust, supplier relation-specific investments, and information exchange. Through a survey of 346 automotive supplier–buyer relationships, the findings show that supplier-to-buyer identification directly impacts supplier relationship-specific investments and information exchange, although most of the latter effect is mediated by trust. The findings also indicate that supplier relation-specific investments and information exchange play different but complementary roles in influencing operational performance. The results suggest new directions for supplier–buyer relationship research in operations management and important managerial implications.

1. Introduction

Over the past two decades conceptual and empirical research in operations management has embraced the idea that collaborative supplier–buyer relationships can be a source of competitive advantage for manufacturing firms (Carr and Pearson, 1999; Ellram, 1991; Krause, 1999). Among the theories that have influenced the vast literature pertaining to this important aspect of operations management, transaction cost economics and the resource-based view of the firm are of particular interest. Transaction cost economics (Williamson, 1985) has inspired researchers to investigate the role of relation-specific assets (Bensaou and Anderson, 1999; Dyer, 1996; Grover and Malhotra, 2003), trust (Johnston et al., 2004; Zaheer et al., 1998; Corsten and Kumar, 2005), and commitment (Ross et al., 1997) in supplier–buyer relationships. The resource-based view of the firm (Barney, 1991; Rungtusanatham et al., 2003; Wernerfelt, 1984) and, more recently, the knowledge-based view of the firm (Grant, 1996; Hult et al., 2003; Kogut and Zander, 1996) have sparked interest in the role of tangible and intangible resources, or more specifically, the role of information exchange and knowledge sharing in supplier–buyer relationships (Dyer and Nobeoka, 2000).

In the search for factors that provide competitive advantage in supply-chain relationship management, many drivers have been proposed and examined. One potential driver, identification with supply-chain partners has been proposed theoretically (Ireland and Webb, 2007; Peteraf and Shanley, 1997), and discussed in an individual case study (Dyer and Nobeoka, 2000), but otherwise has not been empirically examined. Inter-organizational identification is a concept derived from the notion of organizational identification, the perceived oneness of an individual with an organization and the experience of the organization's successes and failures as one's own (Mael and Ashforth, 1992). Anecdotal evidence from the automotive industry suggests that the identification of suppliers with buyers such as Honda (MacDuffie and Helper, 1997) or Toyota (Dyer and Nobeoka, 2000) at least partially explains the superior productivity and performance of these supplier–buyer networks vis-à-vis their competitors (Dyer and Hatch, 2004). As members in a sup-

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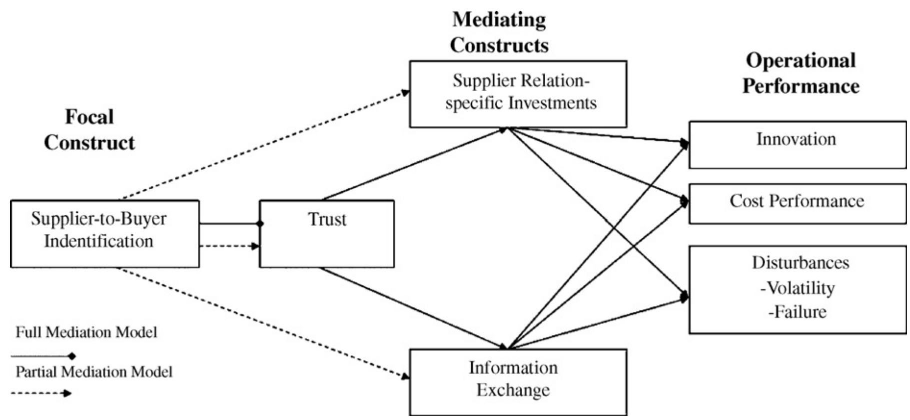

Fig. 1. Conceptual framework.

ply chain form a common identity, individual firms become more willing to transfer knowledge, reduce cycle time, and lower transaction costs—all of which translate into economic gains (Ireland and Webb, 2007).

Research suggests that identification with Japanese manufacturers Honda and Toyota has encouraged suppliers to deploy supplier relation-specific investments and dedicate assets. This, in turn, has been shown in other studies to lower both transaction and operational costs, to reduce defects, and to foster innovation to the mutual advantage of supplier and buyer firms (Dyer, 1997). In addition, other evidence on Toyota's supplier networks purports that suppliers who identify with their buyers increase the mutual exchange of valuable tacit knowledge and explicit information by building inter-firm learning routines with the focal customer (Dyer and Nobeoka, 2000).

Not surprisingly, many buying firms now consider an effective supplier network an important source of competitive advantage. They attempt to nurture feelings of positive identification among their suppliers by influencing their perception towards a feeling of belonging to what Chrysler, for instance, refers to as the "Extended Enterprise". They engage their suppliers in workshops and roundtables and reward them for their contribution to the organization's goal in order to benefit from the advantageous effects of socialization and identification (Cousins and Menguc, 2006). Similarly, Toyota uses supplier associations, problem-solving groups and voluntary learning teams to involve their suppliers.

Although these preliminary findings suggest that inter-organizational identification in the form of supplier-to-buyer identification may be a key precursor to competitive advantage for supplier and buyer firms, and despite increasing attention to the nature of organizational identification, with the notable exception of Ireland and Webb (2007), the concept of inter-organizational identification has not yet received much consideration in the operations management literature. To our knowledge, no empirical study prior to the one presented in this article, has yet explored how supplier-to-buyer identification influences operational performance.

The purpose of this study is to advance the understanding of the role of inter-organizational identification in operations management. We propose that the impact of supplier-to-buyer identification on superior operational performance is delivered through enhanced trust, supplier relation-specific investments, and information exchange (Fig. 1). We test our propositions on a sample of 346 supplier–buyer relationships in the automotive industry.

This study contributes to the literature on supplier–buyer relationships in operations management in multiple ways. First we delineate the use of social identity theory, and we develop and apply the construct of supplier-to-buyer identification in supplier–buyer relationships. Second, we advance the hypothesis that supplier-to-buyer identification enhances operational performance by fostering mutual trust, which in turn increases supplier deployment of relation-specific assets and nurtures mutual information exchange and knowledge sharing. Third, we demonstrate the validity of our conceptual framework in an empirical setting. Fourth and finally, as a result of our findings, we suggest new research directions and practices for supplier–buyer relationships in operations management.

In the remainder of the paper we explore the nature of supplier-to-buyer identification and develop formal hypotheses about its consequences. We then describe research setting, data collection, methodology and results before concluding with theoretical and practical implications.

2. Supplier-to-buyer identification

Organizational identification, a form of social association, describes an individual's perception of belongingness or oneness with a particular organization and their experience of the organization's successes and failures as their own (Ashforth and Mael, 1989). It relates to the processes and events by which individuals come not only to identify with and establish bonds to organizations, but also how they come to define themselves by the very attributes that are believed to define the organization (Dutton et al., 1994), to substitute organizational objectives for their own aims, and to make decisions according to the organization's objectives and values (Simon, 1976). Because "identity and identification are terms that travel easily across levels of analysis" (Albert et al., 2000, p. 13) organizational identification has, over time, attracted the attention of a variety of disciplines.

While the study of identification in organizations has its roots in classic psychology (e.g., Freud, 1922) and social psychology (Tajfel, 1982; Tajfel and Turner, 1985), it was soon adopted by organizational behavior (e.g., O'Reilly and Chatman, 1986; Ashforth and Mael, 1989) and marketing (Bhattacharya et al., 1995; Bhattacharya and Sen, 2003; Ahearne et al., 2005). Following that, strategy scholars extended the concept to a firm level construct (Kogut and Zander, 1996), and to the network level (Dyer and Nobeoka, 2000). Recently, conceptual work has extended identification into operations and supply chain research (Dyer and Hatch, 2004; Ireland and Webb, 2007). Using this conceptual work as a basis for further exploration of identification in operations research, our study provides a logical continuation of this work, and it provides the first empirical test of supplier-to-buyer identification at the firm level and in the operations management context.

According to Pratt (1998, p. 192) it remains "one of the biggest challenges to research on organizational identification to go beyond the group level of analysis." The conceptual difficulty in exploring