



# The impact of buyer–supplier relationships on supplier innovativeness: An empirical study in cross-border supply networks

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## ABSTRACT

Drawing on organizational learning and the relational view of the firm, this study seeks to understand the factors that drive supplier innovativeness in the context of cross-border supply relationships. To address this research objective, a survey included 189 parts and components manufacturers (suppliers) in Turkey; hierarchical regression analysis is used to test the hypotheses. The findings demonstrate that interfirm knowledge sharing routines, relation-specific investments, and governance mechanisms may promote supplier innovativeness by expanding the supplier's knowledge resources and encouraging it to invest in innovative activities. In addition, this research emphasizes differentiating effects of the supplier's tier position for the impacts of buyer assistance and cooperative tie. As such, this study contributes to the purchasing and supply management literature by empirically showing how buyer–supplier relationships, particularly in cross-border supply networks, affect supplier innovativeness.

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## 1. Introduction

In recent decades, evidence has shown convincingly that the innovative ability of suppliers is a key source of value for buying firms (Azadegan & Dooley, 2010; Liker & Choi, 2004; Möller & Törrönen, 2003). Buying firms no longer rely exclusively on suppliers to maximize operational performance; they look for innovation potential among suppliers and try to leverage this potential to create value for their own customers (Kibbeling, 2010; Lorenzoni & Lipparini, 1999; Quinn, 2000). In prior research that notes the role of supplier innovativeness for buying firms, Azadegan (2011) argues that innovative suppliers provide manufacturing firms with direct and indirect benefits. For example, innovativeness may allow a supplier to develop new ideas, processes, and technology that directly improve products delivered to the manufacturer; over time, the manufacturer can leverage the supplier's innovative abilities to extend its own capabilities indirectly. Azadegan and Dooley (2010) further argue that innovative suppliers respond more efficiently to buyers' demands and develop alternative solutions to business problems and challenges, which makes it essential for suppliers to undertake innovative activities to respond to the buying firm's cost, quality, flexibility, and product development requirements (Srinivasan & Brush, 2006). Despite its

increasing importance though, supplier innovativeness is not sufficiently addressed by prior literature, especially with regard to the factors that enable supplier innovativeness in buyer–supplier relationships (Choi & Krause, 2006; Kamath & Liker, 1990), leading scholars to call for more research in this area (e.g., Roy, Sivakumar, & Wilkinson, 2004; Schiele, 2006).

The organizational view posits that a firm's innovativeness results from its efforts to respond to the internal and external environments or the firm's orientation toward the market and organizational learning (Hurley & Hult, 1998). However, other scholars highlight the role of interfirm relationships instead, particularly relationships with customers and suppliers. For example, a firm's innovativeness may be mainly the result of interactions between a buyer and a supplier (Håkansson, 1982; Håkansson & Eriksson, 1993; Roy et al., 2004). Through its interactions, a supplier firm can activate its own resources and develop new capabilities (Ford, Håkansson, & Johanson, 1986; Håkansson & Snehota, 1995). Teece, Pisano, and Shuen (1997) thus propose a “dynamic capabilities” approach to suggest that interfirm relationships provide more dynamic resources for the acquisition of new capabilities. According to this view, firms continuously upgrade their capabilities through learning, adaptation, and integration in an exchange relationship (Kogut & Zander, 1992; Lorenzoni & Lipparini, 1999; McEvily & Marcus, 2005). Therefore, interfirm routines or mechanisms that promote suppliers' learning, adaptation, and integration may offer important opportunities for the suppliers to enhance their innovativeness.

Researchers so far have studied the roles of several interfirm routines and governance mechanisms that buying firms use to upgrade

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suppliers' performance and capabilities. While buying firms reduce their supply base (Koufteros, Cheng, & Lai, 2007), they strive to develop remaining suppliers' capabilities through assistance-giving routines (Dyer & Hatch, 2006; Dyer & Nobeoka, 2000), closely coordinate product development (Handfield, Ragatz, Petersen, & Monczka, 1999; Takeishi, 2001; Wagner & Hoegl, 2006), and establish close relational ties with their suppliers (Nyaga, Whipple, & Lynch, 2010; Shin, Collier, & Wilson, 2000). However, existing literature has not yet specified how these routines and mechanisms contribute to the innovative ability of a supplier.

In addition, increasing competitive pressure has pushed Western companies to outsource production to suppliers in lower-cost countries, such as Eastern European nations, Turkey, India, China, or Brazil (Contractor, Kumar, Kundu, & Pedersen, 2010; Kotabe & Mudambi, 2009), though they still hope these suppliers facilitate their innovation practices (Jean, Sincovics, & Cavusgil, 2010). For example, in the automotive industry, original equipment manufacturers (OEMs) such as Toyota and Honda believe that the innovation capabilities of their suppliers are more important than wage costs (Liker & Choi, 2004). Although the increased globalization of supply chains has created profound interfirm relationships across national borders, existing literature provides little evidence about how these relationships contribute to supplier innovativeness (Jean, Sincovics and Cavusgil, 2010). Moreover, most suppliers in low-cost countries tend to be small and medium-sized enterprises (SMEs) (Wasti & Wasti, 2008), so they might lack the necessary resources and skills to demonstrate required innovative behaviors (Johnsen & Ford, 2006; Li, Wei, et al., 2010; Liker & Choi, 2004). Relationships with foreign buyers can provide suppliers with important opportunities to enhance their innovativeness by providing vital sources of knowledge (Dhanaraj, Lyles, Steensma, & Tihanyi, 2004; Lane & Lubatkin, 1998) and making significant demands that create strong incentives for suppliers to invest in new assets and capabilities (Jean, Sincovics and Cavusgil, 2010).

Finally, both industrial network theorists and supply chain management scholars organize vertical networks into multilevel tiers forming the supply chain network (Clark & Fujimoto, 1991; McIvor, Humphreys, & McAleer, 1998; Möller & Rajala, 2007). In this structure, each network actor plays a different role, takes on fundamentally different responsibilities, and establishes different business relationships (Liker, Kamath, Wasti, & Nagamachi, 1996; Möller & Halinen, 1999). Therefore, in a supply chain, a supplier's innovativeness may be partially contingent on its tier position (Liker et al., 1996; McDermott & Corredoira, 2010; Wynstra, von Corswant, & Wetzels, 2010).

This study investigates how buyers' assistance-giving routines, joint product development arrangements, and cooperative ties with suppliers influence the supplier's innovativeness in cross-border supply relationships. We propose a contingency framework to address the role of tier position, which may moderate the links between our predictor variables and supplier innovativeness. To address these objectives, we conducted a survey with supplier firms in Turkey, including the parts and components manufacturers listed in the membership directory of the Uludag Exporters' Association (Turkey). In this sample, the sales ratio to foreign markets often reaches 50%, so it provides a good opportunity to examine supplier innovativeness in cross-border supply networks.

As the theoretical foundation for our research, we seek insights from organizational learning theory (Kogut & Zander, 1992) and the relational view (Dyer & Singh, 1998), which state that interfirm linkages, including interfirm routines and governance mechanisms, provide important opportunities for exchange partners' learning, generation of new knowledge, and acquisition of new capabilities. We also gain insights from industrial network theory (Gadde, Huemer, & Håkansson, 2003; Möller & Rajala, 2007) and power-dependence perspective (Gulati & Sytch, 2007; Heide & John, 1988; Kumar, Scheer, & Steenkamp, 1995b)

highlighting the importance of network structure which may differentiate the behaviors of exchange partners.

Our research contributes to purchasing and supply management literature in several ways. First, despite the increasing importance of supplier innovativeness for the success of supply chains, we lack understanding of the factors that drive supplier innovativeness in buyer–supplier relationships. This study enriches prior purchasing and supply management literature on buyer–supplier relationships by empirically showing how interfirm knowledge sharing routines, relation-specific investments, and governance mechanisms promote supplier innovativeness. Studying these phenomena in the context of cross-border buyer–supplier relationships adds additional value to the literature. Second, the current research emphasizes the role of tier position to differentiate the effects of buyer–supplier relationships on supplier innovativeness. Third, unlike previous studies, we take the suppliers' perspective, in response to extant calls (Carr, Kaynak, Hartley, & Ross, 2008; Paulraj, Lado, & Chen, 2008). Fourth, we believe that understanding how buyer–supplier relationships, particularly in cross-border supply networks, affect supplier innovativeness may help both buying and supplier firms' managers develop and pursue better strategies to create value in their supply chains.

In the remainder of this article, we begin by reviewing the literature on which we base our conceptual model. After we develop the research hypotheses, we present the methodology and describe the study results. Finally, we discuss the theoretical and managerial implications of our findings and the research directions they suggest.

## 2. Literature review and hypotheses

### 2.1. Supplier innovativeness

Innovativeness refers to a firm's ability to develop and implement new ideas, processes, or products in the organization (Burns & Stalker, 1961; Hult, Hurley, & Knight, 2004). It also may imply a firm's willingness to explore new opportunities (Garcia, Calantone, & Levine, 2003; Menguc & Auh, 2006) and investment in new products, processes, or technology to support the introduction of new products (Nassimbeni, 2003). Accordingly, we define *supplier innovativeness* as the ability of a supplier firm to generate and implement new ideas, new ways of doing things, or new methods of operation, as well as investments in new products, processes, and technologies.

Although supplier innovativeness may enable a buying firm to extend its capabilities and better respond to changes in the market (Azadegan & Dooley, 2010), from a supplier's point of view, it also can create opportunities to increase responsiveness to customer requirements and thus achieve higher revenues (Christensen, Suarez, & Utterback, 1998; Hult et al., 2004). Hurley and Hult (1998) argue that firms with greater capacity to innovate will be more successful in developing new capabilities and responding to their environments. Scholars also have emphasized that innovativeness is a major force behind innovation (Droge, Calantone, & Harmancioglu, 2008) and acts as forerunner of the innovation efforts undertaken by firms (Santos-Vijande & Alvarez-Gonzalez, 2007). Therefore, innovativeness should be critical for the long-term success and survival of supplier firms.

### 2.2. Theoretical framework and conceptual model

Several perspectives offer theoretical lenses for investigating supplier innovativeness in buyer–supplier relationships. Because innovation generation often is cited as an information-intensive activity (Kogut & Zander, 1992) and demands investments in new capabilities (Dyer & Singh, 1998), we adopt organizational learning theory and the relational view to explore supplier innovativeness. These theories are complements and enable us to establish a sound theoretical framework.

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