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The impact of social capital and technological uncertainty on strategic performance: The supplier perspective

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ABSTRACT

Social capital is a valuable asset for companies that stems from access to resources made available through buyer-supplier relationships. Many studies have investigated the antecedents and/or the impact of cognitive, relational, and structural dimensions of social capital on some performance measure. Our study extends this research by considering the moderating effect of technological uncertainty on the relation between social capital dimensions and the strategic performance of suppliers. A sample of 88 European industrial suppliers is used to test the hypotheses. Analysis shows a positive, significant impact of cognitive social capital, but failed to confirm the expected influence of the relational and structural dimensions. No moderator effects were found in the analysis, although we did find a positive association between technological uncertainty and strategic performance. This finding suggests that technological uncertainty can stimulate suppliers to develop new products and to enter new markets.

1. Introduction

Interorganizational relationships are generally considered an important source for competitive advantage and value creation (e.g. Osborn et al., 1997; Krause et al., 2007). Social Capital Theory emphasizes the role of a firm's social network for gaining competitive advantage (Carey et al., 2011; Koka and Prescott, 2008). Social capital has been defined as the sum of resources embedded within and derived from a network of relationships (Nahapiet and Ghoshal, 1998; Granovetter, 1992). Social Capital Theory has become a useful theoretical lens for examining buyer-supplier relationships. McGrath et al. (2005) have investigated how social capital might contribute to mutual benefits for both parties within buyer-supplier relationships. Other studies have examined the effects of social capital on different performance measures (Krause et al., 2007). Nahapiet et al. (1998) proposed three dimensions of social capital: the cognitive dimension (shared ambition, vision, and values), the relational dimension (trust, identification, and obligation), and the structural dimension (strength and number of ties between actors).

Most studies expected and investigated the positive effects of social capital. An exception is the study of Villena et al. (2011) who studied the 'dark side' of social capital in buyer-supplier relationships. They concluded that excessive levels of social capital could lead to a decrease in performance for both parties. Most prior research has only examined the influence of one or two social capital dimensions on performance (cf. Carey et al., 2011). Some researchers have focused on the effect of relational capital (e.g. Cousins et al., 2006; Walker et al., 1997), others on the effects of relational and structural capital (e.g. Lawson et al., 2008; Moran, 2005). We investigate the effects of the three dimensions of social capital on performance (cf. Krause et al., 2007).

Many scholars have emphasized the need for quantitative approaches to empirical studies on social capital in general (e.g. Meehan and Bryde, 2014). Most empirical studies on social capital however, are carried out from the buyer's perspective. Few studies were set up to investigate social capital from a suppliers' perspective. Johnson et al. (2013) explored the impact of social capital on the capabilities for supply network resilience. Their study provides an illustration of the links between resilience and social capital in the context of a crisis response. Lee (2015) investigated the effects of green supply chain management on supplier performance through social capital accumulation. A recent conceptual study by Schiele et al. (2015) emphasized the link between social capital and supplier satisfaction, also from a supplier perspective. The limited number of studies from the supplier perspective warrants further investigation.

Supplier relationships have been recognized as a source of competitive advantage, as suppliers can contribute valuable

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tradable resources (Clauss and Spieth, 2016). Buyers tend to consolidate their supplier base to a smaller number of key suppliers (Eggert and Ulaga, 2010). Purchasing professionals that aim to successfully manage their supplier relationships should take the supplier perspective into account on issues like attractiveness and satisfaction (Schiele et al., 2012). A similar reasoning can be put forward regarding social capital in buyer-supplier relationships. The results of our study are likely to be of interest to buyers. How do social capital dimensions relate to the strategic performance of suppliers? Which dimension relates most strongly to performance? Suppliers may become selective with respect to the involvement of and collaboration with their customers (e.g. Schiele et al., 2012). From a risk management perspective, it is clear that buying companies have a vested interest in the strategic performance of their suppliers and the role of social capital. Professional purchasers must understand how their business partners develop and use social capital, critical to the success and continuity of the supply network.

Performance can be defined in terms of improving operational efficiency, but also on the more strategic creativity of actions (cf. Nahapiet and Ghoshal, 1998). Most studies in this area have focused on the impact of social capital on operational performance in terms of costs, quality, lead time, flexibility, and delivery (e.g. Cousins et al., 2006; Lawson et al., 2008; Whipple et al., 2015). However, more recent studies have included strategic benefits such as product innovation, market creation, and technological development (Villena et al., 2011; Im and Rai, 2008; Sanders, 2008; Terpend et al., 2008). Since we are mainly interested in the continuity and success of suppliers, we limit the performance measure to the strategic performance of suppliers.

In addition, recognizing that (industrial) buyer-supplier relationships are embedded within a broader context, we also test for the moderating effects of technological uncertainty on the relationship between social capital and strategic performance. External uncertainties play an important role in shaping the interactions and performance of companies (Land et al., 2012; Lu and Chan, 2004). Technological uncertainty refers to the instability, complexity, and unpredictability of a relevant technology and its development in the future (Bstieler, 2005). Technology is important for the success of new product development, and meeting customer needs and preferences (Augusto and Coelho, 2009). However, studies have not put much focus on potential moderating factors (Villena et al., 2011), such as technological uncertainty, on the relationship between social capital and strategic performance. The main research question of this study is: what is the impact of social capital dimensions on the strategic performance of suppliers and what is the moderating effect of technological uncertainty?

The purpose of the study is to investigate the importance of social capital dimensions within buyer-supplier relationships. Our study contributes to the current body of knowledge on buyer-supplier relationships. First, our study extends previous research by investigating the influence of all three dimensions of social capital on the strategic performance from the supplier perspective. Second, we examine the contingent effect of technological uncertainty on the relationships between social capital dimensions and strategic performance. The findings of our study provide insights into the role of social capital within buyer-supplier relationships, and the (moderating) effect of technological uncertainty.

2. Theoretical background

2.1. Strategic performance in buyer-supplier relations

Krause et al. (2007) made a distinction between operational performance (costs, quality, flexibility and lead-times) and strategic performance (long-term issues like competitiveness, product development and new markets). The operational performance emphasizes the gains in terms of costs, quality, flexibility, lead-times, order processing, and on-time delivery (Cousins et al., 2006; Lawson et al., 2008; Whipple et al., 2015). Strategic performance reached beyond these operational gains and is related to long-term issues like competitiveness, product development and new markets (e.g. Sanders, 2008). Strategic performance focuses on added value in terms of product development and the creation and finding of new markets. Many studies on the effects of social capital are limited to measures of operational performance (e.g. Whipple et al., 2015; Cousins et al., 2006; Lawson et al., 2008). Few studies include measures of strategic performance (e.g. Villena et al., 2011; Im and Rai, 2008; Sanders, 2008; Terpend et al., 2008). As indicated, our study will focus on the more strategic gains of suppliers to be attributed to social capital within buyer-supplier relationships.

The nature of competition among firms is changing due to more volatile customer demands, shorter product lifecycles, the Internet, new business models, and many environmental challenges. These strategic outcomes are highly dependent on the collaboration of companies in supply chains. Strategic gains of collaboration like product development and market creation are crucial (e.g. Sanders, 2008). More and more companies have turned to customers and suppliers, engaging into appropriate partnerships and collaboration. Many supply chain management studies have recognized that value creation involves all parties in a specific chain and does not limit itself to processes of one specific company. Suppliers, manufacturers and customers play a crucial role in the process of value creation(e.g. Stevens, 1989; Tan et al., 1998). Often, buying organizations take the lead in organizing cooperation within supply chains (Villena et al., 2011).

Investigating a large sample of manufacturing firms in the UK, Carey et al. (2011) found that social capital positively impacted cost and innovation performance. According to Nahapiet and Ghoshal (1998), performance differences between firms may represent differences in their ability to create and exploit social capital. Johnson et al. (2013) reported on the influential role of social capital in facilitating capabilities (i.e. flexibility, velocity, visibility, and collaboration) for supply chain resilience. Lawson et al. (2008) found evidence supporting their hypothesis on the relationship between social capital and performance improvements. Social capital is an inter-organizational resource that contributes to both operational buyer performance and operational supplier performance (Whipple et al., 2015). The strategic relevance of social capital has been recognized in many studies. However, no studies have investigated the impact of social capital dimensions on the strategic performance of suppliers.

2.2. Social capital theory

Social capital theory has its roots in sociology and political science where it describes and explains the preferential treatment and cooperation between individuals and groups (e.g. Putnam, 1995). Social networks provide access to specific resources that are valuable to group members. Social capital theory has been adapted and used in organizational studies, directing attention to the role of a firm's social networks as a source of competitive advantage (e.g. Baker, 1990; Burt, 2000). The social capital embedded in the organization reduces transaction costs and assists members in