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An empirical investigation of network-oriented behaviors in business-to-business markets☆

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ABSTRACT

This study is concerned with the extent to which *network-oriented behaviors* directly and/or indirectly affect firm performance. It argues that a firm's interaction behaviors in relation to an embedded network structure are key mechanisms that facilitate the development of important organizational capabilities in dealing with business partners. Such network-oriented behaviors, which are aimed at affecting the position of a company in the network, are consequently important drivers of firm performance, rather than the *network structure* alone. We develop a conceptual model that captures network-oriented behaviors as a driving force of firm performance in relation to three other key organizational behaviors, i.e., customer-oriented, competitor-oriented and relationship-oriented behaviors. We test the hypothesized model using a dataset of 354 responses collected via an on-line questionnaire from UK managers, whose organizations operate in business-to-business markets in either the manufacturing or services sectors. This study provides four key findings. First, a firm's network-oriented behaviors positively affect the development of customer-oriented and competitor-oriented behaviors. Secondly, they also foster relationship coordination with its important business partners within the network. Thirdly, the effective management of the firm's portfolio of relationships is found to mediate the positive impact of network-oriented behaviors on firm profitability. Lastly, closeness to end-users amplifies the positive effect of network-oriented behaviors on relationship portfolio effectiveness.

1. Introduction

From a focal firm's perspective, its business relationships are some of the most important sources of competitive advantage. They provide combinations of resources embedded in these relationships, which are unique and difficult to imitate by the competition (Gulati, Nohria, & Zaheer, 2000; Spector, 2006; Zaefarian, Henneberg, & Naudé, 2011). This has an important implication for firms operating in business-to-business markets, since they need to develop strategies for collaborating with both their customers and suppliers within the business network (Day, 2000). However, overly relying on established relationships and overlooking the critical aspect of introducing new relationships might lead to a lack of novel information and the resources needed for innovation success (Uzzi, 1996, 1997). Therefore, a firm's ability to change the formation of its relationship portfolio in response to changes in the wider business network has strategic implications for its performance (Baum, Cowan, & Jonard, 2014; Cui & O'Connor, 2012; Gulati et al., 2000).

It is evident that business networks have a profound impact on firms' performance (Jack, 2005; Uzzi, 1996). Although the causal link between a focal firm's network position in the context of its portfolio of business relationships, and its performance, has been researched from a *structural perspective*, empirical evidence on this link with regard to *behavioral issues* is still missing (Baum et al., 2014). Salancik (1995) suggests that the fact that relationships and interactions are taken as given in network analyses might have contributed to the lack of behavioral research. Based on the resource dependence theory (Pfeffer & Salancik, 1978), we argue that there is a need to study this pivotal causal relationship from a firm's behavioral perspective. Firms have the ability to proactively seek the requisite resources through which they can potentially change their relationship portfolio, and with it, their position in the network, by managing their interactions and business relationships (Johanson & Mattsson, 1992; Salancik, 1995; Stevenson & Greenberg, 2000). On the other hand, firms' behaviors are also shaped by their web of relationships, which constitute the network structure (Granovetter, 1985; Rivera, Soderstrom, & Uzzi, 2010). Firms embedded in the network are all assumed to be "*perceiving and opportunity-seeking actors*" (Kilduff

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& Krackhardt, 1994, p. 88) in the sense that their actions are based on their perception of their surroundings and their intention to sense and seize opportunities afforded by the network. However, the way in which a firm responds to other actors changes the dynamics of the network (Kilduff & Krackhardt, 1994; Porac, Thomas, & Baden-Fuller, 2011). Firms attempt to shape their networked environment by changing the pattern of their interactions with their counterparts in order to grasp the network dynamics and further capitalize on these dynamics based on their understanding of the network (Andersson & Mattsson, 2010). The bilateral influences between a focal firm and its business network are an ongoing interactive process, manifested in the interactions between the firm and its counterparts, which are either directly or indirectly connected to it (Håkansson & Ford, 2002).

In this context it is important to consider that from a strategic perspective, firms interact differently within their business relationships, in that they have different behavioral options open to them. They can *actively shape* the network through strong- or weak-tie relationships based on the anticipated business outcomes (Thornton, Henneberg, & Naudé, 2013). However, the resulting interaction behaviors do not necessarily contribute to firm performance directly, as the outcomes of such acts cannot be foreseen (Ford, Gadde, Håkansson, & Snehota, 2003; Thornton et al., 2013). In addition, firms can *reactively sense* network dynamics, which can be seen as part of a firm's ability to respond to the network. This set of sensing behaviors relate to learning from, and utilizing the environment in which its important counterparts are embedded (Ford & Mouzas, 2013).

Following this argument, we infer that a firm's interaction behaviors in relation to an embedding network structure are key mechanisms that facilitate the development of important organizational capabilities in dealing with its business partners. Such *network-oriented behaviors* (Thornton et al., 2013) are consequently important drivers of firm performance, rather than the *network structure* alone (Salancik, 1995). This proposition provides the starting point and research objective for our study: it is concerned with the extent to which network-oriented behaviors directly or indirectly affect firm performance. Building on the existing literature of network theory and business-to-business marketing, this research contributes to the literature in two ways. First, it conceptualizes and validates a nomological model in which network-oriented behaviors are hypothesized as the drivers of other important firm behaviors toward their important counterparts in the network, such as customer-oriented, competitor-oriented and relationship-oriented behaviors. This is important as it enhances our understanding of how different organizational behaviors oriented toward different aims are interacting (Day, 1994). Secondly, this study establishes the role of firms' network-oriented behaviors in driving firm performance from a behavioral perspective. This is important as it directly provides managerial guidance about which behaviors in response to the wider business network firms should focus on in order to optimally sense the network dynamics and seize the opportunities (Gulati et al., 2000).

This study aims to provide a conceptual model that outlines how a firm can utilize network-oriented behaviors to understand its customers and competitors, and coordinate with its important business partners within the network. This framework provides an explanation as to how these strategic behaviors contribute to firm performance, either directly or indirectly. The argument will develop as follows. First, through a concise review of the relevant literature, we develop a conceptual model that captures network-oriented behaviors as a driving force of firm performance in relation to three other key organizational behaviors (i.e., customer-oriented, competitor-oriented and relationship-oriented behaviors). Secondly, we outline our empirical research design and test the hypothesized model using a dataset of 354 responses collected from UK managers, whose organizations operate in business-to-business markets in either the manufacturing or services sectors. Lastly, we conclude with a discussion of theoretical and practical implications of the study, acknowledge the limitations, and provide directions for future research.

2. Business interactions and network-oriented behaviors

Firms are unavoidably embedded in business networks (Ford et al., 2003). The general consensus in the network literature is that networks have some properties that allow firms to achieve certain economic outcomes, such as faster knowledge transfer and more effective resource utilization (Achrol & Kotler, 1999; Granovetter, 2005; Jack, 2005). This is done by mobilizing other actors, such as customers or suppliers, in the network (Mouzas & Naudé, 2007; Zaefarian et al., 2011). Furthermore, such mobilizing activities, i.e., interacting and building relationships with business partners, are linked to specific behaviors by a firm and thus economic outcomes are influenced by the way in which firms interact with others (Granovetter, 1985). We conceptualize such interaction behaviors as *network-oriented behaviors*. They are derived from the need of a firm to *sense* its position in the network (i.e., the opportunities and threats associated with its direct and indirect business relationships) and *seize* the opportunities derived from this position accordingly (Thornton et al., 2013). Thorelli (1986) suggests that one of the key issues related to such 'networking' is the way in which a firm positions itself in the network by changing its portfolio of relationships. Therefore, it can be assumed that firms' ability to maneuver themselves in the networks differ, depending on how well they use network-oriented behaviors, and that such differences will help generate insights related to firm performance differences (Zaheer & Bell, 2005).

Most studies in the existing network literature adopt *structural network measures*, such as the centrality and density of a focal firm's network, to understand firm performance differences (e.g., Hagedoorn, Roijakkers, & Van Kranenburg, 2006; Hendry & Brown, 2006; Zaheer & Bell, 2005). Empirical research that focuses on *firms' behaviors* toward their networks is still scarce (Ford & Mouzas, 2013). There are, however, some studies that discuss network-oriented behaviors, e.g., under the name of organizational networking (Thornton et al., 2013), network competence (Ritter, 1999; Ritter & Gemünden, 2003) or business networking (Ford & Mouzas, 2013; Ford et al., 2003). These studies broadly adopt an Industrial Network Approach, which allows researchers to understand how firms interact with others in order to cope with organizational problems at hand by utilizing 'external' resources and reconfiguring the combination of them (Håkansson, 1982; Håkansson & Snehota, 1989). Such behaviors have also been conceptualized as actions taken by a firm to change the formation of its network in favor of its business aims (Smith & Laage-Hellman, 1992). Initiating, maintaining and terminating relationships as part of a portfolio approach have been identified as important capabilities that enable firms to effectively form a pool of accessible resources that are embedded in their relationship portfolio (Cui & O'Connor, 2012; Mitrega, Forkmann, Ramos, & Henneberg, 2012; Zaefarian et al., 2011). In this context Thornton et al. (2013) conceptualize organizational networking as four sets of anticipated outcome-driven behaviors, specifically *information acquisition*, *opportunity enabling*, *strong-tie resource mobilization* and *weak-tie resource mobilization*. Each of these dimensions reflects manifested behaviors, which capture a distinct way in which firms utilize their relationships in an attempt to achieve their anticipated goals. First, information acquisition refers to a firm's tendency to use both strong-tie and weak-tie relationships in order to obtain desired information for making informed decisions. Secondly, opportunity enabling relates to a firm's conscious acts to sense the opportunities by strategically interacting with relevant parties in its network. Thirdly, strong-tie resource mobilization is utilized by a firm to adjust, transfer and pool resources across various established relationships in order to address certain firm challenges. Finally, weak-tie resource mobilization refers to the ability to mobilize resources that are linked to firms' less established relationships.

This conceptualization is in line with our research objective of conceptualizing the way in which firms interact with their embedding network. We therefore use the four behavioral dimensions by Thornton