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Evaluating buyer–supplier relationship–performance spirals: A longitudinal study

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ABSTRACT

Interorganizational relationships and their impact on firm performance have been studied at length in various business literatures, with many studies predicting that in dyadic exchange contexts strong relationships should lead to better performance for both parties involved. However, some studies reverse this causal ordering, arguing that the performance gains attributed to prior relational activity predict the strength of the dyadic relationship in future time periods. While supported, both of these perspectives on relationship strength/performance dynamics are incomplete, as the research studies are only cross-sectional snapshots of the phenomenon. We remedy this gap in the existing literature by examining the dynamic cyclical linkage between relationship strength and performance of a buyer–supplier relationship in a longitudinal setting, using a relationship strength–performance spiral model. Results of testing a multiyear sample of 323 buyer–supplier relationships in the construction industry indicate not only that relationships tend to spiral positively following relationship initiation, but also that positive relationship spirals will self-correct following multiple associations of alternating increases. These findings advance theory on buyer–supplier relationships, and provide insight for companies looking to improve supply chain outcomes through superior relationship management.

1. Introduction

Interorganizational relationships have been empirically examined within various social science disciplines (e.g., operations, marketing, strategic management, sociology, and supply chain management) for several decades, with specific attention often given to the performance implications of participation in a strong relationship. Of particular interest to many researchers and managers are vertical buyer–supplier relationships. A number of studies have argued that a primary motivation for constructing and strengthening buyer–supplier relationships is the likelihood that they will lead to improved operational performance outcomes and/or competitive advantage for the involved parties (Day, 2000; Krause et al., 2007; Morgan and Hunt, 1994). Yet, other research has adopted a different view of the linkage between relationship strength and performance, arguing that some firms will not strengthen a relationship with a customer or supplier until there is some history of positive relational outcomes (Barry et al., 2008; Cousins and Menguc, 2006; Doney and Cannon, 1997) associated with participation. Considered separately, these literature streams do not afford a complete view of the dynamic nature of the association between relationship strength and performance in a buyer–supplier relationship. However, viewed holistically, the findings from the prior cross-sectional research suggest that (1) a buyer–supplier relationship's strength in future periods is a function of both the present strength of the relationship and consequent performance increases or decreases achieved as a result of a firm's inclusion as a party to it, and (2) the reverse could be reasonably expected. As with the chicken and the egg, relationships and their performance benefits appear to be linked in a dynamic cyclical pattern that evolves as time passes.

Surprisingly, empirical studies assessing buyer–supplier relationships over time are limited in number and scope. Indeed, in a review of two decades of interorganizational relationship research, longitudinal studies of relationships are virtually absent from the literature, leading Terpend et al. (2008, p. 42) to conclude that, "...the research is almost exclusively cross-sectional and assumes that relationships are static in nature". These scholars and others call specifically for longitudinal research to better understand the dynamic nature of relationship variables (e.g., Cousins et al., 2006; Cousins and Menguc, 2006). This deficiency must be addressed if business scholars and practitioners are to fully comprehend the

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dynamic linkage between relationship strength and its antecedents and outcomes. The issue is particularly important for the discipline of supply chain management, where nexuses of exchange relationships among multiple customer and supplier firms drive the success of entire industries, and yet evaluations of relationship strength and its dynamic linkage to performance are virtually non-existent to date.

The purpose of this study is to conceptually and empirically address gaps in buyer–supplier relationship theory by (1) specifically examining how buyer–supplier relationships may become stronger or weaker over time as a result of prior performance successes or failures, and (2) simultaneously assessing how performance is cyclically impacted by changes in relationship strength throughout the duration of a buyer–supplier relationship. Moving toward these goals, we first review existing literature related to relationship strength, and then integrate multiple theory bases supporting that its interaction with performance over time should result in a spiraling pattern exhibited as an amplifying and/or self-correcting cycle. We next offer hypotheses predicting specified attributes of relationship spirals, and test these using longitudinal firm level panel data depicting 323 vertical buyer–supplier relationships within the context of the highway construction industry. Based on our findings, we conclude by discussing important implications for managers and future research.

2. Literature review

Buyer–supplier relationships have received a great deal of attention in various business research settings, with a wide range of theories and methods employed to examine relationship-related phenomena. Changes to the environment and/or the firms participating in buyer–supplier relationships are inevitable, thus periodically shifting each party's purpose and objectives. A clear picture of these dynamics cannot be obtained if one relies solely on cross-sectional assessments of buyer–supplier relationships (Stuart, 1997; Terpend et al., 2008). To more completely understand the linkage between relationship strength and relationship-specific performance over time, improved theoretical perspectives are needed that adopt a more dynamic or ecological viewpoint. In filling this gap, this article proposes a spiral model (Section 3) as representing the cyclical linkage between relationship strength and performance over time. We first ground this model in the extant literature in this section. We briefly review the literature on buyer–supplier relationships and tie strength to operationalize our first focal variable, relationship strength. We then discuss theory linking this to the other focal variable, performance. Following this, relationship life cycle research is presented which proposes an integrated association between these variables.

2.1. Relationship strength

Researchers generally agree that the capability to manage business relationships represents a critical aspect of managing a supply chain (e.g., Autry and Griffis, 2008; Cousins and Menguc, 2006; Lambert et al., 1996; Staughton and Johnston, 2005). Although inconsistent terminologies have been used to describe various business relationship forms across different fields of study, a common thread originating from the field of marketing and supported within the organization theory, law and economics literatures is the idea of a continuum of relationships ranging from discrete, transactional, interactions to committed, integrated relations with various cooperative relationships in between (Donaldson and O'Toole, 2000; Heide, 1994; Webster, 1992). In an attempt at synthesis, Tangpong et al. (2008) summarize the extant literature specific to relationship typology development. They group the research into two main approaches: relational content based types (i.e., differences based on relational content such as cooperative efforts, relational norms and trust) and dependence based types (i.e., differences based on power and dependence related variables). These authors then integrate the two approaches as dimensions of an arguably more complete typology of relationships. The resultant typology includes relationship categories consistent with the relationship continuum end points in prior research–market relationships (low on relationalism and dependence) and constrained-link relationships (high on relationalism and dependence). The typology introduces autonomous-link relationships (high on relationalism and low on dependence) as its form of cooperative relationships. Buying firms in this type of relationship work cooperatively with their supplier, who has a choice of whether or not to nurture the cooperative relationship and has voluntarily chosen to do so. The current research involves relationships between a buyer (contractor) and supplier (subcontractor) in which supplier dependence is low (i.e., there are numerous buyers with which to work) and relationalism is high (i.e., cooperative efforts and information sharing between the two parties are required). Although governed by contracts, which is the norm in service relationships, many of these relationships are long-term. Thus the relationships we are examining are cooperative relationships that are measured according to their level or strength of relationalism.

Contemporary supply chain relationship literature has built upon both continua of cooperative relationship forms and the sociological strength-of-ties literature (e.g., Granovetter, 1973, 1992), which has for over 30 years been primarily concerned with the nature of the relational bond between two or more individuals or workgroups. Decision sciences research on firm coupling describes relationships as varying in strength along a continuum from loose to tight (e.g., Beekun and Glick, 2001). Operations research has focused on the upper end of this continuum as a way to explore and explain buyer–supplier alliance relationships (Goffin et al., 2006), and in organizational management, the strength of relational ties, a dimension of social capital, is considered a distinguishing asset in buyer–supplier relationships (Krause et al., 2007).

Tie-strength researchers typically classify relationships as linked by a strong or a weak tie, where a strong tie is defined as one where closeness, reciprocity and/or indebtedness exist or have accrued. Yet, only in the last decade has this definition been widely utilized in research assessing linked business organizations (e.g., Uzzi, 1997; Gulati and Gargiulo, 1999; Krause et al., 2007). In a recent and important advancement, Capaldo (2007) builds on prior relationship theory (Kraatz, 1998; Rindfleisch and Moorman, 2001; Rowley et al., 2000) in framing interorganizational relationship strength as a three-dimensional concept including temporal, resource, and social dimensions, respectively. Specifically, Capaldo argues that the following three specific factors interact in determining the three dimensions of buyer–supplier relationship tie strength: (1) the relationship's overall duration; (2) the frequency of interaction; and (3) the intensity of the interaction. Within this operationalization, duration expresses a temporal dimension of the relationship, while all three synthesize resource-based and social dimensions (i.e., other things being equal, higher levels of the factors entail higher resource commitments and are necessary conditions for the passing of social content from firm to firm).

Other researchers have operationalized relationship strength similarly across various research contexts. For example, Barry et al. (2008) apply intensity measures of relational closeness when they rely on the "willingness to invest resources in a partner" and the "share of business one party has" to describe relationship strength. Krause et al. (2007) operationalize relational capital, the social