The importance of understanding the management of a portfolio of relationships in the supply chain

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ABSTRACT

Supply chains are increasingly managing a number of diverse interfirm relationships. As a result, businesses face the challenges of deciding which type of interorganisational relationship suits their needs, how to manage their complexity, what their attributes are and how they are interrelated. A “portfolio of relationships” framework is presented in response to this challenge, and its components are discussed. Discussion on why firms behave as they do is presented, followed by an explanation of types of relationships and their nature, and then a conceptual model is proposed.

Keywords: *Relationship portfolio, interfirm relationships, supply chain*

1. INTRODUCTION

Managing the supply chain involves the management of numerous interfirm relationships such as strategic alliances, collaborative partnerships and cooperative agreements, which have become increasingly important in developing a competitive position. In dynamic and complex industries, supply chain members realise that interfirm relationships are strategically important (Anand & Khanna, 2000) and that benefits can be obtained from long term relationships. However, the decision about which type of relationship is appropriate for a specific circumstance appears complex. There is a spectrum of possible relationships, from arms-length to closer long-term alliances and each of them demands a particular degree of managerial attention (Ring & Van de Ven, 1992; Kalwani & Narayandas, 1995; Cooper et al., 1997).

This attention includes the effective management of a “portfolio of relationships” (Golicic, Foggin & Mentzer, 2003), which may become complex as the supply chain network grows. Effective management of close relationships may bring important outcomes to an organisation such as learning and gaining new knowledge by combining skills (Mowery, Oxley, & Silverman, 1996); new product development (Kotabe & Swan, 1995); building of sustainable capabilities through continuous interfirm learning (Bessant, Kaplinsky & Lamming, 2003) and survival and financial performance improvement (Zaheer & Zaheer, 1997; Baum, Calabrese & Silverman, 2000; Rowley, Behrens, & Krackhardt, 2000). It is increasingly becoming important to select and manage appropriate relationships using a portfolio approach. The latter can assist in understanding the attributes that characterise each type of relationship. The existing literature lacks a comprehensive model to explain the inter-relationships between the attributes of relationships, the desired outcomes and the "portfolio of relationships".

This paper attempts to extend our understanding of the "portfolio of relationships" to be managed. It reviews the theory of the firm, interfirm relationships and supply chain management. Based on this review a framework is presented which assists the discussion of the nature of these relationships and a model is suggested to better understand the management of a portfolio of interfirm relationships. It is argued that along the supply chain there are a number of relationships with varying degrees of complexity. The larger the supply chain network the better organisations need to be at managing a "portfolio of relationships".

2. LITERATURE REVIEW

Before starting any discussion on interfirm relationships it is helpful to understand why organisations attempt to form interfirm linkages. Transaction cost economics; resource dependence and the resource based view of the firm help in understanding this form of organisational behaviour.

Transaction Cost Economics

Transaction cost theory (Williamson, 1991) presents three types of governance structures, which can be placed in a spectrum with "market" at one extreme, the firm (hierarchy) at the other end and a hybrid (i.e., networks, joint ventures, alliances) in between. Transaction cost theory suggests that transactions will take place in the market if transactions are of a low level of uncertainty, asset specificity and infrequency (Hobbs, 1996). Conversely, transactions with uncertain results are frequent and demand that high levels of asset specificity will occur within firms (Williamson, 1985). It is suggested that when a transaction demands investment in specific assets, and if there is uncertainty about the future, the room for opportunistic behaviour, such as insufficient effort to perform and improper use of resources, increases. There are some criticisms of this theory related to its focus only on market failures as the justification for an activity within the firm (Madhok, 1997). Other authors such as Foss (1998) and Connor (1991) have also concentrated on using markets but there might also be benefits. It is argued that resource dependence and the resource based view of the firm are well positioned to explain these benefits.

Resource-dependence and resource-based view of the firm

Resource dependence theory focuses on strategic actions undertaken by organizations to manage interdependencies with other organizations in their task environment (Kotter, 1979; Pfeffer, 1982). The theory seeks to explain how firms create relationships with others to obtain resources needed to meet their goals, but avoid relationships that may represent a threat to their autonomy and independence (Aldrich & Pfeffer, 1976). Resource dependence theory considers that loss of organizational control over goals and resources limit the decision to enter interfirm relationships. However, it is argued that when organizations share goals, it is possible for them to construct concerted arrangements. Mulford and Rogers (1982) maintain that when firms cooperate they act independently to achieve the independent goal of each organisation, while firms that coordinate to achieve shared goals through their joint resources are collaborating. The achievement of independent goals may involve losses of both resources and goals, whereas shared goals cost firms in terms of their resource autonomy.

The resource based view complements both the transaction cost and resource dependence theory and also allows for another perspective on why a firm may enter into interfirm relationships. Under the resource based view a firm's behaviour can be seen as a search for worthy, distinctive, and difficult to copy inputs which account for quality resources that are rare, non–substitutable and unique, allowing a firm to achieve efficiencies and competitiveness (Rumelt, 1984; Barney, 1991; Connor & Prahalad, 1996). The strategic value of any given resource depends on the way a firm combines, coordinates, and organizes these resources with other firm-specific resources (Sanchez & Heene, 1997). This means that through the establishment of external linkages, the costly to copy attributes of the firm are exchanged in a more cost efficient manner than if each firm acquires these resources independently so it can create superior value (Zajac & Olsen, 1993). So it can be seen that organisations start making their choice of interfirm relationship types based on the need for balance between their cost, resources interdependence and potential for value creation. It is also necessary to examine the types of relationships that organisations can select and their nature or attributes.

Portfolios of relationships

The Economic School (e.g., Williamson, 1985); Behavioural School (e.g., Cyert & March, 1963) and the Strategic School (e.g., Araujo, Dubois & Gadde, 1999) agree that inter-firm relationships tend to follow a continuum ranging from adversarial to collaborative. The "portfolio of relationship" approach will depend on what outcomes the parties want to achieve.

It is asserted that not all supply chain relationships need to be either collaborative or cooperative (Cooper et al., 1997). There are attributes of these relationships and determinants for their selection that firms must consider which need to be clearly understood. Interorganisational relationship terms such as collaborative arrangements, partnerships, and strategic alliances are too often used interchangeably (Collins & Doorley, 1991) and, often, establishing a practical definition is problematic (Bresnen & Marshall, 2000). This justifies the need for an understanding of differences between the types of interorganisational relationships and their attributes, which are presented in a framework (see table 1). The framework draws on and reflects theories, previous empirical research, and observations of business practice. It presents a set of six attributes, that reflect the nature of the "portfolio of relationships", which allow an organisation to evaluate which relationships are most important.

Arms-length relationships

Arms-length relationships are interorganisational linkages characterized by independence, focusing on strong price competition and contractual details, a short-term horizon, minimal commitment in terms of dedicated resources, lack of trust among the parties and little risk-sharing (Sako, 1992; Rutherford, 2001). Trust in arm's length relationships relies on the parties' adherence to clauses of a contract; this has been defined as contractual trust (Sako, 1992; Cousin, 2002).

TABLE 1

Attributes of a portfolio of relationships

Type of Relationships	Trust	Longevity	Risk sharing	Interdependence	Information sharing	Conflict resolution
Strategic alliances	High	Long term	High	High	Strategic	Complex
Collaboration	High/Good Will trust	Long term	Much sharing	Stronger dependence	Strategic information	Constructive
Cooperation	Moderated / Competence trust	Continued after the end of the contract	Moderated	Moderated	Operational – Tactical information	Arbitration
Arms-Length / Contractual	Low/ Contractual trust	Duration of the contract	Little sharing of risk	Low	Minimum operational exchange	Legal dispute

Source: Developed for the purpose of this study

Arms-length relationships involve limited information flows and an expectation of temporary links between the parties (Holland, 1992). Studies have found that arms-length relationships between buyers and suppliers led to low responses to demand changes because parties see each other as rivals, this prevents them sharing information (Narasimhan & Jayaram, 1998). Arms-length relationships involve complex and elaborate legal contracts which are difficult to arrange, negotiate and implement, leading to higher transaction costs (Sako, 1992). Complex contracts, due to the increase of asset specificity, tend to be more expensive than classical contracts because of the involvement of contingency clauses (Mahoney, 1992).

Cooperative Relationships

Many organisations are urged to seek cooperative arrangements with other organisations as a result of the pressures of fast changing technology, the competitive environment, widening of sourcing capability and company strategies (Ring & Van De Ven, 1992). The rationale behind these cooperative efforts is focused on arrangements to share resources, either tangible or intangible, as well as the pursuit of other business goals through the redesign of processes and products (Cousin, 2002). Although information about firm’s processes may be shared in a cooperative effort as a result of the non-exclusionary nature of the agreement (Polenske, 2004), each firm works separately from the other.

Cooperative efforts differ from arms-length relationships in that they rely on attributes such as a higher level of trust, commitment, support from senior management and vision (Mentzer et al., 2001). Cooperative efforts possess attributes such as joint problem-solving, exchange of information, credible commitment between the organisations, and joint adjustment to market place conditions (Landeros & Monckza, 1989). The objective of cooperative effort is to shift from contractual arrangements to more trusting relationships (Kumar, 1996). This shift encourages the parties to rely upon each other and to develop trust by taking a long term view of the relationships, dealing constructively with the possible conflicts that arise (Hines, 1995). Trust is essential for the good performance of cooperative effort (Achrol, 1991), it encourages organisations to exchange ideas, seek different courses of action, overcome problems and make commitment.

Commitment is a vital component of successful long-term cooperation, which implies a motivation to make short-term sacrifices to achieve longer-term benefits (Gundlach, Achrol & Mentzer, 1995). Committed partners are prepared to invest in valuable assets specific to an exchange, demonstrating that they can be relied upon to perform essential functions in the future (Anderson & Weitz, 1992). In addition, trust is proposed to play an important role in overcoming power imbalances, conflict and lower profitability (Dwyer, Schurr & Oh, 1987).

The cooperative approach, used by the Japanese automotive supplier industry, reported by Sako (1992) as Obligational Contractual Relations (OCR) gives an indication of strong technological and logistical interdependence. This kind of cooperative supplier-buyer approach is characterized by the considerable effort of purchasers in relation to technical know-how assistance and by a significant learning process which involves both parties (Lincoln, Ahmadjian & Mason, 1998).

Collaborative relationships

Collaboration appears to be close to the end of a continuum proposed by authors such as Spekman, Kamauff and Myhr (1998) and Golicic, Foggin and Mentzer (2003). This type of relationship involves partners' interdependence, their eagerness to share goals and a vision and to combine activities and exchange resources such as technology and information (Steendhal et al., 2004). Information sharing between customers and suppliers is considered as the foundation of collaboration between supply chain partners, alleviating many of the negative effects of arms length relationships. Information sharing allows not only the supply chain members next to customers to respond quickly to customer demands or problems but also enables better responsiveness from those suppliers who are not close to customers (Premus, 2001). Information sharing, in collaborative structures, enhances the robustness between partners, by enabling the partners to work towards a shared vision (Narasimhan & Jayaram, l998).

Collaboration is viewed as a more durable relationship in which parties bring organisations into a new structure with full commitment to working more closely, with a shared mission, vision and trust (Lee & Billington, 1992). Such relationships require comprehensive planning, seamless linkages (Krause & Ellram, 1997), united seeking of synergies and goals (Steendahl et al., 2004) and well structured communication channels operating at all levels. The collaborative structure demands joint processes supported by a high degree of trust and commitment. Trust is indispensable in collaborative processes and can result in lower transaction costs, easier conflict resolution, or a lower need for formal contracting (Das & Teng, 1998). Trust would also motivate participants in collaborative relationships to undertake, if needed, activities that were not agreed previously, this is what Sako (1992) defines as good will trust. In turn, collaborative linkages involve some risks, such as loss of information to a partner and becoming dependant on a partner (Singh & Mitchell, 1996). Risk is also greater because each participant commits its resources but power can be unequal. Gain and risk sharing capabilities come from a willingness to set rewards and penalties across the firms involved. Firms attempting to succeed in collaborative projects need to formulate vision, mission and measurement structures that enable supply chain partners to innovatively share, and reward risk and responsibility (Bowersox, Closs & Stank, 1999).

Strategic Alliances

Strategic alliances are broadly viewed as a particular mode of interfirm relationship, intended to be long term, in which two or more partners share resources, knowledge and capabilities with the objective of enhancing the competitive position of each partner (Spekman & Sawhney, 1990). Such relationships can be effective ways to disseminate new technologies, to penetrate new markets, avoid government controls, or to quickly gain knowledge from an industry's leaders (Lorange and Roos 1991).

Strategic alliances are differentiated from other interfirm arrangements by several attributes. Commitment is seen as an attribute that several studies have found to be important in successful strategic alliances (Cravens & Shipp, 1993; Monczka et al 1998; Mentzer et al., 2001). This commitment is demonstrated through the eagerness to allocate resources to the strategic alliance's transactions as well as priority and support from the senior management. Another attribute that appears in successful strategic alliances is trust (Smith, Carroll & Ashford, 1995; Mentzer, 2001), involving the willingness to commit to an exchange with a partner in whom confidence is shown and of whom reciprocity is unknown (Burt & Knez, 1996).

A study of managers in alliances showed that a high level of trust was seen as an important component to interfirm coordination required during a period of high uncertainty and the consequent potential conflict and turnover issues (Monge & Contractor, 1999). Due to the higher potential opportunistic behaviour involved in strategic alliances, trust can be considered as a pre-requisite for their initial creation, as a partner may be a competitor or be involved in alliances with an organisation's counterpart (Karahannas & Jones, 1999). Further, it is argued that experience working with the partner might either increase or decrease the perceived trustworthiness of either party. Partner's trust is present only when the ability to control the other party's behaviour is absent and it is asserted that the result of the experience of combining trust and control is what managers define as confidence and it should not be confused with trust (Das & Teng 1998).

Strategic alliance structures require control and mutual dependence (Handfield, 1993; Provan and Skinner; 1989). These two attributes are interrelated and this relationship has been the subject of studies in strategic supplier alliances. Studies conducted by Handfield (1993) and Provan and Skinner (1989) show that, for instance, in the agricultural industry tool dealers behave less opportunistically when they depend on a primary supplier. In turn, greater opportunism was evident in those suppliers with control over dealers' decisions. Moreover, Monczka (1998) found that, in strategic supplier alliances, interdependency is an attribute as important as trust and coordination. This study revealed that efforts in alliances such as joint solutions, continuous improvement and cost containment required a considerable level of interdependence between production staff. This represents a growing dependence of the buying company on its alliance partners and it has been proposed that it is positively related to an organisation's long term relationship orientation (Ganesan, 1994). Finally, control must be shared and responsibilities need to be clearly allocated to ease conflict resolution. However, although the power and control might be clearly defined, the fact that strategic alliances are increasingly formed by competitors would bring complexity to the resolution of conflicts (Cravens and Shipp 1993).

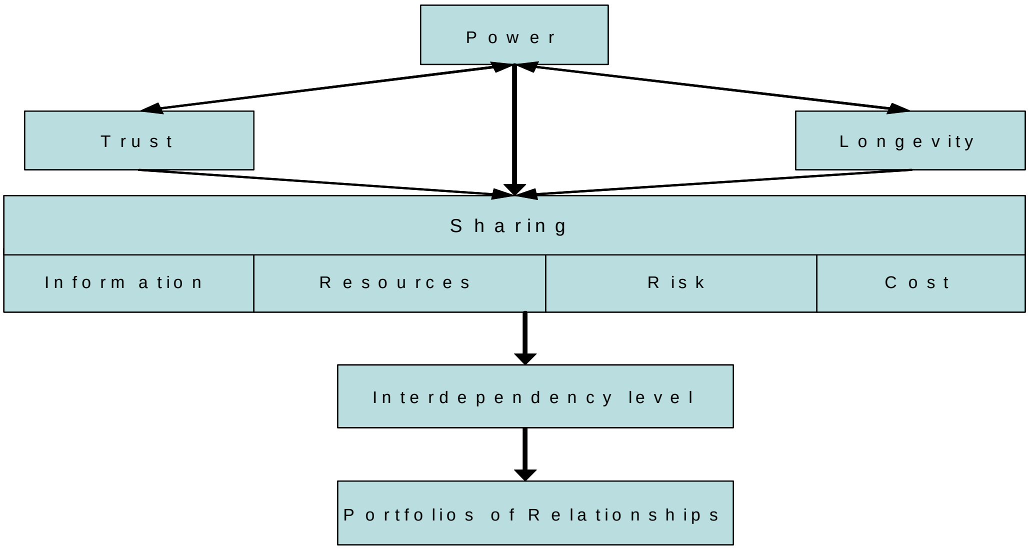
3. PROPOSED CONCEPTUAL MODEL

The typology of relationships we propose (illustrated in Table 1), reflects the fundamental premise that six types of attributes, Trust; Longevity; Risk Sharing; Interdependence; Information Sharing; and Conflict Resolution play a significant cant role in determining the nature of the interfirm relationship. In effect, the typology suggests that the confluence of Power, Trust and Longevity creates organizational contexts where sharing processes of different types are encountered. Sharing processes are suggested as preceding the relationships between organisations interdependency and the fomation of portfolio of inter-firm relationships.

The model, see Figure 1, frames both the attributes and the pattern of relationships in a manner that allows managers to explore both the possibilities of survivability followed by growth, and/or value creation in specific types of relationships and to link the management processes needed to maintain performance within them.

FIGURE 1

Proposed model for understanding portfolio of relationships management



The model is being tested in an extensively study of how the Australian road freight transport industry participants work with the actors in their supply chain. A survey has been developed to operationalise the six variables the model proposes and data is going to be gathered form road freight businesses to test the existence of these attributes in their inter-firm relationships and the strength of the relationships between the attributes. In addition, case studies will be conducted to obtain a range of detailed perspectives on the issues that emerge from the survey answers.

4. IMPLICATIONS AND CONCLUSIONS

Relationships in the supply chain are not required to be of the same type and complexity. Firms need to evaluate, through a portfolio approach, the nature of the myriad of relationships to understand why they vary and how they can be effectively and successfully interrelated to attain the partners' desired outcomes.

Comprehensive empirical research is needed to investigate the nature of multiple interfirm relationships under a portfolio approach, as well as their interrelatedness. Current conceptual models are not effective in assessing these issues. A model has been developed to identify the key attributes that would assist in an understanding of what is a "portfolio of relationships" approach, what is the nature of these relationships and how the appropriate combination of these attributes may support long-term relationships.

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