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Cooperative strategies in customer–supplier relationships: The role of interfirm trust

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ABSTRACT

In this paper we model the real cost structures of three customer–supplier relationships through a game theory approach. The three cases demonstrate the benefits of mutual interfirm trust in financially measurable terms. Indeed, interfirm trust can decrease the transaction costs of the relationship, thus providing competitive advantage for the partners. Moreover, we present a pricing arrangement that partially compensates the possible lack of mutual trust. A practical implication is that managers should pay more attention to the role of interfirm trust in partner selection processes.

1. Introduction

The importance of interfirm trust has increased as many customer–supplier relationships have become more cooperative by their nature. Thus, several researchers have paid attention to interfirm trust and its benefits from theoretical and empirical perspectives (Das and Teng, 1998a; Zaheer et al., 1998; Blois, 1999; Blomqvist et al., 2002; Dyer and Chu, 2003). The benefits from trust can be, for instance, reduction of transaction costs, increased information sharing, and willingness to invest in a specific customer–supplier relationship.

Interfirm trust and the benefits provided by it have been measured and evaluated widely by using several approaches (cf. Sako, 1992; Sako and Helper, 1998; Zaheer et al., 1998; Krishnan et al., 2006). For instance, the IMP group has paid extensive attention on trust in the perspective of business to business relationships (Johanson and Mattson, 1987; Håkanson and Snehota, 1989; Blois, 1999). Even though this has made the phenomenon both empirically and theoretically structured and understandable, earlier research has not captured and reported the real financial value and benefits of interfirm trust in customer–supplier relationships. The typical way to evaluate the benefits provided by trust has been quantitative questionnaires which do not take into account the real financial effects of interfirm trust (Fynes et al., 2005). Instead, the results of these questionnaires are dependent on the opinions of the respondent and thus, they do not necessarily illustrate the actual situation of the customer–supplier relationship.

In this paper, we provide empirical data regarding the potential benefits of interfirm trust in three different case relationships, which are part of an actual supply-chain. We complement earlier studies by measuring objectively the real financial value of interfirm trust experienced in different customer–supplier relationships using game theoretical approach. In practice, we show how a customer can reduce multi-supplier network's costs by increasing trust. The managerial coordination target is comparable with the approach of Chiou et al. (2007), but the coordination is here directed towards optimisation of

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supplier base instead of pricing algorithms with retailers. This helps further direct the research and managerial practises regarding customer–supplier relationships.

The rest of the paper is organised as follows: Section 2 describes the conceptual background of the study. Section 3 illustrates the research design and empirical data. In Section 4 we present a game theory model of inter-firm trust, which we use in Section 5 to analyse the empirical evidence of the case study. Finally, Section 6 discusses the contributions, limitations and managerial implications of the paper.

2. Theoretical framework

2.1. Transaction cost theory

In the classical theory of transaction cost economics, a company has two alternative ways of organising economic activities, namely market or hierarchy (Williamson, 1979). Hierarchy is selected if the sum of transaction costs and external price is greater than the internal costs caused by manufacturing and management activities. Otherwise, market mechanism is preferred. Transaction costs occur in an interfirm relationship especially due to the uncertainty in the relationship caused by possible opportunistic behaviour of the partner (Williamson, 1985). Opportunistic behaviour becomes possible if the relationship is a bilateral monopoly situation, where an organisation is dependent on the partner due to the transaction-specific investments (Sako, 1992). Thus, the decrease of alternative partners due to the transaction-specific investments increases the vulnerability and risk of the organisation leading higher transaction costs. These transaction costs can be distinguished in six categories: search costs (finding of a partner), negotiation costs (agreements about the deliveries), inventory costs (inventories caused by the product flows from the supplier to the customer), monitoring costs (observation of contracts), trust building costs (creation of mutual and proper trust and expectations), and adjustment costs (responding to the changing conditions) (Sako, 1992).

The classical model of transaction cost economics did not clarify all the organisation modes of economic activities as some companies positioned clearly between markets and hierarchies despite the supposed transaction costs (Thorelli, 1986). Thus, the model was completed by a hybrid organisation (Williamson, 1991) also known as the network relationship (Jarillo, 1988). These network relationships can be described as cooperative arrangements between organisations providing mutual benefits through trust and transaction-specific investments (Jarillo, 1988; Dyer and Chu, 2003).

2.2. Interfirm trust and risk

Researchers have noticed that a certain level of trust is needed for the development of interfirm cooperation (Das and Teng, 1998a). This interfirm trust is formed as the members of an organisation have a collectively shared trust towards the partner firm (Zaheer et al., 1998). The object of interfirm trust can vary, and based on this Sako (1992) has distinguished three types of trust, namely, contractual (trust on oral and written agreements), competence (trust on partner's ability to perform according to agreements), and goodwill (trust on partner's intentions to operate in accordance with agreements). Since there is always the possibility for the partner organisation to honour or exploit the trust of the other firm (James, 2002), the trusting firm sets itself vulnerable to the possible opportunistic behaviour of the partner. In these risky situations, mutual trust is an essential element for the control of the relationship (Das and Teng, 1998a).

Risk is an essential and related concept to interfirm trust, although their complex relationship is the subject of ongoing academic debate (Das and Teng, 2004). Trust becomes possible and important when parties have something at risk (Wicks et al., 1999). The risk of an interfirm relationship increases, for instance, if dependence of the relationship increases due to transaction-specific investments, decrease of alternative partners, or increase in exchange volumes. Thus, the more risky the relationship is, the more interfirm trust is needed to ensure the smooth cooperation between partners. Risk can also affect the level of interfirm trust. By increasing its own risk in relationship, organisation becomes more vulnerable and committed to the partner. This action requires reliance on partner's goodwill trust and on the other hand increases the partner's trust towards the trusting organisation (Blois, 1999; Suh and Kwon, 2006).

The balance between interfirm trust and risk can be illustrated by general organisation modes of economic activities, namely market, hierarchy, and network. Reliance on markets indicates independence and low risk between partners (Williamson, 1979). Therefore significant amount of interfirm trust is not needed if market mechanism is used. In the case of relationships including elements of hierarchy, limited amount of dependence and risk is present and moderate level of trust is appropriate (Wicks et al., 1999). Networks are classical examples of interdependent and risky relationships. Therefore, interfirm trust is an essential element of a cooperative network relationship (Johanson and Mattson, 1987; Jarillo, 1988).

In long-term cooperative relationships, like networks, mutual interfirm trust can play a significant role as it can diminish the behavioural uncertainty of the relationships. As the relationship becomes more certain, significant benefits can occur in terms of increase in the performance of the relationship (Krishnan et al., 2006) and decrease in the amount of transaction costs (Dyer and Chu, 2003), for instance. These benefits provide network-level competitive advantage for the supply chain as a whole.

2.3. Partner selection and centralisation of purchases

By cooperating with different organisations, a firm usually tries to reach for several goals. These can be, for instance, access to valuable resources or markets (Gulati et al., 2000), gaining knowledge and skills (Hamel, 1991), and sharing risks and/or benefits (Das and Teng, 1998b). However, partner selection criteria usually differ between