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Value for value—The dynamics of supplier value in collaborative new product development

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ABSTRACT

Suppliers are recognized as an important source of innovation. Research into supplier involvement in new product development has shown that benefits can potentially be reaped by customers. However, a relatively unexplored precondition is the willingness of suppliers to invest in their customers' innovative efforts. In this exploratory, theory-extending research, we investigate the value that a supplier can experience from being involved in high tech firms' new product development. We find that value comes in three forms for suppliers: (1) financial payment for sales volumes and product development services, (2) technological knowledge and product designs, and the (3) reputation of doing business with leading-edge firms Additionally, we place this in a dynamic, long-term perspective, and find indications for a positive or negative feedback effect, depending on the emphasis the buyer puts on collaborative innovation with the supplier and the extent to which suppliers can use competences, knowledge and reputation resulting from the collaboration in subsequent business development activities. The positive effect results in added value for both parties in the dyad, and the negative effect leads to the opposite.

1. Introduction

Long-term buyer–supplier relationships have been a popular theme for both researchers and practitioners in the past few decades (Gummeson, 1987; Kalwani & Nayarandas, 1995). This is at least partly due to the fact that such relationships may be more desirable and can have strategic advantages over transaction-based relationships (Kalwani & Nayarandas, 1995; Nyaga, Whipple, & Lynch, 2010). For example, they can be the setting of collaborative innovation, sometimes indicated with the term 'supplier involvement in new product development', or SI in NPD (Petersen, Handfield, & Ragatz, 2003). Research has shown that SI in NPD can enhance the buyer's NPD processes and thereby its firm performance (Ragatz, Handfield, & Petersen, 2002).

Much of the existing literature on buyer–supplier relationships focuses on the buyer's side of SI in NPD (Johnsen, 2009). In contrast, the supplier's side of the relationship is underexplored, although suppliers influence the success of collaborative innovation as well. In particular, little is known about the willingness of suppliers to invest in collaboration with their customers. Previous research has shown that suppliers need to have certain technical competencies and capabilities that allow them to contribute successfully to their customers' NPD efforts (Hartley, Zirger, & Kamath, 1997; Schiele, 2006). But what makes suppliers themselves invest in building and expanding the required competencies and capabilities (cf. Petersen, Handfield, & Ragatz, 2005; Walter, 2003)?

In this research, we used qualitative research procedures to extend the theory on relationship value in the context of collaborative innovation, opting for a detailed, in-depth analysis as opposed to working with a broader but more shallow dataset. We present two contrasting cases on long term dynamics of supplier value in the context of SI in NPD. The cases were investigated using a process research approach, tracing how processes unfold over time (Van de Ven & Poole, 1995). In our analysis we build on the distinction between direct and indirect sources of value as proposed by Walter, Ritter, and Gemünden (2001).

Our study makes the following contributions to the existing literature: firstly, we develop an empirically grounded overview of sources of value that suppliers can enjoy from participating in innovation with high-tech customers: financial remuneration for innovation services rendered and product volumes supplied, an accumulation of technological knowledge, and reputational effects of doing business with demanding, high-tech customers. Secondly, our findings show that these sources of value reaped from SI are dynamic and change over time. Thirdly, we demonstrate that the dynamics of buyer–supplier relationships can be virtuous or vicious, depending upon developments in perceived value for both the buyer and the supplier.

In the next section, we will provide an outline of the existing literature on SI in NPD, relationship value and value for suppliers

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specifically. Subsequently, we present our research questions. We then elaborate on the methods used for this research as well as its empirical setting, followed by a presentation of our findings and a discussion thereof. We then formulate conclusions and link our research to related studies. Finally we offer some guidelines to practitioners and make suggestions for further research.

2. Prior research

2.1. Supplier involvement in new product development

Long-term buyer–supplier relationships have been associated with high levels of trust, dependency and partner- or transaction-specific investments in business relationships (Bensaou, 1999; Ganesan, 1994). Such relationships can reduce overhead costs (Kalwani & Nayarandas, 1995) and create synergies based on collaboratively developed resources and capabilities (Dyer & Singh, 1998). One particular form of collaboration is that of supplier involvement in new product development ('SI in NPD', Ragatz et al., 2002). This subject has been investigated intensively over the past two decades (Gentry & Savitskie, 2008; Johnsen, 2009), in particular the potential benefits SI in NPD brings in terms of enhanced project and product performance, and the management of the collaboration with suppliers (Handfield et al., 1999; Lakemond, Berggren, & Van Weele, 2006; Petersen et al., 2003; Van Echtelt et al., 2008).

Research into innovation-oriented buyer–supplier relationships has mostly focused on the customer-side of the dyad, but recently, the importance of gaining and maintaining the commitment of the supplier to the relationship has been underlined by scholars (Ramsay & Wagner, 2009) as well as practitioners (Bew, 2007). In that light, the question of how to motivate suppliers to invest in their customers' innovation endeavors becomes particularly relevant. Existing research suggests that SI in NPD requires both technical and organizational competencies and capabilities of suppliers, including collaborative skills and project management capabilities. These can be accumulated by the supplier, although it may take a considerable period of time (Evans & Jukes, 2000; Handfield et al., 1999; Koufteros, Cheng, & Lai, 2006; Takeishi, 2002). The acquisition of those capabilities can be regarded as a strategic choice of suppliers; they may alternatively opt to target a market niche that does not require particularly close collaboration with customers (Kaufman, Merenda, & Wood, 1996). However, collaborating intensively for innovation requires investments from a supplier since it will need to adapt to some extent to its customers by accumulating the required knowledge and competencies (Gadde & Snehota, 2000; Hallén, Johanson, & Seyed-Mohamed, 1991). There is only scant research into what potential benefits customers offer to suppliers in order to motivate them to invest in long-term NPD collaboration with their customers (Schiele, 2010). Hence, better insight is required into the sources of value for suppliers in the context of long-term dynamics of innovation-oriented buyer–supplier relationships.

2.2. Relationship value

The literature on relationship value deals with sacrifices and benefits made in the context of business relationships (Payne & Holt, 1999; Tzokas & Saren, 1999). While the term relationship value still appears to lack a broadly accepted definition (Lindgreen & Wynstra, 2005; Walter et al., 2001), some agreed-upon aspects can be distilled from the literature. Relationship value can be seen as the ratio between sacrifices made and benefits enjoyed in the context of a business dyad (Zeithaml, 1988). Those benefits, and therefore value, can come in monetary forms, but can also have an intangible nature, making it difficult to measure value quantitatively (Ford et al., 2003). Several non-monetary forms of value have been found to be relevant, such as reputation, reliability of a product or business partner, and the innovativeness and other capabilities of business partners (Möller and Törrönen 2003; Wilson & Jantrania, 1994). Furthermore, the value of a particular relationship may only be realized when it can be connected with other aspects, such as firm strategy and the presence of other relationships (Ford et al., 2003, p.73). This suggests that value may need to be combined or transformed in some way in order to become relevant to a party (Ramsay, 2005; Walter et al., 2001). Consider for example a buyer–supplier relationship that brings no value to the supplier at present. However, the supplier may use the relationship with the buyer as a strategic springboard to access a new market in the future, e.g. by developing a new product offering for the present buyer and marketing that at a later stage to other potential customers. In that case, the value for the supplier lies not so much in the present, financial value of the relationship, but it lies in the strategic bridgehead function the first customer represents. The realized value is then dependent on the future relationships the supplier may develop. Finally, relationship value has been argued to depend on a party's perception, which may or may not be in line with objective value measures (Ellegaard & Ritter, 2007; Ravald & Grönroos, 1996; Van der Haar, Kemp, & Omta, 2001; Werani, 2001).

Traditionally, the literature on relationship value has focused on suppliers creating value for their customers (Ramsay, 2005). However, in a dyadic relationship value is not only created for the buyer, but also for the supplier (Pardo et al., 2006; Ramsay, 2005). Both sides of a dyadic business relationship will seek and perceive different sources of value (Nyaga et al., 2010; Pardo et al., 2006). This implies that in order to maintain commitment of both parties to the relationship, a mutual understanding of relevant value for both parties is required (Werani, 2001). This aligns with the recently developed notion that a firm should not only make itself attractive to customers, but also to its suppliers in order to motivate suppliers to invest in their customers (Bew, 2007; Christiansen & Maltz, 2002; Ellegaard, Johansen, & Drejer, 2003; Schiele, Veldman, & Hüttinger, 2010). This is particularly important if we realize that any benefits reaped from the relationship tend to trail behind investments (Ford et al., 2003). Hence, in terms of collaborative innovation and SI in NPD, it seems that suppliers can only be expected to make investments if they perceive that they receive an acceptable reward. To nurture this expectation, buyers should make themselves attractive to suppliers (Benton & Maloni, 2005; Essig & Amann, 2009; Ghijsen, Semeijn, & Ernstson, 2010; Wynstra, Weggeman, & Van Weele, 2003).

2.3. Value for the supplier

Scholars have only recently begun to investigate the attractiveness of customers to suppliers and the satisfaction of suppliers in dyadic relationships (Lindgreen & Wynstra, 2005; Schiele et al., 2010). The most obvious form of value that a supplier may perceive are a customer's 'volume' and 'profit' functions, described as 'direct value' by Walter et al. (2001). This is the total (expected) volume of orders and the profitability of that order volume within the relationship. However, sources of value have also been mentioned that create benefits outside the present relationship: a customer may provide a supplier with new customers, it may help a supplier become more innovative or it may help the supplier to develop certain competencies. This type of value is described as 'indirect value' (Hald, Cordón, & Vollmann, 2009; Walter et al., 2001). Some forms of indirect value may even outweigh direct ones in obtaining commitment from suppliers. Christiansen and Maltz (2002), for instance, discuss customers that succeed in obtaining access to critical resources of their suppliers, even though they lack a favorable leverage position due to the small business volumes they represent. The authors find that the buying companies achieve this by offering non-monetary value to their powerful suppliers, such as knowledge and competencies.

Despite the contributions mentioned above, knowledge of specific sources of value for the supplier in a context of SI in NPD seems largely absent from the literature.