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Knowledge transfer in the context of buyer–supplier relationship: An analysis of a supplier's customer portfolio

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ABSTRACT

In the context of buyer–supplier relationship, the present study will not only analyse the role of formal and informal mechanisms to transfer knowledge but also the direct and moderating effect of trustworthiness, as relational dimensions, to understand how customers acquire knowledge from suppliers. The results related to a sample of 105 customers belonging to a medium-sized Italian manufacturer's customer portfolio show that both formal and informal transfer mechanisms positively impact knowledge acquisition. Trustworthiness positively moderates the effect of informal transfer mechanisms and negatively moderates the effect of formal transfer mechanisms on knowledge transfer. Some considerations regarding the customer portfolio are suggested to enhance our understanding of the effectiveness of knowledge transfer mechanisms in relation to different trustworthiness contexts.

1. Introduction

Suppliers provide value for their customer base in several ways (Möller, 2006; Möller & Törrönen, 2003). Value creation can be expressed through a continuum of complexity, from standardised core value solutions to radical innovations characterised by a high-risk value potential, each of which can require the transfer of different levels of knowledge to customers (Möller & Törrönen, 2003). Along with this continuum, the supplier's capacity to provide appropriate knowledge to its customers should be considered a fundamental source of value creation (Ulaga & Eggert, 2006). The access to knowledge transferred by suppliers is even more relevant within the increasingly international context of business relationships (Pérez-Nordtvedt, Kedia, Datta, & Rasheed, 2008), particularly from the perspective of customers located in emerging markets, which often lack crucial internal knowledge (Osabutey & Jin, 2016).

The management of customer relationships involves differentiated mechanisms to reach a balance within the supplier's customer portfolio (Terho, 2009). Consequently, the process of the inter-organisational transfer of knowledge from the supplier to the customer base has become a prominent theoretical and managerial issue (Squire, Cousins, & Brown, 2009). Transferring knowledge between organisations involves moving pieces of knowledge from one party to another. This transfer process requires commitments of resources, managerial time, attention, and effort (Chen, Hsiao, & Chu, 2014).

Prior research examining vertical inter-firm knowledge transfer has focused more on the knowledge acquisition of the supplier (Yli-Renko & Janakiraman, 2008). Very little is known about the effectiveness of the knowledge transfer process within a supplier's customer portfolio. As an industrial supplier is involved in different types of customer relationships and value-creation strategies, the customer perspective is relevant to better understand the effectiveness of the knowledge transfer process within the supplier's overall customer base (Möller, 2006).

Many factors may have an impact on the effectiveness and outcome of this process (Van Wijk, Jansen, & Lyles, 2008), making it a complex phenomenon. The literature on vertical inter-firm knowledge transfers has, up to now, almost exclusively analysed relational aspects, which can strongly affect knowledge transfer, such as relational experience, the relationship's strategic importance, the socialisation process, trusting relationships, and cultural distance (Levin & Cross, 2004; Santoro & Saparito, 2006; Squire et al., 2009; Szulanski, Cappetta, & Jensen, 2004). Scant attention has been given to transfer mechanisms, such as the modes used by firms to enforce knowledge transfer activities (Easterby-Smith, Marjorie, Lyles, & Tsang, 2008; Mason & Leek, 2008), and only a few studies (Santoro & Saparito, 2006; Williams, 2007) have considered the effect of the interaction between inter-firm relational aspects and the knowledge transfer mechanism on the extent of the knowledge transferred.

The aim of this analysis is to understand the knowledge transfer process in a supplier–customer relationship, focusing on the customers' perspective. Relying on communication (Daft & Lengel, 1986) and inter-

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organisational learning theories (Inkpen, 1998), our purpose is to assess the interaction effect between knowledge transfer mechanisms and relational aspects in favouring inter-firm knowledge transfer. As for knowledge transfer mechanisms, we study the different direct effects of formal and informal mechanisms on the extent of knowledge acquired by customers (Dhanaraj, Lyles, Steensma, & Tihanyi, 2004; Håkanson & Nobel, 2001). With respect to the relational context, we analyse the influence of the supplier's trustworthiness, emphasising its moderating impact on the effectiveness of different knowledge transfer mechanisms in favouring knowledge transfer (Becerra, Lunnan, & Huemer, 2008; Jiang, Henneberg, & Naudé, 2011).

This study aims to contribute to the debate on the theory of knowledge transfer within supplier–customer relationships (Van Gils & Zwart, 2004). First, whereas prior research has paid little attention to the management of knowledge transfer mechanisms within the customer base (Möller, 2006; Ramasamy, Goh, & Yeung, 2006). This study allows a deepening of the effectiveness of an industrial supplier's effort in transferring knowledge to its customer portfolio (Terho & Halinen, 2007). Second, this study answers calls for a more differentiated investigation of transfer mechanisms (Chen et al., 2014; Santoro & Saparito, 2006; Williams, 2007) by analysing the impact of formal and informal knowledge transfer mechanisms on the extent of knowledge transferred (Dhanaraj et al., 2004). Third, the study advances prior research on inter-organisational knowledge transfer (Squire et al., 2009) by emphasising the role of perceived trustworthiness as a relational variable, which may moderate the effectiveness of knowledge transfer mechanisms.

The present paper is structured as follows. The subsequent section presents a brief discussion of the literature addressing the topic of knowledge transfer from a supplier's customer portfolio perspective and proposes the research hypotheses of the study. The methodology (data collection, sample, and measures) is highlighted in the third section, while the findings related to a sample formed from a specific customer portfolio of a medium-sized Italian manufacturer are presented in the fourth section. Finally, the discussion and managerial implications of the findings, the study's limitations, and directions for further research are examined in the last two sections of the paper.

2. Theoretical background

The knowledge-based theory of the firm builds its foundations using the idea that knowledge is the most critical resource for value creation and appropriation (Grant, 1996). Knowledge is the source of the firm's ability to develop new applications and contribute to the organisation's performance and innovativeness (Foss, 1996). The role of knowledge as the main basis for competitive advantage has also been highlighted in the buyer–supplier relationship literature (Ulaga, 2003; Ulaga & Eggert, 2006). The supplier's capacity to provide appropriate knowledge is a fundamental source of value creation which can help customers achieve a stronger competitive position (Ganesan, 1994). The supplier can support its customers in enhancing their competitiveness by transferring three main types of knowledge (Ulaga, 2003): technical knowledge, knowledge about supply markets, and knowledge about final markets. First, a supplier may assist its customers in developing new solutions and/or customised/improved older ones (Kalwani & Narayandas, 1995). In this vein, industrial customers search to gain access to a supplier's specific technical knowledge, which they may not have in-house, adding value to existing solutions. Second, a supplier can also serve as a source through which customers can have access to available knowledge related to the supply market and its potential evolution (Ulaga & Eggert, 2006). Third, a supplier can also provide insights into end markets in terms of standards required by end customers and their specific purchasing behaviours (Song & Thieme, 2009).

The extent to which suppliers differ in their knowledge transfer efforts relates to the prioritisation of their customer portfolios (Homburg, Steiner, & Totzek, 2009; Terho & Halinen, 2007). The customer portfolio literature suggests different ways of prioritising customers into homogeneous subsets based on their actual or potential value (Balboni & Terho, 2016; Zolkiewski & Turnbull, 2002). The idea of managing customer relationships as portfolios reflects the aim of optimising the resources of an industrial supplier (Terho, 2009). Customer relationships, in terms of both type and number, can be viewed as resources that suppliers should be able to evaluate and activate based on their capacity to develop customer-specific solutions and use appropriate mechanisms to transfer knowledge (Ulaga, 2003).

However, effective knowledge transfer between organisations is not easy to achieve, given the varied nature of the knowledge to be transferred (Park, Vertinsky, & Becerra, 2015) and the quality of relational contexts within which the transfer process takes place (Easterby-Smith et al., 2008).

Among the many factors which may have an impact on the effectiveness of knowledge transfer (Szulanski, 1996), organisational learning theory investigates the role of knowledge characteristics, such as tacitness (Birkinshaw, Nobel, & Ridderstråle, 2002; Zander & Kogut, 1995). Explicit knowledge can be coded and more easily transmitted in formal and systematic language (Chen, 2004) without any direct interaction between the source and the receiver being strictly necessary. Conversely, tacit knowledge is non-verbalised, intuitive, and based on experience—more valuable for competitive advantage (Grant, 1996; Lei, Slocum, & Pitts, 2001). Its ambiguous nature (Birkinshaw et al., 2002) makes this kind of knowledge equivocal and difficult to interpret, assimilate, and apply (Coff, Coff, & Eastvold, 2006), rendering the inter-firm knowledge transfer a complex, costly, and slow process (Cohen & Levinthal, 1990; Galbraith, 1990), which often fails (Van Wijk et al., 2008). Due to its ambiguous nature, knowledge needs to be shared through mechanisms that enable debate and personal clarification, long-term interaction and observation of behaviour, and creation of learning spaces (Nonaka & Konno, 1998). Given the different degrees of complexity of knowledge transfer, the mechanisms used to transfer knowledge should be adapted to its multifaceted nature and its different constraints that limit the sender's ability to deliver knowledge and the recipient's ability to apply it to take the right decision (Gupta & Govindarajan, 2000). Consistent with this logic, communication theory, since its seminal works (e.g. Shannon & Weaver, 1949), has treated knowledge transfer as a communication act designed by the sender to affect the behaviour of the recipient in a specific way. Since knowledge transfer cannot occur without the existence of a transmission channel (Gupta & Govindarajan, 2000), knowledge transfer can have different levels of effectiveness according to the type of channel adopted.

Variables that impact the quality of the relationship could also play a role in favouring or hindering knowledge transfer effectiveness, since knowledge transfer mechanisms are often embedded in a relationship context. The literature on the customer–supplier relationship highlights the role of trustworthiness (e.g. Pérez-Nordtvedt et al., 2008; Szulanski et al., 2004), which creates the fertile ground upon which to form complex and intimate relationships, enable interaction between counterparts and make the knowledge transfer process more fluid (Squire et al., 2009).

2.1. Research hypotheses

Drawing on communication (Daft & Lengel, 1986) and inter-organisational learning theories (Inkpen, 1998), we distinguish between formal and informal knowledge transfer mechanisms, which have a distinct effect on the extent and quality of the knowledge transferred (Gupta & Govindarajan, 2000).

The formal mechanisms, which lie in physical forms of indirect communication, support the transfer of pieces of knowledge that can be transmitted in systematic language or formal representations (Lei et al., 2001). Formal mechanisms are based on cognitive artefacts (e.g.