Retrospective relational sensemaking in R&D offshoring

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ABSTRACT

To address the increasing relational challenges in international R&D collaboration, the present study develops a framework for understanding retrospective relational sensemaking in R&D offshore relationships. Using a comparative case study methodology, this study analyzes relational data from 56 interviews regarding four R&D offshore relationships between two large Swedish multinational companies and four R&D offshore partners. This study contributes to existing sensemaking theory by constructing a framework for retrospective relational sensemaking, including triggers and the phases of enactment, selection, and retention, to improve relational learning in R&D offshore relationships.

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1. Introduction

Although offshoring of R&D tasks is regarded as the "next generation of offshoring," it represents a significant coordination challenge for most companies (Manning, Raghavan, & Schutze, 2008). In contrast to the less demanding tasks that have historically been targets for offshoring, this next generation of offshoring includes a wide spectrum of high-value-added activities that are associated with R&D, such as computer-aided design (CAD)—drawing, modeling and drafting—re-engineering, embedded system development, new technology development, research on new materials and services, prototype design, and product development. By nature, these activities are highly uncertain and complex; thus, specifying and agreeing on tasks and deliverables ex ante is difficult. Moreover, the geographical distance, intercultural issues, and difficulties with contracting and predicting what needs to be executed create coordination and comprehension challenges, which implies that the realization of offshoring R&D is often different from that which was actually planned (Booz & Co., 2007; Grimpe & Kaiser, 2010; Rilla & Squicciarini, 2011). Given this background, the actors involved in offshoring often have a discrepancy of what "makes sense", which inhibits learning from and developing offshoring activities during the implementation phase. Thus, the selected R&D offshoring context represents a relevant setting in which to study relational sensemaking.

Building on Weick, Sutcliffe, and Obstfeld (2005), this study intends to demonstrate how retrospective sensemaking, as a process of social construction, aims to bring order into flux through an ex post collective interpretation and explanation of what actually happened in the studied offshoring relationships (Pye, 2005; Weick, 1995).

Although prior research has provided some models of the importance of relational learning (Dyer & Hatch, 2004; Huikkola, Ylimäki, & Kohtamäki, 2013; Knight & Pye, 2005; Lin, Wu, Chang, Wang, & Lee, 2012; Selnes & Sallis, 2003), development (Kale & Singh, 2007), and sensemaking (Medlin & Törnroos, 2014; Möller, 2010), relational sensemaking has received limited attention (Henneberg, Naudé, & Mouzas, 2010). In particular, the distinctive character of retrospective sensemaking in relationships remains significantly understudied. Retrospective sensemaking is particularly relevant in contexts in which uncertainty, risks, and the complexity of tasks decrease the potential for effective learning from planning or threaten the development of valid predictions regarding how to accomplish goals in, for instance, the R&D offshoring context (Weick, Sutcliffe & Obstfeld, 2005). The potential for low levels of trust, the great distance between partners and the complexity of the tasks to be executed call for a better understanding of sensemaking after tasks have been executed without relying on ex ante planning. Not only the lack of studies but also the relevance of studying sensemaking in such contexts has been highlighted by Henneberg et al. (2010, 357), who argue that "*no systematic research exists within this area of linking sense-making and networking empirically, i.e., providing 'thick' descriptions about the interrelations of these two concepts.*" Moreover, despite some insightful exceptions (Halinen,

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Törnroos, & Elo, 2013; Medlin & Törnroos, 2014; Möller, 2010; Ramos, Henneberg, & Naudé, 2012), efforts have been limited to the prospective view of sensemaking and the use of cognitive maps to enhance shared understanding (Abrahamsen, Henneberg, & Naudé, 2012; Ford & Redwood, 2005; Henneberg, Mouzas, & Naudé, 2006; Öberg, Henneberg, & Mouzas, 2012; Ramos, 2008). Although these have been important efforts and have advanced the sensemaking perspective in interorganizational research, previous studies have primarily approached the sensemaking concept prospectively or by developing approaches towards cognitive maps. Colville and Pye (2010) argue that retrospective sensemaking and cognitive mapping, although related, are slightly different perspectives; cognitive mapping does not concentrate on the processes or mechanisms behind joint explanations; it instead draws a static illustration of the current situation in the form of a network map. To date, the interorganizational literature has overlooked the concept of retrospective relational sensemaking; therefore, an analysis of the retrospective sensemaking process and mechanisms in the context of R&D offshoring provide unique contributions.

The present study aims to address the research gap regarding how retrospective relational sensemaking occurs in R&D offshoring between manufacturers (i.e., customers) and their service providers (i.e., suppliers). These relationships involve professionals from both sides of the studied relationships and, therefore, from different national and organizational contexts, engaging in relational sensemaking processes despite their separate frames of reference. Building on the sensemaking literature (Weick, 1988; Weick, 1993) and drawing from empirical data collected from 56 interviews with representatives on both sides of four R&D offshoring relationships, the present study extends research on interorganizational sensemaking (Medlin & Törnroos, 2014; Möller, 2010) and network cognition (Abrahamsen et al., 2012; Colville & Pye, 2010; Mouzas, Henneberg, & Naudé, 2008) by 1) developing the concept of retrospective relational sensemaking, 2) providing knowledge about the mechanisms of retrospective relational sensemaking, and 3) synthesizing an explicit framework to facilitate retrospective relational sensemaking. For managers of R&D offshoring, the present study provides insights into how to make sense of and develop activities to increase value and reduce relational costs.

2. Retrospective relational sensemaking in the R&D offshoring context

2.1. Sensemaking in the context of R&D offshoring

R&D offshoring involves the relocation of in-house R&D activities to external parties located in other countries to meet global operational requirements (Massini, Perm-Ajchariyawong, & Lewin, 2010; Rilla & Squicciarini, 2011). Offshoring of back-office and IT activities has been common in the past, but there has been a recent increase in offshoring of more advanced activities, such as R&D tasks, due to the need to achieve cost advantages (Maskell, Petersen, & Dick-Nielsen, 2007; Nieto & Rodríguez, 2011). Resulting R&D offshoring relationships may occur with quite significant geographical distances between partners who have a limited knowledge base and different cultural backgrounds (Grimpe & Kaiser, 2010; Li, Karakowsky, & Lam, 2002). For example, Parida, Wincent, and Kohtamäki (2013) highlight the transfer of R&D activities from Western countries to India. However, offshoring complex R&D activities involves various challenges, as these activities are emergent in character, require trust (Bäck & Kohtamäki, 2015; Kwon & Suh, 2005; Lewicki, Tomlinson, & Gillespie, 2006; Lindberg & Nordin, 2008; Rayruen & Miller, 2007) and involve vast knowledge asymmetries (Rilla & Squicciarini, 2011). By knowledge asymmetries, the literature references a situation in which, ex ante, R&D suppliers are unfamiliar with the true needs of customers, whereas customers may be unaware of suppliers' competences (Stump, Athaide, & Joshi, 2002). Therefore, ex ante, crafting exact, detailed plans about R&D work is difficult, and, during the collaboration, plans often change and new plans emerge. These

challenges are particularly evident in the R&D offshoring context, where partners operate in distant locations and have different cultural backgrounds (Parida, Wincent, & Oghazi, 2016).

Interorganizational network studies acknowledge the challenge of relational or network coordination and even question whether relationships or networks can be managed at all (Håkansson & Ford, 2002; Möller, 2006; Möller & Halinen, 1999; Ritter, Wilkinson, & Johnston, 2004). For instance, Ritter et al. (2004: 175) question whether any company can control a network—instead, according to them, partners coordinate, negotiate and develop a common understanding about needed activities. A potential general agreement is that, even if coordination beyond organizational boundaries is challenging, firms must succeed in it and thus need relational capabilities that enable network coordination and knowledge sharing (Dyer & Hatch, 2004; Dyer & Hatch, 2006; Kohtamäki, Partanen, & Möller, 2013; Möller & Svahn, 2004), particularly when operating overseas. Relational coordination enables partners to make sense of emergent R&D activities, thereby learning through relational retrospection; that is, by looking backward, partners can analyze and understand what went wrong and develop better ways of working for the future.

2.2. Defining retrospective relational sensemaking

Ongoing R&D activities in relationships, similar to general organizational activities, can be viewed as negotiated orders for ambiguous work that are enacted among the organizational partners involved (Tsoukas & Chia, 2002; Weick et al., 2005). Building on process theory (Bakken & Hernes, 2006; Van de Ven & Poole, 2005) and the retrospective sensemaking approach, this study analyzes the process of interactions and interpretations in an attempt to make sense of the surrounding world (Gephart, 1993). By retrospection, we reference a process in which action is not driven primarily by sense; instead, sense is guided by action and a retrospective understanding of that action (Gioia, 2006; Weick, 1995). As "sensemaking makes organizing possible" (Weick, 2001: 95), this retrospective look at actions and interactions enables the development of shared understanding in the context of R&D offshoring relationships (Fig. 1). As such, the concept of retrospective relational sensemaking in the R&D offshoring context is realized through collective communications, interpretations and meaning-shaping interactions in the relationships among R&D partners in sequences that connect actions to outcomes (Giddens, 1984). The context of R&D offshoring generates specific challenges for retrospective sensemaking. In an intra-organizational context, actors operate within the same organizational strategy, structure and culture; however, in the interorganizational context of R&D offshoring, the actors involved in the sensemaking process come from different organizations that operate under different strategies, structures and organizational cultures. In addition, significant physical and cultural distances (Batt & Purchase, 2004; McGrath & O'Toole, 2014) have important implications in the sensemaking process, such as the added knowledge asymmetry between actors who come from different cultural backgrounds (Liu, Gould, Rollins, & Gao, 2014; Möller & Svahn, 2004). Physical distance also makes it difficult to engage in face-to-face interactions, which are important for trust development and knowledge sharing (Lewicki et al., 2006).

As illustrated in Fig. 1, retrospective relational sensemaking takes place as a dual, cyclical and ongoing interaction process of sense reading and sense formation (Mangham & Pye, 1991; Medlin & Törnroos, 2014; Welch & Wilkinson, 2002), a retrospective explanation of what people
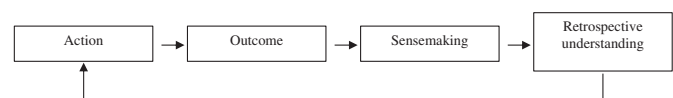

Fig. 1. Process of retrospective relational sensemaking.