Product development with multiple partners: Strategies and conflicts in networks

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A B S T R A C T

This paper provides an insight into and discusses the variety of sources of conflict in linking multiple partners in a network to the product development process. Conflict issues are discussed in relation to focal company strategies for product development within networks. On the basis of three case studies representing three different strategic intentions and network situations, our findings suggest that the sources of conflict are related to the actors’ definition and negotiation of the development task at hand. The study suggests that the ability to combine and find complementarities in the strategic intentions of the multiple participating actors is essential to accomplish innovation. The paper concludes that influential actors initiating or acceding to changes are crucial for reaching a positive outcome in joint product development.

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1. Introduction

Interacting with multiple partners in networks is often seen to be the key to successful product development, for networks provide sources for new innovative ideas, as well as access to the specialized knowledge of partners (Hakansson, 1989; Powell, Koput, & Smith-Doerr, 1996; Ritter & Walter, 2003). Product development with multiple partners is seen today to be the most common way of working in supply networks. However, facilitating cooperation between multiple partners is not an easy task to accomplish. We still do not know enough about product development cooperation in different kinds of networks, the challenges in these networks and how to solve the conflict that arises.

Conflict is often related to multiple customers having varying needs and requirements. Therefore, the firm will have to weigh up the different demands of these when innovating. Conflict may arise when multiple development partners, intermediary companies and suppliers impose their special requirements on the product development process. Different network relationships may be the basis of current operations and developments, but they can also restrict product development, leading to conflict (Ritter & Ford, 2004).

An innovative company seeking to build a product development strategy in the network faces the challenge of linking multiple customers, suppliers and partners in the network to the product development process. Due to interdependencies inherent within a joint development effort, single actors seldom act in line with their own strategic intentions for product development (Ford & Hakansson, 2005; Hakansson, 1982). Instead, a combination of mutually compatible strategic intentions for product development across partners becomes central. In the network, the willingness to adapt and adjust will vary between partners and conflict may arise when one actor tries to lead the joint development effort (Ford & Mouzas, 2007; Wilkinson & Young, 2005).

Based on the above discussion, the following research questions are proposed: Which sources of conflict can be observed when linking multiple actors to the product development process? How do these conflicts influence a company’s strategies for product development in networks? This research aims to contribute to our knowledge of the challenges related to product development with multiple partners. Whereas existing research has taught us the many benefits found in co-operation, we know less of the conflicts arising when actors seek to facilitate cooperation.

The empirical basis of this article consists of a multiple case study of companies in the food industry, the construction industry and the energy sector. The focal companies each sought to link with multiple partners in their product development processes. The cases exemplify three different product development strategies: (1) changing existing relationships; (2) building new relationships; and (3) changing network position. Depending on the required changes in process and structure, the innovative effort may encompass different sources of conflict between the innovating actors. The contribution that this paper makes is to study and outline the sources of conflict in networks associated with the product development strategy of the actor firms within these networks.

The paper is structured as follows. The first section introduces the theoretical basis for discussing the actors’ product development strategies in networks and the potential conflicts encountered. The second section outlines the methodology associated with conducting...
the multiple case studies that are presented in Section 3. The following sections provide the case analyses and discussions, while the conclusions and issues for further research conclude the paper.

2. Building a product development strategy for linking multiple partners to the product development process

Collaborating with multiple partners in the product development process holds interesting implications for a company's strategic intentions for product development, as well as its space for organizing product development activities within networks (Thorelli, 1986). Arguing that no company can achieve or carry out product development single-handedly (Hakansson, 1989), Freeman (1991), Powell et al. (1996), Laage-Hellman (1997) and Hakansson and Waluszewski (2002) note that actors are interdependent upon other actor resources and specialized knowledge for product development to become a reality. In other words, a company is interdependent on its relationships with the wider network to achieve product development. The scope and action of a firm's strategic intentions for product development are thus embedded in the network. The crucial question is not how the company manages its technological development activities per se, but rather how it succeeds in relating its own technological development activities to what is happening inside and between other actors, such as customers and suppliers' (Laage-Hellman, 1997: 27).

The interdependencies that are built are partly the choice of the firm and partly related to circumstance (Easton, 1992). In fact, companies may choose to interdependent in exchange for the benefits that they obtain from innovating with one or several partners. Perceptions of interdependencies in relationships, as well as perceptions of interdependencies related to the wider network, have been found to influence the strategic possibilities that companies seek (Munksgaard, 2010). When linking multiple partners to the product development process, management has to consider how others will hold intentions for product development and how they will act in their quest to seek solutions to their business problems (Ford, Gadde, Hakansson, & Snehota, 2003; Thomas & Ford, 1995). When several actors in a network develop new products to solve related or different problems, they may need to negotiate in order to reach a solution beneficial or at least acceptable to all. Research results suggest that companies seldom, deliberately and explicitly, take potential partners into account when formulating strategies (Harrison, Holmen, & Pedersen, 2010). Even if two partners in a relationship reach an agreement for product development, this does not imply that the new product will be adopted by the entire network. Not all changes in a relationship, including the development of new products, will result in changes in connected relationships in the wider network (Halinen, Salmi, & Havila, 1999).

When the product development processes of actors intertwine at the network level, interactions may be at odds with the network's goal (Johnston, Peters, & Gassenheimer, 2006). The way in which actors are interdependent implies different desirable outcomes for the network, related to the institutionalized practice and established 'rules of the game'. The character of the interdependencies may thus influence the actors' interaction, and if the interaction does not 'fit' into the institutionalized practice of the network, conflict may arise. To accomplish change, companies need to engage in negotiated processes with their counterparts. They are more likely to succeed if they perceive their wider network overlap (Kragh & Andersen, 2009).

The interdependencies between multiple actors linked to the product development process demand that companies deal with the technological and economical structure that is established within a network (Mattsson, 1985). In other words, interdependencies create path-dependency that makes it difficult to carry out more radical product developments because of tradition and interdependencies (Hakansson, 1990; Hakansson & Waluszewski, 2002). At the network level, interdependencies are reflected in the network structure. The greater the interdependencies, the clearer the network structure becomes (Easton, 1992), leading to more difficulties in forcing through more radical product developments.

To sum up, a single company's strategies for product development at a network level are related to network structures and network processes (Gressetvold & Torvatn, 2006; Gressetvold & Wedin, 2005). To build a product development strategy for collaboration with multiple partners and to link them to the product development process requires a consideration of the processes and structure in the network. Four different strategic intentions and network situations are outlined based on the work of Ford and Mouzas (2007) (Table 1).

The strategic intention of a company for innovating in a network is found in one of the four cells of Table 1. A company may have the intention to do more-of-the-same with its current partners — thus seeking to maintain current relationships (Cell 1). This situation is related to maintaining the status quo of network product development. This paper will not elaborate further on this specific intention. If a company wishes to change its existing relationships, it implies evolving processes (Cell 2). This strategic intention suggests that either party in a relationship will seek to develop some aspects of the joint product development effort — e.g. utilizing the resources of the partners in a different way or changing the coordination of product development activities. When a company seeks new partners for product development — i.e. for gaining access to certain resources or for achieving access to new customers — the company may have a strategic intention to retain existing processes within an evolving network structure (Cell 3). Finally, the strategic intention of a company may be to change its own position or that of others in order to intervene in the network patterns of product development (Cell 4).

2.1. Strategic intentions for creating value in networks

In situations where a company collaborates with several partners for product development and makes an effort to link these collaborating partners and other actors to the product development process, to some extent, the strategic intentions of the various actors can collide and conflict. Accordingly, each company will be faced with choices of when to follow the leadership provided by any one of the other actors and when to lead the other partners in its chosen direction (Ford & Mouzas, 2007; Wilkinson & Young, 1994).

To obtain insight into when and how companies may seek to lead or when and why they choose to follow, it is of interest to examine the strategic intentions of the companies and their determination towards the product development task. Taking these arguments further implies that building strategies for product development in networks and interacting with multiple partners will exceed the isolated product development process and its product as an outcome. Instead, when managing product developments in networks, the network outcome needs to be contemplated (Gressetvold & Wedin, 2005). Network outcomes may, however, be interpreted differently by the multiple actors linked to the product development process in the network (Hakansson, Ford, Gadde, Snehota, & Waluszewski, 2009).

From the IMP perspective, strategic intentions must be considered as the partners seek to create value in relationships. It is relevant to

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<td>Evolving structure</td>
<td>(1) Current relationships</td>
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