Spanning organizational boundaries to manage creative processes: The case of the LEGO Group

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ABSTRACT

In order to continue to be innovative in the current fast-paced and competitive environment, organizations are increasingly dependent on creative inputs developed outside their boundaries. The paper addresses the boundary spanning activities that managers undertake to a) select and mobilize creative talent, b) create shared identity, and c) combine and integrate knowledge in innovation projects involving external actors. We study boundary spanning activities in two creative projects in the LEGO group. One involves identifying and integrating deep, specialized knowledge, the other focuses on the use of external actors as a source of broad, not necessarily fully developed ideas. We find that the boundary spanning activities in these two projects differ in respect, among other things, of how the firm selects participants, formulates problems, and aligns the expectations of internal and external actors, and how knowledge is integrated across organizational boundaries. We discuss implications of our findings for managers and researchers in a business-to-business context.

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1. Introduction

In step with increasing global competition, innovation capabilities are moving to the fore in a growing number of industries. As competition intensifies, the life cycle of new market offerings is decreasing, calling for firms to increase their creative capacity. Creativity can be understood as the generation of new and valuable ideas for products, processes, services, and procedures (Martins & Terblanche, 2003). Creative ideas fuel innovation, for this reason, imaginative thinking and creativity are hailed as decisive sources of competitive advantage (Florida, 2002). Due to the recombinant nature of innovation, creativity tends to require the blending of diverse knowledge bases in novel ways (Fleming, 2001). In the current business environment, knowledge is widely distributed, making it difficult for organizations to be creative without external inputs.

Involving external actors allows the organization to adopt new perspectives and apply "fresh eyes" to given problems (Jeppesen & Lakhani, 2010). It therefore can help firms to overcome organizational inertia and functional fixedness. Organizations may be able to establish networks consisting of elite circles of external actors capable of contributing significantly to and sustaining the firm's creative processes (Pisano & Verganti, 2008). From the point of view of efficiency and effectiveness and under specific conditions, shifting the locus of problem solving to external actors may be superior to traditional internal methods. These conditions include the modularity of the problems to be solved and the distribution of the problem solving knowledge (Afuah & Tucci, 2012). Many organizations set out to involve actors external to the firm in their creative activities. However, firms may have fundamentally different objectives (Terwiesch & Xu, 2008). For example, they may be searching for a range of concrete and path breaking *solutions* whose development may involve trial and error, experimentation, high levels of specialization, and high upfront investment from the external partner(s). This involves the external problem solver in revealing real and profound proprietary intellectually property. Alternatively, organizations may want to tap into a broad range of *ideas* (as opposed to fully-elaborated solutions) to gain inspiration and open up potentially attractive business opportunities. These ideas may be rather fuzzy in nature and require some experimentation and some small upfront investments by the external actors. In this case, the knowledge revealed by the external partners will be fairly superficial.

When tapping into creative ideas outside their boundaries, organizations face certain challenges, which, depending on the type of creative search (i.e. for solutions vs. ideas) will require different solutions. First, the organization must carefully and deliberately balance two potentially conflicting objectives. The external input should provide perspectives which go (far) beyond existing firm perspectives, but which at the same time, are aligned to the firm's corporate strategy. Second, the problem to be addressed by the external actors should not be too narrowly framed since this might preclude creativity, but neither should its framing be too broad since this might blur the problem statement. Third, there are important issues related to designing the

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incentives for participation and transfer of knowledge, and potential intellectual property rights conflicts (Franke, Keinz, & Klausberger, forthcoming). Fourth, the host organization needs to overcome the not-invented-here syndrome, prevalent in many research and development departments (Lichtenthaler & Ernst, 2006). Fifth, since the external partner may have no experience of collaboration with the organization, it may be necessary to establish a level of trust. Trust has been shown to be an important prerequisite for inter-organizational collaboration and learning (e.g. Janowicz, Panjaitan, & Krishnan, 2009; Zaheer, McEvily, & Perrone, 1998).

Boundary spanning activity is crucial to exploit opportunities and overcome the challenges inherent in the involvement of external actors in the early stages of the innovation process. Boundary spanning has been described as "behaviors intended to establish relationships and interactions with external actors that can assist [a] team in meeting its overall objectives" (Marrone, Tesluk, & Carson, 2007:1424). Boundary spanning activities may provide a closer coupling between the organization and its environment (Ancona & Caldwell, 1992; Choi, 2002). Boundary spanning activities can facilitate knowledge transfer between organizations (Hansen, 1999), promote technological development (Rosenkopf & Nerkar, 2001), and have been shown generally to improve team effectiveness and performance (Ancona, 1990; Joshi, Pandey, & Han, 2009; Marrone et al., 2007). Effective boundary spanning may help organizations to integrate external creative inputs into internal innovation projects. However, inter-organizational boundary spanning activity in the context of creativity processes and outcomes has received little research attention. The literature on organizational boundary spanning focuses primarily on alignment, that is, how to increase coordination efficiency across organizational boundaries (Dougherty & Takacs, 2004). It tends to adopt an intra-organizational perspective focusing on the interface between teams and the organizations in which they are embedded, that is, focusing on internal rather than external boundaries (Ancona & Caldwell, 1992). The inter-firm literature, on the other hand, explicitly addresses issues related to the governance of inter-organizational relationships, but rather overlooks organizational transition such as those that underlies creativity processes (Kragh & Andersen, 2009).

Against this background, the present paper is aimed at achieving a better understanding, based on a boundary spanning perspective, of how organizations deal with the challenges that emerge when the locus of problem solving and creativity shifts to external actors. We investigate the following research questions: Which boundary spanning activities are crucial for firms wanting to tap into external sources of creativity, and how does the organization manage these activities in the context of sourcing of external solutions compared to sourcing ideas? Insights gained from addressing these questions should provide a better understanding of boundary spanning activities from the perspective of inter-organizational creativity, and help firms to tailor activities to the achievement of particular objectives. The empirical setting for our study is the LEGO Group. This company was chosen for our explorative analysis because it can be considered to be at the frontier with respect to involving external actors in collaborative creative processes. We focus on two cases: a project aimed at sourcing externally developed solutions, and a project aimed at sourcing externally developed ideas.

The remainder of the paper is organized as follows. In Section 2 we develop a preliminary conceptual framework of crucial boundary spanning activities in the context of this study. Section 3 describes our research approach and methodology, and Section 4 presents the study findings. In Section 5 we discuss the implications for theory and managerial practice.

2. Organizational creativity

Although creativity has been studied intensively from a number of different scientific perspectives, there is no single authoritative definition of the phenomenon of creativity in the literature. However, it is generally agreed that creativity involves the discovery of ideas[1] that are both *original* and *useful* to the context, and that, in a business context, these ideas will be related to products, services, processes, and/or procedures (Shalley & Gilson, 2004).

There are some specific issues related to creativity in an organizational context (Woodman, Sawyer, & Griffin, 1993). Organizational conduct implies a certain degree of managerial authority, formalization, and standardization as part of the enactment of a shared understanding, stability, and trust among the key internal and external stakeholders (Perry-Smith, 2006). As a result, and because creativity is seen as driven by individual people with a dislike for too much structure, creativity is considered as being outside of managerial control, and as happening despite managerial intentions. Some argue that creativity is best left to informal processes of self-organizing and skunk work (Augsdorfer, 2008; Burgelman, 1983); others claim that organizational conditions (structural and social arrangements) can actively stimulate and channel creative processes (Kanter, 2000; Shalley & Gilson, 2004). Our study tends towards this second view and is concerned with what managers do to coordinate creative projects that span inter-organizational boundaries. The theoretical framework developed to understand this phenomenon is rooted in the literature on boundary spanning.

3. Managing creative processes across organizational boundaries

The majority of the literature on boundary spanning and boundary spanners belongs to two streams of research that address different levels of analysis (Marrone et al., 2007). Early work on boundary spanners, mostly within the literature on marketing, adopts a predominantly individual level of analysis. Katz and Kahn (1978) refer to role theory in discussing the dual pressure and resulting role overload on individuals operating at the periphery or boundary of organizations (Goolsby, 1992; Keller & Holland, 1975; Lysonski & Johnson, 1983; Singh, 1993). Sales and marketing personnel are positioned between the organization and its environment: They represent the firm and its internal policies to the external world while playing important roles in transferring environmental information to the organization (Aldrich & Herker, 1977). They contribute to sensemaking in both the organization and its environment (Geiger & Finch, 2009).

Another stream of research addresses boundary spanning at group or team level. Here, boundary spanning is conceptualized as an aggregate, team-level phenomenon, and therefore is concerned with the relationships between the team and its external environment that enable the team to meet its overall goals (Joshi et al., 2009). Research in this stream builds on increasing recognition of the effect on organizational performance of the interdependence between creative teams and other organizational units, focusing on outward directed behaviors as opposed to the traditional dominant focus on internal team dynamics (Ancona & Caldwell, 1992). Studies show that the boundary spanning activities of teams are a significant predictor of several different organizational outcomes such as knowledge sharing, innovativeness, and team effectiveness, typically with communication or knowledge flows mediating between boundary spanning behavior and performance (Joshi et al., 2009). Some authors focus on boundary spanning as a practice, and hence are concerned more with the actions than the formal role of the boundary spanner (Levina & Vaast, 2005; Orlikowski, 2002).

Boundary spanning encompasses a wide range of potential activities and the literature provides several classifications of boundary spanning activity. Work on the individual level typically considers boundary spanning activities as co-existing, but also conflicting in

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[1] Ideas can range from communicative acts in the form of sketches and plans, to physical artefacts, that express the creative intent of the creator(s).