When distant partners become your closest friends: Ambidexterity through cross-industry collaboration projects

Inter-firm collaboration has become central to the value creation in large firms’ innovation processes. In particular, research on ambidexterity has prescribed inter-firm collaboration, the ability to alleviate the tensions that the simultaneous conduct of radical and incremental innovation bears. However, while prior research stipulates their structural, temporal or contextual separation in inter-firm projects, we ask whether and how both innovation types may originate simultaneously in single project settings. Focusing on cross-industry innovation, we analyze eleven case studies on new product development (NDP) projects. Our findings suggest that individual learning potentials differ for the collaboration partners, acting as a function of the initial knowledge distance, project objective and subsequent process architecture.

Why cross-industry collaboration can lead to ambidexterity

In today’s volatile markets adaptability determines the survival or failure of an organization (Bettis & Hitt, 1995). As presented by Foster and Kaplan (2001), the lifespan of S&P 500 organizations has dropped by 75%. Whereas these companies still faced an average lifespan of 90 years in 1935, results published by McKinsey in 2005 revealed an average current life expectancy of only 15 years (O’Reilly & Tushman, 2007). Despite this rather disillusioning perspective, there are companies that seem to manage high levels of change that originate outside their organization’s boundaries.

In the attempt to clarify the factors that differentiate these companies, the concept of ambidexterity has generated considerable theoretical and managerial significance (Li, Vanhaverbeke, & Schoenmakers, 2007; Raisch & Birkinshaw, 2008). By ambidexterity we denote the balance of exploiting existing knowledge for incremental innovation and exploring novel impulses to develop more radical innovations as a decisive factor of a firm’s survival and performance (March, 1991). Research on ambidexterity has drawn on multiple theoretical lenses, however, most prevalent the organizational learning perspective assumes the ability to absorb knowledge and adapt subsequently to maintain a competitive advantage (March, 1991). Consequently, maintaining competitiveness is profoundly determined by the firm’s ability to source beyond the corporate environment and to complement its knowledge with external sources. As a result, inter-firm collaboration has received increased attention to define how to leverage external knowledge sources to drive organizational ambidexterity (Lavie & Rosenkopf, 2006).

We define inter-firm ambidexterity as the pursuit of exploitative and exploratory activities through collaboration to generate both incremental and radical innovation. In this paper, we developed a holistic understanding to explain how organizations balance exploration and exploitation in single collaboration architectures. Applying the concept of cross-industry innovation, the empirical findings suggest that exploration and exploitation require the configuration of the new product development process to differ with respect to the inter-organizational collaboration’s function and the collaboration partners’ attributes. The majority of research assumes that exploitation and exploration are at opposing ends of a continuum, competing for scarce resources and managerial attention (Ahuja, 2000; Davis, Furr & Eisenhardt, 2006). This paper contributes to the limited perspective that proclaims that exploitation and exploration can indeed nurture each other rather than being mutually exclusive (Im & Rai, 2008; Lavie & Rosenkopf, 2006; Raisch & Birkinshaw, 2008). Linking the established ambidexterity discussion with the new field of cross-industry innovation contributed to our understanding of how partners from different knowledge domains can contribute to exploratory and exploitative results.
Methodology

This paper draws on inductive theory building through multiple case study analysis to provide insight into the structural and procedural mechanisms that underlie cross-industry collaborations to generate organizational ambidexterity. We have collected data from eleven cross-industry NPD projects in different industries, as shown in Table 1. The cases were chosen for their companies’ acknowledged outstanding innovation performance and specific recognition of their cross-industry developments. All case studies were undertaken within a ten year timeframe from 2002 to 2011. We conducted a total of 81 interviews, using a semi-structured interview guideline. In approximately three joint workshops per company, we discussed these interviews, made several site visits to each company, and had access to internal documents. We reported our findings to the interviewed companies and sought their feedback to correct possibly erroneous interpretations. Following our logic of differentiation between collaboration objective, process and learning, we were able to cluster the cases and develop archetypes that support ambidexterity in each type of collaboration.

Results: How companies pursue ambidexterity

The synthesis of the data from our case studies served as the basis to explain how companies employ different collaboration processes to derive distinct exploitative and exploratory learning mechanisms. Our analysis suggests that there are three distinct components that influence the overall collaboration outcome. First component is the collaboration objective, in which the focal organization defines its strategic intent for the collaboration. In this phase, we found that collaboration decisions were defined in accordance with both partners’ body of knowledge and the precision of the problem statement antecedent the collaboration. Second, during the actual collaboration process, team structure and process mechanisms were particularly highlighted as collaboration differentiators. As Madhavan and Grover (1998) assert, learning can be described as a function of project design. We apply this logic to cross-industry collaborations and suggest that both innovation objective and design influence the potential to generate exploitative and exploratory learnings within single inter-organizational projects. Finally, the learning outcome varies as a function of each partner’s initially defined process features and individual knowledge distance.

At the process level, this paper contributes towards a clearer understanding of how processes, collaboration objective, and learning interact in order to nurture inter-firm ambidexterity (Beckman, Haunschild, & Phillips, 2004; Dodgson, Gann, & Salter, 2008; Rothaermel & Deeds, 2004). It illustrates that collaborations based on broad problem statements benefit from integrated, continuous innovation processes, thereby nurturing secondary individual exploratory learning for both collaboration partners. While Lavie and Rosenkopf (2006) found that alliance partners may generate ambidexterity over a long-term perspective, we provide evidence that the right setting and partners from distinct industries yet potentially overlapping knowledge structures may induce both exploitation and exploration on single projects. This is due to each partner learning from the project’s overall activities to develop their individual knowledge endowment. Conversely, clearly defined problem-oriented collaborations feature modular, sequential processes that prohibit a potentially extended learning effect.

Our results pertaining to the knowledge possessed by collaboration partners, particularly complementary knowledge in exploratory processes, and distinct knowledge pools in exploitative processes are counterintuitive. While theory suggests that absorptive capacity (Cohen & Levinthal, 1990) decreases with a higher degree of cognitive distance between partners (Nooteboom
et al., 2007), our results illustrate that partners with distinct knowledge backgrounds typical of a large cognitive distance reach exploitative results. In the same vein, the generation of exploratory innovation with partners that provide for a common knowledge base questions earlier results regarding the correlation between partner distance and innovation performance and degree of radicalism.

This paper also provides evidence that universal propositions on innovation process architectures do not reflect the diversity and complexity of innovation processes. These propositions provide insights into the context dependency of particular innovation types in accordance with tailored collaboration architectures that allow the inherent learning potential to be leveraged (Madhavan & Grover, 1998). These rich results could only be obtained through qualitative data instead of quantitative analysis, as these data are established in ambidexterity literature (Davis et al., 2006; Dussauge et al., 2000; Gulati, 1995).

Managerial contribution

While these insights hold clear benefits for research, they also hold practical implications in the form of normative guidelines for management. The propositions we put forward suggest that there is no universal approach to innovation collaboration and that the characteristics of particular innovation projects require different processes. As our findings suggest, ambidexterity can be achieved in single inter-organizational collaborations, providing management with a further indication that driving incremental and radical innovation requires multiple parallel collaborations. The findings support previous research that shows that organizations generate higher performance impacts through exploration and exploitation within single inter-organizational collaborations than through single focus alliances. Most importantly, the framework indicates that management can leverage the cost and time-frame involved in exploration projects by linking them to exploitative innovations, thereby increasing the output generated from exploration objectives. On the other hand, exploitation-oriented collaborations provide the basis for nurturing exploratory ideas that are the basis of future developments.

Further readings


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