

Nicole Pfeffermann · Julie Gould *Editors*

Strategy and Communication for Innovation

Integrative Perspectives on Innovation
in the Digital Economy

Third Edition

 Springer

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Editors

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Foreword

Ideas are never more valued and debated than when their realization is insufficient. So it is right now with growth and innovation. Growth drives the vast majority of the long-term value generated by corporations. Economic growth is driven by labor, capital and productivity growth or innovation. Innovation has become the critical input at a time of depressed growth prospects globally, since growth now needs to be actively created through innovation rather than mere participation. But ironically, productivity growth has stalled and some have attributed this to stalled innovation, in spite of the much vaunted technology revolution. Reviving innovation is increasingly predicated on effective communication in many important respects.

- It is necessary that organizations communicate with their increasingly dynamic environments so that they understand what it is that they need to adapt to, overcoming natural tendencies for corporations to become inward looking as they grow and age. That is, dynamic and unpredictable environments require ambidextrously balancing more inward-looking exploitation with more outward-looking exploratory activities.
- It is also necessary that the experiments on the periphery of the organization which are the life blood of increasingly popular adaptive approaches to strategy and innovation are codified, diffused and adopted. Adaptive advantage is an organizational capability predicated on the creation, selection and amplification of emerging knowledge from newly explored opportunities.
- As corporations diversify their approaches to strategy and innovation more generally, supplementing classical planning based thinking with a greater emphasis on experimentation, collaboration and environmental shaping [Reeves et al. 2015, *Your Strategy Needs a Strategy: How to Choose and Execute the Right Approach*], communication is also essential to establish the right cultural context, to mobilize the organization by posing the right questions and to educate employees and diffuse new dynamic capabilities and approaches.

- An increasing reliance on open source, platform or ecosystem based innovation in particular also requires new types of long range leadership and communication: the common interest and operating rules have to be communicated, and the innovation ecosystem needs to stay informed through feedback in order to be able to learn and evolve.
- Finally, the increasing role of artificial intelligence in business will inevitably impinge on strategy and innovation. It is important therefore that we do not restrict our considerations to human communication but also explore the role of human-machine and machine-machine communications in enhancing innovation.

The third edition of this volume further develops a relatively new domain springing from the convergence between innovation, strategy and communication and will be a very welcome and useful contribution for academics and practitioners alike.

It is divided into four parts dealing with strategy and innovation, communication and innovation, integrated perspectives on innovation and best practice examples. The first section on strategy and innovation contains papers dealing with open innovation strategy, creativity, open innovation business models, failure modes in innovation and cognitive diversity. The second section on communication and innovation contains papers dealing with dyadic communication, transformation in the creative industry, the role of communication innovation, strategic networking and social capital, managing emotions and communicators in innovation clusters. The third section on integrated perspectives on innovation contains papers dealing with implantation, innovation leadership and communication intelligence, collaborative innovation in the digital economy, customer centricity at the top, innovation communication as a dynamic capability and audience-centered planning. The fourth section on best practices and case examples has papers addressing impediments at scale, user centricity and agile innovation, innovation communication in the digital age, co-innovation and communication, harnessing insights from brand communities and integrating art and design.

The editors and authors are to be applauded for their rich contributions to this important emerging inter-disciplinary field and for effectively blending theoretical and practical knowledge to bridge the ever-widening gap between academics and practitioners, thereby catalyzing a flow of observations and insights between the two. And if this serves to generate usable lessons for business to drive innovation more effectively, that would serve a very noble purpose in these challenging economic times.

Martin Reeves
Director, BCG Henderson Institute, New York

Acknowledgments

The collection of works, published in this edition, aims to make a valuable contribution to the area of innovation management and communication management, covering recent and future developments in open innovation, business model innovation and innovation communication in the digital economy.

A number of people have contributed to making the editions of this book possible. First of all, we would like to thank Prof. Dr. Hülsmann, Jacobs University Bremen, and Thomas Lehnert, Senior Editor Engineering at Springer-Verlag, who saw the potential of this project and gave their early commitment to the concept of this book as well as the support that brought the book's first edition to fruition. Special thanks also go to Jan-Philip Schmidt, current Editor, Physical Sciences and Engineering, and his Book Coordination Manager Mrs. Petra Jantzen, for their support and advice in preparing the book manuscript and market launch.

Writing book chapters is especially challenging when submission deadlines compete directly with other academic, professional, and social tasks—especially in the digitalized information age. We would like to express our strong gratitude to all authors for taking the time to contribute a chapter.

Finally, our thanks go to the readers and reviewers of the first and second edition, who have supported us preparing this volume. Last but not least, we sincerely hope that researchers, students, colleagues, business managers, and innovators will enjoy reading this book and be inspired by multiple perspectives and theoretical and managerial implications provided by the thoughtful book chapters.

Cologne, Germany
June 2016

Nicole Pfeffermann
Julie Gould

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Part I
Strategic Perspectives on Innovation

Chapter 1

The Importance of Connecting Open Innovation to Strategy

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Abstract Companies that are experienced in open innovation integrate open innovation activities as part of their strategy. By contrast, open innovation research has not been adequately integrated into the strategy literature and vice versa. In this chapter, we discuss a number of existing strategy fields that offer inroads to connect open innovation to strategy. The need to connect open innovation to strategy is illustrated by describing how companies increasingly organize new business development projects through open innovation ecosystems where an increasing variety of partners do not only act as sources of innovative knowledge but also provide input to a joint strategizing process.

1.1 Introduction

Openness in innovation and strategy has received tremendous attention from practitioners and scholars alike. In contrast to closed settings where the company was only conducting internal R&D and strategy development was secret and the exclusive task of top management, the open innovation literature emphasizes the importance of joint R&D efforts together with external partners (in ecosystems) to successfully arrive at a desired innovative outcome. Open strategy purports the idea of joint sense-making and idea generation when crafting strategy through the inclusion of internal and external expertise. These two paradigms have evolved independently in the innovation management (open innovation) and strategy (open strategy) literature although they borrow insights from each other. Despite several calls for coupling the two paradigms in recent years, the link between strategy and external collaboration has almost exclusively been studied in the literature on alliances (Gulati 1995; Gulati and Singh 1998; Lavie 2006), networks (Gulati et al.

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2000), and ecosystems (Adner 2006, 2012; Adner and Kapoor 2010; Gawer and Cusumano 2014) with only a few exceptions in open innovation (Chesbrough and Appleyard 2007; Dittrich et al. 2007; Doz and Kosonen 2008; Vanhaverbeke and Cloudt 2014; Vanhaverbeke and Roijakkers 2013; Whittington et al. 2011). Mattes (2011), Vanhaverbeke and Cloudt (2014), and Vanhaverbeke and Peeters (2005) emphasize that strategic goals may be influenced and reformulated on the basis of open innovation outcomes. Chesbrough and Appleyard (2007) put forward that existing strategic frameworks (e.g., Porter 1980, 1985) are inadequate for effectively integrating open innovation activities and that there is a clear need for ‘open strategy’. Whittington et al. (2011) have, in turn, related open strategy to open innovation where they consider open innovation to be a subset of open strategy. Open strategy refers to increasing numbers of firms that disclose information on strategic goals and directions and involve a greater number of internal and external actors in strategy formation processes (Whittington et al. 2011; Matzler et al. 2014). Similarly, open innovation relies on the objectives and capabilities of an organization’s outside partners. Yet, in comparison to the open strategy literature, open innovation brings in a slew of new external actors, which shape an organization’s (innovation) strategy through their relationships to and engagement with these actors and which we will highlight in this chapter.

1.2 Potential Inroads to Connect

This section examines how the concept of openness has been introduced separately in both the innovation management literature and the strategy literature and how the open strategy perspective can be used within an open innovation context. While both strands of literature have been studying firms’ openness in their strategy formulations (open strategy) and their innovative activities (open innovation), the explicit connection between the two has not often been made yet; it seems, however, of eminent importance to find inroads to connect as companies’ (open) innovation endeavors can only be effective if they are explicitly embedded in the strategizing process.

With the introduction of the concept of open innovation in 2003, Chesbrough created an umbrella term where previous important, but segregated, strands of literature, studying firms’ openness in their (innovative) activities, such as the strategic alliance literature, could be integrated into a broader perspective on innovation. Chesbrough’s introduction of open innovation and his visualization of openness through the ‘open innovation funnel’ have constituted an important integration of previously separate streams of literature. Chesbrough has drawn up the funnel to represent a firm’s internal innovation process and has pointed out that, at certain points, companies in this process open up to tap into knowledge existing outside their boundaries. This mainly happens when the company is unable to create necessary capabilities internally and therefore reaches out to partners through various types of inter-firm relations such as alliances, in-licensing, spin-ins, acquisitions, etc.

A company can also decide to open up in order to externalize and commercialize knowledge that does not fit its strategic purpose and is therefore not directly used for strengthening the internal innovation process through out-licensing, spin-outs, divestments, etc. Chesbrough has implicitly linked openness in innovation to the strategic goals of the firm through the connection between the funnel and the business model (current and new, the firm's own business model and that of others). Additionally, selective revealing describes a strategy where firms in open innovation settings strategically determine to which extent and in which areas they purposefully share knowledge with others in order to stimulate the open innovation process (Henkel 2006; Henkel et al. 2014). While the open innovation literature has studied firms' openness in a detailed manner, only few attempts have been made to connect open innovation explicitly to strategy (notable exceptions are Chesbrough and Appleyard 2007; Vanhaverbeke and Cloodt 2014; Henkel et al. 2014). A number of existing strands of strategy literatures offer inroads to connect with open innovation and we will elaborate on those in the following: the unrealized/deliberate/emergent strategy typology, the induced/autonomous strategy process, and the open strategy framework. Scholars such as Mintzberg (Mintzberg 1978; Mintzberg and Waters 1982, 1984, 1985; Mintzberg et al. 1986, Mintzberg and McHugh 1985; Brunet et al. 1986) and Burgelman (1983a, b, c, 1994, 2002) have been focusing on the process of strategy formation. Strategy has mostly been conceived in terms of what the leaders of an organization are 'planning' for the future and therefore strategy formation has been treated as an analytic process for establishing long-range goals. This approach is however seriously limited since there is a variety of ways in which strategies actually take shape.

1.2.1 The Unrealized/Deliberate/Emergent Strategy Typology

Mintzberg and Waters' (1985) strategy typology—unrealized, deliberate, and emergent strategies—reflects the relationship between leadership plans and intentions on the one hand (intended strategy) and what the organizations actually realize on the other hand (realized strategy). In a deliberate strategy the realized strategy reflects the intended strategy (realized as intended). Emergent strategies emerge in an organization but are not guided by the intended strategies from the top. Emergent strategies do not mean that management is out of control—it is just more open, flexible, and willing to learn—and they are particularly important in a complex, uncertain, and changing environment. Emergent strategies enable management to act before everything is fully understood. When firms innovate in order to cope with rapidly changing technological and market environments, intended strategies will only be partially realized leaving a lot unrealized. As new business opportunities only slowly get articulated over time emerging strategies become increasingly important. Emerging strategies may find their origin within (e.g., employees or

frontline managers) or outside the company (e.g., consultants, technology partners, customers, etc.). In open innovation in connection to strategy, special attention should be paid to how innovating companies can capitalize on external sources to formulate new strategies. Even more important is how they can develop management processes to use insights from external partners as building blocks for changes in the intended strategy. The benefits of open innovation have been always framed with respect to the innovation objectives of a firm but open innovation may also help companies to develop new/emerging strategies compared to the closed innovation setting where departments responsible for the innovation performance of the company are 'isolated' from external sources that can fuel emerging strategies.

1.2.2 The Induced/Autonomous Strategy Process

Burgelman (in line with Minzberg's work) has been focusing on the processes underlying strategic renewal or corporate entrepreneurship in firms. Burgelman (1983a, 1994) argues that induced strategic processes or autonomous strategic processes can drive strategic renewal. Induced strategic processes capture formal corporate entrepreneurship, which is a top-down process whereby the company's strategy and structure provide the context for renewing the firm's businesses. Autonomous strategic processes refer to entrepreneurial behavior, which surfaces informally in the firm. Both induced and autonomous strategic behaviors are important to a firm's entrepreneurship efforts, whether they intend to create new businesses or reconfigure existing ones. In his more recent work (2002), Burgelman develops an evolutionary perspective on strategy making showing that large firms tend to pursue more focus and efficiency in the existing businesses, which may come at the expense of effective exploration and strategic renewal. "Induced strategy exploits initiatives that are within the scope of a company's current strategy and that extend it further in its current product-market environment. Autonomous strategy exploits initiatives that emerge through exploration outside of the scope of the current strategy and that provide the basis for entering into new product-market environments" (p. 327). Burgelman shows that there is a risk of coevolutionary lock-in: that is, there is a positive feedback process that increasingly links previous success of a company's strategy to that of the existing product-market environment, which reduces the firm's ability to change strategic direction when necessary. The strength of top management's beliefs in the validity of the core (existing) business strategy leads to two sources of inertia associated with coevolutionary lock-in on the autonomous strategy process. The first type is that the core business' logic is applied to initiatives that need an autonomous strategy process. Second, the narrow strategic focus of the dominating/existing business prevents top management from understanding the changing strategic context resulting in a risk of immobility. Burgelman's framework for strategic decision-making processes is quite relevant within the context of open innovation. His studies about Intel are mainly focusing on autonomous strategy processes where ideas for new strategies emerge bottom-up

within the company. However, as companies open up to tap into external sources of knowledge, autonomous processes should be reconsidered to include external knowledge partners as valuable sources for the cognition of new strategic opportunities. Innovation partners are connected both to the core business of the company as well as to the new businesses under development and simply connecting to external partners is not sufficient to alleviate the threats of the two types of inertia that Burgelman has identified. In our view, firms have to develop two processes in order to use knowledge partners for balancing exploration and exploitation. First, openness to partners should reach beyond simple knowledge transfers or arms-length's transactions. Strategic partnerships in which firms co-innovate and combine their capabilities in long-term agreements allow them to understand the view of partners on the strategic context and on the future technological and market opportunities. Second, there should be mechanisms in the company to voice the strategic insights of those initiatives that are focusing on new technologies or businesses that are remote from the core technologies and businesses. Companies can give these initiatives (which usually represent a small share of the R&D investments) a weight that is equal to that of representatives of core technologies/businesses in corporate decision-making processes. This is important as initiatives that are distant from the firm's core are more radical in nature and require different types of partners (more research oriented), different time spans of establishing the business (long-term), and different ways to connect to partners (research collaborations, CVC investments, etc.) compared to initiatives that strengthen or extend the current businesses.

1.2.3 The Open Strategy Framework

A final strategic stream providing opportunities to connect open innovation to strategy is the field of open strategy, which has paid significant attention to the concept of openness (see Giraudeau 2008; Whittington et al. 2011; Whittington and Yakis-Douglas 2011). These authors observe that, in the old days, strategy formulation in large corporations was a rather traditional exercise where the CEO and the Board of Directors carried the process out in a secluded way. Once the corporate strategy was drawn up, it was translated in a top-down manner into business- and operational-level goals and communicated to lower levels within the organization. There was hardly any input from within the organization included in the strategy process, let alone from outside parties. Furthermore, the manner in which the strategy came about in many organizations was not very clear to lower ranked managers and employees. Whittington et al. (2011) point out that nowadays strategy processes are more 'inclusive' and 'transparent.' Both internal parties (e.g., employees) and external parties (e.g., consultants, suppliers, complementary partners) are involved in a firm's strategy discussions and the manner in which a firm's strategy comes into existence as well as the end product is communicated more widely, both internally and externally. An example of a more inclusive and