

Strategy and Communication for Innovation

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Editors

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Second Edition

 Springer

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Foreword

The most effective way to cope with change is to help to create it.

I. W. Lynett

The ability to innovate—i.e. successfully introduce new products and services to the market—is a key success factor that underpins the profitability and competitive advantage of firms. Innovation management thus needs to be considered as a core organisational capability for all growth oriented firms. In recent years, due to pressure for higher rates of innovation and the widespread diffusion of new technologies, innovation management has gained increasing importance for all firms. However, whereas in the past innovation was mostly driven through internal Research & Development (R&D) activities, today's firms need to rely on more cross-functional innovation teams and on the engagement with various external stakeholders to achieve the required level of innovation performance. External engagement is needed not only to allow firms to fuel their new product and service development pipelines, but also to commercialize their internally developed innovations in new ways. The ability to manage these 'open innovation' processes has become a necessity for firms today. Consequently, interest in open approaches to innovation among managers and researchers has risen sharply over the past 10 years. One output of this increased interest has been the recognition of the importance of communication for success in open innovation. From a strategic management perspective, communication represents a critical skill needed to explore and create the diverse routes for the commercialization of ideas across functions, organizations and industries. Communication facilitates information exchange through various channels for building trust between stakeholders, leading to corporate reputation-building in the long-run. Via appropriate communication firms can build and re-configure resources and capabilities for innovation, such as innovation communities.

This book presents an update on the state-of-the art theoretical and practical understanding of this field, building upon the initial steps developed in the first edition. This new volume bridges the gap between innovation management and communication management to reveal multiple perspectives on strategic innovation.

This book, organized around eight central themes, is a resource for managers and researchers alike that provides new insights, perspectives, examples and interesting case studies on the role of communication in an open innovation world.

Business Model Innovation and Strategic Open Innovation

How can companies overcome business model innovation challenges and design open innovation initiatives to achieve business growth?

The opening paper by Eppler and Hoffmann identifies internal business model innovation challenges and highlights visual solutions to overcome obstacles of managing and communicating the multi-stage process of organizational transformation. This chapter provides a literature review and a new perspective on business model innovation to illustrate its challenges and the potential of using visual solutions to overcome them. Visualization helps companies to overcome critical obstacles to the renewal of their business model such as the constraints of the dominant logic and the problems of creating new knowledge. Visualization approaches such as *sketching* used in combination with tools such as *scenario planning* allows the comparison and contrasting of different future views facilitating the analysis of the ‘big picture’ and challenging the dominant logic.

The chapter by Vanhaverbeke and Roijackers advocates for the integration of open innovation initiatives into strategy, beyond the activities of product development, and the need for an investigation into management processes for such a purpose. This broader perspective on open innovation has implications for both academic theory (where open innovation is typically linked with the new product development funnel) and for open innovation management practice within a broad spectrum of firms, including those who do not carry out new product development themselves.

The chapter by Moeslein presents strategic options for open innovation and discusses core tensions in managing strategic open innovation initiatives. Three types of innovators in open innovations exist: core inside innovators, peripheral inside innovators, and outside innovators. These types can be integrated in open innovation through the use of five innovation tools for successfully designing open innovation initiatives. The tools allow for large numbers of innovators to contribute, to empower these innovators to collaborate in widely distributed settings, to foster high-speed interaction, and to provide a global memory for innovators to build on.

Breakthrough Innovation

How can companies deal with breakthrough innovation?

Breakthrough innovation can lead to corporate growth and new business opportunities. The chapter by Ford, Ferriani and Probert identifies two basic conditions for companies to engage in breakthrough innovation: (1) The creation of an environment conducive to idea generation and (2) the capability to accept risk. In this chapter, the mechanisms through which established firms can harness these fundamental enablers are explored, providing an overview of the main factors that

cause established firms to oppose breakthrough innovation projects and conceptualizing the generation of breakthrough innovation as a two-stage search-selection process. Focusing on the selection phase, this chapter proposes three types of regime that established firms can adopt to overcome innovation barriers: (1) individual driven (2) lead user driven and (3) application domain driven. Examples from BAE Systems, Rolls-Royce and ARM are used to illustrate the effectiveness of these selection regimes.

Capabilities and Resources for Innovation

How can companies systemically create knowledge through co-creation, build strategic innovation networks, and drive organizational flexibility for innovation?

Open innovation does not only focus on product innovation; it also involves other activities such as service innovation and co-development on strategic corporate level with external parties. The chapter by Koch, Rapp and Kröger investigates how web-based co-creation platform design helps to develop a new political strategy by systematically attracting the knowledge of experts and individual members of the public. A new insight from this chapter is that open strategy should result in communication-oriented change projects rather than just software-focused web-based platform projects.

The chapter by Crispeels, Huculeci, Willems and Scheerlinck states that knowledge is a critical resource underpinning successful innovation acquired through inter-organizational networks. Empirical research in the Flanders' biotechnology industry provides new results and perspectives on how actors in industries interact in different networks, such as innovation networks and strategic networks. By using social network analysis methods, the researchers show that collaboration between two organizations on one network level might lead to various forms of interlocking of the organizations at other network levels.

The last chapter of this section by Hülsmann, Tilebein, Cordes and Stolarski provides a perspective on innovation capability from a strategic management perspective. The capability to imagine alternative strategic logics and management processes is a basic condition for organizational flexibility. The main conclusion of this chapter is that strategic management should be aware of cognitive diversity to unlock the full potential of organizations. The authors recommend applying an agent-based system to investigate conditions under which cognitive diversity contributes to innovation capability.

Multiple Perspectives on Communicating Innovation

How can companies communicate in innovation clusters? How can managers communicate innovation to address stakeholder's desires, interests, and emotional needs?

The chapter by Blasini, Dang, Minshall and Mortara focuses on the role of communicators in innovation clusters. This chapter reveals that an understanding of the role of key communicators in innovation clusters is essential in order to understand the dynamics of communication interrelations and the links to cluster development. One insight is that communicating inside and outside a cluster demands the creation of a common language for successful information exchange relating to complex innovations with a broader audience.

As the open innovation process becomes accessible to consumers and other external parties, new challenges in innovation communication emerge. The chapter by Bruhn and Ahlers describes an approach for integrated innovation communication that aims to ensure the systematic coordination of complex tasks and the interfaces used to communicate in an open innovation process. Based on an integrated marketing communication approach, this chapter covers a multi-level process of integrated innovation communication that spans from idea generation to stagnation, and highlights the communication elements that help ensure the integration of several components throughout an open innovation process.

What determines the success of innovation? Customer focus represents the key success factor for companies, and professional innovation marketing therefore results in the so-called competitive innovation advantage (CIA). This chapter by Steinhoff and Trommsdorff describes basics of innovation marketing as a field in marketing science to answer the question from a market-related perspective.

A critical success factor in the commercialization of an innovation is people and their word-of-mouth (WOM) communication. WOM communication can foster information transmission of new products and services throughout the market. The chapter by Mazzarol presents new perspectives on the nature of social capital, strategic networking (the *commercialization net*) and WOM communication in the commercialization of innovation. It shows that firms need to possess strong networks at the production, resource, and social layers in order to support the adoption of an innovation.

In the last chapter of this section, Mast presents an internal perspective on how communication strategy can be created for communicating innovations. Based on the results from a study conducted in Germany, Mast concludes that innovation communication programs can be planned, but there remains a lack of knowledge regarding stakeholder's desires, interests, and emotional needs.

Managing Communication for Innovation

How can companies efficiently manage internal and external communication activities for innovation?

The chapter by Pfeffermann provides a new perspective on visual and scent-based communication for innovation in the digital information age. Although the sense of smell is the oldest human sense, only in recent years scholars have studied scent and its psychological effects to tap into someone's emotional responses and memory. This chapter presents a theoretical approach of integrating innovation communication with concepts from psychology research, introducing a new management approach of innovation communication. The three-step model proposed encompasses re-/designing, implementing, and measuring innovation communication and points out specific analytical and visual-creative tools that could support planning innovation communication. The chapter suggests integrating scent-based communication in innovation management to emotionally reach to stakeholders and engage them in open innovation by addressing their desires and needs.

Innovation Communication and Collaborative Innovation

How can companies coordinate (open) communication activities for innovation and strengthen collaborative innovation?

The chapter by Belasen and Rufer identifies characteristics of adaptive culture and innovation communication that contribute to effective interfunctional collaboration. Based on the Competing Values Framework for Corporate Communication, roles, relationships, and communication patterns become apparent for successful commercialization of technology through open innovation. The new insight from this chapter is that lateral communication in organizations and an adaptive culture represent the most effective mechanisms to facilitate interfunctional coordination.

The chapter by Pfeffermann describes the cross-functional innovation communication capability. This capability is defined as the transmission of information between an organization and its stakeholders to increase corporate value. Three functions are needed for innovation communication: (1) *building and modifying function* (knowledge creation), (2) *improving function* (management of strategic assets) and (3) *intensifying function* (corporate innovation reputation). The chapter presents eight dimensions of the innovation communication capability and illustrates the direct and indirect effects of innovation communication on corporate value.

Features of a relational communication strategy for effective collaborative innovation include high communication quality, bi-directionality, and open communication climate. The chapter by O'Toole and Holden identifies nine features

and four key mechanisms to increase communication in collaborative innovation. Illustrative examples are provided to support propositions about the features and mechanisms of a communication process in successful collaborative innovation.

Collaborative innovation also implies to focus on collaborative communication. This issue is discussed in the chapter by Viardot, which points to the emergence of a new category of manager (*network orchestrator*) who is capable of interacting and communicating clearly, simply, effectively and consistently with all innovation partners. This chapter presents results on how technology-driven companies have to redefine information flows and engage the whole company into collaborative innovation rather than only innovation teams.

Social Capital and the Social Enterprise

How can companies move from a 'learning' to a 'sharing' paradigm?

The chapter by Ferguson addresses the question 'What are the strategic considerations in using social media platforms and open source practices such as crowdsourcing as tools in innovating organizations?' Ferguson discusses this question from several perspectives, and explores seven characteristics of audiences that should be taken into account in planning for innovation and suggests theories that support a user orientation. The key words for success in the new digital world are identified as *trust, respect, transparency, openness, sharing, recognition, and timeliness*. This chapter emphasizes that strategic planning for communication of innovation demands building on the existing knowledge of audiences, social media, crowdsourcing, communication, and innovation theories.

The chapter by Rodríguez-Montemayor provides a literature review from a multi-disciplinary perspective that explores the impact of social media on the innovation process. Organizations are *networks of conversations* and innovation activities are taking place via a sense-making process across teams and business networks. Social media can support making sense of knowledge in the context of the firm's overall strategy; i.e. social media supports innovation narratives resulting in the unlocking of the full potential of novel ideas through a common and clear innovation strategy.

Innovation and Communication Strategy in Practice

How can companies design integrative innovation and communication strategy?

The chapter by Andersen presents the case of Danske Bank, one of the Nordic region's leading banks, using the structure provided by the *Innovation Radar Framework*. It provides an in-depth analysis of the reasons why a communication

strategy should be an integral part of a company's overall corporate innovation strategy.

The final six chapters present specific case examples, illustrating different aspects of innovation communication in practice. Eberl describes how communicating for innovation has been managed by Siemens on a holistic basis, with particular focus on the firm's environmental technologies.

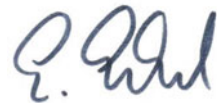
Steinhoff and Breuer describe the approach taken by Telekom Innovation Laboratories to develop a user-centered innovation approach to identify and specify options for radical innovation. The case study focuses on the initiation phase of the approach, with emphasis on the use of *Futures Workshops*.

The operation of SAP's Global Co-Innovation Lab Network is discussed by Patsch and Zerfass. This chapter uses a social structural perspective on innovation and communication to describe how structures are created to enable co-innovation actions in organizational practice.

Kröper, Bilgram, and Wehlig describe how Vorwerk Thermomix Research Community uses online research communities to gain consumer insights and create new products. They describe how a strongly committed group of people helps to establish in-depth dialog in which people not only perform a particular task assigned to them, but also exchange, share and develop ideas.

Kastelle and Ohr present the two contrasting cases of Lorna Jane and TravelOrg to discuss how social media can influence all phases of an innovation process, and the links between use of social media and innovation capability.

The final chapter focuses on innovating and communicating in networks through orchestration. Cartwright and Smith illustrate how this is exemplified by emerging artists who independently promote and sell their music.



Ellen Enkel

Acknowledgments

The collection of works, published in this edition, aims to make a valuable contribution to the area of strategic innovation management and communication, covering recent and future developments in open innovation, innovation communication and management practice on managing and communicating innovation online and offline in the innovation economy.

A number of people have contributed to making the second edition 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 Ms. Heather King, 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. 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 edition, who have supported us preparing this second volume. Last but not least, we sincerely hope that researchers, students, colleagues, business managers, and innovators/visionaries will enjoy reading this book and be inspired by multiple perspectives and theoretical and managerial implications provided by the thoughtful book chapters.

Bremen, April 9, 2013

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