Chapter 18 What Is Innovation Communication? A Dynamic Capability View

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Abstract What is the inherent source of enterprise-generated future cash flows? While no firm wins forever in a market, dynamic capabilities allow an entrepreneurially managed firm to renew and leverage its difficult-to-imitate resources so as to gain competitive advantage in high-velocity environments. This chapter aims at presenting innovation communication as a dynamic capability from a strategic management perspective. After a brief literature on innovation communication, the dynamic capability of innovation communication is defined and its construct dimensions explained in detail. Second, the direct and indirect effects of innovation communication capability on company value are illustrated and propositions are set up to further develop theory. Finally, innovation communication is described as one of four communication fields in information—innovation management practice.

18.1 Introduction

Apple has the ability to innovate ... and create magic. This isn't something you can just write a check for.

Tim Cook, Apple CEO 2013

The basic idea of transformation goes far beyond the 'strategic fit' approach that has been applied in the organizational-change view (Teece 2014). In business practice, change managers often tend to emphasize the importance of adapting to external factors, such as new technologies or processes, but do not focus on the building of new capabilities for creating durable competitive advantage. For example, a firm decides to invest in new software programs or a co-creation platform and is not necessarily capable of transforming this investment into a critical

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driver of business growth and value-driven performance. Or a startup business with a great new business model is not capable of building up a competitive resource set for the implementation and execution of this business model and for transforming this business model into a sustainable market success.

Enhancing corporate innovation and successfully leveraging open innovation initiatives require corporations to build up and expand capabilities and resources, such as (adapted from Weiblen and Chesbrough 2015)

- To screen, identify, work with, and monitor larger numbers of startups and talents on a more dispersed global level
- To manage different types of relationships at the same time on a company-wide, global level
- To understand and evaluate business model and strategy including business model innovation
- To dive into the entrepreneurial world to understand the ecosystem and speak the same language
- To invest in new tools and platforms (apps) to connect, co-create, and manage engagement activities
- To be more flexible/agile in structure, culture, and processes for re-integration of startup solutions, higher outcomes of commercialization activities, talent recruiting and competitive resource building.

What are capabilities and specifically dynamic capabilities? According to Teece (2014), a capability, ordinary or dynamic, is a firm's ability to accomplish its goals, which is attained in part through learning and innovation, organizational resources, and its organizational heritage over time. Whereas ordinary capabilities focus on technical efficiency in business functions, the purpose of dynamic capabilities is to achieve congruence with changing customer needs and with technological and business opportunities for doing the right things. Dynamic capabilities are important at the top management level and culture level; for instance, the collective ability to quickly implement a new business model. Dynamic capabilities govern other organizational activities understood as entrepreneurial 'asset orchestration.' From a managerial view, this 'asset orchestration' function encompasses (1) coordination/integration (= combining various resources in an entrepreneurial fashion); (2) reconfiguration (recombining existing resources); and (3) learning (= outcome of practice and experimentation). While no firm wins forever in a market, dynamic capabilities allow them to renew and leverage their difficult-toimitate resources so as to retain the 'pivot' potential of a 'lean startup,' i.e., dynamic capabilities are an essential driver of sustainable competitive advantage due to their combination of entrepreneurially managed actions and organizational routines, especially in high-velocity environments.

The social web and new digital technologies have changed information exchange worldwide. For example, crowdsourcing platforms have become a new corporate innovation tool that engages stakeholders in knowledge acquisition and transfer processes (Boudreau and Lakhani 2013). In this context, *innovation is*

understood as a progress at a corporate level to survive in dynamic changing environments and achieve competitive advantage. The use of various social media platforms and crowd-powered innovation tools in corporate innovation, however, leads to new challenges in communication management. Communication management is no longer just a task of marketing and corporate communication in the traditional logic, but rather a central task in marketing, corporate communication, idea/innovation management, and corporate strategy and entrepreneurship. The fragmentation in marketing and corporate communication, involving "silos" mainly related to different traditional communication fields (employee communication, finance communication, product communication, etc.), can no longer exist. Instead, management practice shows that cross-functional activities are key to succeed in open corporate innovation (Keyword: *Open Communication View*). From a management practice view, there is a pressing need for new communication management approaches related to open corporate innovation.

This chapter aims at presenting a new understanding of innovation communication as a dynamic managerial capability of a company on the corporate level to govern ordinary capabilities and orchestrate assets in entrepreneurial fashion for achieving congruence with changing customer needs and with technological and business opportunities. This includes the direct and indirect of innovation communication on company value and the linkage to other communication fields/abilities in a corporate innovation process.

18.2 Innovation Communication: A Review

Three main streams of research can be identified in the field *communication of innovations*: (1) Marketing of innovations/innovation marketing in marketing research; (2) Communication in marketing diffusion research; and (3) Innovation communication linked to innovation management research.

First, research in marketing including consumer behavior and psychology encompasses scientific investigations regarding the antecedents and consequences in marketing of innovations. Marketing is an essential part in the innovation process (Crosby and Johnson 2006). Communication can inform consumers about the advantages and characteristics of an innovation using mass media and individual communication throughout the adoption process (Hofbauer et al. 2009). Theoretical findings and managerial implications provide essential information concerning strategies and mechanisms to introduce innovations successfully. Marketing of innovation includes both the commercialization of radical innovations, technologies and services (e.g., Mohr et al. 2009; Sandberg 2008; Sowter 2000) and strategic innovation marketing (e.g., Talke 2005; Trommsdorff and Steinhoff 2007). Various useful definitions are provided in the literature, for instance, "innovation marketing encompasses all market-oriented activities of innovation management—that is, all

strategic and operative decisions for marketing new products" (Steinhoff and Trommsdorff 2011).

Second, "diffusion research seeks to understand the spread of innovations by modeling their entire life cycle from the perspective of communications and consumer interactions" (Peres et al. 2010: 91). Several innovation diffusion models have been introduced mainly in the marketing diffusion literature (e.g., Mahajan et al. 2000; Peres et al. 2010) related to specific industries, adopter groups, or steps in the adoption process (e.g., Arndt 1967; Hesse 1987; Mahajan et al. 1990, 1995; Pae and Lehmann 2003; Rohlfs 2001). Research interest has shifted in its focus from the forecasting focus to the managerial diagnostic focus in order to provide answers in marketing management (Peres et al. 2010). Three social influence factors mentioned as drivers of communication in innovation (1) word-of-mouth communication (e.g., Martilla 1971; Mazzarol 2011), (2) network externalities (e.g., Rohlfs 2001; Tomochi et al. 2005), and (3) social signals (e.g., van den Bulte and Stremersch 2004; Berger and Heath 2008). These social influence factors, referred to as interdependencies among consumers, "affect various market players with or without their explicit knowledge" (Peres et al. 2010: 91) and, thus, have to be considered in marketing of innovations. Further research in this field requires the consideration of online communities, web services, and complex types of product-services categories in innovation diffusion (Peres et al. 2010, see also Rodriguey-Montemayor 2014).

Third, researchers have focused on innovation communication and its impact on the innovation process from idea to launch as a part of corporate communication and constitutive element in innovation management (e.g., Huck 2006; Mast and Zerfaß 2005; Mast et al. 2005, 2006; Zerfaß 2009; Zerfaß and Ernst 2008; Zerfaß and Möslein 2009; Zerfaß et al. 2004). Three communication fields are as follows: (1) internal communication; (2) external communication; and (3) public relations (innovation journalism: Nordfors 2009, Nordfors and Ventresca 2006). Innovation communication is defined as "symbolic interaction between organizations and their stakeholders about innovative products, services, technologies, and ideas" (Huck 2006: 3). Zerfaß (2009) defines innovation communication as a systematic initiation of communication processes with internal and external stakeholders to support technical, economic, and social novelties through (a) the interest-led construction, revision, and destruction of socially dependent conceptual patterns and communication resources, including professional promotion, and (b) by stimulating content-related catalysts for the development of novelties. The object of communication is primarily the innovation itself, but in many cases it is also the organization behind the innovation (Zerfaß 2009: 42 translated into English).

"Integrated innovation communication is a process that aims to identify internal and external contact points in the development and implementation process of an innovation, as well as to develop and implement communicative measures that guarantee the alignment of these interaction points in order to achieve a maximum level of development efficiency and effectiveness internally as well as optimal market saturation externally" (Bruhn and Ahlers 2014, p. 144).

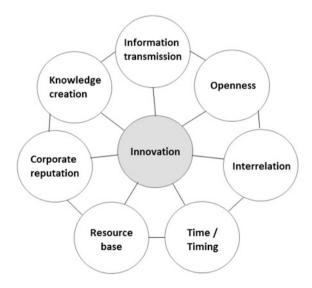
18.3 Innovation Communication Capability

The dynamic capability of innovation communication is an individual and organizational ability of managing transactional procedures of transmitting information related to (1) ideas, business models, concepts, prototypes, practices, etc., or a combination of them, referred to as a cluster; perceived as new; (2) context-issue(s) for (1); (3) the innovation capability; considering openness, interrelation, and time/timing used to create value through activating and modifying knowledge schemata, improving management of strategic assets, and intensifying corporate reputation (adapted from Pfeffermann 2011, 2014; see Pfeffermann 2016/17 for a comparison of dynamic capabilities and innovation communication capability).

The eight dimensions of the innovation communication capability, understood as key constructs to develop and test theory and, thus, measure the multi-dimensional construct "innovation communication capability," are described as follows (Fig. 18.1):

Information transmission is defined as an organizational ability to transfer information between organizations and <u>stakeholders</u> in terms of introducing ideas, business models, concepts, prototypes, practices, etc., or a combination of them, referred to as a cluster, which is perceived as new by recipient; generating and highlighting <u>context-issues</u> related to perceived novelties; and presenting <u>innovation capability</u> considering openness, interrelation, and time/timing.

Fig. 18.1 Eight dimensions of the innovation communication capability. *Source* Adapted from Pfeffermann (2011, 2014)



<u>Stakeholders</u> are groups related to a company, for instance, financial analysts, customers, suppliers, media, or investors (Freeman and McVea 2005; Freeman 1999). First developed in the mid-1980s by Freeman (1984), the stakeholder approach is linked to strategy for strategy formulation and implementation (Freeman and McVea 2005).

<u>A context-issue</u> is defined as a "frame of reference" of an innovation or innovation cluster, which integrates the innovation or cluster into a topic of concern to grasp stakeholders' attention and to lead to a better understanding of an innovation (Huck 2006).

<u>Innovation capability</u> reflects human capital, social capital, and the cognition of managers involved in the creation, use and integration of market knowledge and innovation resources in order to match and create market and technological change (adapted from Bruni and Verona 2009).

Openness is defined as the ability to plan, coordinate, execute, monitor, and evaluate the use of purposefully information transmission across boundaries (e.g., cross-functional, cross-cultural and cross-disciplinary, mindsets, and comfort zones) to connect with stakeholders through information transmission (open dialog).

Interrelation is defined as the ability to plan, coordinate, execute, monitor, and evaluate connected information transmission (instruments and activities) addressing three markets: Resource market, sales market, and communication market.

Time/Timing encompasses the ability to plan, coordinate, execute, monitor, and evaluate time-related information transmission considering the linkage among past-related, present-related, and future-related information transmission.

Knowledge creation is defined as the ability to plan, coordinate, execute, monitor, and evaluate learning processes of organizations and individuals. *Learning* means revising existing knowledge and activating or modifying new knowledge schemata (Miller 2005). A schema, interrelated with other schemata, will be activated and developed if, for instance, stakeholders have made their first experiences with a new product or received information about it that they perceive as a new situation. New information or experiences change and develop existing knowledge domains into a complex schemata system (e.g., Bruhn 2009; Miller 2005; Brewer and Nakamura 1984).

Corporate reputation is defined as the stakeholders' collective positive judgments of a company's innovativeness over time (based on Barnett et al. 2006). The definition of corporate reputation consists of both (1) the stakeholder relationship perspective in the creation of trustful stakeholder relationships (the enterprise's behavior toward stakeholders in the past, present, and expected future) and (2) the information transmission perspective (the degree of informative transparency). Information transmission is crucial for enhancing trust/credibility and stakeholder satisfaction (de la Fuente Sabate and de Quevedo Puente 2003).

Management of strategic assets is defined as the planning, coordination, execution, monitoring, and evaluation of operationally managing specific resources and capabilities aimed at creating, extending and/or modifying a **unique resource base of an organization** (VRIN resources) for achieving competitive advantage. A company coordinates and implements its strategic assets in concert with other specific resources and capabilities, which leads to the inherent value of strategic assets (McGee et al. 2005).

Innovation: Ideas, business models, concepts, prototypes, practices, etc., or a combination of them, referred to as a cluster, which is perceived as new by recipient (adapted from Rogers 2003).

18.4 Innovation Communication Effects

Figure 18.2 illustrates the direct and indirect effects of innovation communication capability (ICOMM) on company value [measured by Economic Value Added (EVA)]. Beginning from the left-hand side, ICOMM has four main effects on value creation (see conceptual definition), which are divided into two direct effects and one indirect effect: the *building and modifying* function (the *knowledge creation* direct effect—LEARN), the *improving* function (the *management of strategic assets* direct effect—INNOVATE), and the *intensifying* function (the *corporate reputation* indirect effect and dependent mediator variable—CONNECT). In order to explain the positive effects of the three main functions of ICOMM on company value CV/EVA arrows are drawn from the left-hand side to the right-hand side.

The following propositions can be made based on the conceptual definition and a literature review, as detailed in Fig. 18.2 from left to right:

- P1 (general proposition): ICOMM has a positive impact on company value through knowledge creation, management of strategic assets (resource base), and corporate reputation.
- P2: ICOMM positively influences knowledge creation by building up new knowledge schemata or modifying existing ones which leads to knowledge adoption and innovation adoption that directly affects company value [measured by Economic Value Added].
- P3: ICOMM positively influences the management of strategic assets by improving management of resources and capabilities (VRIN resources/ competitive resource base) which leads to advancement of operational management that directly affects company value [measured by Economic Value Added].
- P4: ICOMM positively influences intensifying corporate innovation reputation (IREP), leading to corporate reputation, which indirectly affects company value [measured by Economic Value Added].

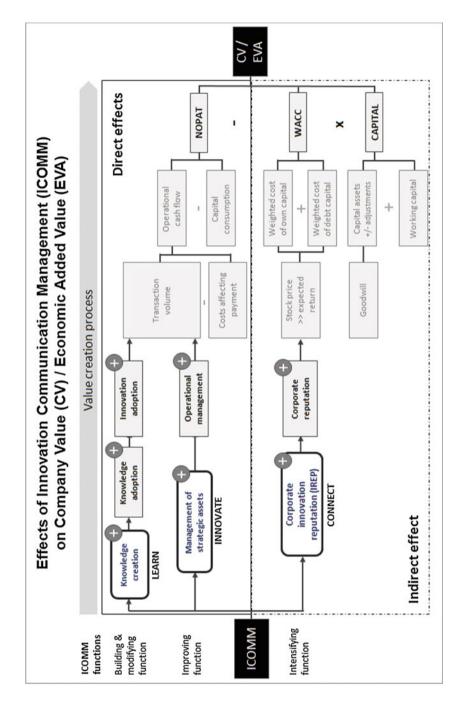


Fig. 18.2 Effects of innovation communication on company value. Source By the author

18.5 Innovation Communication in Management Practice

From the perspective of an innovation process, innovation communication is one of four communication fields in management practice. In fact, each innovation process can be divided into three generic phases: (1) Idea generation and selection; (2) idea visualization; and (3) idea realization and market launch, as illustrated in Fig. 18.3 (right-hand side). From the information view (data: input-processing-output), each innovation process has three phases: (1) Gathering and identification; (2) strategizing/decision-making; and (3) application (Fig. 18.3, left-hand side). The information-innovation view is linked to communication which represents the dialog level of any innovation process (see Daschkovska et al. 2010): Connecting, productive thinking, and re-connecting (Fig. 18.3, center).

Lean communication—Connection: Focus on reaching out to people and identifying the right data for a better understanding of customer needs and market specifications (lean business and communication process design).

Mental model communication—Productive thinking: Focus on connecting data (new information) with mental model(s) of reality for effective strategizing practice and sound decision-making.

Strategy communication—Re-connection: Focus on translating strategy into execution and re-connecting to customers and markets to successfully apply (big) data and turn idea into market success.

The three steps of an information–innovation process are undergrid by an "invisible" layer, which focuses on both dynamic strategizing (data view) and renewal and creating the *New* (innovation view): **Innovation Communication**. As a dynamic capability, innovation communication is a *secret* layer of a firm that, linked to good strategy, can govern ordinary capabilities and renew and shape



Fig. 18.3 Innovation process: communication fields. Source By the author

difficult-to-imitate resources (VRIN resources), for instance, data application, strategizing, and idea visualization, resulting in *doing the right things* to enhance corporate innovation and achieve competitive advantage.

Innovation communication—Growth zone: Focus on value creation and enlarging a company's growth zone, i.e., the creation driver for sustainable innovation.

Dynamic capabilities reside, in part, with individual managers and the top management team (Teece 2014). From this perspective, the four integrated communication fields can be divided into *top management skills* and *entrepreneurial thinking skills*, as illustrated in Fig. 18.4:

Strategy Communication: Top management ability to effectively translate strategy into execution and accomplish goals in specific environments.

Innovation Communication (dynamic capability): Top management ability to shape innovation culture and build up a firm's resource base for accelerating growth and creation.

Lean Communication: Entrepreneurial thinking ability to disseminate ideas and achieve traction for faster desired outcomes and outputs using lean communication process design.

Mental Model Communication: Entrepreneurial thinking skill to connect data (inner dialog) and manage information–interaction designs for facilitating innovation adoption and sound decision-making.

Innovation communication and mental model communication are defined as interrelated strong dynamic capabilities in the digitalized information age. Linked to good strategy, they tend to accelerate any information–innovation process for creating the new and achieving long-term market success.



Fig. 18.4 Four communication fields. Source By the author

18.6 Conclusions

From an open corporate innovation view, this chapter presented a new understanding of innovation communication as a dynamic managerial capability of a company. The following eight dimensions of the innovation communication capability were defined: Information transmission, openness, interrelation, time/timing, corporate reputation, knowledge creation, resource base (= management of strategic assets), and innovation.

As one of four communication fields in an information–innovation process, innovation communication capability tends to collect information, sense opportunities in a strategizing process and innovate and transform. Innovation communication is a dynamic capability both at the individual and corporate levels. In management practice, innovation communication is a top management ability to shape innovation culture and build up a firm's resource base for accelerating growth and creation. In fact, managers, entrepreneurs, and innovators can become the instruments that help achieve the shrewd allocation of company resources to drive business growth and innovation in the long-run.

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