

Innovation, Communication, and Leadership: New Developments in Strategic Communication

Ansgar Zerfass

University of Leipzig, Germany

Simone Huck

University of Hohenheim, Germany

Strategic communication, in contrast to everyday public relations, concentrates on the core drivers of organizational success. It also expands the traditional set of institutionalized communication measures in order to manage meaning in all kinds of interactions with internal and external stakeholders. Along this line, this article argues that communication should play a new role in promoting innovation management as a crucial process in today's society, and that this can be achieved by a new understanding of leadership communication. Theoretical concepts and empirical findings can be integrated into a wheel of leadership communication on innovations that combines the social, cognitive, affective, and conative dimensions of a new role in the innovation process supported by communication management.

INTRODUCTION

Over the past years, structural changes affecting the economy have accelerated tremendously. Competition has intensified on a global scale. Jobs are transferred from North to South America and from Western Europe to the former Soviet countries. New markets emerge in Asia and the transitional countries of the African and Arabic world.

Corporations and organizations in the industrialized world will not be able to win this race by exploiting their superior customer base or by optimizing their cost structures. Their only chance is to strengthen their innate ability to innovate.

From a macroeconomic point of view, there is no doubt that innovations have a positive impact on growth and employment (OECD, 2004). They are also

key factors for business success and the most important factor for increasing a company's profitability (Christensen & Raynor, 2003; A. T. Kearney, 2002). New technologies, processes and products are of the utmost relevance for economic survival.

Unfortunately, efforts by companies to implement innovations tend to be ineffective, e.g., in Germany around 40 billion euros are lost every year on these expenditures (Friedmann & Maurer, 2003). A major but for a long time neglected reason for this is the lack of professional communication within the innovation process. Only recently researchers from Germany (Mast, Huck, & Zerfass, 2006; Huck, 2006; Mast & Zerfass, 2005; Zerfass, Sandhu, & Huck, 2004), Spain (Meseguer, 2004), Italy (Granelli, 2005), Finland (Kauhanen, 2005) as well as from Sweden and the United States (Nordfors, 2004) have begun to establish a body of knowledge that explains the role of *innovation communication and innovation journalism* in modern societies.

This opens up new realms for the theory and practice of strategic communication. According to management theory, *strategic* efforts are characterized by their contribution to the core drivers of success (doing the right things). Strategic communication shapes meaning, builds trust, creates reputation, and manages symbolic relationships with internal and external stakeholders in order to support organizational growth and secure the freedom to operate (Zerfass, 2004; Grunig, Grunig, & Dozier, 2002). By doing so, strategic communication prepares organizations for an uncertain future—in contrast to communication efforts that support daily business (doing the things right). The notion of new technologies, processes and products as key factors for economic success makes innovation communication an integral part of strategic communication. It also forces us to look in more detail at recent concepts of innovation management and at promising measures to shape the meaning of innovations in day-to-day interactions.

TOWARD A COMMUNICATIVE UNDERSTANDING OF INNOVATION THEORY

The term *innovation* refers to something new, something that has not been there and that has a strong influence on everyday life or on the economy. Examples are the invention of the telephone by Bell, the construction of the first automobile by Benz and Daimler, or the building of the personal computer by IBM (van Dulken, 2000).

In his work on the theory of economic development published as early as 1911, Austrian economist Joseph Schumpeter pointed out that inventions only become innovations once they are implemented successfully and generate an economic value (Schumpeter, 1934). Today the concept of innovation is defined more

widely than in Schumpeter's times. It refers to a *broad range of manifestations*: product innovations and service innovations (e.g., 24-hour online banking) are well-known since they benefit both the organization and its customers; process innovations, like the introduction of the assembly line in car manufacturing, have a direct bearing only on the production. They usually are invisible to the environment of the corporation and external stakeholders. Nonetheless, process innovations affect employees and therefore challenge strategic communication in a very special way. Other types of innovations are cultural ones, e.g., the adoption of new approaches to corporate citizenship (Matten & Crane, 2005), that may also affect the capability to act successfully in a global environment.

The Linear Model of Innovation

Innovation management is a specialized field of management research that aims at designing processes for introducing new technologies, processes, and products within organizations (Tidd, Bessant, & Pavitt, 2005; Burgelman, Christensen, & Wheelwright, 2003). Until today, many researchers and practitioners assume that innovations develop in a linear progression from basic research and applied science to the experimental stage and prototyping, followed by market introduction and market penetration.

This process is seen as very rational, proceeding within the boundaries of the company and its partners. Communication plays only a minor role. It is reduced to the last step of the linear model and conceptualized as a tool to support the diffusion of innovations, e.g., by addressing early adopters and opinion leaders (Rogers, 2003).

New Approaches to Innovation Management

In the era of globalization innovation processes are no longer linear (if they ever were). Innovation management should rather be understood as an integrated, co-operative, and iterative process that must be strategically planned and controlled—and supported by communication in a very fundamental way. New developments in management research, industrial economics, and social theory demonstrate that the paradigms of linear innovation and communication as a mere enabling function have to be dismissed. By integrating these fields of research it is possible to construct a framework of *innovation readiness* (Zerfass, 2005, pp. 7–12) that gives an overall idea of how organizations can sustain their ability to innovate and how communication can contribute to this.

Companies no longer create ideas in strictly guarded research labs under the veil of secrecy and control until they are ready for marketing. In the age of *open innovation* (Chesbrough, 2003) various internal and external stakeholders systematically get involved in the innovation process (von Hippel,

2005; Prahalad & Ramaswamy, 2003). Most of today's inventions and patents are no longer generated within a single company. Open source software and mobile communication technology are only two examples that indicate that innovation networks between companies, their customers, and partners gain in importance. In this context, systematic cooperation and communication with various involved stakeholders becomes essential.

From the macroeconomic point of view, new ideas can be created by *national innovation systems and regional clusters*. They are characterized by a mix of competition and cooperation, self-interest and shared visions between economy, research, administration, and intermediaries (Andersson, Schwaag Serger, Sörvik, & Wise Hansson, 2004; Sölvell, Lindqvist, & Ketels 2003; Porter, 1990). This calls for new ways of public and bilateral relations driven by communication, e.g., through dedicated magazines like "Biotech Sweden" that support the exchange of ideas within regional high-tech clusters (Sandred, 2005).

Nevertheless, social theory has brought forward the most relevant link between innovation and communication. In his seminal work explaining *Networks of Innovation* the Finnish researcher Ilkka Tuomi points out that innovation only arises when social practices change (Tuomi, 2002). New technologies and processes cannot be defined and implemented rationally by an inventor or a single company, but they have to be accepted and incorporated by a broad network of relevant stakeholders. Users may even assign completely new meanings to an invention. A catchy example is the use of SMS messages on cellular phones. They originally were intended to indicate to users the arrival of a new spoken message. Meanwhile, a totally new culture of communication, in particular for teenagers, has emerged—wholly unexpected by the original inventors.

As a conclusion, it can be stated that innovations only come into being through the interplay of various social actors: "Innovation is...more about creating meaning than it is about creating artifacts" (Tuomi, 2002, p. 11). This shows that communication has to be an integral part of the innovation process, supporting each phase from the generation of ideas to market penetration, building relationships with employees, research and development partners, customers, competitors, politics, nongovernmental organizations, journalists, and other relevant stakeholders (Zerfass, Sandhu, & Huck, 2004, pp. 8–10).

This discussion shows that innovation management is highly dependent on strategic communication nowadays. Insights from the first *empirical survey on innovation communication* support this interpretation. The survey was conducted in Germany in the fall of 2004. Public relations practitioners and journalists were asked about their experiences and extrapolations. Of the 460 respondents, every second participant stated that innovations are hard to communicate and companies do not provide enough information about innovations. As a consequence, 68% of the communication experts and 56% of the journalists think that

innovation communication will become more important during the next 3 years (Mast, Huck, & Zerfass, 2005). This trend was underlined by a follow-up survey, which showed roughly the same results (Mast, Huck, & Zerfass, 2006).

Three Levels of Innovation Communication

Within the modern framework of innovation readiness, strategic communication works as a facilitator on three levels:

- On a *macro level*, it sparks the public debate about new ideas and technologies, thus enabling discussions and the construction of meanings within national and regional clusters. This is a specific challenge for the mass media and concepts of innovation journalism (Nordfors, 2004) that may influence a wide variety of people and institutions.
- On a *meso level*, institutionalized communication campaigns and programs are necessary to create an understanding of innovations in interactions of organizations with relevant stakeholders. This calls for specific measures of public relations, formal internal communications and market communications (Mast & Zerfass, 2005).
- On a *micro level*, each manager can contribute to innovations by mediating meaning in asymmetrical social relations. This includes personal relations outside the organization, e.g. in branch associations and political bodies, as well as the most important task, leadership communication aimed at employees.

From a strategic point of view, leadership communication is crucial to the success of any organization. It is embedded in concrete actions and established social relations and thus enables detailed discussions and joint perceptions. Moreover, employees are one of the most important stakeholders within the innovation process. The data compiled in the aforementioned German study shows that 90% of the public relations professionals interviewed think that employees are (very) important target groups for innovation communication (Mast, Huck, & Zerfass, 2005). According to the follow-up study, innovation communication should address employees working in production units as early as in the development stage of new goods and services (Mast, Huck, & Zerfass, 2006, pp. 29–31). Management theory shows that employees are important sources of new ideas when they initiate innovations, e.g., in manufacturing processes. On the other hand, they are the first ones affected when ongoing innovations change their working environment or even lead to a loss of employment. As a consequence, organizations should explore the potentials of leadership and communication in detail to be prepared for the challenges, benefits, and pitfalls of leadership communication and innovation.

LEADERSHIP AND COMMUNICATION: MANAGING MEANINGS AND VALUES

The theory of innovation management stresses that employees can be involved in innovation processes by so-called promoters (Hauschildt, 2004, pp. 199–237; Witte, 1973). These are key persons who help a matter or a topic to get into the focus of selected stakeholders and spread the benefits of the innovation within the boundaries of an organization and beyond.

Promoters of Innovation

In the context of innovation management, four different promoters can be identified:

- *Expert promoters* have intensive knowledge about the topic concerned. Thus they can help to overcome barriers that arise out of knowledge gaps.
- *Authority promoters*, as a result of their high hierarchical positions, have the power and resources at their disposal to overcome barriers that arise out of people's unwillingness to participate in innovation processes.
- *Process promoters* have excellent organizational knowledge and the personal ability to lead and manage. Therefore, they can foster and manage the collaboration of people and help to overcome bureaucratic barriers that arise out of different competencies.
- *Relationship promoters* are necessary to overcome the reservations of people when cooperation with external partners is concerned. Managers assigned with this role need a large personal network and have to "know the right people". They prearrange cooperation and help by getting know-how from outside the organization. They build the foundations for collaborative actions between employees of their own company and external partners.

Successful innovation management brings together all these roles in a structured process. However, regarding the actual developments in society and the economy, the concept of innovation promoters has to be expanded.

Communication Promoters as a New Organizational Role

Communicating and bringing new ideas, processes, or technologies across is a major starting point for involving employees and shaping innovations as one of the key factors of organizational success. Thus, a fifth role can be named:

- *Communication promoters* have the ability to translate complex innovations in such a way that the recipients are able to understand the aims and

opportunities related with new developments. Communication promoters know how to involve and how to convince people. They use the appeal of images, examples and best practices cases to show the possibilities that are related with new ideas, technologies, processes, products and services for their counterpart and for society at large (Huck, 2004b).

The role of the communication promoter is not bound to formal positions in the organizational hierarchy. In organizations focused on innovation as an integral part of their culture (Huck 2004a, pp. 91–93), it is foremost the leaders that have the opportunity and responsibility to act as communication promoters. To meet this demand, public relations and communication experts inside and outside their organizations need to brief them. In some major European companies there are already specialized departments like the units for innovation communication at Siemens or BASF. But besides the support he or she gets from those specialists, each leader has to build up his or her own vision of innovations and strategies to get others to understand, participate, and support new ideas.

Leadership as Management of Meaning

Research on leadership is one of the major areas of interest in social sciences concerning intraorganizational research. Especially in the Anglo-American context, psychologists and organizational communication researchers work on this field. Despite a plethora on practical how-to literature and research publications, there are still many unanswered questions.

In the 1980s, a *new leadership approach* emerged from research traditions like leadership styles or the contingency approach (Bryman, 1996; Rost 1991; Bennis & Nanus 1985). In this context, leadership does not equal management as it was defined previously. Leadership just like management implies managing subordinates, taking responsibility for them and leading them to reach goals. But leadership is meant to be more profound and prospective: leaders are *managers of meaning*, influencing groups to achieve their goals (Smircich & Morgan, 1982). Leaders give their subordinates a sense of what is important in organizational reality; or “sense-making” as a symbolic action, in the words of Bryman (1996, p. 277). In the second stage of the leadership process, a leader points out directions and shows employees the purpose of their work, which is followed by the wish to achieve the defined goals in a third stage.

In contrast to managers, leaders think in longer time frames, see their own organizational units in the context of larger realities, emphasize intangible assets related to their interaction with followers (visions, values, and so on), think in terms of renewal and have political skills to deal with different stakeholders (Witherspoon, 1997, p. 2). According to this understanding of leadership, a leader is seen as a visionary leader, as “someone who defines organizational reality

through the articulation of a vision which is a reflection of how he or she defines an organization's mission and the values which will support it" (Bryman, 1996, p. 280).

Two concepts of leadership are relevant today: transactional and transformational leadership. Transactional leadership builds on the interaction and communication between a leader and his followers, where the leader offers rewards (money, prestige, and so on.) in exchange for work, support or commitment. Burns (1978) speaks of an implicit contract between leaders and their followers. The concept of transformational leadership refers to leaders who raise the aspirations of their followers according to their own visions. It was strongly promoted by the seminal book "In Search of Excellence" (Peters & Waterman, 1982). The authors perceive a link between transformational and therefore visionary leadership on the one hand and highly successful companies on the other hand; a link that has been substantiated by many subsequent studies (Bass & Riggio, 2006; Bass & Avolio; 1994; Tichy & Devanna, 1986; Bennis & Nanus, 1985).

In the transactional as well as in the transformational leadership model, *communication is a main part of leadership* (Hackman & Johnson, 2004; Witherspoon, 1997; Stech, 1983). The vision needs to be communicated in order to be shared with others. Besides supporting structures (corporate visions, scorecards, and so on) leadership is first of all based on personal interactions—and therefore communication - between the manager and his or her employee (Reichwald, Siebert, & Möslin, 2005; Hargie, Dickson, & Tourish 1999; Hattersley & McJannet, 1997).

To summarize, communication is the foundation of the interaction between leaders and followers. But it also is the channel or medium that transmits the messages between leaders and followers. Regarding innovation communication, the challenges leaders have to face in their leadership communication are even higher than in most other situations. Innovations are new and complex, and their implications for the company and for every single employee are barely known when innovation processes are implemented.

Therefore, leadership communication on innovations has to take into account the social and emotional context of innovation management and needs to know how to explain and translate new ideas to employees. Both aspects complement one another: communicating the innovative spirit enhances the organization's culture and climate and empowers employees, whereas communicating new ideas, processes and technologies shapes the meaning of specific innovations.

COMMUNICATING THE INNOVATIVE SPIRIT

Many concepts exist inside and outside of organizations on how innovations emerge and what they are. Very few of them correspond to reality. Many of them are accompanied by feelings ranging from uncertainty to fear. Clampitt (2001,

p. 206) names five main myths surrounding the origins and the development of innovations: many employees feel that innovations are risky. They are convinced that innovations always are products of revolutionary ideas, formed by a small number of brilliant people such as researchers. Innovation can be understood as being identical with creativity, and innovations are always product-focused.

Clampitt's (2001) typology is only a very rough scheme of the numerous prejudices employees and external stakeholders may have. But it provides one main insight: innovation still is a topic with a lot of biases that leaders need to be aware of when communicating with their followers. Moreover, they have to implement the spirit of innovation within the organizational culture and climate in order to lay the foundation for more specific discussions with employees.

Enhancing the Organization's Culture and Climate

Each of the five myths and misunderstandings Clampitt (2001) identified shows one main aspect that has to be changed in favor of an innovative organizational culture and climate. Leaders acting as communication promoters should contribute here.

- Innovations have many shapes in society as well as in the economic realm, e.g., as a new product, service, process, as technological innovations or even as innovative ideas and thoughts. Therefore, innovations not only change products, they may as well change workflows, individual job descriptions or even the whole organization. There are millions of examples to illustrate such changes, although they are not always specifically called innovations. It is necessary to communicate to people what innovations can be or are. Leadership communication can do this by showing each employee in how many innovations he or she already participated in. This emphasizes the broad range of manifestations of new ideas in organizational life.
- The impact of innovations on the working environment of every single employee makes them "risky" from his or her point of view. The impression that innovation is something risky is due to its impact. In most cases innovation causes change. Change processes force employees to leave well-established routines, potentially causing cognitive dissonances, anxieties, and refusal. It is central for leadership communication to prevent negative feelings before they emerge. Moreover, leaders can provide information about the foreseeable changes, where they possibly lead to and what good they could do. Motivation and guidance by frames of reference are needed, based on a trustful relationship between leader and followers.
- Innovations often emerge out of small ideas, discussed in team kitchens or during lunch between colleagues. They are not only formed in R&D departments, in universities or research institutions. Thus, they

seldom are revolutionary ideas of genius minds. In combination with the prejudice that innovation corresponds to creativity, this is one of the main challenges of innovation management. Furthermore, innovations arise out of concrete problems of customers, co-operation partners or other stakeholders. Innovating in the broadest sense has to be a task of everyone. In the organizational context this means first of all of the employees in their individual working context.

For leadership communication this leads to numerous implications: on the one hand, leaders have to ask for and maintain creative thinking as a main component of innovation. As it is first of all group and informal communication that generates innovative ideas, these forms of communication should receive special support. On the other hand, leaders have to listen to new ideas and reward them. The combination of both will shape an organizational culture oriented towards innovation as well as an organizational climate driven by innovation (see Figure 1).

Empowering Employees within the Innovation Process

Figure 1 shows that there is a further precondition of successful innovation management that can be influenced by leadership communication: the commitment of employees to creativity and responsibility. Dougherty (1996) names “four sets of activities that are necessary for effective innovation” (p. 424). Similar to the open innovation concept (Chesbrough, 2003), she stresses the necessity to integrate selected stakeholders in the innovation process and to cooperate with them across organizational boundaries.



FIGURE 1 Promoting the social context of innovations.

Regarding questions of leadership communication, her fourth set is relevant to innovation-related leadership: she stresses the utmost importance of employees' commitment to the innovation process. Commitment "enables participants to take more responsibility without feeling overwhelmed" (Dougherty, 1996, p. 430). It is the most elaborated and therefore most difficult activity in her concept. The main reason for this difficulty is that innovation processes require a deeper commitment than routine work, from leaders as well as from their subordinates. The difficulty especially for leaders lies in balancing freedom and clearly defined responsibilities—two antipodes that must permeate the entire organization of innovation.

As leaders manage and communicate innovation readiness, their followers have to take "self-responsible" roles instead of mechanistic roles (Adler, 1993, p. 111; Westley, 1990, p. 337). Innovation-related leadership should enable followers to bring their individual scope and input into the innovation, giving them room for ideas and decisions on the one hand and the necessary responsibility on the other hand. Communication is a crucial part for passing on the innovative spirit within the organization and to every single employee.

THE WHEEL OF LEADERSHIP COMMUNICATION ON INNOVATIONS

In an organizational culture committed to innovation and self-responsible employees, every leader is obliged to shape the meaning of new ideas, processes and technologies in the multitude of personal interactions and relations with his or her followers.

However, this part of leadership communication on innovations is a complex and fragile task. It depends to a great extent on the individual competence and knowledge as well as on the individual communication style of those involved. Nowadays, most leaders can act as expert or authority promoters, as they are experts (business administrators, engineers, scientists, and so on) and managers at the same time. The ability for communicating complex innovations to one's followers is a task that requires a third set of skills. These skills must be developed like all the other skills an excellent leader has to master: communicating innovations means to explain new, often complex technologies, processes or products by translating them into concrete and tangible stories that show the employees why and for what they should contribute their thoughts and energy.

Communication Skills for Leaders

What skills are necessary in innovation-related leadership communication? To bridge the gap between new ideas and the reservations and fears of employees,

any leader should be able to draw a realistic and at the same time motivating picture of the uses and gratifications of an innovation for society and especially for the organization and on a personal level for his followers.

The German surveys on innovation communication showed the main barriers for explaining and translating an innovation (Mast, Huck, & Zerfass, 2005, 2006). Innovations are novel, meaning that they combine purpose and means in a formerly unknown and nonrealizable way. In addition, the way in which an invention yields profit is often less obvious, so innovations are a rather abstract undertaking. Furthermore, innovations hold an immanent potential for change for everyone involved, including a high market risk (Zerfass, Sandhu, & Huck, 2004). Most importantly, there are usually no frames of reference really new ideas could be integrated into.

To overcome these obstacles, leadership communication on innovations should tell stories and provide concrete applications for customers, research partners and others (Mast, Huck, & Güller 2005, pp. 145–169). Using easy, simple to grasp examples and graphs, pictures or figures helps employees to understand what an innovation means. Leadership communication should set a frame of reference for an innovation (Mast, Huck, & Zerfass, 2005, p. 10). As innovations arise through the mutual creation of meaning, it is easier for the follower if he or she can place an innovation within an already existing cognitive structure. With the amount of social acceptance of the topic and the credibility and authenticity of the communicator the messages will be more highly regarded.

Four Dimensions of Leadership Communication on Innovations

Figure 2 shows the different dimensions that are relevant to leadership communication (affective, cognitive, conative) and their interplay with the fourth factor, the social dimension representing the organizational and personal preconditions (innovative spirit).

Leaders as communication promoters are not only obliged to inform their subordinates about an innovation, but they are at the same time change agents. As always in times of change, they have to cope with lots of uncertainties, anxieties and fears. Therefore, a starting point for leadership communication on innovations is building up knowledge about new ideas, processes or technologies by managing meaning in interactions with followers (*cognitive dimension*). The skills and methods for managing meaning have been described above. In a second step, leaders motivate employees to share their own visions of an innovation (*affective dimension*). Any leader has to motivate his/her followers to participate in the innovation process and contribute to the managing of meaning with external stakeholders (*conative dimension*). The main basis for those three dimensions is

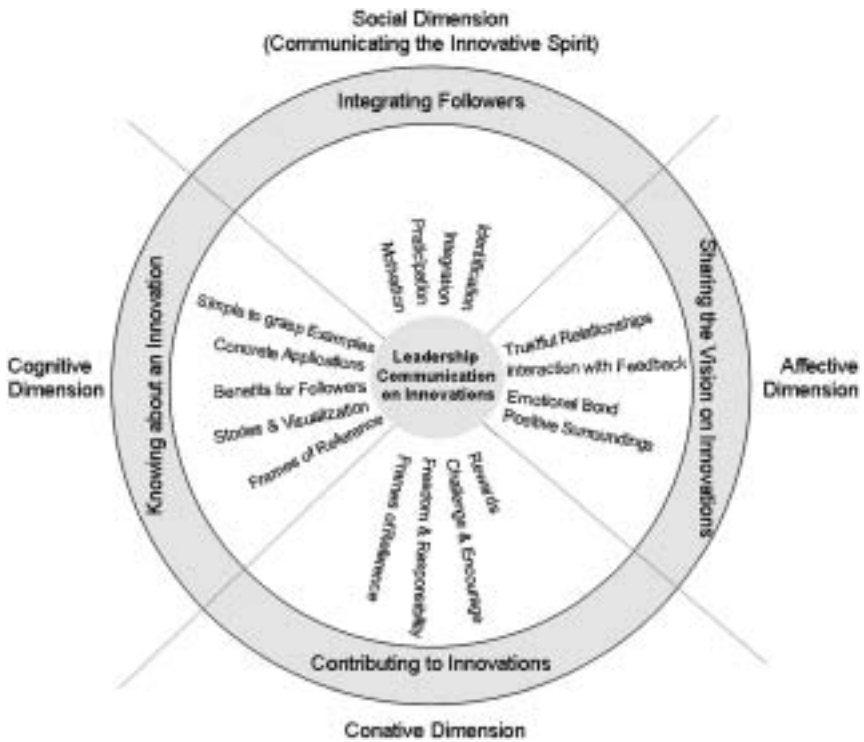


FIGURE 2 Wheel of leadership communication on innovations.

the social infrastructure for innovation. Its main factors—as discussed above—are the organizational culture, climate, and employees incorporating the spirit of innovation (*social dimension*).

Thus, when dealing with the innovation management process the traditional concept of leadership has to be extended to encompass a communication role. Managers have to act as communication promoters. They need to know the rules and restrictions of innovation communication and use them in order to shape the meaning of things to come.

FUTURE PERSPECTIVES IN THEORY AND PRACTICE

Both innovation communication and leadership communication are comparatively new, and also very promising fields within strategic communication. Our discussion has shown that communication can play a new role in fostering

innovation management as a crucial process in today's society, and that this may be achieved by a new understanding of leadership communication. Enacting the role of communication promoter, any manager should be responsible for shaping the meaning of new ideas, technologies, processes, products, and services within social relationships with his or her followers.

The practice of corporate communication may benefit from these considerations by implementing communication goals and measures in the innovation management process. Moreover, the specific skills needed to inform and argue about innovations have to be trained on the individual level. This might be a joint task for the communication department and the human resources department.

Within theory, the concept of leadership communication on innovations should be researched in more detail. Case studies describing both best practices and obstacles for communicating the innovative spirit and putting new ideas across are necessary to gain a more detailed insight into the field. Empirical surveys could address the interplay between innovation journalism, institutionalized innovation communication and the micro level of leadership communication. Both innovation and leadership are relevant on a global scale, and there is a growing community of researchers in Europe and North America dealing with the impact of communication for innovations. Such an international scope could be promising. One main question should be the cultural differences in explaining innovations to employees. It will be interesting to see whether and how the four dimensions of the wheel of leadership communication on innovations vary in different countries.

REFERENCES

- A. T. Kearney (2002). *Mastering innovation management*. Chicago: Author.
- Adler, P. (1993). The learning bureaucracy. New United Motor Manufacturing, Inc. *Research in Organization Behaviour*, 15, 111–194.
- Andersson, T., Schwaag Serger, S., Sörvik, J., & Wise Hansson, E. (2004). *The cluster policies whitebook*. Malmö, Sweden: TCI.
- Bass, B. M., Avolio, B. J. (1994). *Improving organizational effectiveness through transformational leadership*. Thousand Oaks, CA: Sage.
- Bass, B. M., Riggio, R. E. (2006). *Transformational leadership* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Bennis, W., Nanus, B. (1985). *Leaders: The strategies for taking charge*. New York: Harper & Row.
- Bryman, A. (1996). Leadership in organizations. In Clegg, S. R., Hardy, C., & Nord, W. R. (Eds.), *Handbook of organization studies* (pp. 276–292). London: Sage.
- Burgelman, R. A., Christensen, C. M., & Wheelwright, S. C. (2003). *Strategic management of technology and innovation* (4th ed.). New York: McGraw-Hill.
- Burns, J. M. (1978). *Leadership*. New York: Harper & Row.
- Chesbrough, H. W. (2003). *Open innovation. The new imperative for creating and profiting from Technology*. Boston: Harvard Business School Press.
- Chesbrough, H. W., Vanhaverbeke, W., & West, J. (Eds.) (2006). *Open innovation. Researching a new paradigm*. Oxford, England: Oxford University Press.

- Christensen, C. M. & Raynor, M. E. (2003). *The innovator's solution*. Boston: Harvard Business School Press.
- Clampitt, P. G. (2001). *Communicating for managerial effectiveness* (2nd ed.). Thousand Oaks, CA: Sage.
- Dougherty, D. (1996). Organizing for innovation. In Clegg, S. R., Hardy, C., & Nord, W. R. (Eds.), *Handbook of organization studies* (pp. 424–439). London: Sage Publications.
- Friedmann, J. & Maurer S. (2003). Innovation: A wealth of contradictions. *Executive Agenda*, 6(3), 55–63.
- Granelli, A. (2005). *Comunicare l'innovazione. Perché il successo del nuovo dipende dalla capacità di spiegarlo*. Milano, Italy: Sole 24 Ore.
- Grunig, L. A., Grunig, J. E., & Dozier, D. M. (2002). *Excellent public relations and effective organizations*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Hackman, M. Z., Johnson, C. E. (2004). *Leadership. A communication perspective* (4th ed.). Long Grove, IL: Waveland Press.
- Hargie, O., Dickson, D., Tourish, D. (1999). *Communication in management*. Brookfield, UK: Gower.
- Hattersley, M. E., & McJannet, L. (1997). *Management communication. Principles and practices*. New York, NY: McGraw-Hill.
- Hauschildt, J. (2004). *Innovationsmanagement* (3rd ed.). München, Germany: Vahlen.
- Huck, S. (2004a). *Public Relations ohne Grenzen? Eine explorative Analyse der Beziehung zwischen Kultur und Öffentlichkeitsarbeit von Unternehmen*. Wiesbaden, Germany: VS Verlag für Sozialwissenschaften.
- Huck, S. (2004b). Unternehmensinterne Fachjournalisten und dezentrale PR-Arbeit. In Deutscher Fachjournalisten-Verband (Ed.), *Fachjournalismus* (pp. 173–180). Konstanz, Germany: UVK.
- Huck, S. (2006). New perspectives on innovation communication. Findings from Germany's Survey INNOVATE 2006. *Innovation Journalism*, 3(4), 1–20.
- Kauhanen, E. (2005, April 4–6). Innovation is much more than business and technology. Paper presented to the Second Conference on Innovation Journalism, Stanford University.
- Mast, C. & Zerfass, A. (Eds.) (2005). *Neue Ideen erfolgreich durchsetzen. Das Handbuch der Innovationskommunikation*. Frankfurt am Main, Germany: Frankfurter Allgemeine Buch.
- Mast, C., Huck, S., & Güller, K. (2005). *Kundenkommunikation*. Stuttgart, Germany: Lucius & Lucius.
- Mast, C., Huck, S., & Zerfass, A. (2005). Innovation communication. Outline of the concept and empirical findings from Germany. *Innovation Journalism*, 2(7), 1–14.
- Mast, C., Huck, S., & Zerfass, A. (2006). *Innovationskommunikation in dynamischen Märkten. Empirische Ergebnisse und Fallstudien*. Münster, Germany: LIT.
- Matten, D. & Crane, A. (2005). Corporate citizenship: Towards an extended theoretical conceptualization. *Academy of Management Review*, 30, 166–179.
- Meseguer, M. M. (2004). *Comunicar la innovación. De la empresa a los medios*. Madrid: Fundación COTEC para la Innovación Tecnológica.
- Nordfors, D. (2004). The role of journalism in innovation systems. *Innovation Journalism*, 1(7), 1–18.
- OECD Organisation for Economic Cooperation and Development (2004). *Science and innovation policy. Key challenges and opportunities*. Paris: OECD.
- Porter, M. E. (1990). *The competitive advantage of nations*. New York: Free Press.
- Prahalad, C. K. & Ramaswamy, V. (2003). The new frontier of experience innovation. *MIT Sloan Management Review*, 44(4), 12–18.
- Reichwald, R., Siebert, J., & Möslin, K. (2005). Leadership excellence: Learning from an exploratory study on leadership systems in large multinationals. *Journal of European Industrial Training*, 29(3), 184–198.

- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York: Free Press.
- Rost, J. C. (1991). *Leadership for the twenty-first century*. New York: Praeger.
- Sandred, J. (2005). A business model for innovation journalism: Biotech Sweden. *Innovation Journalism*, 2(1), 1–25.
- Schumpeter, J. A. (1934). *Theory of economic development*. Boston: Harvard University Press. Translated from German (*Theorie der wirtschaftlichen Entwicklung*. Leipzig, Germany: Duncker & Humblot 1911, 2nd ed. 1926) by R. Opie.
- Smircich, L. & Morgan, G. (1982). Leadership. The management of meaning. *Journal of Applied Behavioral Science*, 18, 257–273.
- Sölvell, Ö., Lindqvist, G., & Ketels, C. (2003). *The cluster initiatives greenbook*. Stockholm: Ivory Tower.
- Stech, E. L. (1983). *Leadership communication*. Chicago: Nelson-Hall.
- Tichy, N. M., Devanna, M. A. (1986). *The transformational leader*. New York: John Wiley.
- Tidd, J., Bessant, J. R. & Pavitt, K. (2005). *Managing innovation. Integrating technological, market and organizational change* (3rd ed.). Chichester, UK: John Wiley & Sons.
- Tuomi, I. (2002). *Networks of innovation*. Oxford, England: Oxford University Press.
- Van Dulken, S. (2000). *Inventing the 20th century*. New York: New York University Press.
- Von Hippel, E. (2005). *Democratizing innovation*. Cambridge, MA: MIT Press.
- Westley, F. (1990). Middle Managers and Strategy: Microdynamics of Inclusion. *Strategic Management Journal*, 11, 337–351.
- Witherspoon, P. D. (1997). *Communicating leadership. An organizational perspective*. Boston: Allyn & Bacon.
- Witte, E. (1973). *Organisation für Innovationsentscheidungen. Das Promotoren-Modell*. Göttingen, Germany: Schwartz.
- Zerfass, A. (2004). *Unternehmensführung und Öffentlichkeitsarbeit. Grundlegung einer Theorie der Unternehmenskommunikation und Public Relations* (2nd ed.). Wiesbaden, Germany: VS Verlag für Sozialwissenschaften.
- Zerfass, A. (2005). Innovation readiness. A framework for enhancing corporations and regions by innovation communication. *Innovation Journalism*, 2(8), 1–27.
- Zerfass, A., Sandhu, S., & Huck, S. (2004). Innovationskommunikation – Strategisches Handlungsfeld für Corporate Communications. In Bentele, G., Piwinger, M., & Schönborn, G. (Eds.), *Kommunikationsmanagement* (Supplement No. 1.24), 1–30. Neuwied, Germany: Luchterhand.