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Tensions in firm-community collaboration and the role of intermediaries in exploiting synergies

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Abstract

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State of the art

A growing stream of literature indicates that innovation stems not only from a firm's internal investments, but also relies on input from external sources. In particular, users can offer valuable contributions, and collaboration between communities and firms is central to value creation (Bogers et al., 2010). However, at the interfaces between communities and firms tensions arise due to undefined boundaries and a lack of clear roles. Current research in the user innovation literature explains such tensions as dilemmas relating to for example power, where firms must balance between retaining control or providing open access for external participation to benefit from user contributions (Jarvenpaa and Lang, 2011). A relevant phenomenon in the center of these tensions is intermediaries. An intermediary is an external third party such as consultancies that may assist the firm in interacting with the community and as such obtains a substantial role in the firm's management of tensions (Bessant and Rush, 1995).

Research gap

When describing the tensions as dilemmas the literature disregards a key driver for innovation that is to be found within the synergies between competing demands. This paper seeks firstly to fill that gap by explaining how organizations can attend to competing demands such as control and open participation simultaneously. Hereby, we argue that the identified tensions are paradoxes that should be embraced in order to leverage innovation ? not dilemmas to overcome.

Secondly, the role of intermediaries is predominantly overlooked by existing studies describing firm-community interacting. Based on our conceptual model, the paper enriches theory by exploring the role of intermediaries and their influence on the firms' ability to attend to competing demands simultaneously.

Theoretical arguments

This paper introduces systems theory to the user innovation field and hereby takes the difference between the organization and the community a step further. Systems theory views organizations as an 'autopoietic' form that organizes itself on the basis of its internal elements (Luhmann, 1995). From this perspective it is not possible for organizations to interact with communities because user needs and participation will always be operated from within the internal logic of the firm. Therefore, firms have to invite users inside their organizational boundaries, in order to access the user resources and knowledge. This theoretical position has new implications on innovation when organizations invite communities to co-create.

Even though organizations operate self-referentially, they also have contact to their environment and can be influenced by other organizations through the notion of structural coupling. Such coupling is needed in order to trigger positive changes in the organization, which otherwise might not have been achieved (Luhmann, 1995). Thus, the role of intermediaries and third parties becomes relevant when exploring how organizations can deal with the tensions inherent in community collaborations in a more dynamic way.

Method

This paper employs semi-structured interviews with eight project leaders from a consultancy firm that specializes in facilitating online user innovation communities for public and private organizations. Furthermore, we conduct interviews with firms that use consultancies when interacting with online communities and firms that collaborate with communities without any external intermediaries. In deciding on our sample we have controlled for the variance of sample firms with respect to their degree of involvement of intermediaries and triangulated findings across sources.

Results

Firstly, our results indicate that organizations should manage the tensions of community collaboration as paradoxes and attend to dichotomies simultaneously in order to leverage the innovation potential in the long term. Secondly, the use of intermediaries and the role of a third party appear necessary for the organization to oscillate between competing demands. However, the intermediary may also create new tensions and types of dilemmas between itself and the organization in addition to those between the organization and the community.

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Tensions in firm-community collaboration and the role of intermediaries in exploiting synergies

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Abstract: A growing stream of literature suggests that innovation stems not only from a firm's internal resources, but also relies on input from external sources. In particular, users, which increasingly gather in communities, can offer valuable contributions. Thus, collaborations between communities and firms have become central to value creation. This is also reflected in an increasing interest in user-driven innovation. However, from the context in which firms and communities intersect, tensions arise due to undefined boundaries and a lack of clear roles. Although, intermediaries such as service providers can be identified as a third party playing a substantial role in the management of such tensions, studies describing firm-community interaction predominantly overlook the phenomenon of intermediaries. Existing user innovation literature mostly explains the tensions from a user perspective and as dilemmas relating to power, identity, and competence that must be balanced in order to encourage and benefit from user contributions. Introducing Systems theory this paper shows that what is currently described as dilemmas that must be managed, are in fact paradoxes that are mutually enabling and must be embraced in order to foster innovation. We enrich current understandings of firm-community collaborations by exploring the role of intermediaries and their influence on the firm's ability to attend to competing demands simultaneously.

Key words: user-driven innovation, systems theory, intermediaries, dilemmas, paradoxes

1 Introduction

Collaborations between firms and users, who gather in communities, seem to have great potential and have been addressed by a still growing stream of literature. Interacting with user communities allow firms to gain access to resources that cannot be bought in the market (Dahlander and Wallin, 2006), and studies suggest that firms

can benefit from sources of innovation that stem from outside the firm (Dahlander and Magnusson, 2008, von Hippel, 2006). A growing number of firms employ user communities to create value and produce innovation. A development that has increased due to the Internet and the emergence of virtual communities (von Hippel, 2006). However, the boundaries between firms and online communities may be fluid and it may render difficult to delineate what is inside and what is outside the community (West and O'Mahony, 2008; Preece and Maloney-Krichmar, 2005). This makes it harder for firms to manage conflicting demands (Dahlander and Magnusson, 2005; Smith and Lewis, 2011), and tensions between e.g. control of key resources and open participation have proved to make collaborations difficult (Ronaldsson et al., 2010). Furthermore, communities placed outside the firms are beyond the hierarchical reach of firms, making it difficult for firms to manage the direction of development (Dahlander and Magnusson, 2005, 2008; Dahlander and Wallin, 2006). New types of organizations helping firms in their endeavors reaching out to external resources and managing conflicting demands have emerged. Organizations mediating relationships to external stakeholders have entered the product development framework, including the field of user innovation (Howells, 2006; Hagedorn and Sutton, 1997; Bessant and Rush, 1995; O'Mahony and Bechky, 2008).

Although, scholars have called for research on the context in which firms and user communities intersect (Dahlander and Magnusson, 2005; 2008; Jeppesen and Frederiksen, 2006; Dhanarej and Parkhe, 2006; West and Lakhani, 2008; Hienerth et al., 2011), there is a general paucity of theoretical development within existing research (Faraj et al., 2011), and low success rates often observed in practice of collaborations indicate that our understanding is still limited (Neumann et al., 2011). Furthermore, the phenomenon of intermediaries is predominantly overlooked within studies of user communities (Greer and Lei, 2012; O'Mahony and Bechky, 2008).

This paper seeks to fill the gap by presenting a system theoretically based conceptual model that can accommodate the relations between firms, users and intermediary organizations. Hereby, we add an extra dimension to the interaction between firms and users, namely the role of an intermediary organization, and answer how such a third party influences the firms' ability to manage the tensions in order to leverage the innovation potential. We support O'Mahony and Bechky's argument that

intermediaries should find a way to bridge the differences of the collaborating parties, without threatening the core values that make them distinct. Applying a lens of paradox we follow their call for more research on how such a process may occur (O'Mahony and Bechky, 2008).

Introducing systems theory to the user innovation field and drawing on research on intermediaries, this paper seeks to answer the following research question:

- *How can boundary logics defined by competence, identity, and power be managed as paradoxes?*
- *What is the role of intermediaries in managing boundaries as paradoxes?*

The following section reviews the user innovation literature on online user communities and the literature on intermediaries to identify the current descriptions of tensions deriving from firm-community collaboration and the roles of mediating third parties in managing such tensions. Then, systems theory is briefly introduced and modified to explain how organizational boundaries may be dynamic and how organizations can attend to conflicting demands simultaneously in order to leverage the innovation potential. Then, we analyze the role of an intermediating service provider that helps firms in collaborating with online user innovation communities. Finally, we discuss how intermediaries may help in managing the tensions deriving from firm-community collaborations and how they influence the firm's ability to manage competing demands simultaneously.

2 Tensions and community boundaries defined by user innovation approaches

Roughly, studies within the user innovation literature can be divided into three main streams that try to answer how users can be integrated to leverage the innovation potential of communities. The first stream examines the users by explaining user motives and contributions (Bogers et al., 2010; Shah, 2006; Franke and Shah, 2003; Jeppesen and Frederiksen, 2006, von Hippel, 2006) and the communities by explaining their functions (Demil and Lecocq, 2006; Feldstein and Wilson, 2009; Willson, 2010). The second stream describes the tensions that emerge in sponsored communities (Dahlander and Magnusson, 2005; West and O'Mahony, 2005; 2008;

Lee and Cole, 2003). The third stream is based on the absorptive capacity literature and addresses organizations, and their ability to access and absorb input from external sources (Cohen and Levinthal, 1990; Kallio and Bergenholtz, 2011).

Although these studies provide valuable insights into reasons for user participation and contributions as well as firms' ability to apply new knowledge, each perspective (i.e. users, communities, and organizations) has mainly been studied individually. Primarily, user motives and communities have been explained in isolation without considering the organizational part and mostly within open source software (West and Lakhani, 2008; Ronaldsson et al., 2010), and secondly, studies examining sponsored communities mainly explain the collaboration narrowly as a two-sided role structure consisting of direct relations between the firm and the user community (cf. Dahlander and Magnusson, 2005). Thus, there is a lack of an organizational perspective explaining the context in which user communities, firms, and their mediating parties intersect (cf. Jeppesen and Frederiksen, 2006). Furthermore, there is a gap in studies of the management of boundaries (Jarvenpaa and Lang, 2011; Keinz et al., 2012).

Within user innovation research, boundaries are mainly described as drivers of user participation. These drivers have been identified as relating to the logic of power (Dutton, 2008; Ronaldsson et al., 2010; West and O'Mahony, 2008), identity (Ren et al., 2007), and competence (Jeppesen and Frederiksen, 2006). These logics are explained as trade-offs between competing demands concerning user attributes, community identity, and forms of governance. Hereby, boundaries are described as dilemmas that firms must manage when collaborating with user communities (Jarvenpaa and Lang, 2011). Other studies have described boundaries as "blurred" (Badaracco, 1988 in Schreyögg and Sydow, 2010) or "fluid" (Faraj et al., 2011) in order to explain the development of complexity within relationships, e.g. due to the emergence of online communities where the boundaries between community and organization are difficult to delineate (Preece and Maloney-Krichmar, 2005). However, describing boundaries as blurred or fluid ignores the distinction between what is inside and what is outside the organization that is essential in order for the organization to exist (Luhmann, 1995).

The descriptions of boundaries relating to the logic of power, identity, and competence overlook a key driver for innovation that is to be found within the synergies between competing demands. Following Faraj and his colleagues and O’Mahony and Bechky’s call for more research on how boundaries are dynamically changed to adjust to tensions (Faraj et al., 2011; O’Mahony and Bechky, 2008), we develop a conceptual model that explains how boundaries can be dynamically managed in order to exploit synergies and how intermediaries influence the organizations ability to do this in a way that preserves the distinct characteristics of the competing boundaries.

In the following, we elaborate on the descriptions of the boundaries relating to power, identity, and competence and explain how these boundaries pose examples of dilemmas that firms are expected to overcome in order to encourage user participation and profit from contributions. Partly drawing on the work of Santos and Eisenhardt (2005) and Jarvenpaa and Lang (2011), the overview of boundaries described by the existing user innovation literature is presented in table 1.

TABLE 1 Boundaries defined by user innovation approaches

Logic of boundaries	Distinctions	Characteristics	Method	Exemplary papers
Competence	Hobbyist/Professional Lead user/User	Boundaries produce user motivation by including visible acknowledgement of user contributions, hobbyists, and lead users as part of the community. The distinction between what is preferably included and excluded is stable – only one side is favoured	Case study of a firm-hosted user community	Jeppesen and Frederiksen (2006)
Identity	Group/Individual	Boundaries produce user attachment by establishing the community as a nexus of (interrelated and individual) members or as a collective unit. Both sides of the distinction can be productive but not favoured simultaneously (it is a constant trade-off)	Empirical and theoretical social psychological literature of online communities	Ren, Kraut and Kiesler (2007)
Power	Control/Open	Boundaries influence user participation and commitment	Case study of 12 sponsored open	West and O’Mahony

		by mediating between a closed and open platform design. Both sides of the distinction are emphasised, reflecting conflicting goals, but not simultaneously (it is a constant trade-off)	source communities contrasted with prior research on autonomous communities	(2008)
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2.1 Competence: Hobbyists vs professionals

Voluntary participation and user commitment have been explained in terms of developing competences and attracting the right user attributes to the community (Franke and Shah, 2003; Jeppesen and Frederiksen, 2006; Wenger and Snyder, 2000). According to Jeppesen and Frederiksen (2006), members are driven by intrinsic motivations such as learning and improvement of skills and extrinsic motivation such as reputation and career opportunities. Their study of a firm-hosted community revealed that community boundaries encourage the motivation for sharing by inviting users with specific attributes into the community (Jeppesen and Frederiksen, 2006). This indicates that the boundaries produce motivation by attracting users who are willing to share innovations and can deliver high-quality contributions. These attributes are related to work-status, firm-recognition and lead-user characteristics. First, hobbyists seem more engaged in participating in innovation activities than professionals because they have a higher level of intrinsic motivation (Jeppesen and Frederiksen, 2006). Second, users are driven by recognition from firms and like to have their innovative work acknowledged openly in the community. Finally, successful innovations are often created by lead users because they have a desire to solve a given problem as well as a wish for recognition from the firm-hosting community.

In sum, strategic boundaries of firm-hosted communities should include hobbyists and lead users in the community and encourage open and accessible acknowledgement of user contributions if innovation is the objective. Such concerns are valuable for understanding cognitions behind motivation. However, community boundaries are explained as a stable distinction between what is included and excluded from the community. It is not taken into consideration that different boundaries may interact and that in doing so change the conditions for producing motivation (Jarvenpaa and Lang, 2011) or that community boundaries may have the potential to transform and,

for example, professionalise the hobbyist attributes so that opposing attributes and competences are encouraged simultaneously.

2.2 Identity: Group or individual

Other studies argue that to encourage voluntary user participation and commitment, the key logic of virtual community boundaries is identity (Ren et al., 2007; Hertel et al., 2003). Ren, Kraut and Kiesler (2007) argue that people choose to be part of a community because they like the community group as a whole or its purpose or topic (group identification) or because they feel socially or emotionally connected to particular individuals in the group (individual identification). Boundaries thus determine the reasons for contributing to the community by favouring one of the two forms of attachment (group or individual). Through a review of research articles from the social psychological literature, Ren and her colleagues show how the two dimensions of attachment produce different behavioural outcomes, and depending on the goal of the community, which dimension to favour is a strategic question. Hereby, it is argued that such design choices will always be a trade-off and a challenging task to manage so that emphasising the personal bonds between members does not reduce their chances of becoming attached to the group as a whole.

Ren and her colleagues point to the challenge of managing communities in which both types of attachment are important. Hereby, they contribute to the understanding of tensions caused by the conflicting choice of favouring either group-based or individually based attachment. Exploring the potential of activating both forms of attachment simultaneously might extend these findings so that firms can better exploit synergies.

2.3 Power: Control or open participation

Studies that describe boundaries related to power have mostly used the term to explore governance mechanisms and the design of community platforms (Dutton, 2008; Pisano and Verganti, 2008; West and O'Mahony, 2008) and mainly within an open source context (Ronaldsson et al., 2010). From this perspective, boundaries reflect a constant trade-off between control of key resources and community growth and determine user participation by balancing control and openness (i.e., transparency to follow the community's process of development and accessibility for participants)

(Dutton, 2008; Ronaldsson et al., 2010). West and O'Mahony (2008) compare autonomous, open-source communities with sponsored ones. In the latter, firms often try to mediate between retaining control and providing open access for external participation to meet the conflicting goals of ensuring that communities remain aligned with corporate strategy while providing unfettered opportunities for participation (West and O'Mahony, 2008).

West and O'Mahony note that boundaries of autonomous and sponsored communities may transform and that a community may therefore transform from an autonomous community into a sponsored one or vice versa (e.g., Mozilla, now Firefox and Eclipse). However, they also acknowledge that examinations of such dynamics are scarce (West and O'Mahony, 2008) and that there is a paucity of studies that can clarify boundary transformations as well as the tensions that emerge when firms interact with communities (Ronaldsson et al., 2010).

This section has shown how tensions form dilemmas between different interest, goals, and practices, which makes it difficult for firms to manage collaborations with user communities. Next, we briefly introduce the research on intermediaries in order to explore their role in assisting firms in managing tensions.

3 The role of intermediaries

Within existing literature organizations mediating relationships to external stakeholders have been studied in various forms such as *intermediaries* (Howells 2006; Shohet and Prevezen, 1996), *consultants bridging a gap* (Bessant and Rush, 1995), *superstructure (organizations)* (Lynn et al., 1996), *brokers* (Hargadon and Sutton, 1997; Could and Fernandez, 1989/Provan and Human, 1999), *boundary organizations* (O'Mahony and Bechky, 2008), and *third parties* (Mantel and Rosegger, 1987).

The intermediating forms have been referred to in relation to technology transfer, service activity, networks, and innovation processes, and the perspectives of intermediaries are often presented as assisting or building linkages with external knowledge providers (Howell 2006: 719). Hereby, intermediary organizations are assisting firms in interacting with external partners and access resources that

otherwise would be difficult or impossible for the firm to tap into (Bessant and Rush, 1995; O'Mahony and Bechky, 2008). Drawing on the definition suggested by Howells (2006), this paper understands an intermediary as an organization that acts an agent or mediator in any aspect of the innovation process between two or more parties.

Many studies have examined the role of intermediaries (cf. Howells, 2006) and the client-consultant relation has been widely discussed e.g. by role theory (Schein 1988), agency theory (Gallouj, 1996), and Social Network Theory (Werrand Styhre, 2003). Differing from these studies this paper applies a paradox perspective and explores the role of intermediaries not in relation to the innovation process, but in connection to the paradoxical tensions deriving from collaborations between organizations and user communities. From this perspective the inherent dichotomy of tensions is productive and we follow the argument of O'Mahony and Bechky (2008) that the function of an intermediary or a "boundary organization" is to bridge the divergent worlds of the collaborating parties *while preserving elements that are distinct to each* (O'Mahony and Bechky, 2008, p. 453). This means that instead of managing the tensions as dilemmas (cf. table 1), we seek to explore how intermediaries might provide strategies that assist the firm in managing the tensions as paradoxes in order to leverage the innovation potential. Only by preserving the boundaries that separates the community and the firm can the intermediary sustain their ability to represent either party (O'Mahony and Bechky, 2008).

The influence of intermediaries on the firms' ability to manage tensions in more productive ways seems understudied. Building on our conceptual framework and qualitative data obtained from an intermediary organization that facilitates firm-community collaborations it is possible to see that the intermediary organization manages the tensions as both dilemmas and paradoxes. Furthermore, the data indicates that the intermediary not only provides new opportunities for the firm, but also creates new tensions between itself and the firm that also have to be managed. This is where this paper seeks to make a particular contribution.

4 Explaining management of tensions through the system theoretical notion of boundary

From a systems theoretical perspective we take the difference between organizations and user communities a step further. Thus, from this perspective it is not possible for organizations to collaborate with users that are external to the organization. This radical starting point is explained by the notion of an organization as an “autopoietic” form that organises or ‘(re)produces’ itself on the basis of its internal elements (Luhmann, 2000; 1995). Autopoiesis was originally a biological concept used to describe what distinguishes the living from the dead, namely that a living system reproduces itself (Maturana and Varela, 1975). Luhmann modified this concept and applied it to the social domain and non-living systems (Seidl, 2005). This indicates that we speak of a firm as autopoietic whenever the elements of the firm are reproduced by the elements of the firm itself. Therefore, although firms are in contact with their environment, external events (such as user participation and interaction) will always be operated from within the internal logic of the firm, and therefore, they will not open up for a direct understanding of customer needs or product use, among others. The meaningfulness is determined by what does or does not make sense for the firm in question (Wilke, 1987). In order to understand how organizations then manage to interact and to co-create with the users, we draw on Luhmann’s notion of *re-entry* (Luhmann 1995, 2002) and develop the concept of *dynamic boundaries*.

The notion of boundary is a central part of systems theory since a system, such as an organization, exists only as a system as long as it maintains its boundaries to its environment. Organizations regulate their boundaries to their environment by appointing membership to the organization (Luhmann, 1995). Therefore, the demarcation line of the organization extends to the point at which the decisions of the organization are no longer in force – if you are not a member of the organization, you cannot be linked to the decisions in force. Thus, organizations establish their boundaries by the distinction between member and non-member. When firms invite users (outsiders) to collaborate, they challenge their organizational boundaries. Users are included in the organization and as such become members of the organization. However, they only become members because of their *non-membership* in the organization: being an external resource that firms cannot access, the users become relevant to include in the firm, where they can be accessed and provide the desired knowledge to the firm. Thus, expectations of (user-driven) innovation render an

increasing inclusion of users necessary. Next, we apply the system theoretical notion of *re-entry* to unfold the notion of boundary and explain its dynamic potential.

4.1 *Boundaries as a re-entry*

Drawing on the theory of distinction (Brown (1969) in Luhmann, 1995), a boundary can be described as a distinction between what is made meaningful (and included) in the organization and what is excluded. A distinction is an operation that sets up a difference and, within the framework of this difference, marks one of the two sides of the difference (Luhmann, 1995; 2002). What is marked is what is observed and as such gains meaning on the basis of something different – the other (unmarked) side of the distinction. For example the boundary relating to the logic of power forms the distinction between control of key resources and open accessibility (cf. West and O’Mahony, 2008). When managing this boundary, organizations would typically favour and mark (hierarchical) control and exclude the open approach.

This interaction between organizations and communities highlights a problem of inclusion and exclusion. First, the users must be fully excluded for the organization to perform; however, when this occurs, the organization has to develop ways to translate the users’ needs and expectations to its products. The creation of a community thus represents the organization’s attempt to create a user role with interests and needs that releases the knowledge and innovation potential of the users. This claim to include the not-yet-included users creates a difficult situation for the organization in that *“the system has to represent something that transgresses its own universalism and which is, at the same time, still relevant to the system’s autopoiesis”* (Stäheli, (2003), p. 283-284). This indicates that the organization has to translate the unfamiliarity (user knowledge and user needs) to something that can be absorbed and transformed into value for the organization. However, the process of becoming a performative user is neither automatic nor unproblematic. The organization requires users who are adjusted to the temporality of the organization, not the anonymous noisy masses of consumers. In this sense, the establishment of a community represents an impossible representation: the paradox of users’ being simultaneously outside and inside of the organization.

Those whom the organization has to exclude to become an organization with fixed boundaries, namely the users as non-members, reemerge as users or '*non-member members*' of the organization. The organization desires the quality of users (as someone that exist in its environment), and because of this, it tries to include them as members of the organization. The user is invited into the organization with the condition, however, that the user stay outside to maintain his or her quality of being an outsider.

Whereas the user innovation literature typically conceptualizes firm-community collaborations as a two-sided relation between separated actors (cf. Dahlander and Magnusson, 2008), illustrated in figure 1, the systems theoretical perspective can be illustrated as an emergence of a paradoxical hybrid, see figure 2:

Fig. 1 Firm-community collaboration as a two-sided relation between separate forms producing dilemmas. Conceptualized by user innovation literature.

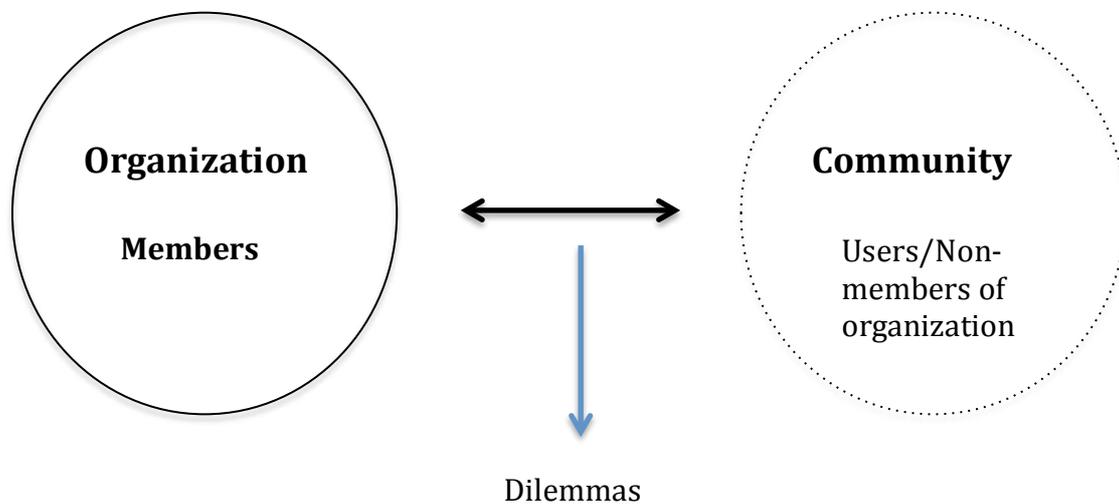
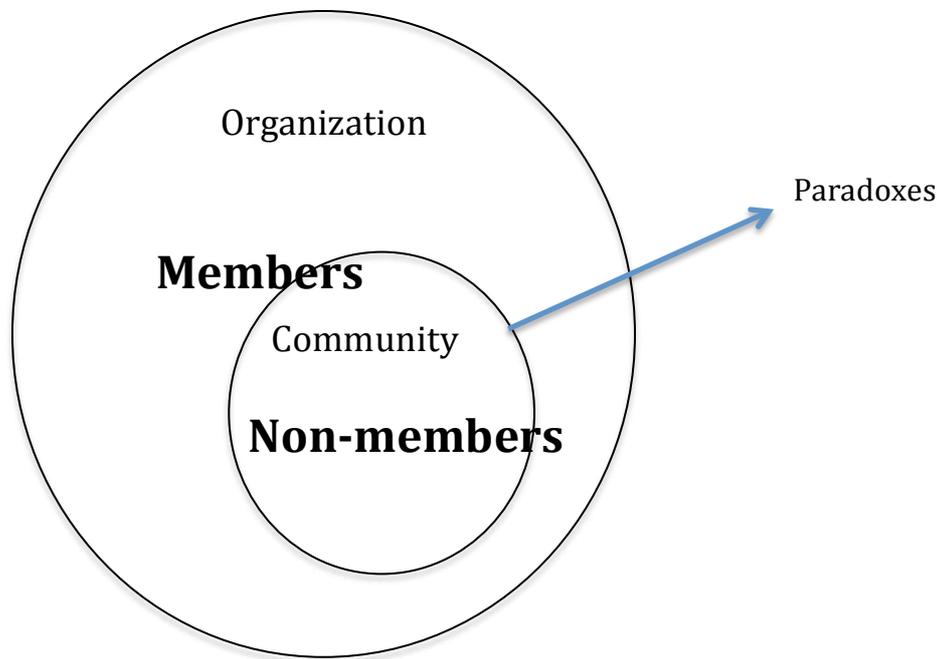


Fig. 2 Firm-community collaboration conceptualized by systems theory as a hybrid producing paradoxes



As illustrated by figure 2, users (as non-members) are also marked as members inside the organization and therefore as part of the organization's autopoiesis. This indicates that the users can influence decision-making and product development. It is a paradox because the organizational boundary *"reappears as part of its own space, as part of what it distinguishes. It is the same and not the same, depending on the observing system that identifies or distinguishes the two levels of the re-entry"* (Luhmann, (1993), p. 485). The community challenges the organizational distinction between a member and a non-member, and the organization simultaneously becomes the same and not the same. This indicates that what is different (being a member or not) becomes the same because each of the two sides of the distinction is favoured simultaneously. What is the same (member) becomes different (non-member) because being a member is also marked as being a non-member. Luhmann describes such a paradox as a *re-entry* of the excluded side of the organization into the included side of the organization by which both sides are being marked simultaneously.

This is a paradox because it is not possible to be a member and a non-member simultaneously. A paradox is, however, not identical to a contradiction because it has

a more complex structure: “*Paradoxes can of course emerge as contradictions, but they have a more complicated structure due to their self-referentiality or to their ‘self-justification’*” (Teubner, (2006a), p. 45). This indicates that the organization contains contradictions when it emphasises both sides of the boundary distinction simultaneously; however, it is also structured self-referentially. Each dimension of the distinction requires the opposing dimension to sustain its presence. Thus, the users are performative members *because* they are not members of the organization (Luhmann, 1995).

When firms apply such a paradoxical boundary strategy, it has implications for decision-making. The distinction between member and non-member is no longer drawn, and firms therefore cannot assign more value to one form over the other. Thus, the decision is no longer definable, which indicates that it loses its ability to establish connection and continuity for further decisions (Luhmann, 1995). Instead, the boundary decision is caught in constant oscillation between conflicting expectations of members and non-members. This creates challenging managerial questions of how to make design decisions, when, for example, it is not possible to discern whether to organise the community according to the user as a member who can be aligned with corporate strategy or as a non-member outside the hierarchical control of the firm (West and O’Mahony, 2008; Ronaldsson et al., 2010). Paradoxes may seem paralyzing and threatening; however, from a systems theoretical point of view, paradoxes are productive because they “force” the organization to “de-paradoxify” and manage the paradox to continue communication and further decision-making. Thus, a paradox is understood as “*a starting point for further evolution*” and not as a destructive collapse of action (Teubner, (2006), p. 47). Following this line of thought, paradoxes become beneficial and powerful when they are embraced and openly accepted (Teubner, 1996). A dynamic boundary construct may embrace paradoxes by maintaining both sides of the boundary distinction and hereby attending to the competing demands of community ideology and business simultaneously (Ronaldsson et al., 2010). Hereby, boundaries can function as “de-paradoxifiers”.

Although paradoxes can be managed, they can never be solved or eliminated (Luhmann, 2002). The paradoxical tension is merely moved out of sight. This indicates that it is only a matter of time before the paradox reemerges. Organizations

must improve continuously to de-paradoxify, which again reflects the productive nature of paradoxes as starting points for further evolution.

Based on systems theory and the notion of the dynamic boundary, this section has conceptualized user communities as something that exist within the organization. This conceptualization offers a new perspective that does not reduce the phenomenon of firm-community collaboration to either a question of the users (Bogers et al., 2010), the fluidity of communities (Faraj et al., 2011), or the formal structures of the organization (Dahlander and Magnusson, 2008). Instead, this approach perceives communities as something that already exists within the organization, albeit in a paradoxical way.

However, to include the not-yet-included users produces new challenges for the organization because reaching out to the consumer by the organization will, according to systems theory, always be an introverted movement or, as Urs Stäheli puts it, “*The excluded becomes included as object of desire, as a phantasmatic representation of which is not possible within the established order*” (Stäheli, (2003), p. 287-288). Because the users are not part of the organization’s autopoiesis, the community becomes a fantasy of what the organization is not. This creates boundary problems that arise when the organization imagines within itself something radically different to the organization (Stäheli, 2003). It is in the centre of these boundary problems that the role of intermediaries becomes relevant to further explore. Next, I will show how intermediaries might embrace the enabling dichotomy of boundaries and influence the organizations’ ability to manage tensions in order to exploit synergies and leverage the innovation potential.

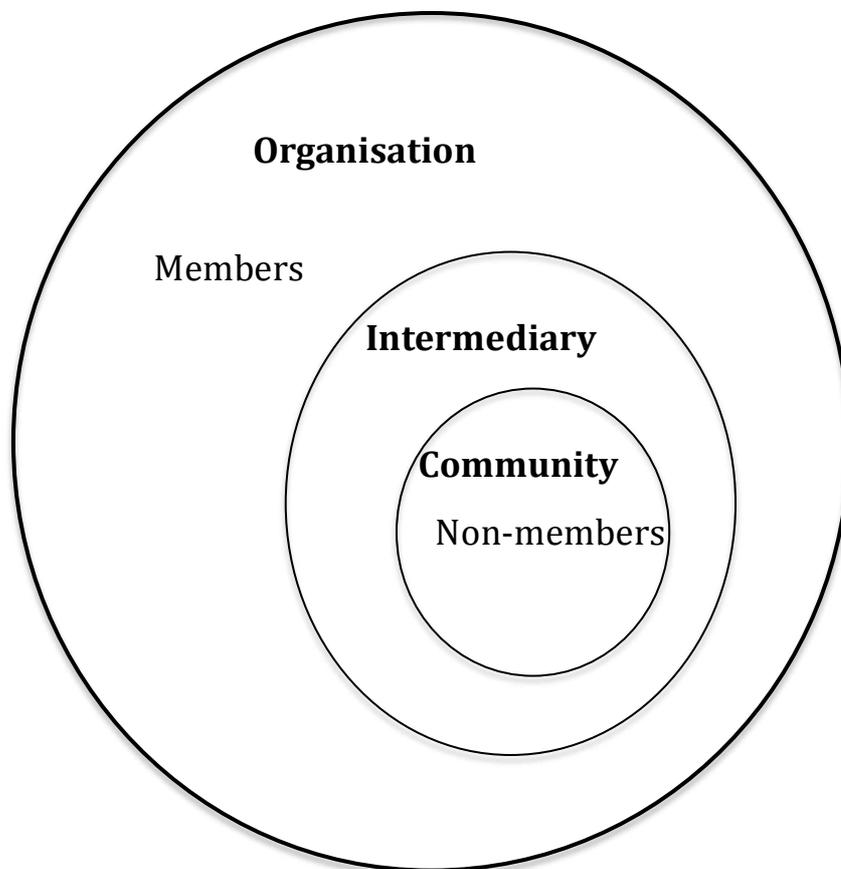
4.2 The role of intermediaries explained by systems theory

Conceptualizing the notion of dynamic boundaries, this paper has shown how tensions can be managed from a *both/and* approach instead of an *either/or* approach. Prior studies (cf. Smith and Lewis, 2011) show that the capability of juxtaposing contradictory forces enables managers to engage in creative problem solving, thereby fostering learning and creativity. This also affects the users who may experience positive energy from such a context of creativity and learning. Hence, they become more dedicated to reaching their goals and more engaged in innovative activities.

However, the paradoxical inclusion of users into the organization and the constant oscillation between opposing interests and demands, require strategies that stabilize the distinction of the boundaries (Stäheli, 2003).

Even though organizations operate self-referentially, they also have contact to their environment and can be influenced by other organizations through the notion of structural coupling. A structural coupling takes place when communication in one system produces a communicative reaction in another system. Thus, as a consequence of their structural coupling, the systems become resonant to each other, but only according to their own logic. Structural coupling is needed in order to trigger positive changes in the organization, which otherwise might not have been achieved (Luhmann, 1995). Scholars have explained the consultancy-client relationship by following the system theoretical notion of structural coupling. These studies emphasize the complexity of a collaborative relationship by suggesting that the encounter between the two parties, i.e. the consultants and the members of the client organization, is a *separate* system in its own right rather than an overlap between those two systems (defined as the *collaborative* system (Neumann, 2012) and the *contact* system (Mohe and Seidl, 2009), representatively). This perspective explains the impossibility of direct transfer of knowledge between the collaborating parties since the communication is always mediated by the autonomous “contact” or “collaborative” system and the meaning of exchange will always be constructed internally by each system. This research offers new insights into the client-consultancy relationship and the nature of collaboration by capturing the inherent complexity and dynamics (Mohe and Seidl, 2011). However, following our conceptualization of a community, this paper makes a system theoretical re-conceptualization of the intermediary as a hybrid (cf. Stäheli, 2003). Instead of taking the starting point in the notion of structural coupling and understand the organization, the community, and the intermediary organization as pure and separate forms (cf. Mohe and Seidl, 2011), this paper positions them intertwined as a hybrid. This perspective understands the intermediary, similarly to the community construct, as a representation within the organization. This conceptualization of collaborations between firm, community and intermediary organization is illustrated in figure 3:

Fig. 3 The triadic role-structure of firm, community and intermediary organization from a systems theoretical perspective



By integrating the intermediary into the organization, the intermediary helps managing the organization's problematic situation of inclusion and exclusion. Thus, the intermediary assists the firm in managing the paradox of, on the one hand, preventing the included performative user from becoming the passive consumer without commitment to contribute to the development of products, and on the other hand, avoiding that the performative user becomes an ordinary member of the organization without the potential to represent the organizations constitutive outside. This is relevant both in order to help the organization in persuading the users that it is well worth being included in the organization, as well as to render visible the value of the users' input, so they do not appear as a threat risking to de-stabilize the structures of the organization (cf. Stäheli, 2003).

Drawing on this framework, we will answer how integrating an intermediary function can help bridging divergent demands while maintaining the paradoxical status of the performative user in order to release the innovative synergies this may produce. The section of analysis identifies the tensions experienced by the intermediary organization and explores how the boundaries of power, competence and identity are managed as a dilemma and a paradox.

5 Methods

The data consists of seven cases of collaborations between firms and online user innovation communities and were collected from eight semi-structured interviews with informants from a service provider (presented as Y). Y is a private, medium-sized consultancy firm acting as an intermediary organization between organizations and online user communities in their innovation processes. One of the interviews (G) stands out by functioning as an informant interview providing insights into the general experiences of Y's work through multiple case stories from various projects. The data collection is still work in progress and further agreements with the firms relating to the described projects have been made in order to further enrich the understanding of boundary management and the role of intermediaries. However, the available data also indicates new implications for management of tensions and boundaries in firm-community collaborations and opens up for new directions within future research.

The cases represent external idea contests where users develop ideas and concepts for products or strategies and take place within four private companies (A (with project 1 and 2), B, C, and D), one association for small and medium-sized firms within handcraft (X) and a political organization (P). Since two of the projects thus take place within a political party and an association (for artisans), respectively, they differ from the rest of the case descriptions that treat private companies. Although, they hereby stand out in terms of e.g. business principles and profit-oriented drivers, they still apply to the framework of this paper. By conceptualizing organizational boundaries, our framework focuses on the problem of inclusion/exclusion that organizations are confronted with when interacting with their environment. Therefore, the only criterion for case selection is organizations that collaborate with online user

innovation communities and in this process experience problems of inclusion and exclusion.

Gaining an understanding of the informant's introduction to the project and subsequent role was a starting point for all interviews and the structure of the interviews varied according to this. The informants were chosen based on their role as project leader of the projects. All interviews were recorded, transcribed, and coded according to our conceptual model by using the software tool Nvivo. We identify tensions deriving from the collaborative projects between organizations and user communities. Drawing on our framework and in order to first, explore the identified boundaries from a lens of paradox, and second, identify strategies of boundary management that the intermediary organization performs, we categorize the tensions in relation to the logics of power, competence, and identity and use pre-defined concepts of *dilemma* and *paradox* to distinguish between the managerial strategies.

The notion of *dilemma* indicates that the tensions are perceived as a dichotomy that has to be managed as a trade-off or as a compromise. Managing the tension as a trade-off means that only *one* of the two conflicting demands is pursued and managing the tension as a compromise means that neither of the demands is pursued – at least not in its original form. A project leader from A1 gives an example of a tension that is managed as a dilemma by explaining the issue of deciding the technical direction and design of the online platform:

“With the cooperate design it is always a challenge to tell them this is not a website of a company, this is a contest site and it can be really strict in our lines with your cooperate design lines. So we always have small battles about what is possible... If you don't know them (red. the firm) then you have to tell them that their guidelines don't allow us to do the best practice cases. There is a limit between 'our practice' and 'best practice'” (Project leader, A1).

In this case the firm wants the design to be in accordance with their corporate identity which conflicts with the ‘best practice’ that the intermediary organization performs in their work with such platforms. The result is that the intermediary organization, due to their experience and authority within the field, encourages the firm to follow their design guidelines and not the traditional guidelines of the firm. Hereby the tension

between “our practice” and “best practice” is managed as a dilemma where only the design guidelines of the intermediary organization are followed.

The notion of *paradox* indicates that the conflicting demands do not merely form a contradiction, but is also structured self-referentially (cf. Luhmann, 1995; Teubner, 2006a). This means that each dimension of the tension requires the opposing dimension to sustain its presence. Hereby, dichotomies form enabling synergies if they are embraced as such, i.e. maintained in their opposing logics. An example of a paradoxical form of management is when the intermediary organization attends to the community ideology and the organization’s industrial-based mode of production simultaneously. In this case, the intermediary organization bridges the two competing core principles so that both of their contradicting dimensions are maintained:

“Like telling the company what we can do, what is interesting for a community, and then they told me what they need. So we were, in both times, able to find a way. Because that is the difficulty in our work: To find a way, giving the company, what they need and giving the community, what is interesting so they are willing to participate” (Project leader, X).

However, to clearly identify whether the goals and interests of the community are actually encouraged together with those of the organization, simultaneously, might be difficult. We will discuss and explore this further as well as collect more data to substantiate findings in the further progress of this paper.

In the following section the aim is to explore how the intermediary organization influences the organization in managing boundaries and how they approach the inherent tensions as both paradoxes and dilemmas. Since the paper is still work in progress, the overall findings are only roughly illustrated.

6 Tensions identified by the intermediary organization

The tensions most frequently described by the informants relate primarily to the power boundary. This boundary reflects a general dichotomy between 1) control of key resources and openness of transparency and accessibility for participants (cf. West and O’Mahony, 2008), and 2) a community/ideology-based and a business/commercial-based mode of production. Secondly, tensions are identified

relating to the boundary logic of competence by reflecting competing demands of including professional or non-professional members into the community. Thirdly, tensions relating to the identity boundary are explained as competing demands between favouring group cohesion and personal bonds. Finally a tension between the organizations and the intermediary organization is identified opening up for the discussion that integrating intermediaries not only poses new opportunities but also new challenges that call for further management. The identified tensions and the form of management applied by the intermediary organization to tackle them are presented in table 2.

Table 2 Tensions and managerial strategies applied by the intermediary organization

Tension	Boundary	Strategy	Form of management	Example of organization sponsoring the community
Control/openness: - Idea evaluations - Development process - Competition - Ownership	Power	Authority: Ensure open access	Dilemma: Open NOT closed	A1 A2 B D X
		Balance: Switch between control and open access	Dilemma: Trade-off between control and openness	
		Buffer: Protects organization from potential risks of openness	Paradox: Control AND openness	A2
Ideology/Business	Power	Compromise: Merging community ideal with profit-orientation	Dilemma: Neither community ideal nor commercial mode of production (in their original form)	A1 A2 C D G
		Translator Moderator Bridge: Maintaining and bridging the core principles of the community and organization	Paradox: Ideology AND business	A2 C X
Professional/non-professional	Competence	Community management: Provide expert resources to help project improve and encourage user participation	Paradox: Professional AND personal	B D G
Group/individual	Identity	Community management		B
Our practice/Best practice (org-intermediary)	Identity	Authority: Managing technical and design direction of platform	Dilemma 'Best practice' NOT 'our practice'	A1

6.1 Control/openness

Tensions between control and open participation mainly emerge from issues of idea evaluations, competition, ownership, and predictability in the development process. On the one hand, the users require transparency of decision-making, e.g. when the winners of the idea contests are nominated and they expect open accessibility to resources so that they can comment freely and hereby weigh in on collective decisions. As a project leader from A1 explains: *“Some people don’t know how the evaluation works and they think they are evaluated negatively or it is not fair to them and then you have to explain them all what is needed. There is a point of transparency”* (Project leader, A1). Furthermore, the users value their independence and autonomy in the development process in order to avoid that corporate influences might try to dominate their ideas.

On the other hand, the organizations acquire more predictability in the development process to foster firm planning and align with their distribution channel. Furthermore, they typically have structural or juridical constraints on their products and, as stated by a project leader from A2, they prefer to pursue user insights and collaboration opportunities with discretion due to competitors: *“Sometimes they are kind of scared of engaging users because they are thinking like: ‘we have to open up entirely’ and they have in mind that million of people will walk though the office and looking and everything and stuff”* (Project leader, A2). The organizations fear that their every move will be in full view of their competitors and that open accessibility and transparency will basically leave them naked.

6.2 Ideology/business

In general the informants problematized the ideal that user communities were not organized for profit, but is more about producing value for their peers and society. This fundamental difference produces conflicting expectations to what represents the best idea. The reasons for users to participate and freely reveal insights are partly to create ‘real’ innovation, whereas the organizations typically require concepts that they can easily produce and that are consistent to their juridical and organizational structures. As a project leader from A2, explains when describing the idea evaluation process:

The jury picked a winner with an idea that was nice but compared to all the crazy stuff, it was very simple... For some in the community it was too simple and too close to what they (red. the firm) liked, so they were disappointed. They were like: "oh we thought that this was about innovative stuff, but it turns out that you just want to have stuff you can produce right away. You are a boring company." So feedback was negative and that was very hurtful for the participants... They (red. the users) lack a connection to the history of the company. You can see that the contributor of this idea has no background in engineering for instance, but he is a designer. He does not give a shit about physics, but he cares about needs of consumers, which is at least as important as physics. So the guys that are evaluating the ideas are sometimes looking at the ideas with the wrong angle (Project leader, A2).

Other tensions that are emphasized by the informants concern issues of membership and identity and relates to the boundary logics of competence and identity. The boundary of competence reflects a dichotomy between including professional members and non-professional or hobbyist members. On the community level, the boundary of identity forms the distinction between group identity and personal bonds and on an organizational level, the boundary relating to identity forms the distinction between corporate identity ('our practice') and the guidelines of the intermediary organization ('best practice').

6.3 Professional/non-professional

The interview providing an overview of the general experiences of the intermediary organization emphasizes the significance of recruiting experts in the field, i.e. from Linked-in or employees of the firm (cf. G). One of the functions of such professional members is to re-direct and qualify the ideas in the community. However, what is stated to be more important is to act as an active and committed partner of sparring in order to encourage user participation. A project leader from B explains how the participation of professional members enhance the user commitment and engagement from the non-professional members: *"When you see an official company member giving a comment, then they are much more engaged than if it's just you or me giving the comment, then they really like it. They get excited and they try to discuss"* (Project leader, B). However, project leaders of the intermediary organization often experience that the experts are hard to activate and do not provide the desired feedback. This creates frustrations among the participants in the community: *"The thing is when you*

really want to have an effective community, you have to have some people in the community that manage the community. Community management does not only mean moderating them, they have to be part of it. They have to understand it. They should also be active, it is not enough to have a supervisor there and say: "Okay, if I have some problems, this guy will help me and he reads through the articles and gives some comments". It has to be real, the work" (Project leader, C). The project leaders experience that professional participants might be harder to activate than non-professionals. Hereby, they also seem to support the argument of Jeppesen and Frederiksen (2006) that hobbyists in general are more likely to be engaged in innovative activities than professionals.

6.4 Group/individual

The interviews also identify tensions deriving from the boundary relating to the logic of identity (cf. Ren et al., 2007). Here, shared group identities are encouraged in order to create user commitment by belonging to the same social categorization and sharing the same passion. However, at the same time users are incentivized by personal relations and activities that allow for the members to share personal details and keep in touch also outside the community context (cf. Project leader, B). When the users would like to be part of a group while the organization promotes interpersonal relations among members, tensions may derive from ensuring that emphasizing personal bonds between members do not reduce their chances of becoming attached to the group as a whole, and vice versa (cf. Ren et al., 2007).

6.5 Our practice/best practice

As mentioned in the method section, a tension emerging from the interaction between the organization and the intermediary is also identified by a project leader from A1. This tension concerns the design and the technical direction of the platform. The firm wants the design to be in accordance with their corporate identity which conflicts with the 'best practice' that the intermediary normally performs in their work with such platforms.

In this section, we have identified the tensions most frequently experienced by the intermediary organization. Next, we explore how the intermediary organization assists in managing these tensions. According to existing literature intermediaries play a

substantial role in managing tensions between two or more collaborating parties (cf. Bessant and Rush, 2009). This paper analyzes how this role affects the organizations ability of managing tensions (and their related boundaries) as paradoxes. Thus, we are not interested in observing the different phases in which the intermediary organization plays a role in the innovation process (cf. Howells, 2006). Instead, we apply a paradox lens and identify the form of the management strategies that are applied, i.e. as dilemmas or paradoxes.

7 Management of tensions as dilemma and paradox

According to our framework the function of an intermediary is to bridge the divergent worlds of the community and the organization *while* preserving elements that are distinct to each. Only by preserving the boundaries that separates the community and the firm can the intermediary sustain their ability to represent either party and maintain their common potential for synergies and innovation (cf. Teubner, 2006a). From this perspective we follow the argument of O'Mahony and Bechky that: "*What is counterintuitive is that boundary organizations enabled collaboration not by blurring boundaries but by reinforcing convergent interests and articulating how interests diverged*" (O'Mahony and Bechky, 2008, p. 450). When maintaining distinct boundaries and articulating their competing dimensions, the intermediary may enhance the organization's ability to manage paradoxes and hereby also leverage their innovation potential (cf. Smith and Lewis, 2011).

7.1 Managing the tension: Control/openness

Overall, the intermediary uses multiple strategies when managing tensions and their related boundaries. When the intermediary organization manages the power boundary and its inherent tension between ensuring control of resources or encouraging open accessibility, it becomes apparent that the intermediary predominantly employs three different strategies: A strategy of *authority* that forms a dilemma approach, a strategy of *balance* that also forms a dilemma approach, and a strategy of *buffer* that forms a paradox approach.

7.1.1 Authority as a strategy: Dilemma

One strategy is to act as an authority and convince the organization that there is only one way when working with user innovation and that is to be open and provide free transparency and accessibility for participants:

“I think the major step is to open up. To really trust such an open innovation platform is the right approach” (Project leader, D).

“The more open you are, the more transparent and direct you are to your clients, the more engaged they are. That's for sure” (Project leader, B)

When the intermediary articulates the strategy of authority, being knowledgeable within the field, the organization is convinced to emphasize the demand of open participation. As a project leader from D explains: *“We told them: ‘believe in us, we know’. And it was based on trust... We just show examples of projects, we show slides of contests and we have really good references like x, x. Big big xx world companies”* (Project leader, D). By demonstrating their former experience with similar projects, the intermediary organization articulates openness as a necessity. This approach represents a simple dilemma strategy, because the organization hereby only attends to one side of the dichotomy, whereas the other side, i.e. control, is excluded.

7.1.2 Balance as a strategy: Dilemma

Another strategy that is used is balancing the competing demands of control and openness. Hereby, the tension between control and open participation is understood as a trade-off that the intermediary can help the organization in shifting between. As explained by a project leader from the A2, the organization can - with the help of the intermediary organization – switch the dimension of openness on and off as they please:

“So you can a kind of adjust how much you want to engage the users or how much distance you want to keep. It is pretty easy to manage that, which is by the way very important for our clients, because they are like: ‘uh this is new, this is dangerous, please help me’ and we are like: ‘easy, we can manage this, it is like you can turn it on or turn it off, ok. It depends on how much you want it’” (Project leader, A2).

This approach appears similar to existing studies of the power related boundary and its management (cf. West and O’Mahony, 2008). As this paper has emphasized in

relation to these studies such an approach makes no room for attending to control of key resources and open participation simultaneously. Instead the tension is merely perceived as a dilemma.

7.1.3 Buffer as a strategy: Paradox

The third strategy that the intermediary organization employs when managing the tension of control and open participation forms a “buffer”. A “buffer” frames the organization from the potential risks that the tension might cause. Hereby, the presence of the intermediary removes the fear of losing control of the development process:

“That is why we are talking to the experts in the contest every week. We have a conference call with them every week, and we explain them, again, and again, and again, that ‘please, look at the ideas, relax, they are free, and there is no defined framework as you are used to. Be creative and accept the ideas as they are and check them. And the professional community managers of Y take care of the crazy people, okay?’ This is one way to reduce this kind of tension” (Project leader, A2).

The intermediary organization ensures the organization that it manages the risks of attending to the competing demands simultaneously, i.e. the community demand of autonomy in the development process and the firm’s demands of predictability. Hereby, the organization can safely attend to competing demands simultaneously, thus openly embrace the tension as a paradox.

7.2 Managing the tension: Ideology/business

When managing the tension between a community based and an industrial-based mode of production, the intermediary predominantly employs two different strategies: A strategy of compromise that forms a dilemma approach and a strategy of translator/moderator/bridge that forms a paradox approach.

7.2.1 Compromise as a strategy: Dilemma

The strategy of compromise and its dilemma approach approaches the contradicting core principles of the community and the organization as a potential consensus. Hereby, convergent interests and mutual benefits are emphasized: *“They (red. different goals) are merging each other because what we need to provide the*

participants is that they can be a part of the community, that they can share their ideas, comment etc. and that their goals match in some way with the goals of the company” (Project leader, C), or as a project leader from the A1 project, explains when making a similar point: *“I would say that if you increase the information for both sides... and if you like create the almost perfect interaction process, then you have a change of bringing these two things very close together”* (Project leader, A1).

The intermediary organization manages the tension as a compromise by merging the competing principles. Such an approach sees the tension as a trade-off that cannot be attended simultaneously and the strategy thus forms a dilemma approach. It is a dilemma approach, because the two competing dimensions of the tension are believed impossible to encourage simultaneously. Therefore, they are merged into a compromise.

7.2.2 Translator/moderator/bridge as a strategy: Paradox

However, when managing the tension between a community ideal and a commercial mode of production the intermediary also applies a paradox strategy by attending to the conflicting demands simultaneously. This is done by performing as a *translator*, a *moderator* or a *bridge*. By performing these three roles the intermediary organization helps to preserve the integrity of the community and the organization while building a bridge between them - without collapsing or merging their conflicting interests.

As a *translator* the intermediary assist in bridging the competing ideals so that the participants from the community and the organization may understand each other’s perspective and better react to their input. As the project leader from the A2 project argues:

“I am convinced that you need this kind of translator who understands both ways of thinking and both kind of languages and who is aware of the different kinds of expectations, because otherwise it is like Chinese talking to Japanese – they are not going to understand each other – they like each other, but they don’t understand each other, they need a translator” (Project leader, A2).

Similar to the function of a translator, the role of a moderator is to “open up” the mind-set of the organization in order to enhance its ability of applying new

knowledge and input from the user community. A project leader from C explains the moderating strategy:

“The company tends to the situation that they have the experts internally and everything that the experts decide is good, is good for the company, but this is still company thinking. You do open innovation until a certain step, but then in the decision step you go back to the company thinking. It is our job to open the experts and say: ‘Hey there is the community; look there is an engineer from Indonesia and he worked in the train sector for over 20 years and he proposed this idea, maybe it is worth to think about it.’ Once you have this, then they say: ‘Okay let’s look at it in more details, maybe it is helpful.’ This is a communication task, kind of a moderator task that you have to do”

(Project leader, C).

Like the strategy of translator, being a moderator helps the organization to translate the users’ ideas into the its ‘organizational’ language. Hereby, the organization may encourage innovative ideas even though they conflict with the distribution channel and seem far away from the core of the firm. This is a paradoxical approach to the tension, because the community’s demand of creativity and the organization’s demand of profit are attended to simultaneously.

The third strategy that was described as a *bridge* seeks to bring the competing interests together while maintaining their distinct traits. Hereby, the intermediary represents either party and both the demand of the users and the customers can be favored. A project leader from the project of X describes this strategy of bridging in the following:

“I think the bridge was me. Like telling the company, what we can do. What is interesting for a community, and then they told me, what they need. So we were, in both times, able to find a way. Because that is the difficulty in our work. To find a way, giving the company, what they need and giving the community what is interesting so they are willing to participate” (Project leader, X).

The intermediary seeks to uncover the needs of both parties in a way so that they can be fulfilled. Hereby, the intermediary helps the organization in managing the tensions as paradoxes so that user contributions are encouraged and made applicable.

7.3 Managing the tension: Professional/non-professional

The tensions here is formed by the demand for professional participants that can give professionalized feedback and act as experts within the field, but as the same time can create personalized relations on an individual level and obtain a friend-like attribute that extends beyond the community context (cf. C, B).

The paper is still work in progress and therefore lacks a comprehensive empirical analysis and concluding discussion. In the following I therefore present some preliminary thoughts on discussion and future research.

Discussion: Findings indicate that the intermediary manages the tensions and their related boundaries from both a dilemma and a paradox approach, but without reflections on when and why. It could be interesting to further explore whether there is a pattern for the strategies applied, whether the strategies have different effects on specific tensions, and whether intermediaries perform better in managing some tensions over others. Also, we seek to examine the implications when tensions are approached differently from a dilemma and a paradox perspective, respectively. Furthermore, we have found indications that the intermediary organization not only creates new opportunities for utilizing the innovation potential, but also new tensions between itself and the organization that calls for more management. This increased complexity in the collaboration process produced by the intermediary organization, I will further explore.

Limitations and future research: Further data will be collected from the organizations that have been treated in the current interviews. This will be done qualitatively in the form of multiple semi-structured interviews and archive data such as summaries from meetings, strategy papers, log files etc. Hereby, we hope to enrich and substantiate the current findings, e.g. by achieving more detailed insights on how the organizations identify dilemmas and paradoxes. For example, it is difficult to distinguish between dilemma and paradox in terms of whether the competing demands are actually attended, simultaneously, or merely displaced in time (e.g. Gupta et al., 2006). Agreements with the case organizations have already been made. Furthermore, we would like to collect data from organizations that collaborate with user communities *without* integrating an intermediary organization in order to compare their strategies for managing tensions.

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