Open innovation change agents in large firms: how open innovation is enacted in paradoxical settings

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This paper theorizes how change agents in large firms enact open innovation with small firms. The open innovation change agent is highlighted as a key internal actor for the transformational work needed to put open innovation into practice. The paper presents an empirically grounded theoretical model of how these actors work, emphasizing the two activities of ‘anchoring’ and ‘navigating’, with the purpose of bridging the inside and outside of the corporation. In applying a paradox perspective on open innovation enactment, it is explained how these change agents act as both catalysts and guards for collaboration, continuously balancing different paradoxical demands. Theoretical and managerial implications in relation to these findings are discussed.

1. Introduction

This paper reports a study on how large firms enact open innovation by working together with small, innovative firms. Large firms have increasingly started to opening up their boundaries for inflow and outflow of knowledge (Chesbrough, 2003) in order to enhance innovativeness (Laursen and Salter, 2006), improve absorptive capacity (Zobel, 2017), and rejuvenate their business models (Foss and Saebi, 2017). Weiblen and Chesbrough (2015) suggest a typology for how large corporations can engage with startups in different ways. They claim that traditional models, such as corporate venturing and incubation, have mainly put emphasis on control and ownership, while recent models are often based on more ‘light-weight’ governance processes, which allows for collaboration with a larger number of startups, and in more flexible and creative ways. In this setting, synergies between large and small firms can emerge from combining their different strengths: While the big firm typically has resources, networks, and structured processes, small innovative firms are often characterized as having organizational agility and entrepreneurial spirit (Weiblen and Chesbrough, 2015). In other words, ‘small is beautiful’ meets ‘economies of scale’. Such integrative initiatives have, for instance, been described as corporate accelerators (Kohler, 2016), innovation hubs (Remneland Wikhamn and Styhre, 2017), or the orchestrating of more broad innovation ecosystems (Rohrbeck et al., 2009).

This paper more specifically theorizes the large firm’s enactment process of open innovation from the perspective of one specific key internal actor – the open innovation change agent. From change management literature (e.g., Schon, 1963), we know that individuals can have profound impact on implementation, both as enablers (Levén et al., 2014) and resisters (Piderit, 2000). Although change agents have been pointed out as important for transformations within a single corporation, there is surprisingly little research on their role in open innovation enactment. Open innovation change agents are internal
actors with own drives to facilitate open innovation initiatives hosted by the incumbent firm. To do so, they continuously need to manage competing demands from internal as well as external stakeholders. Such change agents may be informal or formal leaders (Tushman and Nadler, 1986), and they may be working through official initiatives or ‘skunk-work’. In this particular study, the change agents are formally assigned managers or project leaders of open innovation, targeting small firms. From the framework of Weiblen and Chesbrough (2015), these initiatives showed more resemblance with ‘light-weighted’ rather than control-oriented models. The research question is: How do open innovation change agents in large firms work when establishing open innovation collaboration with small firms?

The paper employs paradox theory (Smith and Lewis, 2011) as a theoretical lens to analyze change agents’ enactment work. Paradox theory is a well-established theoretical stream in the management domain (c.f. Lewis, 2000; Lewis and Smith, 2014), but was only recently adopted in the open innovation field with a conceptual paper by Lauritzen and Karafyllia (2019). Paradox theory is a promising perspective for open innovation, and this study contributes to it with an empirically grounded theoretical model of open innovation enactment. While Lauritzen and Karafyllia (2019) highlight the paradox of openness vs control, this paper puts forward not only the paradox of openness but also a paradox of innovation. Furthermore, based on qualitative empirical data, the two activities of anchoring work and navigating work are proposed as key elements for open innovation change agents to deal with these open innovation paradoxes in practice. The inquiry of the paper is in line with the argument of Ollila and Yström (2017), that an increased understanding of how individuals deal with enactment of open innovation will help bridging the stated gap between theory and practice, and the study contributes in this direction.

2. Theoretical framework

2.1. Open innovation and change agents

Open innovation is commonly defined as ‘the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively’ (Chesbrough, 2003). The open innovation research has been criticized as being vague and neglecting previous research (Mowery, 2009; Dahlander and Gann, 2010) but has also expanded considerably in

the last 15 years (Chesbrough et al., 2014; Bogers et al., 2017; Stanko et al., 2017), receiving great attention among scholars (Chesbrough, 2017), practitioners (Chesbrough and Brunswicker, 2014) and policy-makers (Bogers et al., 2018). While much of the academic work on open innovation has been conducted on the firm level, and increasingly also on communities and networks, other levels of analysis have gained less attention. One such under-researched area is the micro-foundations of open innovation (Bogers et al., 2017), which is surprising since we thus do not know much about how individual values and behaviors shape strategic and managerial outcomes in open innovation settings (Salter et al., 2014).

Research on change agents in the management literature has highlighted roles such as experts, promoters, and champions (Howell et al., 2005; Gemünden et al., 2007; Mansfeld et al., 2010), all with the shared features of both legitimizing and materializing the change inside the focal firm. For instance, Mansfeld et al. (2010) suggest that expert promoters utilize their technical knowledge to advance the idea, while the power promoters use their hierarchical authority to drive change, and the process promoters use their influence from organizational know-how and intra-organizational relations. Previous research has also looked at individual roles in loosely coupled innovation networks, such as innovation orchestration (Dhanaraj and Parkhe, 2006) and on innovation intermediaries (Ollila and Yström, 2017), in which people are continuously managing knowledge mobility, innovation appropriability, and network stability. Roles such as boundary spanners (Fleming and Waguespack, 2007) and technological gatekeepers (Allen, 1971) have been commonly utilized in the literature on, for example, innovation communities and networks, other levels of analysis have gained less attention. One such under-researched area is the micro-foundations of open innovation (Bogers et al., 2017), which is surprising since we thus do not know much about how individual values and behaviors shape strategic and managerial outcomes in open innovation settings (Salter et al., 2014).

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2.2. Open innovation through the lens of paradox

The paradox theory (Smith and Lewis, 2011) is well suited for understanding the mechanisms of how strategic contradictions and ambiguities are managed (Smith and Tushman, 2005), and has also been proposed as a promising approach to theorize open innovation (Lauritzen and Karafyllia, 2019). Smith
and Lewis (2011) define a paradox as ‘contradictory yet interrelated elements that exist simultaneously and persist over time’. Paradoxes have also been explained as ‘elements that seem logical in isolation but absurd and irrational when appearing simultaneously’ (Lewis, 2000). They may be latent in organizations and only made salient in organizational transitions (Smith and Lewis, 2011), but when being recognized, they are not fully solvable or eliminated through negotiation and compromise (Smith and Tushman, 2005). Instead, actors need to move beyond ‘either/or’ contingencies to instead embrace ‘both/and’ approaches (Lewis and Smith, 2014), adopting a ‘paradoxical mindset’ (Smith et al., 2016) where contradictions are ‘worked through’ (Lüscher and Lewis, 2008), that is, a process of accepting paradoxes and learning to cope with them.

In this paper, two paradoxes facing open innovation change agents will be elaborated on: an innovation paradox and a value paradox (see Figure 1). The innovation paradox rests on the well-known organizational tension between exploitation of old certainties and exploration of new possibilities (March, 1991). While exploitation values aspects such as ‘refinement, choice, production, efficiency, selection, implementation, execution’ (ibid), exploration points to elements such as ‘search, variation, risk taking, experimentation, play, flexibility, discovery, innovation’ (ibid). For incumbent firms, exploitation often tends to overshadow exploration, which has opened a vast field of research on organizational ambidexterity (Tushman and O’Reilly, 1996; Gibson and Birkinshaw, 2004), referring to a firm’s ability to balance exploitation and exploration. Ambidexterity has so far only been sparsely applied in the open innovation literature, but similar challenges have been pointed out with the focus on firms’ dynamic capabilities (Teece, 2007) and absorptive capacity (Spithoven et al., 2010).

The value paradox involves the intricate balancing of value creation and value capture (Chesbrough et al., 2018). In closed innovation, this paradox is more or less latent, since the created value is also captured by the corporation, except for some spillover effects (Nelson, 1959). In open innovation, however, the paradox needs to be addressed. Formulated as ‘the openness paradox’. Laursen and Salter (2014) propose that ‘the creation of innovations often requires openness, but the commercialization of innovations requires protection’. This resembles the ‘paradox of disclosure’ (Arrow, 1962), postulating that when an actor discloses information about the innovation in order to attract external actors, the value of the innovation may be transferred without compensation. What complicates this paradox even further in co-creative processes are the practical difficulties of estimating and dividing the co-created value over time (Chesbrough et al., 2018).

Lauritzen and Karafyllia (2019) highlight three key themes in open innovation research – attracting, incorporating, and commercializing contributions – for which they discuss the paradoxical tensions of control vs openness. Based on their conceptualization, the innovation paradox is more linked to incorporating, while the value paradox is more linked to attracting and commercializing. Consequently, the innovation paradox has mainly an inward focus on how the corporation should organize and prioritize its activities, while the value paradox has an interactive focus on how to collaborate with external actors.

Figure 1. Two paradoxes of open innovation enactment. [Colour figure can be viewed at wileyonlinelibrary.com]
This paper analyzes how open innovation change agents work in relation to both these paradoxes, and a theoretical model is presented for how they over time ‘work through’ (Lüscher and Lewis, 2008) the contradictory demands that the paradoxes evoke.

3. Methodology

3.1. Research design

The empirical data were generated from two interrelated research projects studying open innovation in Sweden, specifically addressing how large firms innovate with small firms. The first research project was a five-year in-depth exploratory study, following how a large corporation opened up its R&D facilities for co-location with small innovative firms. The second research project was connected to a government-funded program, supporting the interaction of large and small firms. The participating open innovation projects involved, for example, matchmaking tools, various R&D collaborations, and providing big data to startups.

3.2. Data collection

Interview guides were developed (Kvale and Brinkmann, 2006) in order to bracket the interviews around thematic areas (e.g., background, motivations, challenges, difficulties, activities), while allowing the interviewees to speak rather freely about their challenges within these areas. Table 1 describes the empirical data in detail.

In the longitudinal study, two informants were continuously interviewed between November 2013 and October 2017. They were both employed by the large corporation, but were eventually assigned as CEO and COO for the open innovation initiative, run as a subsidiary. Eleven interviews were conducted with the CEO and 6 interviews with the COO. Also, 21 representatives from 15 small firms that the large corporation interacted with were interviewed. Furthermore, two workshops with the CEO and the COO were held, where the project’s findings were reported in order to validate but also facilitate further empirical analyses.

In the second project, 32 interviews were conducted between August 2017 and June 2018. Fifteen of these interviews involved project leaders of the Vinnova-funded projects. Furthermore, 2 interviews with other large firms and 15 interviews with small firms were conducted. The researchers also participated in three workshops where representatives from the funded projects shared experiences of establishing open innovation initiatives between large and small firms. A fourth workshop was facilitated by an innovation system actor with a matchmaking role between large and small firms. In the workshop, ten large firms shared their experiences of working with startups.

Altogether, the empirical data consist of 70 interviews, varying between 30 min to 2 hr. All but one interview (due to technical problems) were digitally recorded, and most encounters were summarized afterward by the researchers. All recorded interviews were transcribed by either a professional transcription bureau or by the researchers themselves. The workshops were partly recorded and transcribed, and detailed notes were taken under the discussions, followed by personal reflections written afterward.

For this paper, 13 open innovation change agents are part of the empirical data, see Table 2. They worked in big corporations actively implementing open innovation with small firms, and the research project gained access to them through their participation in the two projects described above. As such, the selection of informants can be labeled as theoretical sampling (Glaser and Strauss, 1967) in the sense that the study broadly included people with vast experiences in the enactment of open innovation with small firms, and who were also willing to share their experiences openly.

3.3. Data analysis

The text material was analyzed following general coding practices in qualitative research (Miles and Huberman, 1984), and using NVivo as the text analysis software. First, sections of texts were marked and sorted into initial concepts through open coding (Corbin and Strauss, 2014), with the purpose of gaining a more comprehensive understanding of the vast empirical material. These codes were intentionally held descriptive and close to the interviewees’ own words. About 40 first-order concepts (Van Maanen, 1979) were developed, including ‘internal transformation’, ‘culture’, ‘top management support’, ‘mobilization’, ‘value’, ‘intellectual property’, ‘coordination’, and ‘trust’. The next step involved grouping the first-order concepts into second-order themes (Corbin and Strauss, 2014), more closely related to theories on change agents and open innovation, and having the paradox theory in mind. The paper’s research question led to an empirical concentration on transcripts from change agents, while the rest of the empirical material were still important in order to contrast or support the analysis. To get a focused theoretical analysis, the paper is limited to this specific role, still aware that this is only one side of the
The two paradoxes introduced in the theoretical framework were abductively generated through an iterative process of moving back and forth between inductive, exploratory inquiry and deductive, theory-driven reasoning (Alvesson and Sköldberg, 2017). Hence, the challenges emerged from the empirical data were compared and contrasted with a close reading of related innovation literature (e.g., Arrow, 1962; March, 1991; Chesbrough et al., 2018). Parallel to the categorization of the paradoxes, the analytical attention was also put on how the change agents addressed the paradoxical challenges in practice. In other words, such categorizations emerged from transforming the first-order
4. How open innovation change agents work in practice

4.1. Transformation work through anchoring

Much of the enactment work of the open innovation change agents was directed toward various forms of internal transformation activities. This is because the corporations often needed to strengthen their dynamic capabilities in order to ease the acceptance and integration of the open innovation initiatives. One interviewee said: ‘We are pretty bad in trying new things. People think it is easier to find gold if they dig where they stand. No-one wants to dig one meter aside’ (change agent 6, 2016-06-15). He continued: ‘Since open innovation is a very fluffy concept, there are so many possibilities to hide old, traditional ways of working, and this makes my work so much harder’ (change agent 6, 2016-06-15).

Another interviewee said: ‘It is very difficult to disrupt oneself. We do not have the sense of urgency’ (change agent 3, 2017-10-05). In other words, the transformation work involved several intertwined aspects, spanning from technological, structural, processual, and cultural areas. Especially, the internal corporate values were often highlighted as a hinder for open innovation enactment. One interviewee stated: ‘Our challenge [in relation to open innovation] is solely about culture, and the fear of making mistakes’ (change agent 5, 2018-11-14). Another person raised: ‘Much talk and little action. […] We need to change the culture, how people work. It is a personality trait, a mindset’ (change agent 6, 2016-06-15).

To deal with the internal transformations, the open innovation change agents spent much time and effort on what will be phrased as anchoring work, that is, to communicate with key internal actors, and to convince them that transformations are required (see Figure 2). One change agent said: ‘We often act as communication police. Many within the organization do not understand
what we do and why we are doing it, so we have to explain how things work and to help them alter their views’ (change agent 10, 2017-10-18). These communicative activities were tailored to different hierarchical levels of the organization, in order to gain legitimacy and ongoing support for the open innovation initiative and its consequences. Much of the initial attention was put on gaining top management buy-in, since this was perceived as the most crucial prerequisite for a successful enactment. One change agent stated: ‘To make a long story short, we gained their commitment with no strings attached’ (change agent 1, 2014-09-04), and another said: ‘We got [the top management] blessings in a carte blanche’ (change agent 3, 2017-10-18). A third change agent revealed: ‘The management said “please implement”, but they did not give any details on how to do it, so I have had much autonomy, which is something I really have enjoyed’ (change agent 6, 2015-06-23).

Several change agents also highlighted the need to anchor the enactment with various support functions, such as IT, facility management, procurement, and the legal department. The latter two functions were perceived as particularly difficult to convince, and one common way of doing it was to involve them early in the process. One interviewee said: ‘By working very close with procurement, and to make them realize that the current processes do not work, we can find better alternatives together’ (change agent 12, 2018-10-10). Much anchoring work on the daily basis was also directed toward the line functions, such as the business and market units, as well as the R&D department. This is where much of the operational decision-power lays in the organizations, involving, for example, the access to internal knowledge, machines and equipment, the ownership of key processes, and managing a large proportion of the financial budgets. One respondent proclaimed: ‘This is the classical middle-management syndrome’ (change agent 6, 2016-06-15) and explained that the middle managers often were not enthusiastic to prioritize open innovation over their own projects and responsibilities.

The open innovation enactment required transformations of internal business-as-usual, and the anchoring of such transitions involved communication, bargaining, commitment, problem solving, co-creation, and other forms of persuasion activities. This often gave the change agents the role as a disruptive force against established structures. One interviewee said: ‘You need to take the fights and to have the will to stand up for the change. We break new grounds, and we challenge the established structures’ (change agent 13, 2018-10-10). These activities were sometimes carried out in a confrontational way, but more often through constructive discussions, or as one interviewee explained: ‘Since I have worked in their positions, I know how I can help them, and I also want to avoid being perceived as the boss who tells them how to do things’ (change agent 6, 2016-06-15).

Hence, fitting the new initiative into the existing business framework was an iterative process, where much of the anchoring work was focused on alignment to, rather than critical disruption of existing structures. To some degree, this was merely rhetoric – to sell the open innovation initiative as something that is supporting existing goals or strategies – but it was also a continuous work on design and redesign of numerous aspects of the open innovation initiative as well as within the internal organization. One interviewee described it as: ‘You need to take your red, round idea and transform it into a yellow, squared idea, so that it can make a fit’ (change agent 6, 2016-06-15).

Several open innovation initiatives in the study had started to gain internal acceptance and

![Figure 2. How open innovation change agents approached internal transformation challenges. [Colour figure can be viewed at wileyonlinelibrary.com]](https://ssrn.com/abstract=3617104)
commitment, and a willingness from the employees to contribute to its success. The change agents continuously worked to widen their internal networks of allies actively working in favor of open innovation within different levels of the organizations. As one person ended his interview: ‘I cannot do everything myself, and I cannot see all the potentials myself. When I engage with these internal supporters, they can take it further within their business units or in their customer interactions’ (change agent 3, 2018-10-10).

4.2. Facilitating work through navigation

While much of the open innovation change agents’ focus were put on internal transformations in order to prepare grounds for open innovation enactment, they also extensively emphasized the interactions with the small firms. One interviewee working on an innovation intermediary organization expressed: ‘It is very easy to make a business model on PowerPoint, but in reality … especially in a relation between the large firm and a startup, this can be a real challenge’ (innovation system manager, 2017-10-18). Developing and nurturing these external connections were in many cases not something that the companies normally did, and many change agents saw in their role to help employees to become more outward looking. One change agent said: ‘We are used to supplier-customer relationships, so we need to learn how to work more explorative with these small firms’ (change agent 8, 2017-10-18). Another interviewee stated: ‘It is not that we do not want to make business with smaller firms, it is just that we do not have processes for it’ (change agent 3, 2018-05-22). A third interviewee said: ‘It is the classical problem of a big firm, that so many decision-makers need to be involved and it takes forever, and the small firms become restless’ (change agent 7, 2017-10-18). In order to bridge the differences between the large and the small firms, relations had to be formed based on mutual trust and synergies. One interviewee explained the reciprocal relations as: ‘It is as if you are looking for new friends: the more you reveal about yourself, the more interesting you become to them, the more you will receive’ (change agent 4, 2017-12-08).

The open innovation change agents in the study had an important role in this boundary-spanning work, in which they were navigating between the internal and external demands in order to enabling value creation and balancing value capture among the collaborating parties (see Figure 3). One change agent defined himself as: ‘I am a facilitator and generalist […] I am the oil in the machinery’ (change agent 3, 2018-05-22). The open innovation function often arranged initiatives where internal and external actors could meet and learn to know each other, such as social gatherings, networking events, and idea pitching. When acting as a match-maker for small firms, the change agents often used their personal networks and legitimacy to find internal people who would be supportive to interactions. One interviewee stated: ‘I have worked 12 years for the company, and this is an asset that I extensively utilize to tear down barriers for innovation. I know who works with what, and who is enthusiastic for what. I know who is willing to do some skunk-work and who will be able to anchoring it where it needs to be anchored’ (change agent 3, 2018-10-10).

While the change agents in many interviews portrayed themselves as promoters for interactions and catalysts for joint value creation, they also often acted as gatekeepers in the sense that they needed to set rules for the interactions and to state the limits of the collaborations. One interviewee explained: ‘I tell [our staff] that this is always on your terms. If you do not have time, no problem, we look elsewhere’ (change agent 2, 2015-10-07). This person also said in a later interview: ‘I explain

![Facilitating interaction challenges](https://ssrn.com/abstract=3617104)

Figure 3. How open innovation change agents approached interaction challenges. [Colour figure can be viewed at wileyonlinelibrary.com]
to the employees about confidentiality and other issues. [...] If someone asks for more information than we are allowed to give, I will stop them’ (change agent 2, 2016-09-22). Another interviewee highlighted: ‘In their world, [each small firm] is the sole actor, but in my world, they are one among 25’ (change agent 3, 2018-05-22). A third interviewee stated: ‘We want to be very clear on what we can help them [the small firms] with, but also what we cannot help them with, and to find a balance in which areas they come to us’ (change agent 1, 2016-04-01).

A second challenge in relation to the interactions between the large corporation and small firms was the competition of internal resources. Open innovation can often make sense on a general, strategic level, but in the operationalization, it is not always clear how to prioritize. Several of the interviewees from small companies put forward the difficulties of gaining access to key resources from the large firm. One employee in a small firm said: ‘The engagement is there, but then the individual manager asks himself, “I have three projects and they all scream for resources, why should I help you?”’ (small firm representative, 2017-10-18). An interviewee from a research institute summarized the difficulty as: ‘The primary contact for the small firm is often an open innovation manager or a technology scout, but it is not these people who make decisions. They do not have any formal mandate, so they need to go back to their organization to “pitch” the idea in order to gain acceptance and funding’ (innovation system manager, 2017-10-18).

Furthermore, many open innovation change agents were aware of that small firms could already beforehand have a negative perception of dealing with large corporations. As one change agent phrased it: ‘Big corporations’ quest for IPR has sometimes given them a bad reputation among small firms, and this complicates our interactions with them’ (change agent 8, 2017-10-18). He continued: ‘Even though we are not looking to scam anyone, just the fact that we are big and they are small generates uncertainty, because we have resources to protect ourselves, which they cannot afford’ (change agent 8, 2017-10-18). Another change agent said: ‘If we succeed with 100 startups but fail with one, we are at risk’ (change agent 3, 2018-05-22). By this, he meant that how the big firm treats the small firms matter greatly for being seen as a trustworthy counterpart. In an earlier interview, the same person said: ‘I see it in my role to secure that all my colleagues understand that if we act in a bad manner against the small firms, we are in trouble’ (change agent 3, 2017-10-18). Similarly, one interviewee proclaimed: ‘To me it is about trustworthiness, and we have realized that it lays deep in the genes of small firms to be anxious about the risk that the big firm will run you over’ (change agent 1, 2015-05-25).

As stated, the large corporations often face several challenges in relation to the interactions with external small firms, in terms of, for example, contract writings, ownership of the results, coordination of work, and the prioritization of internal resources. In the study, the change agents often took a key role in addressing many of these challenges. Legal issues related to open innovation were often raised as one of the most difficult areas among the change agents in the large corporations. One interviewee complained: ‘The legal work is really heavy. We have changed lawyer two times already’ (change agent 5, 2017-08-25), and a second person summarized: ‘Open innovation is a goldmine for lawyers’ (change agent 1, 2013-11-05). A third interviewee stated: ‘I never believed that I would turn into a lawyer when I started this [open innovation initiative], but it is almost what I have become’ (change agent 6, 2015-06-23).

Contract negotiations in relation to the external partners were also an important part of the navigation work. The large firms in the study were mostly comfortable with contractual arrangements in which the parameters were set from the beginning, or as one manager criticized the process: ‘We do not normally enter a collaboration just because we think it would be interesting to see what comes out, but we are negotiating everything from A to Z’ (change agent 1, 2013-11-05). An interviewee from a different company elaborated further: ‘It is a challenge to make a business case on an unknown potential […] because then it turns political’ (change agent 3, 2017-10-05). At the same time, one respondent reflected: ‘One of the biggest challenges for all innovative work is the fact that you cannot order an innovation, you can only create good conditions for it to happen’ (change agent 1, 2015-10-28). Put differently, open innovation could lead to more serendipitous innovation, or as one change agent said: ‘The positive effect when you meet unconditionally to look for opportunities for collaboration is that you come up with ideas that you have never thought about before. This is an effect of that you do not approach each other in a classical way where you already know what you are looking for’ (change agent 2, 2016-04-01).

5. Discussion

The empirical analysis shows that within ‘light-weight’ models of corporate interactions with small firms (Weiblen and Chesbrough, 2015), the change
agents faced challenges related to both openness and innovation. To discuss how they dealt with these challenges in practice, paradox theory will be used as a theoretical framework. In the theory section, two open innovation paradoxes were introduced – the innovation paradox and the value paradox. Translating these paradoxes to the empirical setting, one change agent for instance said: ‘We have an internal transition to make. It is a parallel challenge of understanding how we will integrate open innovation in our internal organization, and to understand how we will work with external parties’ (change agent 4, 2017-12-08). The first challenge he brought up, regarding integrating open innovation, directly relates to the innovation paradox, and the second challenge, regarding collaboration with external small firms, relates to the value paradox.

A paradox can, as mentioned in the theory section, be defined as ‘contradictory yet interrelated elements that exist simultaneously and persist over time’ (Smith and Lewis, 2011). In the paradox literature, contradictions between polarities – such as exploitation vs exploration or value creation vs value capture – have been described as ‘interrelated aspects of a greater whole’ (Lewis and Smith, 2014) and ‘two sides of the same coin’ (Smith and Lewis, 2011). Lewis and Smith (2014) state that: ‘Although each subsystem can operate independently, success of the overall system depends on their interdependence.’ Lewis (2000) furthermore argues that the dynamics in the paradox emerge through reinforcing cycles. Such cycles can become either vicious or virtuous, depending on how the actors – for example, the open innovation change agents – deal with them over time. This means that approaching the paradoxes defensively, for instance, by repressing or ignoring them, could escalate anxiety, fear, or blaming (Lewis, 2000). Likewise, if dealt with constructively, the same tensions could evoke strategic responses that foster creativity, innovation, and breakthrough. In this study, the open innovation change agents aimed for the latter, expressing their convictions that even if the open innovation enactment would face paradoxical difficulties, it would in the long run help the large firm to become more explorative and also more prosperous.

Paradox literature suggests that managers need to move away from ‘sophisticated “if-then” insights’ (Lewis and Smith, 2014) that foster confrontational ‘either/or’ positions. Instead, they need to ‘recognizing and use conflicts, not solve them’ (Smith and Tushman, 2005), by ‘navigating coexistence’ (Lauritzen and Karafyllia, 2019) and by embracing a ‘both/and’ leadership (Smith et al., 2016). In the empirical analysis of this paper, two main functions of how open innovation change agents handled the paradoxes in practice were characterized: (1) anchoring work and (2) navigating work. While anchoring work was directed toward transforming the internal organization in order to prepare the ground for open innovation, the navigating work was directed toward facilitating interactions between internal and external actors. The analysis generated a theoretical model of open innovation change agent’s enactment work, illustrated in Figure 4.

Not only does this enactment model propose that the open innovation change agent broadly manages the innovation paradox through anchoring work and the value paradox through navigation work, but it also highlights that the paradoxes’ tensions are nested (Andriopoulos and Lewis, 2009), that is, highly interrelated and somewhat overlapping. The model moreover suggests that the change agents do not only face paradoxes (e.g., innovation and value paradoxes) but that they also handle them through paradoxical means (e.g., balancing disruption vs alignment, and promoting vs gatekeeping). This requires the ability to simultaneously hold opposing thoughts and to find constructive intersections between them, which is much in line with what Rothenberg (1979) has phrased as ‘Janusian thinking’. Smith and Lewis (2012) argue that paradoxical leadership requires cognitive complexity, confidence, conflict management, and communication, all of which were important skills for the change agents in this study.

The empirical analysis also revealed that the two paradoxes were not in equilibrium within the

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**Figure 4. A model of open innovation change agents’ enactment work.** [Colour figure can be viewed at wileyonlinelibrary.com]
incumbent firms. For the innovation paradox, the difficulty of balancing the exploitation of ‘business-as-usual’ with the exploration of new innovative ideas was often raised in the interviews, which resembles with March’s (1991) claim that ‘adaptive processes characteristically improve exploitation more rapidly than exploration’ (p. 73). In Levinthal and March’s (1993) view, managers are myopic, meaning that they tend to privilege short-term over long-term gains and certainty of success over risk of failure. Hence, exploitation always gets the upper hand. Also imbalanced preferences within the incumbent firms appeared in relation to the value paradox. By engaging in open innovation, it raised difficult questions related to, for example, who will own the co-created value, what new business models had to be developed, and how to govern the external allies. In line with the loss aversion theory (Kahneman and Tversky, 1979), the fear of losing control, or a lack of confidence in the ability to capture future value, oftentimes had negative impact on the internal willingness to enact open innovation. This phenomenon has previously been raised in the open innovation literature in relation to, for example, the ‘not-invented-here syndrome’ (Chesbrough and Crowther, 2006) and the ‘not-invented-elsewhere syndrome’ (Remneland Wikhamn and Styhre, 2018).

Because of the imbalanced tensions within the paradoxes, the open innovation change agent often took the role of what Smith and Tushman (2005) would phrase as ‘the supportive integrator’. Such a role helps the top and line managers to make more balanced decisions, by providing them with counter-perspectives. Being a mediating function and a boundary spanner between internal and external allies, the change agents often felt that they were constantly ‘on the opposite side’. They had to act on behalf of the incumbent firm in the interactions with external firms, and they were not seldom on the external firms’ side in the negotiations with the internal organization. Hence, they did not only have to develop their own ‘both/and’ perspectives, but they also needed to educate internal as well as external actors in integrative thinking. Such sensengiving work is reminiscent of what Lüscher and Lewis (2008) phrase as ‘walking through’, which does not mean to eliminate or resolve the paradox but to ‘constructing a more workable certainty that enables change’. In embracing a paradox perspective, the change agents needed to develop ‘consistent inconsistencies’ within the organization (Smith and Lewis, 2011) and to push the internal and external stakeholders toward, rather than away from, the competing and oftentimes conflicting logics.

The fact that the open innovation change agents both internally and externally had only limited possibilities to enforce their will through hierarchical authority complicated their work even further. Moreover, if something would go wrong, they most likely would receive much of the blame. Instead of leaning on organizational power, the change agents oftentimes used their personal legitimacy and network relationships, as well as their enthusiasm and expert knowledge, to convince their counterparts. Toward external small firms, however, such legitimacy was at least in the early enactment phases rather weak, why trust and legitimacy often had to be built, not capitalized on. In other words, the change agents’ social as well as communicative capabilities were continuously put to test. This also indicates an interaction effect in enactment work over time, in which previous experiences with open innovation may influence the willingness and perceptions of future engagement.

6. Conclusions and implications

The study contributes to the research on open innovation in several different ways. First, the paper presents an empirical study about open innovation enactment, which adds to the emerging understanding of how various forms of open innovation are translated into practice. This is of interest among academic scholars, business practitioners as well as policy-makers. Furthermore, the study contributes to the open innovation research by its individual level of analysis, which is an under-researched and important area within the field. In this study, the open innovation change agent is highlighted as a key internal actor in the enactment process, linking the open innovation domain to the change management literature and more specifically to roles such as promotors, champions, gatekeepers, and boundary spanners.

Another contribution of the paper is the further development of the paradox perspective, in order to analyze the enactment of open innovation. Paradox theory is an alternative viewpoint which has gained much interest in the general management field, but only started to get attention within the open innovation domain. The few papers applying a paradox perspective on open innovation have mainly focused on the balance between control and openness between the focal firm and the external contributors (Bogers, 2011; Laursen and Salter, 2014; Lauritzen and Karafyllia, 2019). Also, this study has analyzed the paradoxical demands of managing the processes of value creation vs value capture in the interaction with external small firms, but the paper furthermore
Open innovation change agents in large firms

pinpoints the related paradox of dealing internally with exploration vs exploitation when moving toward openness. A main contribution is the introduction of an empirically grounded theoretical model to explain how change agents work in practice to bridge the internal and external worlds when enacting the open innovation initiative. Both the innovation paradox and the value paradox are analyzed, and more importantly, the model shows how these paradoxes are handled by the change agent through what is phrased as anchoring work and navigation work. A conclusion from this theoretical model is that in order to be able to collaborate fruitfully with small external firms, the corporation needs to also transform internally, challenging the established corporate culture and organizational structures. Consequently, engaging with open innovation could over time lead to a more ambidextrous organization (Remneland Wikhammer and Styhre, 2017), since it promotes the corporation to confront the inherent paradoxes residing in internal as well as external alignment.

The paper also has managerial implications in that it emphasizes a key internal actor for open innovation enactment, and also explains important challenges that such an actor needs to deal with. This information can help incumbent firms in decisions related to the appointment of open innovation change agents, as well as in the development of support structures and preparations in order for them to do a good job. The model can furthermore facilitate reflections among practitioners working as change agents themselves, as well as in other parts of the internal organization and among small firms with ambitions to work with large firms.

6.1. Limitations and future research

Like all research, this study has limitations. Being a qualitative study, it is bound to its research context and the empirical data at hand. Future studies could alter the selection criteria of respondents, such as investigating different geographical regions, specific type of industries or companies, or various forms of open innovation. This study has a limited focus on open innovation change agents, and future studies could investigate the enactment process from different viewpoints, such as the top management, line management, support functions, or the participating small firms. This paper has mainly focused on the practice itself, rather than effects or consequences. Future studies may try to investigate in what way, and under which circumstances, certain open innovation enactment activities become ‘successful’ or not. Finally, paradox theory has been applied to analyze open innovation enactment, and as a framework, it can be useful also in other areas of the research domain. Open innovation has proven to be a concept of great value, but the paradoxical complexity that practitioners oftentimes face when implementing it in practice needs more attention in order for it to reach its full potential.

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