Internal actors' roles in driving managerial innovation adoption: toward distributed leadership

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Résumé :

This article seeks to open the black box surrounding managerial innovation (MI) adoption processes in organization. Existing understanding of MI has been limited to technology-based innovation models and a rational perspective that neglects social aspects. With both cultural and institutional perspectives, this study explores the role of internal actors and seeks to expand understanding of the transition across different phases in the MI process. In a review of the adoption and adaptation of employee-driven innovation (EDI), as a practical form of MI, over a five-year period by EDF's Hydraulic Engineering Centre, this article reveals that EDI still has not been successfully routinized at the intra-organizational level. Results show that many discrepancies between rhetoric and reality and embody various types of misfit (political, cultural, technical, and structural) lead to unfavorable conditions for appropriating new managerial and organizational practices. They even can serve as serious impediments to MI adoption. Therefore, MI must be managed in a distributed manner, such that top and middle management, together with employees, serve differentiated and interdependent roles that in combination ensure the success of MI adoption processes.

Mots-clés : Managerial innovation; Adoption process; Employee-driven-innovation; Internal actors' roles, Distributed leadership

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INTRODUCTION

Innovation is a source of value creation, performance, growth, and survival for firms, and thus it is the subject of research in many fields, including economics, sociology, strategic management, and public management. Most academic research focuses on technology-based product and process innovations, despite Birkinshaw, Hamel, and Mol's (2008) call for revived interest in managerial innovation (MI). Studies of this specific type of innovation are scarce (Keupp, Palmié, & Gassmann, 2011), embryonic (Damanpour & Aravind, 2012a), or fragmented (Volberda, Van Den Bosch, & Mihalache, 2014), leaving us with a poor understanding of MIs (Damanpour, 2014), even though various examples suggest they create and deliver "long-lasting advantage" (Hamel, 2006). Called by various names,[1] MIs refer to the introduction of new management practices, processes, structures, or techniques intended to further organizational goals (Birkinshaw, Hamel, & Mol, 2008; Le Roy, Robert, & Giuliani, 2013; Volberda, Van Den Bosch, & Heij, 2013).

Even when researchers address the MI adoption process though, they still tend to adapt technology-based innovation models and predict a simple sequence of activities, generally divided into four, relatively automatic main phases (initiation, decision, use, and routinizing) (Damanpour & Aravind, 2012a; Keupp et al., 2011). The adoption process for MI may not be linear, rational, or automatic though; instead, it may constitute a complex, collective, systemic, long, and knowledge-intensive process, in which the routinizing phase is never certain (Damanpour & Aravind, 2012a; Damanpour & Gopalakrishnan, 2001; Gondo & Amis, 2013; Hamel, 2006; Madrid-Guijarro, Garcia, & Van Auken, 2009; Scozzi & Garavelli, 2005; Zbaracki, 1998).

A rational perspective further limits understanding of MI adoption (Gondo & Amis, 2013), because it excludes the role of human agency due to its singular focus on top managers. In

[1] For example, MI also has been referred to as organizational (Alänge, Jacobson, & Jarnehammar, 1998; Armbruster, Bikfalvi, Kinkel, & Lay, 2008; Edquist, Hommen, & McKelvey, 2001; Schumpeter, 1934), administrative (Damanpour & Evan, 1984; Evan, 1966), or management (Birkinshaw et al., 2008; Hamel, 2006; Volberda, Van Den Bosch, & Heij, 2013) innovation.

this context, cultural and institutional perspectives offer interesting promise in MI literature (Volberda et al., 2014), because they can add nuance to the purely rational approach. For example, a cultural perspective could clarify how internal actors might be restricted by power relations and path dependency (Birkinshaw et al., 2008) or by the tensions between rhetoric and reality (Zbaracki, 1998). An institutional perspective also would acknowledge the potential for misfits between MI and the specific context of the adopting firm, which require adaptations (Ansari, Fiss, & Zajac, 2010; Ansari, Reinecke, & Spaan, 2014; Gondo & Amis, 2013; Volberda et al., 2014). Furthermore, some actors must be behind these adjustments or adaptations, which likely defines whether and how they are accepted and legitimated, or else rejected. For example, employees can act as MI gatekeepers, users, adjusters, or resistors, and the resulting adjustments are inherently part of a realistic MI adoption process (Akrich, Callon, Latour, & Monaghan, 2002; Zbaracki, 1998).

To open the "black box" of what happens in an organization during MI adoption, we investigate the roles of internal actors that confront necessary adaptations to ensure the sustainability of the MI adoption process. Specifically, what are internal actors' roles in driving and sustaining the MI adoption process over time? To answer this question, we take the perspective of multiple internal actors and conduct an emblematic, longitudinal, qualitative case study. The organization we study, the Hydroelectric Engineering Centre (CIH in French) of EDF, the European leader in hydroelectric power, decided to adopt an employee-driven innovation (EDI) in 2010. As practical form of MI, this EDI involved a set of managerial and organizational practices to encourage direct participation by employees, who could systematically and actively contribute to the generation of new ideas that might create value through their implementation (De Spiegelaere & Van Gyes, 2012; LO, 2007). The company created two innovation challenges, in 2011 and 2013. In parallel, it instituted a process to encourage each employee to submit ideas or innovations. Our empirical study is based on 31 semi-structured interviews conducted with four types of employees, from different hierarchical levels and involved in varying degrees in the EDI process. We also gathered information from an internal database that describes the evolution of ideas and innovations submitted by employees during 2011–2014. Secondary data, such as specifications of the two challenges and internal procedures related to EDI, also help ensure data triangulation.

Our results suggest that CIH's EDI has not been successfully routinized. Furthermore, internal actors largely invoke three discrepancies that affect transitions to the routinizing phase. First, EDI appears more in rhetoric than in reality. The reality depicts the implementation of an instrumental approach and one-shot incentive schemes, supported by just a few top management members. Second, the confusion about the different roles that internal actors play has led to insufficient operational management and monitoring. Third, various misfits (political, cultural, technical, and structural), though not clearly perceived by top management, raise barriers to routinizing. In this context, ongoing attempts to adapt the EDI process remain isolated, preventing its appropriation by all employees. Our results thus suggest the importance of managing EDI in a distributed way, such that top management, middle management, and employees all have different roles to encourage successful MI adoption.

In turn, our study contributes to MI literature by addressing three main issues. First, innovation literature exhibits an increasing awareness that, by nature, innovation is a process (King, 1992; Rogers, 1995), yet MI continues to be studied mostly as a single event phenomenon or dichotomous decision. We take a processual perspective to gain a deeper understanding of how things evolve over time and why they evolve in a particular way (Langley, 1999). We thus offer a more fine-grained understanding of the MI adoption and adaptation processes. Second, Damanpour and Aravind (2012b) posit that an adoption process resembles a downward spiral, from organization to individual. Theoretically, it begins with an organizational leader's decision, continues with implementation and adaptation by members, and ultimately becomes a routine throughout the organization. However, the adjustments that we observed employees making lead us to question this purely top-down account (Daft, 1978; Damanpour & Aravind, 2012a). Rather, the MI adoption process appears to fluctuate between a top-down and a bottom-up process. Third, we know of no prior research that addresses the transition between different phases of the MI process. Daft (1978) postulates that identifying the MI is the most important step; many studies focus on the decision phase or, less frequently, the use (or implementation) phase. As Keupp et al. (2011) caution though, these studies neglect the question of how innovations get adopted successfully. To succeed, MI first must be routinized. This study identifies internal actors' distributed and interdependent roles, which can explain the success or failure of the adoption process and the difficulty of sustaining this dynamic over time.

I. EMPLOYEE-DRIVEN INNOVATION AS A CONCRETE FORM OF MI

With this section, we seek to provide a comprehensive picture of the complex concept of MI and its concrete forms.

1.1. MANAGERIAL INNOVATION: DEFINITION

At the firm level, MI has not been examined, conceptually or empirically, as widely as technological innovation. Instead, most studies continue to assume that innovation is a technology-based phenomenon. This gap is especially surprising, considering that MI constitutes a strategic choice for many companies and is the type of innovation most adopted by European companies, according to a recent Community Innovation Survey[2].

Birkinshaw et al. (2008) define MI as "the invention and implementation of a management practice, process, structure, or technique that is new to the state of the art and is intended to further organizational goals." Five characteristics of MI arise from this widely accepted definition (Ganter & Hecker, 2013; Vaccaro, Jansen, Van Den Bosch, & Volberda, 2012; Volberda et al., 2013). First, the terminology can differentiate MI from product, service, and technological process innovations. As Edquist, Hommen, and McKelvey (2001) explain, MI has no technological or R&D elements as such. Hamel (2006) proposes that an MI refers to the way managers change or reinvent processes and practices that govern work. Second, newness is a central characteristic of MI. For Birkinshaw et al. (2008), newness is radical, as a new state of the art, but for other authors, it has a relative or situational character (Damanpour & Schneider, 2006; Tornatzky & Fleischer, 1990). Following Van de Ven (1986), most innovation studies adopt a firm-level definition of newness: New practices, processes, structures, or techniques are MI when they are perceived as new by the organization and its members "even though [they] may appear to others to be an 'imitation' of something that exists elsewhere" (Van de Ven, 1986: 592). Third, MI is multidimensional, including practices, structures, techniques, and processes. Fourth, MI is intentional, designed to further the organization's goals, such as economic, social, or environmental performance. Fifth, MI has a process nature, spanning two subprocesses. That is, MI is first generated (generation

[2] Between 2010 and 2012, 27.5% of EU innovative firms with 10 or more employees introduced a MI; 23.7% introduced product innovations, and 21.4% offered process innovations. This information was issued by EUROSTAD, the statistical office of the European Union, based on CIS 2012.

process), and then adopted by the generating firm or any other (adoption process) (Damanpour, Walker, Chen, & Aravind, 2014). We focus on the adoption process.

1.2. EMPLOYEE-DRIVEN INNOVATION (EDI) AS MI

Practical forms of MI are diverse, such as total quality management, just-in-time production, quality circles, lean management, 360-degree feedback, divisional (M-form) structures, or employee-driven problem solving (Birkinshaw et al., 2008; Damanpour & Aravind, 2012a; Hamel, 2006). Another version of employee participation also has emerged from firms' experiences with innovation: EDI which should not be confused with continuous improvement practices, because it involves discontinuous change and can be a source of incremental or radical innovations (Kesting & Ulhøi, 2010; Teglborg-Lefèvre, 2010). Following

Hamel (2006), as the Whirlpool example, EDI can be defined as "an objective of innovation from anyone, everywhere. Research on EDI is still minimal (Kesting & Ulhøi, 2010), but a review of the few studies on this topic suggests three components (philosophy, principles, and practices) that define its structure (Mamman, 2009). Its philosophy is based on the idea that all employees have capabilities for innovation, such that the potential needs to be recognized and exploited to intend achieve goals and competitive advantages (Kesting & Ulhøi, 2010). The direct participation of employees is a core principle of EDI. Employees systematically and actively contribute to the generation and implementation of significant new ideas, products, or processes that might create value when implemented (De Spiegelaere & Van Gyes, 2012; Kesting & Ulhøi, 2010; LO, 2007). With EDI, innovation emerges from "ordinary" employees, non-specialists or specialists, across the firm's divisions, regardless of their educational or sectoral background (Kristiansen & Bloch-Poulsen, 2010). The managerial and organizational practices associated with EDI include innovation challenges or idea management systems with rewards; involvement in innovation activities, such as units composed of engineers and employees who specialize in a specific product; meetings involving all employees to cover pertinent subjects (e.g., improvements to the daily work area); brainstorming sessions and idea workshops; posters inviting input on different subjects; a network of facilitators who help employees formalize their ideas; encoding committees that decide whether ideas are really innovative; and intranet applications (Hallgren, 2008; Harvey, Naggar, Cohendet, & Simon, 2013; Teglborg-Lefèvre, 2010). Other managerial practices can complement EDI too, such as an innovation category in annual appraisal forms; systems of

incentives, rewards, and symbolic recognition linked to ideation; training courses on innovation and creativity; or the provision of time and facilities to collaborate on an innovation (Teglborg-Lefèvre, 2010).

Table 1. Employee-Driven Innovation as a Concrete Form of MI

MI Features	Employee-Driven Innovation
Distinction from technological process innovations	No technological elements as such
Newness	Perceived as new by the firm and its members
Multidimensionality	• Main managerial practices and processes: challenges for innovation and intermediary processes fostering employee's creativity and innovation. • Complementary managerial practices: innovation included in annual appraisals, systems of incentives and rewards, training courses on creativity and innovation, times and facilities provided to participate in collaborative innovation work. • Organizational structures: network of facilitators, encoding committees.
Intentionality	Intended to generate technological and non-technological, incremental and radical innovations.
Process nature	Can be generated or adopted by the firm

II. FROM ADOPTION TO ADAPTATION OF MI

By developing a processual view of MI adoption and challenging existing models, we seek a better understanding of the uncertain transition from the decision phase to the routinizing phase (Damanpour & Aravind, 2012a; Damanpour & Gopalakrishnan, 2001; Hamel, 2006; Madrid-Guijarro et al., 2009; Scozzi & Garavelli, 2005; Zbaracki, 1998).

2.1. GAPS IN THE RATIONAL PERSPECTIVE ON MI ADOPTION

When the MI adoption process is depicted as identical to the process of technological innovation (Damanpour & Aravind, 2012a), the innovation adoption, whatever the type, consists of four phases (Damanpour & Schneider, 2006; Damanpour & Wischnevsky, 2006; Klein & Sorra, 1996; Meyer & Goes, 1988; Rogers, 2003; Wolfe, 1994):

(1) *Initiation* activities that pertain to becoming aware of a problem, recognizing a need, searching for existing innovation, seizing opportunities, evaluating their costs, benefits, and suitability, and recommending the best ones.

(2) *Decision*, or evaluating the proposed solutions from different points of view (financial, technical, human, strategic perspectives) and allocating resources.

(3) *Implementation*, which consists of activities, events, and tactics that pertain to the internal actors' acceptance of MI, being skillful and committed in its use, adapting (parts of) it until it becomes an organizational routine.

(4) *Routinization* of new practices.

Most innovation adoption models stem from this rational perspective, implying a simple sequence of rational activities that occur relatively automatically. In this view, firms adopt MIs so that they can become more efficient. Top managers decide to adopt MIs to address a specific problem or need that already has been identified, then champion their implementation. Studies from this perspective accordingly focus on the actions of top managers in their organizational context (Damanpour, 1987; Damanpour & Schneider, 2006; Kimberly & Evanisko, 1981).

However, MI adoption may be less linear, rational, or automatic. Rather, it involves a complex, collective, systemic, long, and knowledge-intensive process, with uncertain phases (Damanpour & Aravind, 2012a; Damanpour & Gopalakrishnan, 2001; Gondo & Amis, 2013; Hamel, 2006; Madrid-Guijarro et al., 2009; Scozzi & Garavelli, 2005; Zbaracki, 1998). The dominant view that adoption stems from rational, conscious decisions has narrowed understanding of MI adoption (Gondo & Amis, 2013). To expand that view and open the black box, we consider human agency.

2.2. Cultural and Institutional Perspectives on MI Adoption

Both cultural and institutional perspectives of adoption provide another perspective and more nuance than a purely rational view. They also take the role of all internal actors who participate in the adoption process into account and recognize that MI rarely occurs or succeeds without adaptation.

A cultural perspective assumes that organizations do not change easily, especially because MI adoption has both rhetorical (symbolic purpose) and real (technical) components. Therefore, the outcome of MI adoption rarely meets the expectations of the top managers who decided to adopt it (Birkinshaw et al., 2008; Zbaracki, 1998). To understand this variation, a cultural perspective emphasizes how MI shapes and gets shaped by the organization culture in which it is adopted, according to the point of view of all the actors who participate in the process. An empirical study dealing with this topic thus shows that discourse about MI by top managers can be optimistic, even when the depth of its infusion into the organization is minimal (Zbaracki, 1998). Integrating MI into daily routines remains a persistent problem, endangering its continued sustainability and implementation. Zbaracki (1998) also notes that the rhetoric and reality of MI both change interactively. Rhetoric in support of MI by top

management can generate a counter-rhetoric opposing MI, and both forms contribute to social construction.

The institutional perspective instead assumes that organizations are affected by institutional factors, such as pursuit of legitimacy, conformity to external pressures, or mimetic behavior (DiMaggio & Powell, 1983). The underlying school of thought was inspired by Ansari et al. (2010) discussion of the diffusion and variation of MI (Volberda et al., 2014). Therefore, a particular MI can be adopted through imitative behavior, for symbolic reasons and in the search for peer and stakeholder legitimacy. For example, management fashion theory, as built on institutional theory, accounts for the discourses and rhetoric surrounding MI institutionalization (Abrahamson, 1996). This rhetoric can be shaped by external actors (consultants, academics, media), then echoed by internal actors. Furthermore, adaptation is an essential aspect of the implementation phase and likely to be the rule more than the exception (Ansari et al., 2010; Mamman, 2009). Adaptation is the process by which an adopter tries to create a better "fit" between the new practice and the needs that initiated the adoption process, as well as the objectives and structure of the adopting organization (Ansari et al., 2010). Adaptation may change the practice, the organization, or both (mutual adaptation). It generally stems from a lack of technical, cultural, or political "fit" between newly adopted practices and their context (Ansari et al., 2010). Technical fit refers to the degree to which the characteristics of the practice are compatible with the technical base of the adopted firm. Cultural fit is its compatibility with the cultural values of the adopted firm, and political fit pertains to the connection of the practice with the interests, power structures, and agendas of members and dominant coalitions in the adopted firm (Ansari et al., 2014).

Although new management practices might be "made to fit" the specific context of the adopting firm, the adaptation of practices remains a neglected phenomenon. Rather, studies consider innovation diffusion processes at the inter-organizational level (Ansari et al., 2014) or investigate the adoption decision without noting adaptations to the adopted practices during and after the decision (Wolfe, 1994) or the role of the various actors (board members, managers and staff) in this process (Ansari et al., 2010; Bromley, Hwang, & Powell, 2012). In intra-organizational settings, most studies focus on the specific case of multinational companies, to understand adaptations to practices as they diffuse throughout the world (Ansari et al., 2014; Kostova & Roth, 2002). Many questions thus remain unanswered. Even if "to adopt is to adapt" (Akrich et al., 2002), organizations and their board members might

exhibit two different types of behaviors: They might discourage "undesired adaptations," to avoid damaging the integrity of new management practices, or they might strive to encourage "beneficial adaptations" to increase practical effectiveness or facilitate adoption (Canato, Ravasi, & Phillips, 2013; Posen, Lee, & Yi, 2013). However, our understanding of what really happens within organizations that adopt new organizational and managerial practices remains poor (Gondo & Amis, 2013); in particular, we do not know who is behind the adaptations or how they are identified, accepted, or rejected. Therefore, a more fine-grained assessment of organization-level practices related to adoption and adaptation is necessary to describe the roles of different actors (board members, managers and staff) in these processes.

III. METHODS

Our empirical approach is based on a single case study from the Hydroelectric Engineering Centre (CIH) of EDF, one of the largest power companies in Europe. We studied its EDI adoption process over a period of five years, between 2011 and 2014.

3.1. RESEARCH CONTEXT

As the world leader in nuclear power and the European leader in hydroelectric power,[3] EDF is a wholly integrated group, active in various realms, including research, engineering, production, transportation, distribution, trading, and sales of energy. It operates in an environment subject to high uncertainties due to energy transitions,[4] market regulations, new entrants from the digital sector, increased competitive pressures at an international scale, and changing consumption norms. In this challenging and uncertain context, EDF pursues research and development (R&D), with a budget of 650 billion euros invested in 2014 (+ 2.7% compared with 2013) and more than 2,125 researchers.

We focus on its CIH, which exploits hydroelectric power plants and large dams to produce 8% of EDF's total electricity production. CIH is made up of 7 sites in France, the main one creating in 2000 in Savoy, in the French Alps. CIH counts nearly 950 experts, among which 500 in Savoy, responsible for developing and producing new equipment and keeping existing dams and power plants in operation. Similar to its parent company, CIH faces critical issues

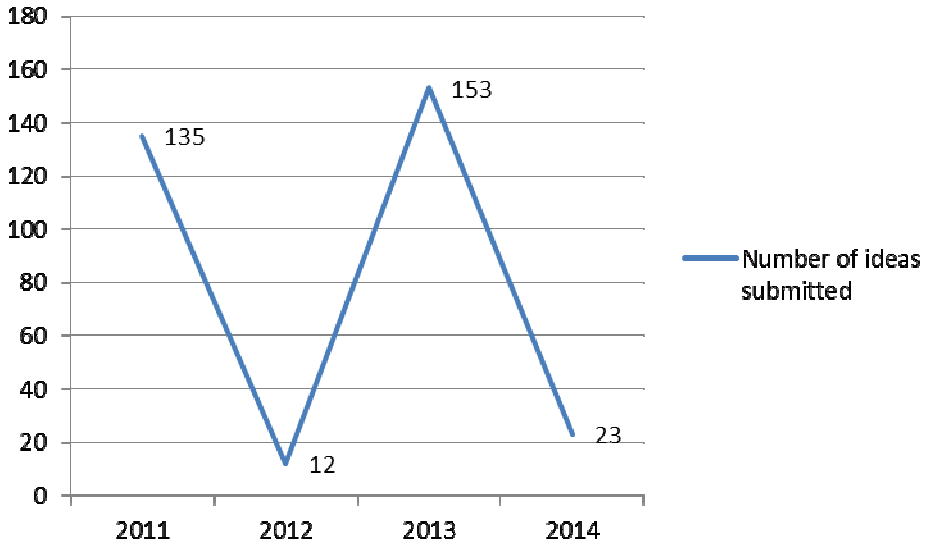
[3] In 2014, EDF's turnover amounted to 72.9 billion euros (+1.3% compared with 2013), 70% of which came from France, where the salaried staff included more than 158,000 employees.
[4] The energy transition law aims to reduce CO_2 emissions by 75% by 2050, with a 40% reduction relative to 1990 levels by 2030.

related to growing competitive pressures, energy transitions, changes in the regulatory framework, and the tendering of hydro concessions. Specifically, 50% of the French fleet is based on licenses whose due date is between 2020 and 2045. According to a member of the Executive Committee of the EDF CIH whom we interviewed in 2015, "these contextual elements have led us to promote employee-driven innovation practices."

3.2. Data Collection and Data Analysis

A longitudinal case study is justified because of the complexity of the research object: the adoption process surrounding EDI. This method is particularly suitable for studies focused on "how" questions (Yin, 2009) and the evolution of a situation over time(Langley, 1999; Langley, Smallman, Tsoukas, & Van De Ven, 2013). We selected the case of CIH because it offers a rich potential for discoveries during a period of about five years (2011–2015). With sequential quantitative and qualitative approaches, we sought to increase the validity of the research (Miles & Huberman, 1994). First, we created a database of the ideas submitted, from the decision to adopt the EDI in 2011 until December 2014. This quantitative information enabled us to reconstruct various time intervals over the progressive EDI adoption phases and articulate its evolution over time (Pettigrew, Woodman, & Cameron, 2001). Specifically, 135 proposals were submitted during the first challenge in 2011. Encouraged by this success, CIH pursued the effort further, with a second innovation challenge in 2013. The 2013 challenge produced a similar effect, with a slight increase in the number of filed ideas (+13%) (Figure 1).

Figure 1. Number of ideas submitted through EDI during 2011–2014 period



Second, we conducted 31 qualitative interviews between October 2014 and March 2015 (see Table 2). The informants were all internal actors, namely, employees of the CIH who actively seek to create interest in and experiment with EDI adoption (Birkinshaw et al., 2008). They represent four categories of employees, with varying degrees of involvement in EDI practices, levels of expertise, hierarchical positions, and length of employment. Among these internal actors, facilitators named "hynov'actors" are in charge of encouraging employees to submit ideas and experts (E) have the task of selecting and promoting the most promising ideas that are generated by employees (Employee-innovators). Both internal actors can be "Employee Innovators" whatever their status or roles.

Table 2. Interviews with internal actors

	Top Management	**Middle Management**		**Employees**
	Steering Committee	Facilitators or Hynov'actors	Experts	Employee-innovators
Semi-structured interviews	4	12	8	7

Most informants were present in the firm for the initial introduction of EDI and could provide a rich chronological account of the evolution of organizational and managerial practices. The interviews lasted an average of 1 hour and 15 minutes, and they were recorded and fully transcribed, yielding a transcript of 478 pages. The semi-structured interviews followed a structure we developed in advance that covered seven themes: (1) the informant's profile and role in the organization; (2) perceptions of innovation at CIH; (3) the emergence of the innovation strategy, particularly through the EDI process and practices, (4) the informant's experience, attitude, and behavior toward EDI; (5) levers and barriers to involvement in the process; (6) EDI management, actors involved, and their roles; and (7) an assessment of challenges in 2011 and 2013, as well as expectations for the 2015 challenge. The interviews provided an in-depth understanding, obtained from broad ranks of rhetoric and experience with EDI. The thematic coding we used in turn included the following main categories from prior literature: stages of the EDI adoption process, nature of the process (top-down vs. bottom-up), rhetoric/reality, external pressures, misfits, role of different actors in the process, adjustments, and adaptations of EDI practices. A graphic mapping method (Langley, 1999) facilitated our understanding of the process dimension. Using a timeline, each informant identified the stage of the EDI adoption process reached by CIH. Finally, we collected secondary data, such as formal procedures established by the CIH during the two challenges

that were available to employees on the company's intranet, published plans that set broad guidelines for the group, annual activity reports, and minutes of internal meetings.

IV. FINDINGS

We find that EDI is perceived not as a continuous process but rather as the succession of one-off events. Few respondents defined EDI according to its processual dimensions; many of them instead cited the distinct 2011 and 2013 challenges. No one mentioned the preparation for 2015 spontaneously, and some informants expressed doubts about this forthcoming event. Thus, EDI is not regarded as a process or, by definition, a never-ending element. The near unanimity of the informants implies that EDI has just reached the *use* phase, despite two innovation challenges already having been organized. Beyond mentioning challenges, the respondents offered few ideas or innovations, indicating that EDI is not fully integrated into their daily routines. As shown in Figure 1, innovative ideas drop off when a challenge is not taking place.

4.1. Discrepancy between Rhetoric and Reality

We find a large gap between rhetoric and reality in this case. Multiple discourses emerge, including encouraging and symbolic comments from top management (steering committee) to promote EDI, but also skeptical communications from employees and middle managers (experts and facilitators). This gap spans three main facets.

First, the rhetoric from the steering committee, composed of four top managers, consists of high-flying promises of commitment, contradicted by daily, harsh realities. Archival evidence, correspondence, and memoranda confirm that EDI is not a strategic concern in reality- a status that our informants corroborated. Innovation is not part of the core business strategy, which instead is oriented more toward security, safety, cost, quality, and lead times. In reality, few resources are dedicated to EDI, as also evidenced by the exclusion of innovation from the medium - to long-term plans of CIH or the individual performance objectives assigned to employees. Although increasingly competitive markets are acknowledged as a fact, they are not perceived as a threat that demands a clear strategic orientation or a real innovation policy.

> *Strategic priorities…, I define them through the "performance" project. This is to keep our technical quality, expertise, improving quality, cost and lead time. (Hynov'actor, 2015/02/28)*

> *In terms of strategy, it is probably still a little diffuse. I am ready to bet that this is not something really shared. There is no place in our management repository or somewhere else where they say, "because the CIH innovates and such." That does not exist, and somehow we miss it. (Steering committee member, 2015/01/15)*

Second, rhetoric increases during the challenges, then loses power in the intermediate periods. This phenomenon led some respondents to assert that EDI is more symbolic than real and that CIH ceremonially adopts EDI, without anchoring innovation in its daily practices.

> *It is not factual; it is rather "we produce what is asked of us at one point"; it's not something anchored.... (Expert, 2015/03/11)*

> *When I read the slogans saying, "Innovation is in the CIH genes," it makes me makes me laugh, because it is only communication, and it has nothing to do with reality. Innovation is not in the CIH genes, because EDF is a big business that lives well because it lives on a quasi-monopoly. (Expert and Employee innovator, 2015/03/05)*

Third, as a consequence, rhetoric encourages daily activities based on standard internal procedures that are not well known or used; standardized, preprinted documents that even might discourage initiative; and committees that meet irregularly and more frequently only during the challenges. According to most informants, the standard procedures are too long to read and restrictive. The instrumental approach of EDI aims to arouse employees' involvement in creating innovations, but the associated procedures and decisions are designed with a top-down approach, without true co-construction. At this stage, EDI looks more like a set of administrative procedures than a reality rooted in the organization.

> *When someone asks me what to do, I open the document with the procedures ... it's tiring to read for them. If they want to know how I did my first innovation, it takes five minutes. But reading a procedure, I don't know … it's easier to ask colleagues, it goes faster. (Hynov'actor and Employee innovator, 2015/02/28)*

Beyond the gap between rhetoric and reality, our results reveal that different rhetoric about EDI flows throughout the organization, reflecting the various members' experiences. This variety leads to diverging perceptions that also generate multiple discourses. At the top management level, the rhetoric is based on the successes of EDI, highlighting the growing number of ideas and innovations submitted. Discourses and written documents point to these successes, without mentioning any failures. At the middle management and employee levels, internal actors instead are less enthusiastic in their rhetoric and signal three main sources of frustration.

The first pertains to the lack of resources available to help them develop ideas or innovations, even after those ideas were selected and rewarded by the steering committee. A lack of time and financial resources are obstacles to the emergence and development of innovations; they

also are interpreted as a lack of strategic commitment. Top management might preach innovation values, but the development of innovations and their adoption and diffusion throughout the organization is not part of the strategic plan. Therefore, our informants believe that the company exhibits the shell of innovation, without any a true will.

> *I would like, for those who launch an innovation, to earn a credit of hours, at least a credit that can be integrated into their workload.… For me, it was part of a project, but now I am no longer on this project, so I continue, I do this on my [day off], let's say, because I'm motivated, I want to do it. (Hynov'actor and Employee innovator, 2015/02/208)*

> *To develop innovation, we need to give them "free areas," in quotes. For the moment, they get to develop things, but always in the context of their daily work. As soon as they think "innovation," for them it is a constraint too. (Hynov'actor, 2015/03/05)*

A second disappointment relates to the selection of submitted ideas. According to several informants, members of the screening committee (i.e., experts and members of the steering committee) lack the skills needed to judge the relevance of ideas and innovations. The criteria used for the screening are not clearly explained or shared. Even some experts who participate in the screening process note doubts about its quality. Therefore, employee-innovators do not want to participate in new innovation challenges, which they regard as a masquerade.

> *It made me ask question: "Does the jury have really the ability to judge this or that idea?" I don't think so because they don't really know the subject thoroughly. It should have been discussed with each promoter of a new idea for one to two hours. And then discuss between us. (Expert and Employee innovator 2015/03/05)*

Finally, a third frustration is due to the lack of explanations for why an idea has not been selected and the lack of timely feedback. This element dissuades potential innovators from re-entering the EDI program in the future. It also increases skepticism that can lead to anti-EDI rhetoric.

> *Some ideas are rejected without explanations. In this company, there are people who do not see things as we do. Perhaps, in addition to email, a message saying such as, "no, we did not take into account* your idea for such or such reason." Without that, that means "your proposal is worth zero" (Employee Innovator, 2015/03/11)

> *I confess frankly, if there is a challenge in 2015, I do not really want to participate. (Expert, EI rewarded, 2015/02/28)*

However, some internal actors argue that EDI is going in the right direction and express hope, because innovation was not present in any discourses prior to the adoption of this MI. In this sense, rhetoric could encourage reality in the future.

4.2. CONTINUOUS VERSUS DISCRETE EDI ADOPTION PROCESSES

These frustrations also stem from a lack of managerial resources dedicated to EDI. The steering committee consists of a strategic manager (deputy director), an operational manager

(Chief of Risks and Sustainable Development), a special innovation representative and a communication officer. The composition of this committee itself signals the (lack of) importance of EDI, in that only two members (special innovation representative and operational manager) are really active in innovation. Many informants perceive that the special innovation representative struggles alone, because EDI is not integrated into CIH's strategic priorities. Her role also is mainly administrative: She designs the EDI procedures and submits them to the operational manager, receives forms containing employees' ideas, ensures follow-up on the submitted ideas (alone, which may explain the slow feedback), and coordinates the hynov'actors network in an administrative sense.

> *I think about XX and YY (special innovation representative and operational manager) for whom this is one of their missions. They try to struggle, to make what they can. (Expert and Employee innovator rewarded, 2015/03/05)*
>
> *In CIH, the innovation arrived in a little bit administrative way. (Expert, 2015/02/27)*

In addition, over time and various periods, the involvement of top and middle management varies greatly. During challenges, management is very involved and encourages individuals and teams to participate.

> *We were strongly encouraged to play the game, to participate in this challenge. But who encourages us? My superiors, obviously. (Employee innovator, 2015/03/11)*

In contrast, managers were reluctant to encourage collaborators during the non-challenge periods and instead reminded them of other priorities. Thus, employees had little motivation to devote time or effort to innovation, which would offer them no work-related benefits. Only employees with a strongly innovative or creative spirit—that is, intrinsic motivation—submitted ideas.

> *The CIH doesn't want to recognize the value of the innovations we develop, because innovation is not part of its business model. So we are in a rather paradoxical situation, where on one side we have substantial R&D resources, but on the other side, when I tell my manager, "my research project led to some results that can be implemented now," I feel a wall go up. I come from the planet Mars. (Expert, 2015/05/03)*
>
> *We have such pressures from our hierarchy that we rank innovation activity second. Our managers call us to task, "you're in late," so there is simply no question of us spending time for innovation. All in all, innovation disappears. (Expert, 03/05/2015)*

After the first challenge, CIH top management wanted to go further and develop a physical relay, formed through the creation of a network of 40 facilitators named "hynov'actors," whose role would be to encourage employees to submit ideas, then help them formalize those ideas on a simple, preprinted document. A hynov'actor was identified in every department. They could be the head of the department but did not have to be. In our interviews though, the

great majority of hynov'actors indicated that they did not really know their own role, had no mission statement, and dedicated no time to promoting innovation. The network therefore did not drive the EDI process, especially when no challenge was taking place. They anticipate great difficulties assuming these roles, particularly if they also are service chiefs or deputy service chiefs because they set themselves other priorities. Inventors confirm this "indifference of the hierarchy," suggesting that they feel external to the process, unless they take an individual initiative that is neither shared nor diffused.

> *Today, the innovation process is driven mainly, for me, by two members of the executive committee. And I do not put myself in, because, in theory, the time which is assigned to me for this mission is 70 hours in a year over 1600 hours: it's marginal. This is the icing on the cake, but when I finished making the cake, it is past seven in the evening. (Hynov'actor, 2015/02/27)*

> *Even if there is some communication in the network, it remains confidential and we still don't know what makes this network. The proof: I don't know if I am or not a hynov'actor!! (laughs) (Expert and Employee innovator, 2015/02/27)*

Overall, the EDI approach thus is lacking any managerial relays or collective and collaborative work. The distribution of the internal actors' roles remains obscure, and confusion is common.

> *Concerning the levers, I think that the management is a crucial one. Managers would recognize the values of innovation proposals. But above all, top and middle managers must get involved in the process. I would say that within each service, we would welcome innovation as well as all proposals. (Expert, 2015/03/11)*

4.3 Political, Cultural, Technical, and Structural Misfits

Commitment from top and middle managers appears especially important when we consider the incompatibilities and misfits highlighted by our informants.

4.3.1. Political misfits.

Innovation is not one of the first five priorities listed of CIH "performance project". As a result, while the EDI approach is mostly perceived as a top-down directive, it is not supported by the strategy nor integrated in the strategic priorities. Many managers were thus reluctant to accept, encouraged their collaborators in the innovation stream. On the contrary, they were quicker to remind their collaborators, the priorities on which innovation was not at all part. Thus, there was little motivation among employees to spend time and effort into innovation which will bring nothing to them. Only the employees having an innovative or creative spirit or, in other terms, some intrinsic motivation, may submit ideas of innovations which have been developed in any circumstances.

> *In fact, the CIH doesn't want to recognize the value of the innovations we develop because innovation does not make part of its business model. So we are in a rather paradoxical situation where on one side we have substantial R&D resources but on the other side when I see my manager saying "my research*

> *project led to some results that can be implemented now", I feel a wall go up. I come from the planet Mars.*" (Expert and Employee innovator, 2015/05/03)

4.3.2. Technical misfits.

At CIH, technology is regarded as the primary and sometimes the only domain for innovation, whereas EDI is not recognized as an innovation, because it comprises no technological elements. Some informants were surprised to learn that innovations related to new managerial solutions had been submitted. They also tend to think that only certain services or departments (i.e., the most technological ones) can submit ideas, as if innovation were reserved for engineers and technical experts.

> *What helps, I think, is that we have people who are very curious about everything. So they are willing to innovate and test new technical methods. They are interested in a lot of different technical areas. (Hynov'actor, 2015/05/03)*

> *I think that the departments located in the Bourget [the name of the main site] develop, by nature, a high level of expertise. They are more involved in innovation activity than us, especially some business areas such as control systems, which develop digital solutions at the core of innovation activity. (Hynov'actor, 2015/02/27)*

4.3.3. Cultural misfits.

The EDI philosophy, according to which innovation should emerge from the participation of any employee, seems discordant with the cultural context of CIH. First, the CIH has a non-innovative culture, rooted in safety and security, which can be counterproductive for innovation. If a solution works completely safely for a long time, it will be retained forever. In this culture, people tend to be suspicious of new and unproven technologies.

> *Culture already takes a large part of the explanation; we are still and always working with the same tools. Innovate also means creating new things. And it's hard for us, because the facilities, the dams—they are already in place. (Employee innovator, 2015/03/11)*

> *On the one hand, we are inside EDF, and even more properly in the production of energy, an area where we are very conservative. People are very suspicious of new technologies. And it takes a very long time to introduce technologies that have existed for quite a few years. (Expert, 2015/03/11)*

Second, CIH has a strong job culture, organized around specific activities in a compartmentalized way, which also can discourage innovations. Each activity also has specific cultural aspects, which may be more or less receptive of innovation.

> *Before the challenges, innovation did not exist. Well, I speak for the control command department. If we look at the civil engineering department, they do not have the same culture at all. They have a much more scientific mind, they hire PhD students, etc. We do not have PhD students in our department. (Expert, Employee Innovator, 2015/02/27)*

4.3.4. Structural misfits.

This last misfit reveals another incompatibility, related to structural characteristics. The organizational structure of CIH is clearly divided, into independent units, and its sites are

geographically dispersed. Informants report a strong compartmentalization, without any transversality that can be conducive to the emergence of innovations. The geographical distance across different sites tends to be interpreted as an obstacle to the implementation of EDI. For example, it makes meetings of the hynov'actors network more difficult, such that hynov'actors who do not work at the main site might lose their sense of commitment. Furthermore, certain CIH members worry about their distance, because it prevents them from defending their ideas to the innovation committee or attend awards ceremonies even if their ideas get accepted.

> *Transversality is somewhat lacking. There is a great number of experts, with some distinctive skills and experiences, and what is sad is that everyone does a good job, but there is no direct confrontation, no interaction (Expert, 2015/03/05)*

> *I found that really it was not very well organized. During the last meeting of Hynov'actors, I ... I was running amok. Because these meetings are conference calls, it's not easy to organize such meetings that last two to three hours, where there are different speakers. After one hour, it was almost structured, and we had some shared experience. And then, very quickly, a Bourget communication group develops, let's say, local people. We return to our PCs and start doing something else. (Hynov'actor, 2015/06/05)*

Overall, these misfits reinforce the difficulties of anchoring EDI as a sustainable process. Instead, some employees regard EDI as a constraint.

> *It's the same principle as the quality approach that is not anchored (Steering committee member in charge of communication, 2015/01/15).*

4.4. Difficult Adjustments to Individual Initiatives

To create a better fit between EDI and CIH's characteristics, adaptations seem necessary. But a prerequisite for adaptations is the capacity of management to identify misfits, then implement appropriate changes to EDI practices, the organization, or both. Thus far, we find few adjustments to the EDI process, some of which came from the steering committee. However, others resulted from individual initiatives that were not necessarily recognized by the steering committee, such that they have not been legitimated or diffused.

At the steering committee level, the main adjustment has been the launch of the hynov'actors network, just before the second innovation challenge. It aimed to reduce the cultural and technical misfits by raising employees' awareness, even though innovation remained separate from CIH culture. Its role also was to overcome a purely technological view of innovation, by encouraging employees to submit all types of ideas and innovations. Although this network has not been as active as expected, it has prompted some changes in beliefs and behaviors.

> *It is the hynov'actor who told me, "go ahead, propose this idea."… When we did brainstorming, I did not submit this idea, because I thought it was not sufficiently technical…. But now, I admit that*

> *innovation can also be not technical … this idea has not gone without reward! (Expert and Employee innovatorrewarded, 2015/02/28).*

The individual initiatives are very few. On their own initiative, some hynov'actors organized brainstorming sessions to help encourage ideas from all fields, technical and non-technical. But this kind of practice is delicate to manage without coordinated efforts and information sharing. Still, this adjustment has sought to reduce misfits.

> *For example, I made a general brainstorming ... it was a personal initiative.... I remember that it was a second part of a department meeting, we had played a game (…) and this worked pretty well. But I have never spoken about that except in my department.... Yes, it's certainly a pity, but I have never thought of speaking about in the Hynov'actors network. (Hynov'actor, 2015/03/05)*

V. DISCUSSION AND CONCLUSION

In this research, our aim has been to open the black box and determine what happens in an organization during an MI adoption process. We conducted an emblematic, longitudinal case study to define internal actors' roles in driving and sustaining the MI adoption process over time. This approach is particularly relevant to research on MI, because it enables us to emphasize the role of human agency (Volberda et al., 2014), and it focuses on different categories of internal actors all along the hierarchy, not just on top managers (Damanpour & Schneider, 2006; Kimberly & Evanisko, 1981; Tanninen, Jantunen, & Saksa, 2008; Young, Charns, & Shortell, 2001).

An instrumental, technology-based view of MI adoption from the rational perspective provides some valuable insights (Birkinshaw et al., 2008; Damanpour & Aravind, 2012a), but it underestimates the social dimension and the role of various actors in driving MI adoption processes (Ansari et al., 2010; Ansari et al., 2014; Gondo & Amis, 2013). By taking both cultural and institutional perspectives on innovation adoption, we investigate EDI as a practical form of MI, as it has been adopted and adapted by the internal actors of EDF's CIH. Through its emphasis on internal actors' roles, this research explains why MI has not been routinized at the intra-organizational level yet. In particular, our results show that internal actors have significant roles related to discrepancies between rhetoric and reality, discrete versus continuous MI processes, and different misfits (cultural, political, technical and structural).

In addition, our research depicts the scope of an approach that considers the process from a multi-actor, non-mechanistic perspective. In most studies, internal change agents are assumed

to be a homogeneous group of actors with similar roles (Birkinshaw et al., 2008). Our case study contests this assumption by showing that various internal actors play differentiated roles in driving MI adoption. With these contributions, we gain a better understanding of obstacles to transitions across phases during the MI adoption process, as well as the differentiated, interdependent roles of internal actors in the effort to overcome these obstacles.

5.1. Discrepancies and Misfits as Core Obstacles

We identify two sets of related obstacles to MI adoption—that is, problems that prevent, stop prematurely, or slow down the innovation process (Galia & Legros, 2004; Mohnen, Palm, Van der Loeff, & Tiwari, 2008). The first set of obstacles results from discrepancies between rhetoric and reality. In line withZbaracki (1998), we find tensions between the technical relevance of EDI and the reality of its use. Top managers spread rhetoric to gain internal and external legitimacy but without ensuring the necessary (organizational, financial, human, time) resources. Despite the symbolic and encouraging rhetoric emanating from top management, innovation continues to be external to CIH's strategy. Therefore, MI adoption is perceived as a myth and ceremonies rather than a reality by most employees, which constitutes a major obstacle to the real and continuous use of MI. Furthermore, employees develop skeptical attitudes and counter-rhetoric about MI, which is counterproductive for routinizing processes and slows down the diffusion or anchoring of new practices associated with MI. Therefore, we establish Proposition 1 as follows:

> *P1. Tensions between rhetoric and reality are negatively associated with the transition from the implementation phase to the routinizing phase of MI.*

The second set of obstacles relates to political, cultural, technical, or structural misfits. Harvey et al. (2013) note the need to link EDI adoption processes to the firm's strategic orientations, to overcome paradoxes that can discourage implementation. We deepen and refine this result by identifying other important sources of misfits that serve as serious impediments to the sustainability (routinizing phase) of EDI. Ansari et al. (2014) suggest that political, cultural, and technical misfits trigger adaptations; we show though that it is not an automatic process. Various incompatibilities slow down the adoption process, because they have not been identified by internal actors (i.e., top management) or accepted and legitimized even after they are identified. Without identification and acceptance of the reality of these misfits, the adaptation process cannot really advance. Awareness of these obstacles to MI

adoption represents a first step in dealing with them, as similarly indicated in research into more traditional obstacles to technological innovations (Baldwin & Lin, 2002; Hadjimanolis, 1999; Tourigny & Le, 2004) . We extend these results to MI, which has not been subject to extensive study, and show that even when adjustments arise, they rarely are perceived by top management. This finding reveals the limitations of a purely bottom-up approach, especially if top management exhibits a lack of strategic commitment. Thus, with Proposition 2, we assert:

> *P2. Political, cultural, technical, and structural misfits are negatively associated with the transition from the implementation phase to the routinizing phase of MI.*

Tensions between rhetoric and reality also can reinforce the difficulty of identifying existing misfits and then creating better "fit" between MI and actual needs of the firm. The willingness of top management to generate ceremonial, symbolic rhetoric around MI to support its implementation may have all sorts of unintended consequences. First, as noted previously, their discourses spread to multiple audiences, with various experiences of MI, and some of them catalyze counter-rhetoric from employees who seek to express how their realities differ. Both types of rhetoric contribute to the social construction of MI (Zbaracki, 1998), but they highlight misfits that are important to assess rather than deny. Rhetoric that denies reality even may discourage MI use, which suggests an extension to the three relationships between rhetoric and reality proposed by Zbaracki (1998) (i.e., rhetoric defines reality, rhetoric encourages reality, rhetoric shapes perception of reality). Second, powerful tensions between rhetoric and reality tend to amplify or encourage misfits. If discourses are incompatible across departments or if they deny some actor's reality, they amplify structural misfits and discourage links across departments. As a complement to Zbaracki (1998) results, we reaffirm the need to take the role of rhetoric explicitly into account to understand the MI adoption process, spanning the entire range of relationships between rhetoric and reality on the one hand and the tensions of rhetoric–reality and counterproductive misfits on the other hand. We thus formulate Proposition 3 as follows:

P3. Tensions between rhetoric and reality and misfits tend to reinforce each other over time.

5.2. Differentiated Roles of Internal Actors to Overcome Obstacles to MI Adoption

Implementing an MI such as EDI requires everyone to be open to new ideas and share knowledge. This is not the way innovation is managed traditionally though. To foster the MI adoption process, support from top management is crucial (Damanpour & Wischnevsky, 2006; Wischnevsky & Damanpour, 2006), because it helps create a culture and organizational capacity for change (Damanpour & Schneider, 2006, 2008; Elenkov & Manev, 2005; Kavanagh & Ashkanasy, 2006). In line with research on both innovation and leadership, our study reaffirms that top-level executives have profound impacts on MI (Elenkov & Manev, 2005). The connection between cultural change and top management is clear, such as in the accepted organizational culture perspective that indicates that leadership creates and manages culture. When they act as sponsors and display continuous, reiterated support along the different stages of the implementation, top managers contribute to the pragmatic, moral, and cognitive legitimacy of MI (Birkinshaw et al., 2008). In a cascading process, this support triggers the involvement of middle managers, which in turn determines the commitment of employees. The involvement of these different organizational levels thus is a key success factor for MI routinizing. Formally,

> *P4. A strong commitment of top management is positively associated with the successful transition from the implementation phase to the routinizing phase of MI.*

Although it is necessary (Damanpour & Wischnevsky, 2006), top management involvement is not a sufficient condition for MI routinization. Contrary to Daft (1978) claims, we find that MI cannot be implemented top-down, through centralized decision making across all adoption phases. As the EDI example shows, MI often changes the roles of internal actors, because innovation is no longer the sole prerogative of the R&D department. Rather, MI tends to be pervasive, in the sense that it requires changes to the administrative structure and organizational functions, including tasks and responsibilities, authority, and power (Birkinshaw et al., 2008; Damanpour, 2014). As our case study shows, top management must take actions to identify and introduce new roles for middle managers, facilitators, and experts. Employees need strong managerial support, along with the necessary resources to develop and maintain positive attitudes toward MI, especially because their benefits often are long-term, complex, incremental, and gradual (Damanpour, 2014). In the specific case of EDI, innovation is supposed to be a concern of all internal actors, regardless of their hierarchical

level, responsibilities, or job, and its spirit is supposed to be collaborative. Accordingly, so that employees can adhere to the innovation process and perceive benefits, by reaching the final stage of MI routinizing, a distributed form of management must recognize the inclusive and collaborative nature of the MI management process. A designated top-level executive can orchestrate the MI process, but on its own, top management cannot reshape the context or identify all the necessary adaptations for successful MI adoption. Managing the MI adoption process entails activities distributed across multiple internal actors. Although distributed leadership has been defined in various ways, without any clear consensus (Oborn, Barrett, & Dawson, 2013), broad agreement indicates that it emphasizes inclusivity, collectiveness, and collaboration. For Bolden (2011), following Groon (2002), distributed leadership "*offered the promise of a new 'unit of analysis' through which leadership could be understood in a holistic sense rather than simply as the aggregation of individual contributions* " (p. 252). Unlike focused leadership, it allows leadership functions (e.g., decision making) to be shared, such that the actions of any individual leader are less important than the collective leadership provided by multiple members of the organization (Gronn, 2002).

To cope with the obstacles to MI adoption, we further show that interdependent, coordinated roles adopted by different internal actors (which are properties of distributed leadership) (Gronn, 2002) are significant factors. In our case study, internal actors' roles overlap and are complementary. As we show in Table 3, to overcome the tensions between rhetoric and reality and various misfits, employees and middle and top managers all take actions to reshape or adapt the context, in an effort to routinize the new organizational and managerial practices. For example, employees experiment with new realities using new practices, and their diverse experiences generate forms of rhetoric that might support or question MI, though all are crucial to its social construction. We adopt a view of distributed leadership consistent with Denis, Langley, and Sergi's (2012) and Gronn's (2002) definition, which focuses on its collective nature. That is, leadership roles span various individuals, at the same or different hierarchical levels. For example, middle management serves to identify various realities and rhetoric, then informs and encourages top management to adapt and align its own rhetoric and the global strategy to make it consistent with reality. This distribution of roles is not exclusive to top positions. In particular, employees generate necessary adaptations to bypass the constraints of formal authority, and middle managers must identify those adaptations to help legitimate and diffuse them. In line with Denis et al. (2012), we thus emphasize the need for

differentiated, complementary roles in leadership groups and propose that, reflecting the distribution of leadership roles, the MI adoption process is both bottom-up and top-down.

Table 3. Distributed Leadership Approach to Overcoming MI Adoption Obstacles

	TENSIONS RHETORIC/REALITY	MISFITS
TOP MANAGEMENT	Rhetoric alignment with multiple realities	Adaptations' identification and legitimization
MIDDLE MANAGEMENT	Identification of multiple rhetoric and realities	Adaptations and adaptations' identification
EMPLOYEES	Counter-rhetoric or supporting rhetoric, depending on experiences	Adaptations

Because distributed leadership might not only reduce discrepancies in the MI adoption process but also facilitate the transition from an implementation phase to a routinizing one, we formulate our fifth proposition as follows:

> *P5. Distributed leadership is positively associated with the successful transition from the implementation phase to the routinizing phase of MI.*

Finally, MI adoption changes the roles of executives, managers, and employees. Following spontaneous or intuitive, interdependent and coordinated role distributions, top management needs to institutionalize some formal structures, serving as a kind of leadership group headed by equals, instead of a traditional hierarchical system with "the lone chief atop a pyramidal structure" (Gronn, 2002: 430). The specificities of EDI and the diversity of employees involved suggest the need for a specific change management process that can (1) explain the nature of the change and reduce uncertainty (Birkinshaw et al., 2008), (2) communicate its characteristics and benefits, (3) engage relevant actors, and (4) overcome resistance due to the existing culture and values. Top management is responsible to establish a core monitoring team that encourages change, integrates different levels of the organization, and keeps people involved. This team in charge of MI adoption should mix different categories of actors: top management, but also middle managers and employees from different business units. This tactic likely is particularly important for the transition from the use phase to the routinizing one, because internal actors engage in trial and error and reflective experimenting while they implement new practices (Birkinshaw et al., 2008). However, to create a routine and for learning to occur, the MI team should encourage incremental, continuous exchanges among

employees and managers and manage the process differently than the steering committee did in our case (i.e., waiting for a radical innovation while doing nothing between the two innovation challenges). In a related note, further research should address the processes that link different organizational levels and provide micro-foundations for MI (Volberda et al., 2013). Thinking about management in a recursive manner is useful for learning, continually and over time, how to work with actors all along the hierarchy. We thus formulate Proposition 6 as follows:

> *P6. An inter-pares core monitoring team is positively associated with the successful transition from the implementation phase to the routinizing phase of MI.*

This case study shows that the MI adoption process is far from being automatic or purely top-down (Daft, 1978; Damanpour & Aravind, 2012a). With our fine-grained approach and cultural and institutional perspectives, we add nuance to the purely rational view and better explain the transition from one phase to another. In particular, we emphasize the role of human agency in the MI adoption process (Volberda et al., 2014) and question the conventional assumption that internal actors represent a homogeneous group (Birkinshaw et al., 2008). This research thereby identifies two categories of obstacles to MI routinizing—tensions between rhetoric and reality and various misfits (cultural, political, technical, structural)—that demand further research, especially in the innovation field (Galia & Legros, 2004; Mohnen et al., 2008). We also reveal a crucial lever for overcoming these obstacles, namely a distributed leadership (Gronn, 2002; Oborn et al., 2013). The somewhat limited research on distributed leadership attends mainly to cases of success (Denis et al., 2012), but by studying the specific context of MI adoption process, we show that distributed leadership may help firms reach the routinizing phase.

Finally, this study has important managerial implications, with actionable levers for organizations seeking to adopt MI successfully. Top managers must understand that the MI adoption process is a collective, socially constructed phenomenon. Leadership may occur anywhere in the organization, not only through formal managerial positions, so the distribution of roles is critical to the MI management process. Top managers should pay special attention to managers in subordinate positions and employees, who can respond to cultural, political, technical, and structural constraints and develop leadership capacities to help ensure the success of the MI adoption process. The creation of a core monitoring team offers a good option. The MI adoption process also deserves more research attention, moving

beyond this specific EDI implementation, to address other contexts in which distributed leadership may be effective. For example, it might be interesting to test our propositions with different types of MI and in organizations with distinct political, cultural, technical and structural characteristics. Further research also might pursue a better understanding of MI appropriation mechanisms and how people learn from successes and failures. Finally, we highlight the role of internal actors, but much remains to be done to explore the role of external actors and their interactions with these internal actors.

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