

Innovation Implementation as a Dynamic Equilibrium: Emergent Processes and Divergent Outcomes

Group & Organization Management
2018, Vol. 43(6) 999–1036
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DOI: 10.1177/1059601116645913
journals.sagepub.com/home/gom



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Abstract

Innovation literature typically postulates a linear and institution-driven implementation process that leads to bifurcated outcomes (i.e., acceptance or rejection) of innovation. Adopting a grounded theory approach and a social constructionist perspective, we explore dynamic, interactive implementation processes unfolding over time; these processes generate divergent and often unexpected outcomes. The present qualitative analysis of 40 cases of innovation reveals that two competing forces shape the implementation process. As initiators of innovation implementation, top managers form a driving force and introduce various tactics to facilitate implementation. Resistors or individuals against innovation form a resisting force and organize various schemes to inhibit implementation. The relative strengths of driving and resisting forces lead to four different patterns of implementation, namely, implementation without change, modified implementation, minimal implementation, and implementation failure. Dynamic interactions between initiators and resistors shift implementation outcomes by changing the perceptions of followers with regard to innovation characteristics. The resulting theoretical framework highlights the political nature of innovation

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implementation and indicates the need to consider socioeconomic and sociopolitical dynamics involving multiple organizational actors.

Keywords

implementation facilitation, implementation inertia, implementation inhibition, innovation implementation, power-based equilibrium process

Human beings are by nature political animals.

—Aristotle

In a continually changing world, innovation is a critical managerial agenda in most organizations. However, recent studies demonstrate that transforming an idea into an actual innovation is characterized by an extremely high failure rate of nearly 90% (Andrew, 2009). To explain the prevalence of innovation failure, researchers identified implementation as a critical process because it constitutes the intermediate stage between initiation or adoption of an innovation and its routinization in organizations (Greenhalgh, Robert, Bate, Macfarlane, & Kyriakidou, 2005; Klein & Knight, 2005). Thus, scholars suggested that innovation effectiveness, that is, achievement of intended benefits from an innovation, depends largely on implementation effectiveness or consistent and committed use of innovation (Choi & Chang, 2009; Klein, Conn, & Sorra, 2001).

Existing studies assumed that a target innovation is implemented as initially designed through a relatively static and even automatic process (Chatterjee, Grewal, & Sambamurthy, 2002; Elias, 2009). This view effectively endorses dichotomized outcomes (i.e., acceptance or rejection) of an innovation by individual users. Thus, previous studies discounted the possibility that although an organization introduces innovation to change its employees and work practices, quite often, the innovation itself evolves during implementation and generates unexpected outcomes (Choi & Moon, 2013; Piening, 2011). Adopting a social constructionist view on organizational phenomena (Cohen, Duberley, & Mallon, 2004; Giddens, 1979), the present study undertakes a qualitative exploration of the dynamic, unfolding processes of innovation implementation, which results in various forms of outcomes rather than dichotomized ones.

Several scholars acknowledge that innovation can result in implementation outcomes that differ from the intended design of the innovation. For example, Rogers (1995) proposed the possibility of reinventing an innovation during implementation. In consumer marketing literature, Ram (1987)

proposed that innovation could be altered when it is amenable to modification. Similarly, institutional theorists asserted that differences between intended innovation and actual implementation (i.e., decoupling practice from policy) may naturally emerge because of varied external institutional pressures (Westphal & Zajac, 2001). Although these studies acknowledged the possibility that various forms of implementation outcomes could be obtained, minimal attention has been paid to intermediate processes and mechanisms that may produce different results (cf. equifinality or path independence; Van de Ven & Drazin, 1985). Therefore, the mechanism through which an innovation changes during implementation has been regarded as a black box (Piening, 2011). The present study explores unfolding patterns of innovation implementation and reveals underlying mechanisms that account for different implementation outcomes by using an inductive approach based on the qualitative analysis of multiple innovation incidents.

Current inductive inquiry challenges the prevailing assumption that organizations provide a homogeneous and consistent context to implement a particular innovation and generate uniform reactions among their members (Chatterjee et al., 2002). For instance, implementation climate offers a coherent organizational environment supporting implementation (Klein et al., 2001). Similarly, institutional enablers (e.g., management support, resource availability, and support for learning) operate as an overarching context that elicits similar attitudinal and behavioral reactions toward innovation among employees (Choi & Chang, 2009). Recently, scholars have alluded to the possibility that the implementation context created by a single organization should be heterogeneous. Hence, multiple subgroups with differing, often opposite, inclinations toward innovation implementation exist (Ansari, Fiss, & Zajac, 2010).

Accordingly, we recognize implementation as a *socially constructed* process constituted “in interaction with others” (Cohen et al., 2004, p. 409). Social constructionism suggests that the social world should be construed not as a fixed entity enacted in a deterministic way but as an iterative or ongoing process shaped through social dynamics among various groups or individuals (Burr, 1995). Specifically, a social constructionist view tends to (a) have “a critical stance toward taken-for-granted knowledge,” (b) concern “historical and cultural specificity,” (c) recognize that “knowledge is sustained by social processes,” and (d) realize that “knowledge and social action go together” (Cohen et al., 2004, pp. 409-410).

Drawing on key tenets of the social constructionist perspective, the present study will (a) challenge the dominant assumptions about the homogeneous context of and uniform reactions to innovation implementation; (b) capture the contextual changes around innovation implementation by using an inductive methodology (Gioia, Corley, & Hamilton, 2013); (c) identify

emerging patterns of interactive dynamics involving constituent agents (e.g., innovation initiators, target users, resisters), which generate paths toward varying implementation outcomes; and (d) provide a new theoretical framework to explain the emergence of varied implementation outcomes achieved through power-based interactions among multiple actors. In the next section, we provide a brief review of the literature on innovation implementation upon which the article is based.

Literature Review

Innovation researchers have established two types of stage models to describe the innovation process. On one hand, source-based stage models define innovation as a new product or service that organizations create for the market and consider it as a series of stages from idea generation to the diffusion of a new product or service (e.g., R&D, testing, manufacturing, and dissemination; Kanter, 1988; Tornatzky & Fleischer, 1990). On the other hand, user-based models define innovation as a new technology or practice used in an organization for the first time. These models consider innovation as a series of stages from user awareness of an innovation to adoption and implementation followed by routinization (e.g., selection, adoption, implementation, and routinization; Greenhalgh et al., 2005; Nord & Tucker, 1987). In this tradition, researchers focus on two critical intermediate stages. First, adoption refers to an organization's decision to introduce an innovation, and second, implementation, which refers to the installation or use of the innovation (Choi & Chang, 2009; Klein et al., 2001).

Scholars focus primarily on adoption decisions in user-based models because of their visibility and salience concerning strategic movement of the organization. Innovation characteristics (e.g., compatibility, relative advantage, and complexity) affect adoption decisions of organizations and individual users (Frambach & Schillewaert, 2002). Various organizational factors, such as top management attitude and tenure, external communication, and environmental resources (Damanpour & Schneider, 2006) could also affect innovation adoption by organizations. Highlighting the relative paucity of research on implementation, some scholars have called for increased research on implementation given its significance and the substantial failure rate of innovation implementation (Klein & Knight, 2005).

The Dominant Variance Approach Explaining Bifurcated Implementation Outcomes

Existing studies on implementation have mostly employed a variance approach, examining the individual and organizational or contextual factors

that provide statistically significant explanations of implementation outcomes (Piening, 2011; Sung, Choi, & Cho, 2011). For example, innovation acceptance and use are positively related to individual user positive cognitive appraisals and subsequent positive emotion regarding an innovation (Beaudry & Pinsonneault, 2010; Venkatesh, Morris, Davis, & Davis, 2003), team innovation climate and learning processes (Edmondson, Bohmer, & Pisano, 2001; Somech & Drach-Zahavy, 2013), and organizational context, which offers normative support and resources for innovation (Choi & Chang, 2009; Klein et al., 2001). These studies on innovation implementation have been conducted with a bifurcated image of implementation outcomes. Thus, acceptance or rejection of the given innovation allows for a linear explanation of the phenomenon (Choi & Moon, 2013). In this sense, researchers have implicitly endorsed implementation effectiveness as the consistent and committed application of an innovation in a given setting with fidelity or as originally designed (Dusenbury, Brannigan, Falco, & Hansen, 2003; Klein et al., 2001).

Although the existing innovation research based on the variance approach has stressed the importance of implementation, it has paid little attention to the underlying implementation processes and the unintended outcomes. Most researchers have assumed a homogeneous implementation context that results in similar collective perceptions and behavior toward an innovation among its employees (Chatterjee et al., 2002). For example, implementation climate and other organization-level institutional enablers, such as training for innovation and management support, have been assumed to promote shared beliefs and homogeneous behavioral reactions among organizational members (Choi & Chang, 2009; Klein & Knight, 2005).

Moving Toward a Dynamic Process Approach to Explain Divergent Implementation Outcomes

Departing from deterministic linear views of implementation based on the variance approach, we explore the interactive dynamics among multiple organizational actors. These actors frequently hold disparate and contradictory perceptions and motivations toward implementation rather than forming a homogeneous organizational context for implementation. Therefore, we rely on the organizational politics literature to articulate interactive dynamics involving innovation implementation. Although numerous organization scientists have acknowledged that “organizations are inherently political arenas in which struggles over diverging interests take place” (Ansari et al., 2010, p. 80), management researchers have underestimated the effect of organizational politics in general and on studying innovation implementation specifically.

Given that innovation adoption usually accompanies reallocation of power and resources (Ansari et al., 2010), reinstating sociopolitical perspectives may deepen our understanding of innovation implementation processes. Thus, the implementation process could be shown to reflect mutual adjustment and negotiation between multiple parties with distinct or even conflicting interests (cf. the social constructionist view; Cohen et al., 2004). In this sense, innovation implementation can be explained as the pursuit of a new equilibrium by resolving initial tension between innovation and adopting units (Choi & Moon, 2013; Leonard-Barton, 1988). This process-based account of interactions among heterogeneous actors involved in innovation implementation draws attention to the underlying mechanisms that lead to complex results beyond binary outcomes of either acceptance or rejection. Accordingly, the present study addresses the following research questions:

Research Question 1: During innovation implementation, which actors initiate and shape the dynamic organizational process for applying an innovation?

Research Question 2: How do these actors interact and influence one another over time to affect the process?

Research Question 3: How do these unfolding patterns of interactions shape divergent implementation outcomes?

Method

We adopted an inductive, qualitative methodology based on grounded theory to address the present research questions. Most existing studies on implementation use a variance approach that emphasizes “a behavior or a characteristic of an object” (Mohr, 1982, p. 45), thereby hindering fresh understanding of the “organizational dynamics” and “process by which organizing and organization unfold” (Gioia et al., 2013, p. 16). Innovation implementation is a socially constructed process that can be explicated through a qualitative approach to address “how” questions (Berg, Wrzesniewski, & Dutton, 2010; Langley, 1999) or a process approach that focuses on “rearrangement of mutually autonomous objects” (Mohr, 1982, p. 46). This approach can reveal complicated reactions (e.g., thought processes) that are difficult to capture through conventional methods (Strauss & Corbin, 1998). We can also develop new perspectives or formalize new theoretical frameworks and generate novel theory by using qualitative approach (Gibbert & Ruigrok, 2010; Pratt, 2008).

We designed a multiple-case, cross-organization study, which is considered more compelling and robust than a single-site qualitative study (O’Reilly, Paper, & Marx, 2012). We also used purposive sampling to identify the

general trends in the population and contrast cases with potential variations in process and outcomes (Yin, 2011). In particular, the present study conducted two sets or stages of interviews to ensure methodological rigor by adopting two levels of data collection unit (Berg et al., 2010; Yin, 2011). At the first stage, interviews were conducted with multiple participants from a single organization, and thus, innovations were considered in the narrower level units within similar organizational contexts. This within-group comparison with minimal between-group differences increases the possibility of categorizing similar concepts and facilitates theoretical predictions (Pratt, 2008).

At the second stage, interviews were conducted with participants from multiple organizations, and therefore, organizational innovations were considered at the broader level characterized by diverse organizational and industrial contexts. The increased between-group comparisons and differences between cases enriched the variety and comprehensiveness of concepts. These comparisons assist identification of the dynamic evolving patterns of implementation that lead to divergent outcomes based on maximum variations across organizations (Easterby-Smith, Golden-Biddle, & Locke, 2008; Gibbert & Ruigrok, 2010). The findings from heterogeneous sites can provide more robust and credible propositions than those from only one or two sites (Gioia et al., 2013; Pratt, 2008). Finally, we developed an integrated theoretical framework by iteratively analyzing all the different cases of implementation. These methodological features are consistent with the recommendations for conducting high-quality qualitative research, using grounded theory and drawing on the constant comparative method, theoretical coding, theoretical saturation, and theoretical sensitivity (Easterby-Smith et al., 2008; O'Reilly et al., 2012).

Sampling and Participants

We contacted 69 students enrolled in executive education and MBA programs. Among the 69 students, 40 agreed to participate in the present study. Of the 40 participants, seven were from a large telecommunication company, and the remaining 33 participants were from 27 different organizations. We first included the seven participants from a single telecommunication company in our analysis to identify major themes (first-stage interviews with narrower level units). We coded statements connoting themes that may influence innovation implementation process and outcomes. We then compared all cases to identify common themes and implementation patterns and to develop an integrated theoretical frame in subsequent phases of data analysis (second-stage interviews with broader level units). Participant diversity in terms of industry, hierarchical level, and organizational tenure ensure

Table 1. Interview Participants from Various Industries and Companies.

Industry classification	Example	Number of interview participants	Number of companies
Energy/basic materials	Oil, gas, chemicals, and industrial materials producer and distribution, electricity, and water supply	5	5
Industrials	Construction, railroads, and industrial engineering and consultation	7	6
Consumer services	Retail, media, airlines, travel, and leisure	5	5
Telecommunications	Fix line and mobile telecommunications	9	3
Financials	Bank and insurance	4	4
Technology/manufacturing	Computer, semiconductors, computer services, and automobiles	10	5
Total		40	28

variation in individual perceptions of innovation and implementation (Easterby-Smith et al., 2008). Specifically, 36 males and four females were interviewed. On average, these participants were approximately 40 years old ($SD = 9.6$) with nearly 13 years of organizational tenure ($SD = 9.4$). They worked for organizations in various industries, such as consumer services, financials, telecommunications, and technology (Table 1). Each organization employed an average of approximately 28,000 people ($SD = 29,544$) with an annual revenue of approximately US\$37.4 billion ($SD = US\53.0 billion).

Data Collection

We conducted semistructured, face-to-face interviews with the 40 participants for an average of 40 min, ranging between 25 and 90 min. We tape-recorded all interviews with the permission of participants. The interview protocol included five sections. (a) We explained the purpose of the study and obtained approval for tape recording and assured them of their anonymity. (b) The interviewer asked about the participants' sociodemographic and task-related characteristics, such as age, sex, organizational tenure, hierarchical level, and industry. (c) The participants were then instructed to identify one

Table 2. Innovation Types Included in the Analysis.

Innovation types ^a	Examples	Number of cases
Administrative innovation	New training program, new compensation and benefit system, cost reduction, new organizational culture, workplace environment improvement, spin-off, merger & acquisition (M&A)	<i>n</i> = 17 (42.5%)
Technological and process innovation	Six Sigma, information systems (e.g., knowledge management system, enterprise resource planning, accounting system, and project management system), production innovation, process reengineering	<i>n</i> = 20 (50%)
Service and product innovation	New service or product	<i>n</i> = 3 (7.5%)

^aInnovation types are categorized by functionality or domain of application (Adams, 2003; Rogers, 1995).

of the most memorable innovation implementations they had experienced in their organization. Subsequently, the interviewer asked about innovation and implementation characteristics, such as the name of the focal innovation, type of innovation, and other themes (e.g., adoption context) of innovation and implementation. The participants provided descriptive information about the respective innovation as summarized in Table 2. (d) The interviewer inquired about personal perceptions regarding innovation, including evaluative judgments, available resources, and the overall climate for implementation. (e) The participants then described the implementation process and outcomes of the innovation in their organization.

Data Analysis

After transcribing all interview recordings, we analyzed the data in four steps according to the principles of grounded theory approach (Strauss & Corbin, 1998). This approach was the most appropriate for the current research purpose because it elicited “fresh understanding about patterned relationships among social actors” (O’Reilly et al., 2012, p. 2). In each step, we conducted two sets of analysis with two different sample sources, respectively: we first began by analyzing data collected from the first-stage interviews because within-group comparisons supported theoretical predictions by facilitating categorization of

similar concepts (i.e., the first-stage analysis). We then iteratively confirmed concepts, categories, and relationships identified in the first-stage analysis and enriched the analysis results by incorporating the second-stage interviews to further enhance applicability of theoretical propositions by securing maximum variations across organizations (i.e., the second-stage analysis).

First, we utilized *open coding*, which is an analytic process moving from conceptualization to categorization. Specifically, we coded phenomena by labeling an event, object, action, or interaction; reading noticeable statements carefully; and paying close attention to repeated situations, contexts, characteristics, and perceptions related to innovation and implementation. Multiple concepts identified during this process were grouped and classified “under more abstract explanatory terms, that is, categories” (Strauss & Corbin, 1998, p. 114). Open coding analysis was repeated for the entire set of cases until “the point in category development at which no new properties, dimensions, or relationships emerge during analysis” (Strauss & Corbin, 1998, p. 143). For example, by coding interviews with Participants 18, 15, and 12 (Tables 3, 5, and 6), we identified “training,” “financial incentives (or compensation system),” and “performance evaluation system” as *first-order concepts*. Although the three concepts differ from one another, we could group them tentatively into the same *second-order theme* “implementation facilitators” because they were all initiated consistently by management to facilitate innovation implementation. When discovering “initiators’ power” as the other first-order concept in a similar way, we classified these two second-order themes into the same *aggregate dimension* “driving force” because the two themes had the same goal of innovation success. These processes created the emergent data structure, as shown in Figure 1 (Gioia et al., 2013; O’Reilly et al., 2012).

Second, we identified patterns of implementation by focusing on the relationships between the identified themes and concepts. We employed *axial coding* to relate each category to its respective subcategories (Strauss & Corbin, 1998). We isolated “all relevant data-to-theory” relationships and recurring patterns among the concepts on a case-by-case basis to connect each first-order concept to relevant second-order themes and/or upper aggregate dimensions (Gioia et al., 2013, p. 22). This analytic procedure revealed several distinct unfolding patterns of implementation as will be shown below. For instance, we found that initiators have the power to make decisions about innovation adoption because of their hierarchical position and long experience gained through organizational/positional tenure. Second, initiators use power to introduce implementation facilitators, such as training, financial incentives, and performance evaluation systems. Thus, the power of initiators generates implementation facilitators and both themes form driving forces toward innovation success.

Table 3. Representative Quotes: Driving Forces.

Representative quotes	First-order concepts	Second-order themes	Aggregate dimension
<i>In my company, almost all innovations were adopted by top managers because they are at the top of the hierarchical system and because they have long experiences within the organization. (Participant 1 from telecommunications)</i>	Adopting decision maker's hierarchical position and position tenure (in the organization)	Initiators' power	Driving forces (D)
<i>Employees somewhat negatively thought that the innovation necessarily increased their workloads by imposing extra tasks. Thus, top management introduced new learning programs to help familiarize them with the innovation. (Participant 18 from telecommunications)</i>	Financial incentives, compensation system, training, performance evaluation system, and organizational restructuring	Implementation facilitators	
<i>To promote the new customer satisfaction campaign, top management restructured the sales departments by clients to increase responsiveness to client-specific needs. Until the restructuring, the departments were structured by product. (Participant 31 from industrials)</i>			

Third, we developed a new theoretical framework that integrates the findings of our qualitative analyses to account for connections between multi-stage implementation processes and emergent outcomes. Specifically, we built robust theory by maintaining the range of variability as well as integrating and refining patterns and relationships (i.e., *selective coding*) until the point of theoretical saturation, where no new themes (or concepts) and

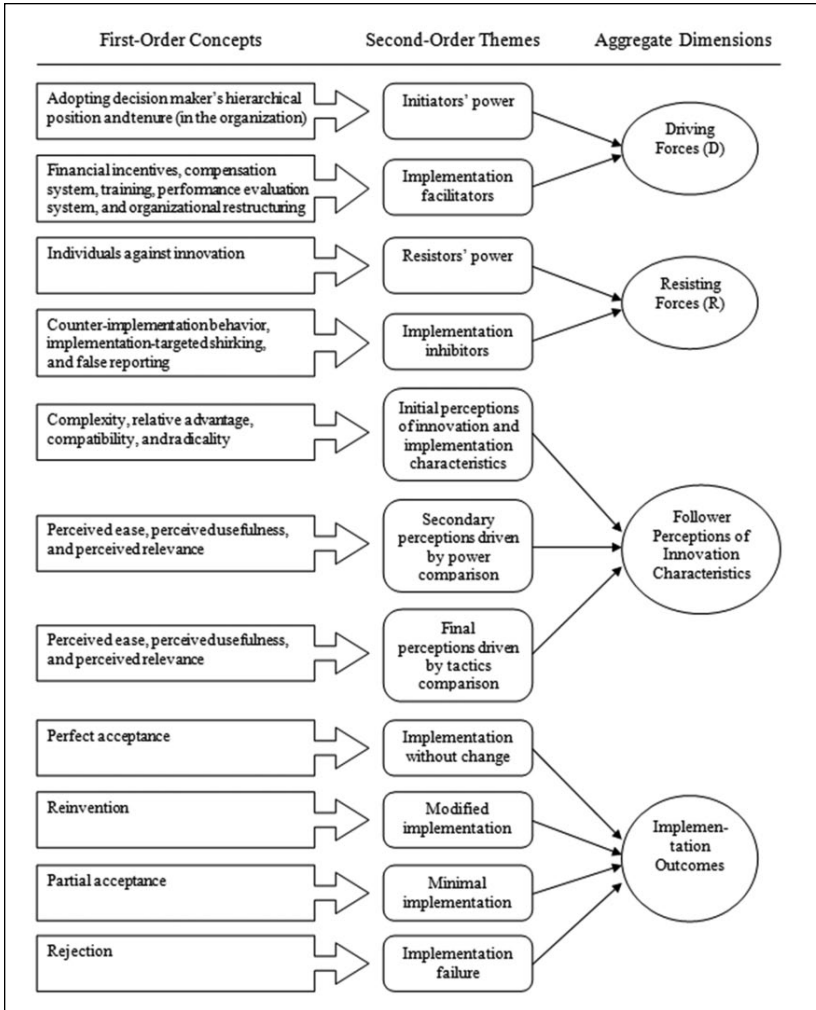


Figure 1. Data structure.

patterns emerged (Berg et al., 2010). For example, confirming conceptual distinctiveness between the two themes, we developed a proposition accounting for that relationship as indicated in Proposition 4a, where initiators introduced facilitating tactics to promote innovation implementation.

Finally, we completed the theoretical model by iteratively reexamining first-order concepts, second-order themes, aggregate dimensions, and relational

patterns observed across the 40 cases. Thus, we confirmed that the dynamic relationships observed among second-order themes could maintain their path within a range of variability across cases representing diverse organizational contexts and innovations. By investigating whether each theme-to-theme relation followed the paths of connectivity under certain contingencies (Strauss & Corbin, 1998), we ensured that our theory covered all possible variations of each concept and theme. For instance, we confirmed the existing first-order concept, such as “financial incentives” in other cases (fourth representative quote in Table 8; Participant 29 from financials) and identified new first-order concepts, such as “organizational restructuring,” which could be included in the same theme of implementation facilitators (third quote in Table 3; Participant 31 from industrials).

Theme Findings: Major Themes and Aggregate Dimensions

We conducted thorough open coding analysis and identified main themes and aggregate dimensions. This first-stage qualitative analysis identified four aggregate dimensions that included 11 themes (Tables 3 to 6), which were cross-validated through second-stage qualitative analysis. In the following paragraphs and Tables 3 to 6, we provide detailed descriptions and illustrations of these themes and aggregate dimensions.

Driving Forces

Innovation-adoption decisions are made by top management, including CEO and other executives, who subsequently create driving forces (Lewin, 1963) toward implementation. These initiators of innovation implementation shape driving forces in two ways. First, because of their hierarchical position, they are regarded as institutional elites or agencies representing the organization and thus offer legitimacy to their words and actions (Chatterjee et al., 2002). The positional or legitimate power of top managers allows them to force employees to implement their chosen innovation (Damanpour & Schneider, 2006). Thus, we identified *initiators' power* reflected in their hierarchical level or organizational tenure as the first second-order theme of driving forces, as illustrated in Table 3.

The second second-order theme of driving forces is implementation facilitators, which are often introduced by initiators. Initiators create formal facilitation systems, such as compensation policy, training programs, performance evaluation criteria, and organizational restructuring, to encourage or force employees to implement a given innovation. These systems can also be

redesigned to promote innovation implementation. In this respect, initiators use both “the carrot and the stick,” by offering financial incentives, threatening job security, or organizational restructuring, contingent on implementing the innovation, as listed in Table 3.

Resisting Forces

Resisting forces (cf. restraining forces; Lewin, 1963) often stem from individuals opposed to innovation, such as labor union members or resisting employees who consider innovation as a threat to job security and well-being or as a performance booster that increases workloads. Resisting forces have two second-order themes that represent their intensity or effect during the implementation process. The first second-order theme is *resistors' power*, which reflects legitimacy and the social influence (often informal compared with initiators' power) of resisting individuals from the perspective of employees, as described in Table 4. The second second-order theme is *implementation inhibitors*, which includes resistors' behavior or campaigns intended to impede implementation. For example, individuals against innovation express criticisms and concerns regarding innovation and perform counter-innovation behaviors, such as implementation-targeted shirking and false reporting.

Follower Perceptions of Innovation Characteristics

Another core dimension involves employee perceptions. When an innovation is adopted and promoted by initiators, employees develop their own perceptions and meanings. For example, before initiators form an adoption decision, they are informed of the philosophy, process, and expected outcomes of the target innovation. Compared with well-informed initiators, most employees are directed to follow initiators' decisions with limited prior knowledge of the innovation (second quote in Table 5). At the initial stage of innovation adoption, initiators are better informed than the majority of employees. Therefore, differences in perceptions of the target innovation, such as its complexity, relative advantage, compatibility, and radicality, are observed between initiators and employees (Chatterjee et al., 2002; Leonard-Barton, 1988). At the beginning, employees develop *initial perceptions of innovation and implementation characteristics*, which are the first second-order theme of this dimension, relying mostly on information communicated by the initiators. At this initial stage, employees are often confused and worried largely because of limited information and perceptual gaps regarding innovation effectiveness, as illustrated in Table 5.

Table 4. Representative Quotes: Resisting Forces.

Representative quotes	First-order concepts	Second-order themes	Aggregate dimension
<p>To foster open communication and cooperation among employees, the CEO introduced an organizational culture change program. The program was designed for each team to climb mountains together once a month. Most male employees participated because they had often climbed during mandatory military services, but most females did not participate and even resisted because they disliked climbing. (Participant 19 from telecommunications)</p> <p>The union resisted the introduction of the pay-for-performance system because most union members performed repetitive physical labor where extra performance was not easy to achieve. Because of the union's negative position, even some workers who were in favor of the new pay system could not express such a position in public. (Participant 10 from energy/basic materials)</p> <p>The previous information system was still more frequently used than the new one because of its relative ease and conventional work habits. Thus, most employees entered fictitious data into the new system pretending they used it and encouraged others to do the same. (Participant 4 from telecommunications)</p>	<p>Individuals against innovation</p>	<p>Resistors' power</p>	<p>Resisting Forces (R)</p>
	<p>Counter-implementation behavior, implementation-targeted shirking, and false reporting</p>	<p>Implementation inhibitors</p>	

Table 5. Representative Quotes: Follower Perceptions of Innovation Characteristics.

Representative quotes	First-order concepts	Second-order themes	Aggregate dimension
<p>The CEO always said that only innovation could streamline our work process and increase task efficiency, but we knew that innovation was not effort-free because it often increased workloads dramatically. (Participant 1 from telecommunications)</p> <p>The new vice president of HR with a substantial HR background shifted the responsibility of performance appraisal from a team manager to a group leader. We agreed with this new HR policy because group leaders seem to be in a better position to evaluate employees; generally, a team has approximately 30 employees, whereas a group consisted of approximately 5-6 employees. Thus, the new practice was very timely and compatible with the existing practice of pay for performance. (Participant 37 from technology/manufacturing)</p>	<p>Complexity, relative advantage, compatibility, and radicality</p>	<p>Initial perceptions of innovation and implementation characteristics</p>	
<p>After privatization in the late 1990s, my company had to compete with several rivals in the market. However, most employees still failed to develop customer-oriented value. Thus, the CEO demanded that when employees made reports on their performance, they should evaluate how much they improved customer values. Because this policy was reasonable and relevant, nobody resisted. (Participant 17 from telecommunications)</p> <p>When a new CEO introduced Six Sigma, most employees decided to observe how the innovation was going on. A couple of days later, when the union strongly opposed Six Sigma because of complicated methods and increased workloads, most members joined the union and resisted. (Participant 6 from energy/basic materials)</p>	<p>Perceived ease, perceived usefulness, and perceived relevance</p>	<p>Secondary perceptions driven by power comparison</p>	
<p>To monitor and resolve real-time issues rising from the currently running projects, the division manager suggested that employees use a project management system (PMS). Most employees complained that entering all issues into PMS increased their workloads. As employees' complaints continued, the division manager offered monetary incentives for entering data into PMS. (Participant 15 from telecommunications)</p> <p>An innovation was adopted to effectively manage activity-based costing (ABC). But as top management's concerns diminished, it was transformed to cost reduction activity (e.g., turning off laptops after work hours). However, engineers in my department have many computer programs for overnight runs because those programs need a very long time to compute solutions. Thus, most engineers, who conspired with other colleagues, still left their laptops plugged in their drawers, just to avoid the HR department's inspections. (Participant 30 from industrials)</p>	<p>Perceived ease, perceived usefulness, and perceived relevance</p>	<p>Final perceptions driven by tactics comparison</p>	<p>Follower perceptions of innovation characteristics</p>

Table 6. Representative Quotes: Implementation Outcomes.

Representative quotes	First-order concepts	Second-order themes	Aggregate dimension	
<p>One of the divisions in my company suffered from increasing cost and decreasing revenue. To improve the financial statement of the division as well as that of the company, top management decided to separate it from the company and operate it as one of its affiliated spin-offs. But the union resisted very strongly, and the plan for organizational restructuring was not easy to put into practice. To diminish the union's and interest groups' resistance, an audit team gathered information on unethical practices conducted by the union and then filed several bribery cases. By suppressing the union with its illegal practices, the company was able to successfully carry out the spin-off of the division as originally planned. (Participant 18 from telecommunications)</p>	Perfect acceptance	Implementation without change	Implementation outcomes	
<p>An ERP system introduced and adopted by top management was fully standardized, a ready-made one that did not allow any customization. Shortly after, we found that the ERP system could not support a number of work processes, but we had no choice but to implement it because top management was pushing the system very hard. However, the union's resistance also increased over time, and we could delay implementing it. In the end, we were able to change and add new components based on our task requirements. (Participant 3 from industrials)</p>	Reinvention	Modified implementation		Implementation outcomes
<p>To implement the Customer Relationship Management (CRM) system, we need to confirm and update the basic information of all customers. However, this task is very time-consuming and difficult for the sales personnel because they have to make one-on-one direct calls to each customer. At the start, they performed the task because a notice was sent out stating that the performance evaluation would partly reflect the level of customer information updated in the CRM database. Although the sales personnel complied with this new demand, they were not happy with it because they considered the task to be very labor-intensive and a waste of their time. Later, when the top management's attention was diverted away from the CRM system, the sales personnel did not continue the task any more. The reason is that updating of the CRM database was not part of the performance evaluation anymore, and most of the sales personnel shirked from the implementation. (Participant 12 from telecommunications)</p>	Partial acceptance	Minimal implementation		
<p>Especially in the public sector, in the case of innovation initiated by a former CEO who resigned, a following CEO would quit implementing it mainly because it will not be recognized as his/her achievement even when it succeeds. (Participant 2 from energy/basic materials)</p>	Rejection	Implementation failure	Implementation outcomes	

The initial perceptions of innovation shaped by information supplied by initiators are challenged by the emergence of the power of resisters. Subsequently, employees experience inner conflict about whether to implement the innovation or resist it. After the initial perception, employees who oppose innovation may form resisting groups, but employees who accept its implementation remain *followers*. In any case, follower perceptions of innovation characteristics begin to diverge to a certain degree because followers are exposed to contrasting views regarding the target innovation's usefulness or ease of use offered by initiators and resisters. The initial comparison between the initiators and the resisters essentially focused on the power or status ascribed each based on prior experience. Followers do not have sufficient time or opportunity to evaluate the validity of information advanced by initiators and resisters. Thus, the second second-order theme of this dimension is *secondary perceptions driven by power comparison*, which comprises employee perceptions of innovation characteristics (e.g., ease, usefulness, and relevance) after comparing the powers of the initiators and the resisters.

In most innovation cases in our data, the secondary perceptions driven by comparisons of power that change over time with further actions employed by initiators and resisters in the form of implementation facilitators and inhibitors, respectively. Unlike the initial perceptions, final perceptions arise primarily from comparison of quantity, quality, and effectiveness of tactics introduced by initiators and resisters. Thus, the third second-order theme of follower innovation perception is *final perceptions driven by tactics comparison*. For example, followers assimilate the initiators' vision of innovation when they are attracted by implementation facilitators or organizational support, such as financial incentives and excellent training programs (Marique, Stinglhamber, Desmette, Caesens, & De Zanet, 2012). By contrast, they adopt the resisters' view when they become sympathetic to the resisters' rationale and implementation inhibitors. The final perceptions driven by tactics comparison emerges after observing substantial exchanges between initiators and resisters as well as the follower's own experiences of using the innovation, as illustrated in Table 5.

Implementation Outcomes

The fourth aggregate dimension identified is *implementation outcomes*, which includes four themes or distinct patterns of implementation. As depicted in Figure 2, the overall comparison of driving forces (D) and resisting forces (R) is largely responsible for the ultimate form of implementation, resulting in four distinct outcomes (Table 7).

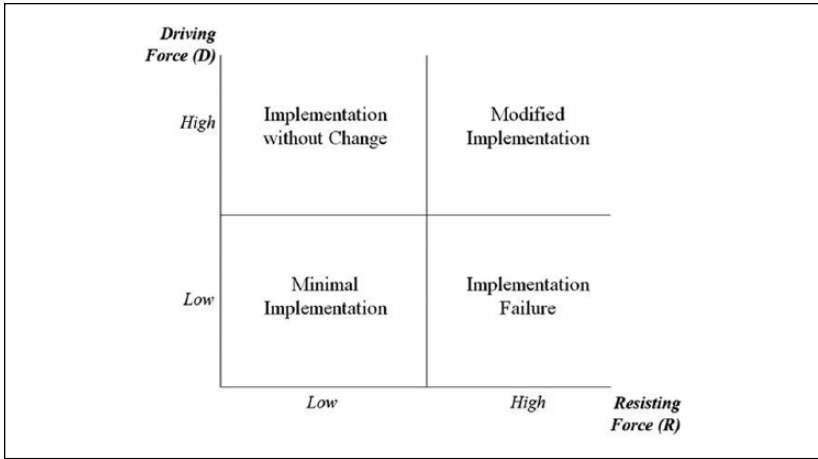


Figure 2. Implementation outcome matrix.

Table 7. Number of Cases in Various Implementation Outcomes.

Implementation outcome type	Number of cases	%
1. Implementation without change ($D > R$)	10	25.0
2. Modified implementation ($D = R \gg 0$)	13	32.5
3. Minimal implementation ($D = R \approx 0$)	8	20.0
4. Failure ($D < R$)	5	12.5
+ Unknown	2	5.0
++ In process	2	5.0
Total	40	100

Note. D = driving forces; R = resisting forces.

When driving forces are substantially greater than resisting forces ($D > R$), innovation is implemented as intended in its original design without changes. The first second-order theme of implementation outcomes is *implementation without change*, and is illustrated in Table 6.

The second second-order theme is *modified implementation*, which refers to the situation where the innovation adapted is reinvented or customized by employees to fit the local context (Choi & Moon, 2013; Rogers, 1995). Modified implementation is observed when followers perceive that both driving and resisting forces are strong and they have approximately the same magnitude ($D = R \gg 0$). Such contexts elicit psychological tension among

followers. Potent driving forces urge followers to implement the innovation but with certain modifications in the original design to reflect resisting forces, as presented in Table 6.

The third second-order theme is *minimal implementation* or the passive and often nominal use of an innovation without significant commitment among followers. This implementation outcome is observed when both driving and resisting forces are relatively weak ($D = R \approx 0$), and thus fail to maintain the momentum of implementation. This situation is likely to occur when neither initiators nor resisters attend to the innovation and introduce implementation facilitators or inhibitors, which is often expected with dissipating interest after initial efforts by initiators.

The final second-order theme of implementation outcomes is *implementation failure* or discontinued use. This negative outcome is observed when driving forces no longer exist or are considerably weaker than resisting forces ($D < R$), as described in Table 6.

Pattern Findings: Unfolding Patterns of Implementation

We identified several patterns of implementation unfolding over multiple stages that reveal emergent and socially constructed paths of innovation implementation. We relied on the aforementioned major dimensions and themes to reveal these patterns. Specifically, the levels of driving and resisting forces tend to fluctuate during the early and later stages of innovation implementation. Dynamic processes involving the two forces and follower perceptions driven by comparison of power and tactics create divergent and changing patterns of implementation. These processes are depicted in Figure 3.

At the *stage of initial perceptions* (T_0), employees are affected by driving forces because information on innovation characteristics comes from initiators. Accordingly, at the initial stage, driving forces are stronger than resisting forces ($D > R$), particularly when initiators can effectively persuade employees by providing rationale regarding the benefits and feasibility of implementing the innovation. Thus, implementation without change becomes a baseline outcome at the beginning of implementation (Point 1 at T_0). Unless employees later perceive the considerable power of resisters and evaluate inhibitory tactics to be effective, they accept the innovation as it is without any change.

In a number of cases, however, individuals opposed to implementation appear, thereby creating resisting forces. Facing both initiators and resisters, followers attend to the competing actors' power or social influence within the organization. During the *stage of power evaluation* (transition period from

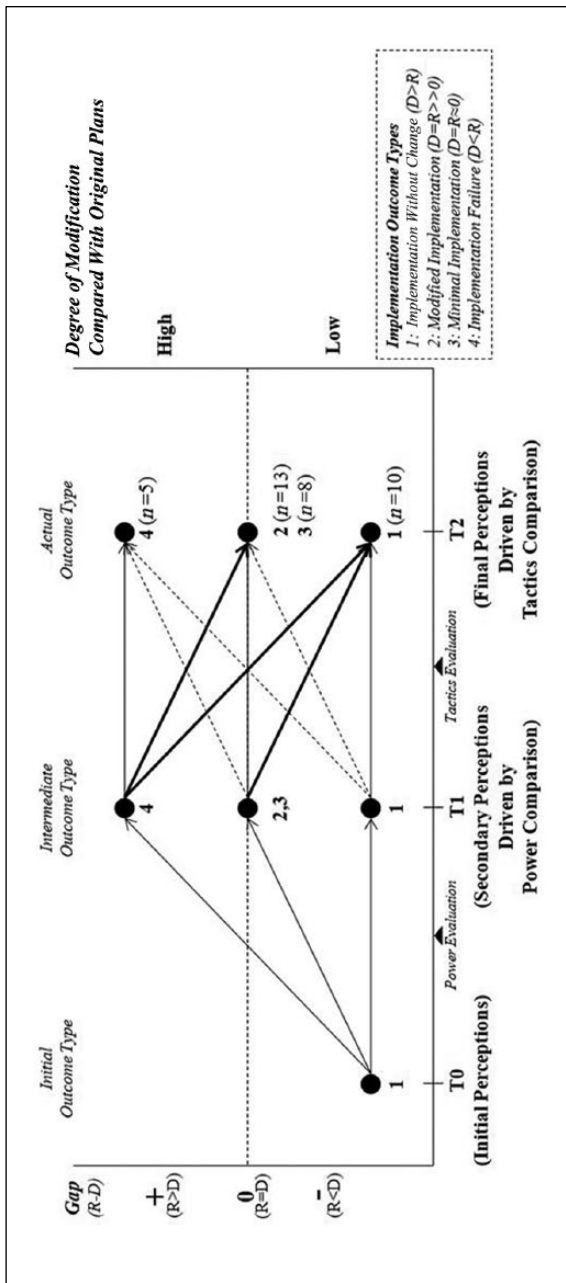


Figure 3. Graphical view: A path analysis of implementation patterns.
 Note. Path typology (T1 → T2): Implementation inertia (thin lines; n = 15; 27.8%); Implementation facilitation (thick lines; n = 13; 36.1%); Implementation inhibition (dotted lines, n = 8; 22.2%).

T0 to T1), the followers compare the powers of the initiators and resisters, resulting in secondary perceptions driven by power comparison (T1). Follower perceptions that are based on power evaluation form *intermediate implementation outcomes* by moving Point 1 at T0 to Point 1, 2, 3, or 4 at T1, creating implementation without change, modified implementation, minimal implementation, and implementation failure, respectively. For example, if followers perceive initiator power to be stronger than resistor power ($D > R$), Point 1 at T0 does not change at T1. By contrast, if the followers consider initiator power to be weaker than resistor power ($D < R$), Point 1 at T0 moves to Point 4 (i.e., implementation failure) at T1. Otherwise ($D = R$), Point 1 at T0 moves to Point 2 or 3 (i.e., modified or minimal implementation) at T1. However, these four outcomes are only tentative. They may change further depending on the effectiveness of tactics later deployed by initiators and resisters.

After the power evaluation stage, initiators and resisters employ tactics to facilitate and inhibit implementation, which leads to the *stage of tactics evaluation* (transition period from T1 to T2). Exposed to implementation facilitators and inhibitors, followers reevaluate the magnitude of driving and resisting forces by comparing the tactics of initiators with those of resisters. During this reevaluation, followers may maintain their early assessment or modify their perceptions such that they change their implementation behavior. Similar to the first stage of power evaluation, the followers' situation assessment is based on tactics comparison and can move in various directions from Points 1 to 4 at T1 to Points 1 to 4 at T2, which results in the creation of 16 different scenarios.

We focused on movement from T1 to T2 and subsequently identified three patterns of implementation. The first pattern is *implementation inertia*, in which magnitudes of driving and resisting forces remain the same and follower perceptions and behavior continue unchanged (e.g., staying at Point 1 at both T1 and T2; Figure 4). In the second pattern, *implementation facilitation*, driving forces increase, whereas resisting forces decrease; thus, followers experience perceptual changes that support implementation (e.g., moving from Point 4 at T1 to Point 2 at T2; Figure 5). The third pattern, *implementation inhibition*, shows a decrease in driving forces, whereas resisting forces increase, and followers experience unfavorable perceptual changes about implementation (e.g., moving from Point 1 at T1 to Point 3 at T2; Figure 6).

For instance, if a follower willing to implement without change (Point 1) at T1 perceives that initiator tactics are as effective as resisters, Point 1 at T1 remains at Point 1 at T2. This pattern is called implementation inertia (Figure 4). However, if a follower who resists (Point 4) at T1 considers the initiator tactics to be more effective than the resisters, Point 4 at T1 moves

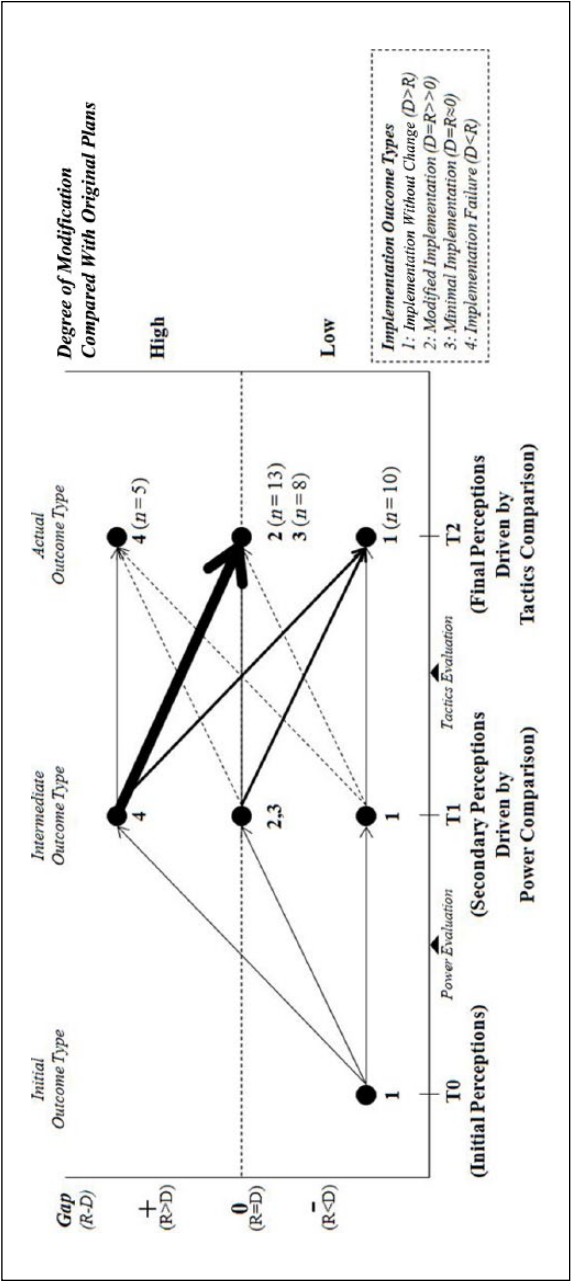


Figure 5. Implementation facilitation.

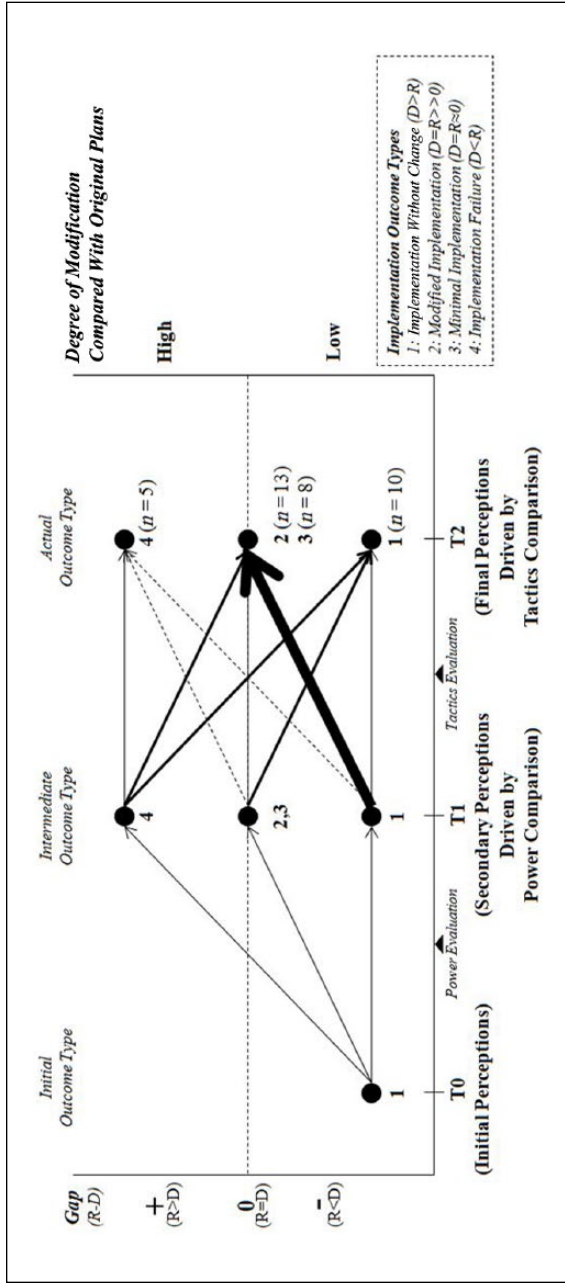


Figure 6. Implementation inhibition.

to Point 2 or 3 (modified or minimal implementation) at T2. This pattern is called implementation facilitation (Figure 5). If a follower willing to implement without change (Point 1) at T1 considers the initiator tactics to be less effective than the resisters, Point 1 at T1 moves to Point 2 or 3 at T2. This pattern is called implementation inhibition (Figure 6).

Theoretical Integration: A Dynamic Framework of Implementation

Based on pattern analysis and identified theme-to-theme relationships, we have developed a theoretical framework that highlights the interactive and socially constructed nature of innovation implementation involving multiple organizational actors (see Figure 7 for theoretical framework and Table 8 for propositions and representative quotes).

We focus on two competing dimensions, namely, driving and resisting forces, to explain the underlying mechanism of implementation processes (Lewin, 1963). As depicted in Figure 7, the implementation process begins with initiators who have the legitimacy and power to decide whether to introduce an innovation into an organization. By offering information and persuading employees about the benefit of innovation, top management shapes employees' initial perceptions of the innovation characteristics. This process is effective when management has considerable power and status over employees (Table 8).

Proposition 1: The power and status of initiators positively influence employees' initial perceptions of innovation characteristics.

Employees' initial perceptions may change when resisters against innovation emerge. Similar to the action–reaction law, employees who regard innovation as a cause of increasing workload or a threat to job security may form resisting power. Although some employees consider innovation an opportunity, others regard it as a threat (Beaudry & Pinsonneault, 2010). The former usually remain prospective users (i.e., followers), whereas the latter resist an innovation because they fear that it may potentially reduce their power and other advantages (Lapointe & Rivard, 2005). Moreover, employees who prefer to maintain their status or situation (cf. status quo bias theory; Samuelson & Zeckhauser, 1988) and consider an innovation to be relatively complicated or provide small relative advantage may urge others to resist the innovation. Thus, employees with negative initial perceptions of innovation may form resisting forces (Table 8).

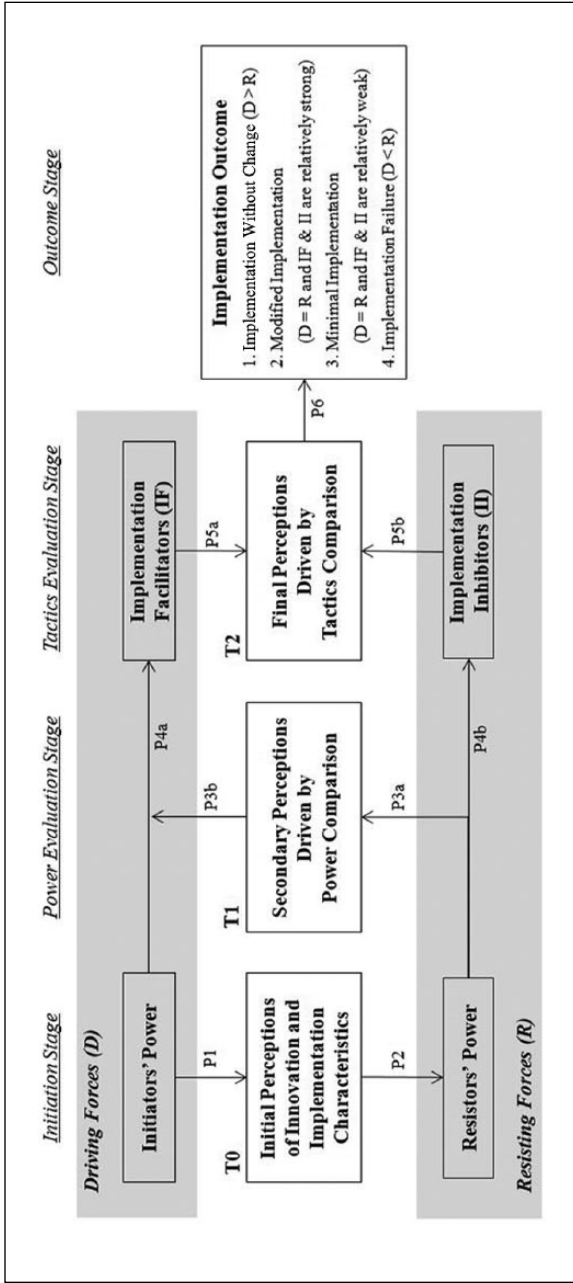


Figure 7. Theoretical model.

Table 8. Representative Quotes Underlying Theoretical Propositions.

Propositions	Representative quotes
Proposition 1: The power and status of initiators positively influence employees' initial perceptions of innovation characteristics.	<i>An appropriate tool or solution should be adopted for our innovation. For example, quality in the mobile and telecommunication service sector could be improved primarily by increasing the number of antennas instead of introducing a quality control program. However, our new CEO persistently demanded that employees participate in total quality management, and we had no choice but to do it because of his positional power. (Participant 7 from telecommunications)</i>
Proposition 2: Employees with negative initial perceptions of the innovation characteristics increase the power of resisters against innovation implementation.	<i>Whenever adoption decisions of innovation are made, unions always try to reduce the range of the implementation because union members like the status quo and dislike increased workloads and complexity. (Participant 13 from industrials)</i>
Proposition 3a: Increases in resisters' power negatively influences secondary perceptions of followers regarding innovation characteristics.	<i>Our labor union had very strong bargaining power and exerted power over union members and subcontractors. They pushed us not to cooperate with the top management to deter the introduction of an innovation. Thus, most of us decided to resist its implementation. (Participant 18 from telecommunications)</i>
Proposition 3b: The emergence of resistor power and a negative shift in follower perceptions of the innovation characteristics stimulate the initiators to introduce facilitating tactics.	<i>After M&A, there was a somewhat tricky tension between employees from the two merged organizations. By offering financial support for dinner or other social gatherings after work, the CEO of the merging company encouraged the employees to meet regularly with those of the merged company to transplant their organizational culture and norms to the latter. (Participant 29 from financials)</i>
Proposition 4a: Initiators introduce facilitating tactics to promote innovation implementation.	
Proposition 4b: Resisters introduce inhibiting tactics against innovation implementation.	<i>When a 360-degree peer evaluation system was introduced to the entire organization, my team members met in a room and conspired to exchange good performance evaluations with one another regardless of positional status or actual performance of members. (Participant 14 from industrials)</i>

Note. Proposition 4a is also illustrated by the representative quote for Proposition 3b; the representative quotes for Propositions 5a, 5b, and 6 are omitted because they are illustrated in Table 6.

Proposition 2: Employees with negative initial perceptions of the innovation characteristics increase the power of resisters against innovation implementation.

The initial perceptions of followers of an innovation may persist and form secondary perceptions unless changes are introduced by driving and resisting forces. However, as the power of resisters emerges, initial perceptions of followers may change by comparing the powers of initiators and resisters. This phase constitutes the stage of power evaluation because comparison of power held by initiators and resisters may drive secondary innovation perceptions. If followers believe that initiators have stronger power than resisters, they maintain their initial perceptions. Otherwise, they change their initial perceptions by adopting the resisters' position, which impedes their active participation in the implementation (Table 8).

Proposition 3a: Increases in resisters' power negatively influences secondary perceptions of followers regarding innovation characteristics.

Initiators continually monitor follower perceptions of innovation through various communication channels. When they notice the emergence of resisters and the negative turns of follower reactions against the implementation, they attempt to counteract it by introducing facilitating tactics, such as a new reward system and organizational restructuring (Table 8).

Proposition 3b: The emergence of resistor power and a negative shift in follower perceptions of the innovation characteristics stimulate the initiators to introduce facilitating tactics.

Proposition 4a: Initiators introduce facilitating tactics to promote innovation implementation.

Similarly, the resisters evaluate follower attitudes toward innovation. As a reaction to the facilitating tactics of initiators and the corresponding shift of the follower's perceptions of the innovation, resisters organize movements against innovation, such as false reporting or innovation-targeted shirking (Table 8).

Proposition 4b: Resisters introduce inhibiting tactics against innovation implementation.

The secondary perceptions of followers toward innovation may continue as final perceptions if situations involving driving and resisting forces remain

the same. However, when initiators or resisters deploy tactics, such as implementation facilitators and inhibitors, final perceptions may change from secondary perceptions through a comparison of those tactics. Therefore, the emergence of final perceptions is driven by tactics evaluation, where followers may face two competing forces, namely, driving forces from the implementation facilitators of initiators and resisting forces from the implementation inhibitors of resisters.

Proposition 5a: The facilitating tactics provided by initiators positively influence followers' final perceptions of innovation characteristics.

Proposition 5b: The inhibiting tactics provided by resisters negatively influence followers' final perceptions of innovation characteristics.

Therefore, followers' perceptions toward the innovation reflect their evaluation of both the power and tactics of initiators and resisters. Initiators' tactics include the provision of incentives and training, organizational restructuring, or certain types of threat and penalty, whereas those of resisters include counter-implementation behavior often involving coalition building or false reporting. After comparing the benefits or threats promised by initiators and gains or costs introduced by resisters, the followers exhibit divergent implementation patterns (Figure 2 and Table 7).

Proposition 6: Followers' final perceptions of innovation characteristics lead to different implementation outcomes, namely, (a) when driving forces are greater than resisting forces ($D > R$), implementation occurs without change; (b) when two forces have approximately the same magnitude and are both strong ($D = R \gg 0$), modified implementation occurs; (c) when two forces have approximately the same magnitude and are both weak ($D = R \approx 0$), minimal implementation occurs; and (d) when resisting forces are greater than driving forces ($D < R$), implementation failure occurs.

Discussion

We explored the dynamic and interactive unfolding processes of innovation implementation from the social constructionist view of organizational phenomena (Cohen et al., 2004; Giddens, 1979). Classifying the potential factors that influence innovation implementation processes and among outcomes in 40 cases, we identified four aggregate dimensions that included 11 second-order themes represented by major concepts abstracted through open coding analysis. Based on pattern analysis and identified dynamic relationships, we

propose an overall theoretical framework that highlights interactive and political processes involving multiple actors in organizations that shape employee perceptions over time and lead to various implementation outcomes. In this section, we highlight the theoretical and practical implications along with directions for future research.

Theoretical Implications

The present analysis reveals the unfolding implementation process by comparing two competing forces that shape follower perceptions toward implementation. Our finding of two forces is consistent with Lewin's (1963) seminal work on field theory, in which an individual's change in behavior is influenced by both driving forces, which promote change, and by restraining forces, which resist change. Historically, however, Lewin's groundbreaking theory has not received much attention, perhaps due to his adoption of complicated topology (Burnes & Cooke, 2013). As Burnes and Cooke (2013) suggested, adoption of field theory without complicated topology should help social constructionists understand organizational life. Thus, we drew on Lewin's theory by first employing developmental path analysis with more accessible graphical views (Figures 3-6), instead of relying on topological mathematics. Thus, extending this classic model of organizational change, the present study elaborated interactive and dynamic processes by specifying sources (initiators and resisters), stages (i.e., power and tactics evaluation stages), and emerging changes in employee perceptions and implementation outcomes, each driven by two opposite forces related to innovation.

Driving and resisting forces are generated by the power and tactics of two competing actors based on their contradictory sociopolitical and socioeconomic motives. Implementation literature has largely drawn on economic rationality, such as cost and benefit of accepting innovation (Kim & Kankanhalli, 2009). However, the innovation process is often driven by political rather than economic rationality because implementing an innovation typically embodies redistribution of intraorganizational power among key actors (i.e., interaction theory; Kumar & Thibodeaux, 1990; Lapointe & Rivard, 2005). Drawing on a political perspective that an organization consists of conflicting groups of actors with different goals and values (Ansari et al., 2010), we identify the centrality of power and political processes to analyze the unfolding innovation implementation processes.

We classify sources of driving and resisting forces into political power and tactics by combining socioeconomic and sociopolitical perspectives. Our analysis indicates that these two conflicting parties compete to obtain power over each other during implementation. The followers then select the party

with greater power to minimize their efforts and maximize their benefits. This explanation of the phenomenon echoes Russell's (1938) statement:

Those whose love of power is not strong are unlikely to have much influence on the course of events. The men who cause social changes are, as a rule, men who strongly desire to do so. Love of power, therefore, is a characteristic of the men who are causally important. We should, of course, be mistaken if regarded it as the sole human motive, but this mistake would not lead us so much astray as might be expected in the search for causal laws in social science, since love of power is the chief motive producing the changes which social science has to study. (pp. 14-15)

Our findings are consistent with a sociopolitical perspective. In political science, the three objectives of power are decision making, objection, and instillation and control of ideology (Han, 2006). Based on the results of this study, decision making is induced by the initiators' power, whereas objection is represented by resisting individuals. Instillation and control of ideology are generally achieved through four means of power. These methods are (a) forces, which refer to "the exercise of power by physical means"; (b) persuasion, which is defined as "a nonphysical type of power in which the agent using power makes its intentions and desires known to the agent over whom power is exercised"; (c) manipulation, which refers to "the nonphysical use of power in which the agent exercising power over a second agent conceals the aims and intentions motivating the exercise of power"; and (d) exchange, which is defined as "a type of power involving incentives, in which one agent gives another agent an item in return for another item" (Grigsby, 2005, pp. 38-50). In our innovation cases, forces are observed in the initiators' threat of organizational restructuring. Persuasion is exemplified by counter-implementation campaigns, whereas manipulation is illustrated by false reporting of implementation. Exchange is substantiated with financial rewards for the implementation.

In this context, we consider the evolving mechanism of innovation implementation as a *dynamic equilibrium* process. Homans (1950) argued,

if there is a change in any one of the factors that enter a social system, the system as a whole reacts, under some circumstances, so as to decrease the magnitude of the change that would otherwise take place in that factor. (p. 302)

Although initiators decide on the adoption of an innovation, resisters may also express their concerns. Despite the initiators employing facilitating tactics, resisters identify inhibiting tactics. The followers constantly recalibrate

costs and benefits from two competing forces and decide on their degree of participation in implementing the innovation. Accordingly, the entire implementation mechanism consists of numerous *dynamic interactions* between multiple actors or political parties (Figure 7). The initial point and outcome can both be regarded as *equilibrium* (Choi, 2006; Leonard-Barton, 1988). That is, when a decision regarding innovation implementation is made in an organization, a composite range of innumerable dynamics (e.g., social interaction, exchange of ideas, and mutual sense-making; Greenhalgh et al., 2005) develops between different stakeholders through power-based competition and tactics deployment. However, at the end of the implementation, the organizational innovation may reach equilibrium. Therefore, the evolving mechanism of innovation implementation in general can be interpreted as a power-based dynamic equilibrium process.

Practical Implications

Our analysis presents several practical implications for managers. Before forming innovation-adoption decisions, top managers should prudently assess their political power and strategies available for them to overcome or suppress potential resisting forces effectively. If the power of top management is considerably stronger than that of potential resisting groups, then top managers are in good position to adopt relatively radical and complicated innovations. Otherwise, top managers must adopt relatively incremental and simple innovations that would appeal to employees, and thus can be easily accepted.

Once they have decided to adopt innovation, top managers should design and offer facilitating strategies. Our analysis confirms that top managers apply various tactics, such as communication, rewards, coercion, financial incentive, and training programs (Choi & Chang, 2009; Greenhalgh et al., 2005; Klein et al., 2001). For instance, they could persuade employees about the viability of innovation and its likelihood of attaining expected gains (i.e., rational persuasion; Berson & Sosik, 2007). They can provide innovative human resource (HR) practices, such as participation in decision making, to boost employee motivation through early involvement of employees in the innovation process (Sung et al., 2011). These tactics can be seen as carrot or *positive reinforcement tactics*. Top managers can utilize threats by announcing a new performance evaluation system or insinuating organizational restructuring, which can be viewed as stick or *negative reinforcement tactics*. Indeed, the timely and balanced application of various facilitating tactics can accelerate the implementation process. If employees perceive the tactics to be

efficacious and consistent with their own and the organization's values, they are more likely to implement the innovation (Chatterjee et al., 2002).

Top managers must understand that the emergence of resisters can convey important information regarding implementation because they spring from the vested interests of a person or group (Lapointe & Rivard, 2005). Thus, the emergence of resisting forces may indicate the failure of innovation in achieving the benefit claimed in its original design. Responding to such possibilities, top managers could modify or defer implementing the innovation by determining whether the original design has inherent defects and thus introduces substantial confusion and unproductive side effects that were not considered earlier.

Limitations and Future Research Directions

The present study employs an inductive methodology, and thus has strengths in exploring new patterns and building new theory. However, the findings of the current study should be carefully applied in practice because it is based on individual recollections of past events of innovation implementation, which are subject to potential biases. At one extreme, an alternative could be *in vivo*, on-site observations of innovation implementation, although such an approach may also suffer from observer biases (Gibbert & Ruigrok, 2010). At the other extreme, researchers could conduct longitudinal inductive studies. In this case, because the current model focuses on changing follower perceptions of innovation, temporal development of multiparty interactions, and shifting patterns of implementation outcomes, researchers may adopt longitudinal qualitative observation combined with quantitative panel design.

The present qualitative analysis identified generalizable themes and relational patterns across multiple implementation cases observed within organizational boundaries. For this reason, it did not consider the effects of macroenvironmental or institutional factors, such as environmental changes (e.g., new regulations, technology) and industry characteristics (e.g., market trends, competitive and developmental history). We acknowledge that some of those macro factors could have significant and interesting implications for innovation implementation. However, they were excluded because they emerged in only a small number of cases and we could not identify reliable patterns related to them. Future studies might expand on these additional factors in the context of the current theoretical framework.

Conclusion

Organizations adopt innovation to foster change, but actual innovation also evolves during implementation. Although practitioners have acknowledged

this phenomenon, scholarly research on this issue remains limited. We isolated three constituents (i.e., initiators, resisters, and followers) that develop and respond to the driving and resisting forces of innovation to improve the understanding of the unfolding dynamic mechanism of innovation implementation. Our qualitative analysis highlights the value of sociopolitical perspective in recognizing the innovation implementation process as a form of power-based dynamic equilibrium. Further studies on innovation and implementation should simultaneously consider socioeconomic and sociopolitical dynamics in organizations that generate diverse implementation outcomes in organizations.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the Ministry of Education of the Republic of Korea and the National Research Foundation of Korea (NRF-2015S1A5A2A03048150); the present research has been conducted by the Research Grant of Kwangwoon University in 2015.

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Associate Editor: William Gardner

Submitted Date: October 6, 2014

Revised Submission Date: March 26, 2016

Acceptance Date: March 30, 2016

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