THE DILEMMA OF INTEGRATION VERSUS AUTONOMY: KNOWLEDGE SHARING IN POST-MERGER IS DEVELOPMENT

Le dilemme intégration-autonomie : partage de connaissances lors du développement de systèmes d'information en contexte d'intégration post-fusion

Research-in-Progress

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Abstract

Although research acknowledges the role of IS in a merger, it has not addressed the issue of boundary management during the development of ISs aimed at supporting merged organizations. Yet, it has been shown, albeit not in a merger context, that knowledge sharing during IS development involving agents from different communities is critical and difficult. Hence, our study addresses the questions of how agents from merging organizations, engaged in an IS development during post-merger integration (PMI) share knowledge of the work practices required by a specific PMI approach, and of how the resulting IS functionalities are affected by, or do affect the implementation of a PMI approach? Adopting a practice perspective, we aim at developing a theory on knowledge sharing in this context. To do so, we conduct a case study of three IS developments within a merger in the healthcare milieu.

Keywords: Individual characteristics/individual differences, Information system development, Organizational change, IS development, IS integration

Résumé

Cette étude porte sur le partage de connaissances en contexte de développement de systèmes d'information (SI) au cours de la phase d'intégration suivant une fusion d'organisations. L'étude s'appuie sur la théorie de la pratique pour analyser trois projets de développement de SI lors de la fusion de cinq hôpitaux.

Introduction

Mergers are a major strategic tool for business growth and repositioning (Schweiger and Goulet 2000), and the number of organizations that turn toward this tool has been increasing for several years. Indeed, global merger deals rose from \$823 billion in 2004 to \$3.74 trillion in 2007 (Mergerstat 2008). Private firms are motivated by economic incentives such as better market positioning and increased return on capital (Haspeslagh and Jemison 1991). Public organizations, such as hospitals in many countries, are driven by regulatory forces, adherence to generally accepted practices, or by a concern for a better control of resources (Comtois et al. 2004). A merger comprises three phases. The first two -pre-merger and merger decision- involve strategic and financial analyses that determine the potential benefits. The third phase, post-merger integration (PMI), is the process of actual value-creation that will hopefully materialize when the organizations are merged (Larsson and Finkelstein 1999). Notwithstanding mergers' expected benefits, the PMI phase is often beset by problems such as employees' high levels of stress, dissatisfaction and resistance (Larsson and Finkelstein 1999). With large sums of money involved, it is crucial for the merging firms to achieve the expected synergies. Yet, the success of mergers is rather low, with a failure rate of almost 70% (Levinsohn, 2002). Research suggests that PMI problems are often related to the "issue of boundary management" (Haspeslagh and Jemison 1991), which refers to the degree of integration required among the merging parties and the degree of autonomy that each must retain for the merger to achieve potential synergies. To address this issue, four ideal-type PMI approaches have been put forth (Ellis 2004). They are: absorption - where one party requires the other parties to adopt its practices, norms and culture; preservation – where status quo is preserved in each organization; symbiotic – where the organizations are gradually combined by enforcing operational interdependence and a common culture; and transformation – where an organizational structure and work practices new to all parties are implemented. Recent studies show that some firms have dealt with the issue of boundary management by concurrently implementing different approaches in different business units (Ranft and Lord 2002; Schweizer 2005).

Given the amounts of resources invested in mergers and the low success rate of those endeavors, research aimed to understand the PMI process is deemed important. Our objective is to contribute to this understanding by focusing on the development of information systems (IS) aimed at supporting the merged organizations. Our motivation is threefold. First, irrespective of the integration approach adopted for a merger, new ISs that will span the boundaries of previously independent organizations will have to be developed, be they mere "bridges" between the pre-merger ISs in a preservation approach, or a unique IS in a symbiosis approach (Wijnhoven et al. 2006). The literature suggests that building such systems is indeed difficult, mainly because of the incompatibility of the merging parties' ISs. which makes the integration task most challenging. For instance, when Coty, a world leader in cosmetics, merged with UCI, it assumed that the integration of the two firms' supply chain ISs would be "brainless" (Worthen 2007). Yet, a few months into the process, the firms realized that several of their ISs were incompatible. A middleware solution was required to span the firms' boundaries, and a common ERP had to be developed. Although this and other reports identify the challenges of implementing ISs to support post-merger business processes, they do not elaborate on the nature of the challenges or on how to address them. Second, although research stresses the importance of the role of ISs to support the combined organizations (Mehta and Hirschheim 2007), the issue of boundary management during the development of an IS during PMI has not been studied (Vieru and Rivard 2007). Third, it has been shown, albeit not in a PMI context, that knowledge sharing during ISD involving agents from different fields of practice is both critical and difficult (Karsten et al. 2001; Levina and Vaast 2006).

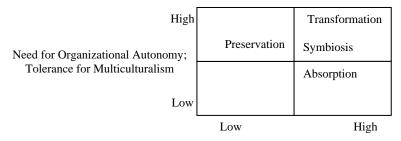
In this study, we adopt a practice perspective, which conceptualizes knowledge as an integral part of daily work practices, to study the development of ISs to support merging organizations in the healthcare milieu. In this perspective, individuals (or agents) share a set of work practices within the same field of practice (e.g. business units, departments or goal-driven groups) and pursue a joint interest (Levina and Vaast 2005). Boundaries are defined as objective limits that distinguish agents based on differences in their practices (Bourdieu 1977). Where practices are not shared, individuals have different assumptions, outlooks and interpretations of the organizational context. Thus, cross-boundary knowledge sharing involves the negotiation of multiple domains of knowledge by the agents that usually have an understanding of only part of the other domains beside their own domain of knowledge (Boland and Tenkasi 1995). Given this, our research questions are:

- How do agents from merging organizations, engaged in an IS development during PMI, share knowledge of the work practices required by a specific PMI approach?
- How does agents' understanding of the work practices of the others engaged in knowledge sharing during IS development in PMI, influence the resulting IS functionality?

We undertook a multiple-case study within a large teaching healthcare centre resulting from the merger of five hospitals. The cases involve three processes: Patient Appointment Scheduling, Laboratory, and Blood Bank. Although in all cases the intended PMI approach was transformation, it was indeed implemented only in Blood Bank. In the other cases, a mixed approach was actually implemented, transformation and symbiosis in Laboratory, and transformation and preservation in Patient Appointment Scheduling. This research-in-progress paper presents the main approaches to PMI, outlines the key elements of the practice perspective on knowledge sharing, introduces the conceptual framework, and describes our research method and the intended contribution. Our main empirical findings and a preliminary version of our process theory will be presented at the ICIS 2008 poster session.

Post-merger Integration Approaches

Researchers have addressed the PMI issue of boundary management by proposing integration approaches that they deem appropriate given some of the merging parties' strategic and organizational characteristics. Ellis (2004) synthesizes these recommendations and identifies four ideal-type approaches (Figure 1). The dimensions along the X-axis, need for interdependence (Haspeslagh and Jemison 1991) and degree of relatedness (Nahavandi and Malekzadeh 1988) refer to the extent to which the merging organizations augment or complement each other in terms of products and customers. A high level of relatedness between firms will result in a need for higher strategic interdependence between the merging firms (Haspeslagh and Jemison 1991), which will engender various degrees of post-merger change in one or both merging firms (Marks and Mirvis 2001). On the Y-axis, the need for organizational autonomy is the degree of cross-boundary interaction and coordination between the merging firms (Haspeslagh and Jemison 1991), and tolerance for multiculturalism is the extent of their ability to retain elements of their own culture (Nahavandi and Malekzadeh 1988) and structures (Marks and Mirvis 2001).



Need for Interdependence; Degree of Relatedness

Figure 1. Ideal-types Post-merger Integration Approaches (adapted from Ellis 2004)

Preservation is deemed appropriate when there is a strategic need to maintain the sources of expected value-creation intact by preserving the boundary between the organizations. Absorption occurs when one of the firms imposes its work practices, norms and culture on the other parties. It is deemed appropriate to contexts with a high combination potential and a low need for organizational autonomy. When, as in the upper right quadrant, there is a high need for interdependence and a high need for organizational autonomy, authors posit that a completely new organization should emerge from the merger. There exist two alternate approaches for creating this new organization. First is symbiosis, where the merging parties are gradually blended together by becoming increasingly interdependent (Haspeslagh and Jemison 1991). Second is transformation, where organizations are integrated by developing totally new, yet common, practices, culture and other organizational attributes (Marks and Mirvis 2001). Even though these two approaches are presented in the same quadrant, they are different: symbiosis involves a medium degree of structural change for the parties involved, while transformation entails fundamental changes of all merging entities. Recently, it has been suggested that, in some circumstances, a mix of approaches might be more appropriate than a single one (Ellis 2004; Schweizer 2005). Studies have shown how some organizations chose different approaches according to the types of resources that were to be integrated, such as knowledge (Ranft and Lord 2002), or for different business processes (Schweizer 2005).

Knowledge Sharing Across Boundaries

Knowledge sharing has been studied from a variety of perspectives, from conceptualizations of knowledge as a *core* organizational capability (Spender and Grant 1996) to knowledge as organizational memory (Baltrush 2001; Robey et al. 2000). In this study we adopt an alternative view, the practice perspective, which has been particularly useful

for studying ISD that span inter-organizational boundaries (Suchman 2002; Levina and Vaast 2006), albeit not in a PMI context. This perspective is based on seven main concepts: *knowledge in practice, practice, field of practice, boundaries, knowledge sharing processes, boundary spanners, and boundary objects.*

Knowledge in practice is knowledge that is "localized, embedded and invested in practice" (Carlile 2002: p.442), and encompasses two complementary epistemologies. The first, an epistemology of possession, refers to explicit and tacit knowledge and conceptualizes knowledge as something one uses in action. The second, an epistemology of practice, advances the concept of knowing that is used to refer to "something that is a part of action" (Cook and Brown 1999: p.387); it is something that one does as opposed to something that one possesses. Knowing represents an "ongoing social accomplishment, constituted and reconstituted in everyday practice" (Orlikowski 2002: p.252). The term practice refers to "coordinated activities of individuals and groups in doing their "real work" as it is informed by a particular organizational or group context" (Cook and Brown 1999: p.387); practices are centrally organized around shared practical understandings. Within a field of practice, agents are differentiated by their status, which is defined by the unequal access to three fundamental types of capital: economic capital (e.g. money), intellectual capital (i.e. expertise) and social capital (resulting from the person's institutionalized relationships of mutual acquaintance) (Bourdieu and Wacquant 1992; Levina and Vaast 2008). Agents can convert their capital into a fourth type, symbolic capital that is associated with the power to categorize any of the other resources as valuable (Bourdieu and Wacquant 1992), such as the ability to claim "authoritative knowledge" (Suchman 2002: p.142). Authoritative knowledge is considered by the rest of the members of a field of practice as being legitimate and useful for justifying actions by people engaged in achieving a common goal (Suchman 2002).

Through practice agents formalize their membership to a given field and, at the same time differentiate themselves from agents from other fields. From this, boundaries emerge (Bourdieu 1977; Brown and Duguid 2001; Levina and Vaast 2005). Knowledge sharing across boundaries will be more or less challenging depending on the complexity of knowledge at the boundary, which depends on three relational properties: difference, dependence, and novelty (Carlile 2004). Difference may exist either in the amount of knowledge accumulated or in the degree of specialization of knowledge within each field of practice involved in knowledge sharing. As the difference increases, so does the amount of efforts required to share knowledge. The effect of difference, however, is contingent upon the degree of dependence among the fields. Novelty is an attribute of the circumstances that call for knowledge sharing. When novelty is present, "there is often a lack of common knowledge to adequately share and assess domainspecific knowledge at a boundary" (Carlile 2004: p.557). Given these three properties, a boundary is said to be syntactic when differences and dependencies among practices at the boundary are known. In this case, a *knowledge* sharing process that transfers knowledge across the boundary by the creation and use of shared repositories and taxonomies is appropriate (Carlile 2002). An increase in novelty – in terms of new agents and/or new requirements – renders "some differences and dependencies unclear or some meanings ambiguous" (Carlile 2004: p. 558). In such a situation, the boundary becomes semantic and the adequate knowledge sharing process is one of translation, that is, the dealing with interpretive differences by creating shared meaning. A pragmatic boundary emerges when agents have different interests, and when negative consequences can arise from the differences and dependencies at the boundary (Carlile 2002). To alleviate these consequences, the appropriate knowledge sharing process is one of knowledge transformation, where "individuals represent, learn, negotiate, and alter the current knowledge and create new knowledge to resolve the consequences identified (Carlile 2002: p.455). Because knowledge is considered as being linked to individuals' interests within a specific context, knowledge sharing requires agents to alter part of their existing knowledge as they engage in a process of knowledge transformation (Bechky 2003).

In addition to knowledge sharing processes, boundary objects (Henderson 1991; Levina and Vaast 2005) and boundary spanners (Brown and Duguid 1991) can contribute to knowledge sharing. Boundary objects are artifacts such as prototypes (Bechky 2003), design drawings (Bødker 1998), and ISs (Schultze and Boland 2000) that contribute to establishing a shared context. To be useful, boundary objects should be tangible (Carlile 2002), concrete (Bechky 2003), accessible and up-to-date (Karsten et al. 2001). Carlile (2002: pp.451-452) identifies three characteristics of effective boundary objects. When used in a process of knowledge transfer, a boundary object must create "a shared syntax or language for individuals to represent their knowledge". When there are differences in interpretations of the problem at hand, an effective boundary object should provide "concrete means for individuals to learn about their differences and dependencies across a given boundary". When negative consequences are identified for the individuals involved and negotiation needs to take place, an effective boundary object will foster "a process where individuals can jointly transform their knowledge". Boundary spanners are agents who act as buffers between the providers and the users of knowledge (Irwin and More 1991). They may perform the roles of

"knowledge brokers" (Hargadon and Sutton 1997; Pawlowski and Robey 2004) or "translators" (Yanow 2000), which imply that they assess knowledge at the boundary and select the knowledge they consider pertinent.

Conceptual Framework

The framework is based on three key premises. First, it views boundaries among fields of practice as differentiated by the level of complexity of knowledge at the boundary, which depends on three relational properties: difference, dependence, and novelty (Carlile 2004). Second, it assumes that distinctions among agents' amounts of capital convey their relative position in a field of practice and influence their ability and inclination to share knowledge across the field's boundaries (Levina and Vaast 2008). Also, in an ISD context, "the pre-existing differences in backgrounds of project participants will become more or less salient in producing status differences depending on the composition of the team and the context of work" (Levina and Vaast 2008). We focus on intellectual capital and symbolic capital as the two main forms of capital used in the process of post-merger cross-boundary knowledge sharing. Third, it espouses the idea that ISs do not have predefined structures of their own, and can only be defined in relation to the practices of prospective users (Luna-Reyes et al. 2005; Orlikowski 2000), or to the business processes and institutionalized values of the organization implementing the technology (Orlikowski and Yates 1994).

Espousing a practice perspective and building on Ellis' (2004) typology of integration approaches we propose a multilevel framework that examines knowledge sharing during post-merger ISD efforts. We acknowledge the epistemological difference between Ellis' (2004) positivist stance and the interpretivist orientation of the practice perspective. The PMI approaches typology, however, is only used here to characterize a given integration approach, not to determine whether this approach is appropriate or not. In the proposed framework, the fields of practice that come into play are the emerging business units or business processes that span the boundaries of the previously independent firms. The framework operates at two levels, the organization and the ISD project. At the organizational level, we posit that different PMI approaches influence the level of knowledge complexity at the boundary, thus creating demands on the types of knowledge sharing processes and boundary objects that the agents involved in an ISD will require for adequate knowledge sharing, as well as on the role of the boundary spanners. At the ISD level, we conjecture that agents, as boundary spanners, will try to convert their accumulated intellectual capital into symbolic capital to make claims about who holds relevant knowledge and create a model of practices that, when incorporated in the new IS, reinforces those claims. Thus, the initial functional design of the IS that reflects practices related to a specific PMI approach may be different from the final functionality at the end of the ISD process.

Organizational level

At the organizational level, our framework combines the key organizational and strategic dimensions discussed in regard to PMI, the relational properties that influence the level of complexity of knowledge at a boundary and the nature of knowledge boundaries (Carlile 2002, 2004). In addition, for each PMI approach, we propose a degree of novelty that will be required from an IS to support the combined organizations. The components of the framework at the organizational level – synthesized in Table 1 – define the key characteristics of the ISD environment.

Table 1. Requirements for ISD in a PMI Context					
PMI Approach	Degree of novelty of IS in support	Relational properties	Type of boundary		
Preservation	None	Difference is idiosyncratic Dependence is low Novelty is low	Syntactic		
Transformation	Completely new	Difference is idiosyncratic Dependence is high Novelty is high	Pragmatic		
Symbiosis	Evolution from existing	Difference is idiosyncratic Dependence is high Novelty is medium	Semantic		
Absorption	Completely new for the absorbed parties	Difference is idiosyncratic Dependence is high Novelty is high	Pragmatic		

Recall that the level of complexity of knowledge at a boundary depends on difference and dependence among the fields of practice as well as on the novelty of the context. During PMI, the degree of difference among the fields of practice is idiosyncratic to the actual merger context and can only be assessed when studying this context. As shown in Table 1, the degree of dependence among the fields of practice, however, is influenced by the degree of strategic interdependence that a PMI approach calls for. Indeed, absorption, symbiosis and transformation will impose a high degree of dependence among the merging fields of practice while preservation will leave the fields independent from each other. The degree of novelty of the knowledge sharing context will be low in a preservation approach, since the organizational structures, cultures and practices are preserved. Accordingly, the knowledge boundary is syntactic in nature and the IS that will be required to support the merged organization will not be novel. Indeed, a "bridge" between existing ISs is likely to be sufficient. Novelty of the knowledge sharing context will be high for all parties in a transformation PMI approach, since it implies the implementation of totally different, yet common, practices, culture and other organizational attributes. Consequently, the knowledge boundary will be pragmatic in this case. ISs that will be required to support an organization resulting from a transformation approach will have a high degree of novelty. Similarly, novelty of the knowledge sharing context will be high in an absorption approach, since the party absorbing the other parties will be required to share their knowledge with their counterparts while the "absorbed" parties will have to transform their practice in accordance with that of the former. In this approach, the "absorbing party" is likely to want to preserve its exiting ISs and have the other parties use it. Hence, novelty of the IS will be low for the former party and it can be relatively high for the latter. In the case of a symbiosis PMI approach, novelty of the knowledge sharing context will not be as high as in these two situations because, as per the approach, practices will be gradually modified. In such a case, the boundary is semantic in nature. Because of the gradual nature of practice modification, we contend that the ISs that will support this approach will evolve from existing ISs.

The development of ISs to support the processes of the merged organization is likely to involve agents from the fields of practices affected by the merger. Table 1 identifies the key elements of the environment where ISD will take place. At the ISD level, our conceptual framework identifies the main characteristics that the boundary objects that will be used for knowledge sharing during ISD must possess to be effective, the key roles played by agents' intellectual capital and symbolic capital during ISD, and the potential requirements put on boundary spanners.

ISD Level

In a preservation approach, agents involved in ISD projects will be faced with a syntactic boundary, across which the appropriate knowledge sharing process is one of knowledge transfer. Here, effective boundary objects used by agents are likely to be syntactical tools such as *taxonomies* that will have the role of providing an integrated viewpoint when elaborating definitions and norms for practices. As an example, despite granting operational and cultural autonomy to the merging entities, the new organization, from a legal standpoint, needs to provide unified financial services. Developing an IS to enable such a cross boundary business process (e.g. cost database) requires boundary spanners to define a set of symbols according to an existing taxonomy or set of rules (e.g. government regulations). In this situation, the differences in intellectual and symbolic capitals at the boundary in capitals are irrelevant.

In a symbiotic approach, where the knowledge boundary is semantic in nature, the boundary objects used by agents should enable processes for translating the differences and dependencies at the boundary. They will use *standardized methods* that may include standardized information infrastructure-based technologies such as Lotus Notes (Hanseth and Braa 2001) to assess their knowledge differences and dependencies and identify common meanings. The amount of intellectual capital is important here. The higher the volume of knowledge in practice accumulated on each side of the boundary, the harder the identification of common ground for knowledge sharing. The symbiotic approach provides an evolutionary path for gradual PMI by trying to avoid the conflicting tensions between the merging parties by ensuring a simultaneous boundary preservation and boundary permeability. Thus, some agents will play the role of boundary spanners and use their symbolic capital to mitigate agents' status differences to establish effective knowledge sharing (Levina and Vaast 2008).

Transformation and absorption both create a pragmatic knowledge boundary. Here, effective knowledge sharing requires a transformation of practices. Hence, the agents involved in an ISD aimed to support the new organization must engage in a process of knowledge transformation. In addition to the syntactic and semantic components that boundary objects must have, *models* are considered effective boundary objects for a pragmatic boundary as they enable "a process where individuals can jointly transform their knowledge" (Carlile 2002: p.452) and provide an infrastructure where new forms of knowledge are produced and shared. In ISD, these may include *prototyping and*

modeling technologies (Leonard-Barton 1995; Schrage 1999). However, we suggest that in an absorption approach, knowledge sharing during ISD is difficult. In this approach, the "absorbing party" is likely to want to preserve its existing practices and develop new ISs that will enable them. During ISD efforts boundary spanners from the absorbing party will use their symbolic capital to try to legitimize their knowledge base in the eyes of the "others" in order to ensure an efficient knowledge sharing. We conjecture that in a transformation approach manifestations of symbolic capital will be seen on each side of the boundary. Here, the high degree of novelty of the knowledge sharing context generates different interests among agents that may influence the way they classify the authoritative knowledge during an ISD. In both absorption and transformation, the lack of shared intellectual and symbolic capitals are likely to shape the boundaries during ISD initiatives, "leading to power dynamics that undermine collaboration" (Levina and Vaast 2008).

Finally, regardless the integration approach, we posit that the features of the IS that will result from the ISD project will not necessarily reflect the practices, norms and values promoted by a specific integration approach. They will rather reflect the agents' understandings of the others' practices as they are influenced by the relational properties of knowledge at the boundary and the differences in intellectual and symbolic capitals on each side of the boundary. The pre-merger assessment of the boundaries between fields of practice within the previously independent firms is important for identifying how to differentiate the agents on the basis of their practices and determining what integration approach is the most appropriate. However, these boundaries, as Levina and Vaast (2008) suggest "become salient or stop mattering as practices evolve". Through the process of knowledge sharing, ISs are being continuously defined and are changing their properties (i.e. updates and "patched-up" new releases of ERP systems). This may result in a final product with different functionalities than the ones defined in the initial design.

Research Methodology

We adopted a multiple-case design within a single organization –the Teaching Health Centre (THC)– a Canadian tertiary care teaching hospital, created in 1998 from the merger of five teaching hospitals. Although more than ten years have elapsed since the PMI commenced, the sites are still geographically dispersed and keep separate many of their clinical activities. This means that the PMI phase is still ongoing and that the PMI issues are contemporary. The setting was chosen for two main reasons. First, research on PMI in the healthcare milieu has shown that these settings can be studied as a series of departmental "micro-mergers" due to the fact that each care unit transforms itself over time into a unique community of practice where work norms and professional relations take idiosyncratic forms (Denis et al. 1999). This suggests that a practice perspective is appropriate for studying such a milieu. Second, one of the co-authors has significant experience in IT-related work in THC and has privileged access to data.

We selected three cases. Our first selection criterion was that a given case had to have clear boundaries in terms of business process and stakeholders; each case pertains to the development of an IS that was meant to accommodate a unique business process that would span all five hospitals. The second criterion was to maximize variation and allow comparison (Guba and Lincoln 1989). As shown in Table 2, similarities and comparison pertain to three characteristics of the cases: organizational entity, intended PMI approach and final PMI approach. In terms of similarities, the intended PMI approach was the same, transformation. Indeed, the original objective was to create a new "best practices" organizational model for coordinating and providing individualized care to patients. Also, in two of the cases, the integration approach was modified during PMI – from transformation to a mixed approach. In terms of variations, the final PMI approach differed across the three cases.

Table 2. The Selected Cases					
	Business Process	Planned PMI Approach	Final PMI Approach	Timeline	
Case 1	Laboratory Services	Transformation	Mix of Transformation and Symbiosis	2003-2008	
Case 2	Patient Appointment Scheduling	Transformation	Mix of Transformation and Preservation	1998-2002	
Case 3	Blood Bank	Transformation	Transformation	2003-2006	

The first case, Laboratory Services, pertains to services that are provided by several different, yet related, clinical units, such as, hematology, nephrology, and endocrinology. The final configuration of the IS developed for supporting these activities reflects a business process in which a blend of new best practices (transformation

approach) and "best-of-breed" type of practices (symbiotic approach) are present. The second case concerns the development of a centralized Patient Appointment Scheduling system (PASS), used in all the outpatient clinics of the THC. However, the final functionalities of the IS reflects two different instances of the same process, one for the adult care hospitals, and one for the pediatric hospital. In order to ensure an efficient patient appointment scheduling, the pediatric site was granted autonomy for this process and the IS functionality was tailored to accommodate its practices. Thus, across the organization, PASS presents a blend of new "best practices" (transformation approach) and old practices (preservation approach). The third case is that of the Blood Bank services, which manages the blood transfusion services, where the actual PMI approach was indeed a transformation approach.

We use three sources of data: interviews, archives, and participant observation. Interviews are conducted with the main ISD project stakeholders: project managers, IS developers, and representatives of the target processes. Initial respondents are the project managers. Subsequent participants are identified through a snowballing sampling strategy. The interviewees are significant in regards to being agents in influencing the knowledge sharing process because of their role, status, power and experience. We acknowledge that due to the fact that the PMI process started over ten years ago, the relevant knowledge to the fields of practice during the three IS developments may have been transformed. Thus, we will complement the individual retrospective data with archival data such as project-related documentation (e.g. minutes of meetings, progress reports, technical documentation pertaining to the ISD process, and e-mails) that will fill potential gaps in the interviewees' memory. We will also have access to the organization's monthly newsletters and strategy documentation (e.g. integration guidelines and/or early PMI approaches sketches).

As a member of the organization under study, one of the researchers will be able to provide an emic perspective. Due to the fact that the three ISD projects were completed at the time of the research inquiry, the main goal of the participant observation is to look for the ways individuals in the fields of practice who participated in the development of the ISs organize themselves into groups and sub-groups. Patterns and frequency of interactions within these fields will be observed. These observations will facilitate the understanding the process of creation of communal knowledge bases that encompass what Cook and Brown (1999) call genres and stories.

Interviews will focus on understanding, from the participants' standpoint, the history of the ISD projects, status differences, types of boundary objects used during the ISD, roles of boundary spanners, differences in IS functionalities between the initial and the go-live phases of the project. From the outset, data collection will be combined with a preliminary coding, so as to allow us identify emergent themes. On the basis of these preliminary findings and the ongoing observation data, new questions will be added to confirm or disconfirm the emerging patterns in the data. Data collection will stop when it will reach theoretical saturation. Within-case analysis will follow, to allow unique patterns of each case to emerge. For this analysis, we will use a "temporal bracketing" strategy (Langley 1999), dividing the ISDs into phases, based on practices of knowledge sharing, strategic actions or decisions taken by agents or on contextual events. We will then conduct a cross-case analysis, using analytic induction, to look for the presence of common patterns and idiosyncratic characteristics.

Insider research can provide rich empirical accounts about what organizations are really like, which traditional approaches may not be able to uncover. Notwithstanding, an important challenge awaits the researcher who wants to pursue this approach: how to avoid "staying native", or how to keep an open mind and try to escape "the tribe's shared cultural frame" (Alvesson 2003: p.189). Thus, in this study we will try to be explicit and self-aware about personal assumptions, values and biases.

Expected Contribution

This study will contribute to the IS literature on PMI by providing an in-depth examination of the dilemma of integration versus autonomy that can impact knowledge sharing in post-merger ISD; and proposing a practice perspective-based framework for understanding how boundaries and related practice and individual status differences affect collaboration effectiveness, especially in the context of PMI. This work also contributes to the Organization literature on practice perspective by providing an additional, detailed example of its application in a specific organizational context, the PMI, and illustrating its utility in the investigation of a complex organizational phenomenon. In addressing the practitioners, first, this research emphasizes the importance of developing ISs with functionalities that enable post-merger business processes. Second, it argues that, when making IT integration decisions, management should consider if post-merger IS development initiatives will have the capability to foster effective collaboration among stakeholders.

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