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AMBIDEXTROUS IS STRATEGY: THE DYNAMIC BALANCING ACT OF DEVELOPING A 'TRANSFORM & MERGE' STRATEGY IN THE BANKING INDUSTRY

Completed Research Paper

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Abstract

Motivated by the lack of empirical IS strategy research in the M&A problem domain, in this paper we present a revelatory case study of a 7-year-long organizational balancing act of searching for the right information systems (IS) strategy in the pre-deal phase of a bank merger. Our case study is about simultaneous IT-driven organizational transformation and merger-driven integration, providing us with a fertile ground to study the development and evolution of ambidextrous IS strategies, which are underresearched. Based on the theoretical insights that emerge from our case study, we extend Chen et al.'s (2010) IS strategy typology and propose three different archetypes of IS ambidextrous strategy. Further theoretical insights relate to the required organizational capabilities for the successful implementation of IS ambidextrous strategies as well as the co-evolutionary interplay between business and IT units in that process. Future research should empirically test the IS ambidextrous strategy archetypes proposed in this paper as well as the associated findings.

Keywords: IS strategy, Ambidexterity, IT Transformation, mergers, acquisitions

Introduction

The careful construction and implementation of an information systems (IS) strategy is important, because it can deliver business value by supporting, or even enabling, organizational objectives (Reich and Benbasat 1996). An IS strategy is even more important in mergers and acquisitions (M&As), because value creation in this context frequently depends on the success of IS integration (Tanriverdi and Uysal 2011). However, developing an appropriate IS strategy in such turbulent environments as M&As is extremely difficult (Tanriverdi et al. 2010), and, as a result, frequently there is no apparent IS strategy in M&A contexts (Leidner et al. 2011). In this paper, we present a revelatory case study of a 7-year-long organizational search for the right IS strategy, which started with the idea of transforming the company's IS architecture and platform and ended with a balancing act when combined with merger-driven IS integration goals. Thus, our analysis provides insights into the evolutionary development of an ambidextrous IS 'transform & merge' strategy, which has been previously inaccessible to scientific investigation and contributes to the IS strategy and M&A literature. Organizational ambidexterity refers to simultaneously exploiting existing competencies (in the context of our study associated with the 'merge' strategy) and exploring new opportunities (in our study associated with the 'transform' strategy) (Raisch et al. 2009). However, there is a significant gap in our understanding of how to construct and implement an ambidextrous IS strategy.

Prior IS research on M&As acknowledges the important role of IS strategy for integration success (Alaranta and Henningsson 2008; Buck-Lew et al. 1992; Mehta and Hirschheim 2007; Wijnhoven et al. 2006), yet our theorizing about IS strategy development and evolution during M&As is very limited (Henningsson and Carlsson 2011; Merali and McKiernan 1993; Robbins and Stylianou 1999), and has not found its way into the general IS strategy literature (Chen et al. 2010). Leidner et al. (2011) emphasize the particular challenges of IS strategy development during M&As due to the "operational chaos" that is often found in such situations. Given the importance of IS strategy and alignment for successful post-merger IS integration, this is disturbing evidence and provides a strong motivation for examining this topic. The "operational chaos" to which Leidner et al. (2011) refer to also underscores an important gap in the literature and a need to examine IS strategy development and evolution during times of high business volatility in general and M&A activity in particular. Therefore, we address the following research question: How and why does IS strategy development evolve over time in the pre-deal phase of a merger?

IS strategy has always been a phenomenon of core interest in the IS field (Mocker and Teubner 2005). Chen et al. (2010) provide a comprehensive review and conceptualization of the topic. Based on the notion of a shared perspective between business and IS actors, they suggest three possible types of IS strategy: IS innovator, IS conservative, and IS undefined. However, their typology is based on a literature review in which "the majority of the articles are descriptive in nature and the proposed typology has not been empirically tested" (Chen et al. 2010, p. 242). Thus, more empirical research is needed to explore these different strategy types in practice. In addition, as Chen et al. (2010) note, the underlying conception of IS strategy based on a shared perspective between business and IS actors, reflects not only the underresearched social dimension of IS strategic alignment (Chan and Reich 2007; Reich and Benbasat 2000), but also the need to examine strategic alignment as an ongoing process dictated by the organization's top IS and business decisions makers (Preston and Karahanna 2009). Chen et al. (2010) conclude that "IS strategy can be developed to either support or alternatively drive a business strategy allowing for a dynamic form of alignment" (p. 242). Our study provides unique empirical insight into the dynamic and co-evolutionary process of business and IS strategy alignment in the pre-deal phase of a bank merger.

The rest of this paper is structured as follows. In the next section, we provide a theoretical background on IS strategy literature. After that, we present the research methodology for examining our revelatory case. In the main section of the paper we present the results of our case analysis, followed by an in-depth discussion of our findings in the light of existing literature.

Theoretical Background

IS Strategy: Definition and Conceptualization

In this paper, we define IS strategy as "the organizational perspective on the investment in, deployment, use, and management of information systems" (Chen et al. 2010, p. 237). The emphasis on viewing strategy as a 'perspective' is meant to bridge the tension in the existing strategy literature between intentional (i.e., ex ante) and emergent (i.e., ex post) views, or between the approach of formally planning and then executing strategy versus the approach of implementing decisions and outcomes first and understanding the realized strategy through an ex post examination of patterns of various decisions. The advantage of this approach is that it acknowledges the need for planning and formally stating IS strategies with the benefit of providing understanding and direction for organizational members while also allowing for informal strategic decisions to emerge through sensemaking as actors respond to changes in the environment that create opportunities. Accordingly, the Chen et al. (2010) conceptualization of IS strategy, which is based on Mintzberg's (1987) idea of viewing strategy as a perspective, fits particularly well with the context of our study which focuses on the evolutionary process of IS strategy development in the pre-deal phase of a bank merger. M&As are particularly dynamic business phenomena that require strategic planning, but also to a high degree recurrent adaptation and flexibility. This is particularly true for M&As in the highly turbulent financial services industry, which has gone through one crisis after the other in recent times.

In line with the above conceptualization of IS strategy, top management, including both business and IS executives, must agree upon and choose the role of IS in their organization (e.g., push or support business initiatives) which guides IS-related decisions and actions. This conceptualization is also based on the insight that we see a greater level of shared understanding between business and IS executives nowadays on the strategic role of IS within the organization (Preston and Karahanna 2009). The shared perspective on the role of IS implies that if the organization's top management decides to choose a different role for IS within their organization due to a significant change in the business environment, IS-related decisions and actions need to be adapted in order to preserve the shared perspective and understanding between business and IS executives.

The important difference between the shared perspective on the role of IS and other views of IS strategy that are prevalent in the literature is that the shared perspective seeks to overcome the limitations of a 'business strategy-driven logic' on one end of the spectrum and an 'IS function-driven logic' on the other end. It embodies a view that organizational members, whether from business or IS units, head in the same direction (Tai and Phelps 2000) and that IS strategy reflects the shared view of top managers and executives regarding the role that IS should play (Earl 1993; Galliers 1991; Peppard and Ward 2004). Furthermore, as explained by Chen et al. (2010), the conceptualization of IS strategy that we have chosen lends itself to a dynamic, social process view of strategic alignment between IS and business (Sabherwal et al. 2001). It is therefore particularly suitable for our study of the evolutionary and dynamic process of IS strategy development in the pre-deal phase of a bank merger.

Typology of IS Strategy

Chen et al., (2010) differentiate between the IS innovator and the IS conservative strategy. The IS innovator "strives to be a leader in its industry in the development and use of information technology (IT) to solve business problems and create value for the firm" (Leidner et al. 2011, p. 421). Thus, the logic here is exploration, which entails experimenting with new alternatives that may, or may not, yield business returns (March 1991). Experimentation involves exploring the potential of emerging technologies, although this does not necessarily imply being an early adopter of technology (Leidner et al. 2011). What it does imply is constantly seeking to apply new IS innovations that appear promising in the sense of providing the organization with a competitive advantage. According to Chen et al. (2010), the IS innovator strategy puts IS in a good position to drive, rather than simply enable, the business strategy.

The IS conservative strategy seeks a more stable IS strategic approach that focuses on the logic of exploitation (Chen et al. 2010). This entails "the refinement and extension of existing competencies, technologies, and paradigms" (March 1991, p. 85). Thus, the main difference between the IS conservative

and the IS innovator is that the latter focuses on exploring new IS initiatives while the former focuses on creating value through effectively refining and improving existing IS resources and practices. It is important to recognize that both the IS innovator and conservative strategies seek organizational innovation through IS. However, the latter seeks to "reduce potential risks of engaging in an aggressive IS strategy" (Chen et al. 2010, p. 244). Another key characteristic of the IS conservative strategy is that the focus is on reducing operating costs and improving efficiency to generate higher levels of organizational performance (Chen et al. 2010; Leidner et al. 2011). In this strategy, IS frequently serves as a means of cost reduction, for example by enabling automation (Aral and Weill 2007; Leidner et al. 2011; Weill 1992).

Finally, in the literature it is also acknowledged that in many organizations the IS strategy is ill-defined or unclear, also referred to as IS undefined. In this case, the organization does not have clear long-term IS goals and objectives, neither does it behave consistently with regards to its IS strategy (Chen et al. 2010).

Ambidextrous IS Strategy: Myth or Reality?

The above described IS innovator and IS conservative strategies appear to be mutually exclusive. However, it is acknowledged in the literature that some organizations seek multiple goals, for example exploration and exploitation, at the same time, a phenomenon also referred to as ambidexterity (Eisenhardt et al. 2010). In this case, the challenge is "maintaining the balance" between the different goals, or in the context of our study between the IS innovator and the IS conservative strategies (Chen et al. 2010; Galliers 2006; March 1991). Perhaps because the optimal mix between exploitation and exploration is so difficult to specify (Levinthal and March 1993) and to achieve (Benner and Tushman 2003; Ghemawat and Costa 1993; O'Reilly and Tushman 2004; Smith and Tushman 2005), the commonly held perception in the IS strategy literature is that the IS innovator and IS conservative strategies are not only mutually exclusive but also that an organization "should be focused on being an IS innovator *or* an IS conservative" (Chen et al. 2010, p. 245). There exists, however, the opposing viewpoint as stated by Leidner et al. (2011, p. 422): "Perhaps an ambidextrous IS strategy, which is a combination of innovative and conservative strategies, exists in a larger percentage of organizations than given credit for." Due to the lack of empirical IS research on this topic (Chen et al. 2010), the question of whether such an ambidextrous/hybrid IS strategy[1] exists in practice, and if so, how it evolves or is developed, under which conditions, and why remains unexplored, to the best of our knowledge.

Research Methodology

Our research methodology involved an in-depth case study of a banking organization searching for the right IS strategy in the pre-deal phase of a bank merger. The process of strategy evolution and development in the case we studied lasted approximately 7 years of which we were able to examine approximately 5 years through an ex-post historical analysis and 2 years longitudinally. We selected the case study due to its revelatory nature and argue that an empirical analysis of the evolutionary process of IS strategy development in the pre-deal phase of a merger has been "previously inaccessible to social science inquiry" (Yin 2009, p. 48). Eisenhardt and Graebner (2007) add that single cases are chosen "because they are unusually revelatory, extreme exemplars, or opportunities for unusual research access" (p. 27). We argue that research access to the pre-merger IS integration planning phase is very unusual due to the political, social, and cultural issues involved in M&As (Giacomazzi et al. 1997; Johnston and Yetton 1996; Main and Short 1989) as well as the need for organizations involved in M&As to avoid leaking sensitive information that could be of interest to analysts and external observers. The difficulty of gaining access to M&A cases is well recognized in the literature (Henningsson and Carlsson 2011). Another factor that drove our case selection is that we believe this particular case provides a powerful example of a very interesting and highly relevant approach to IS strategy in the pre-merger context, or what Siggelkow (2007) refers to as a "talking pig." As will be explained in the subsequent case analysis, the organization's multi-year effort represented a balancing act to design a truly hybrid IS strategy (i.e. a combination of IS

[1] The terms 'ambidextrous IS strategy' and 'hybrid IS strategy' are used interchangeably in this paper; the former is more common in the literature, while the latter was used consistently by our interviewees.

innovator and IS conservative strategies), and provides novel insights that extend existing theory (Chen et al. 2010).

Following guidelines for conducting case studies in IS (Pan and Tan 2011), and in the interest of pragmatism (Van de Ven 2007), we began by first negotiating access to the site and engaging in the establishment of a strong researcher-practitioner relationship. We explained to the case organization that the objective of the study was to examine IS governance and management issues in M&A contexts and large transformational programs. Having conducted a broad domain literature review beforehand, we knew that there were still significant gaps in our understanding, particularly in the domain of IT-driven M&A programs. Due to an established trust-based partnership developed in prior research projects involving this same organization, and the interest that we aroused with our research objectives, we were able to negotiate access to the site and allowed to undertake the case study. Despite the long-term institutional and personal relationships, gaining access to the case site took almost a year, due to the sensitive nature of the M&A activities that were underway at the time.

We approached our case study analysis in an exploratory mode (Pan and Tan 2011), and our methodology for investigating the case was pluralist, meaning that we viewed our research as a process in which different types of activities predominate at different times (Mingers 2001, p. 245). Our selected research strategy is consistent with guidelines for engaged scholarship in which different research methods are combined for pragmatic ends with the aim of generating a useful model of reality (Van de Ven 2007, p. 59). Accordingly, adhering to principles of exploration and emergence, we entered into our case study with a very open mind and relied on unstructured, open-ended interviews as well as the collection and analysis of secondary materials. Table 1 provides an overview of our primary and secondary data, collected and analyzed between October 2010 and February 2012. In addition, the first author of this paper has been studying the case organization since 2007 in connection with a prior research project, thus providing additional insights for the study of strategy evolution over a multi-year time period.

Table 1. Primary and Secondary Data

Primary data: 47 interviews (interviews lasted 1.25 hours on average and interview transcripts resulted in over 300 pages of single-spaced text that was coded in Atlas.ti (Muhr 2008) and analyzed)	**Role of interviewee**	**# of interviews**
	C-level executive	1
	Senior IS executive	4
	IS executive	12
	IS program/project manager	18
	IS project management organization/governance	6
	Business/IS domain expert	4
	Total # of interviewees	43
	Total # of interviews (some interviewees were interviewed more than once)	49
Secondary data:	> 50 powerpoint slide sets and related materials documenting such things as IS strategy, implementation plans, results from analysis, steering committee meeting results, status meeting protocols, etc.	

An important theme that emerged inductively from our data was the change and recurrent adaptation of IS strategy over time. Following a process analysis approach (Langley 1999; Van de Ven 2007), we generated a thick process description of our case, delineating phases from triggers that caused a shift from one state to another. Throughout the entire process, data collection and analysis were intertwined and we were guided by established principles of qualitative data analysis, including coding techniques to structure and organize our data, as well as constant comparisons between different slices of data and between the data and the literature (Urquhart et al. 2010). Applying these techniques helped us to construct a very detailed description of the sequence of events and activities in our case study which prompted us to search in the literature for possible explanations. The IS strategy conception and typology by Chen et al. (2010)

provided us with a good starting point to examine pre-merger strategy evolution in greater detail and relate our case study findings to existing literature as a basis for generating a contribution to knowledge. Adopting Chen et al. (2010)'s IS strategy framework as a lens, we iteratively refined the coding and analysis of our data and collected additional data to substantiate our findings. As our analysis progressed, we realized that our data did not fit with the IS strategy types offered by Chen et al. (2010). Thereby, the core finding of hybrid IS strategy development in pre-merger contexts emerged from our analysis, extending Chen et al. (2010)'s framework.

Case Description and Antecedent Conditions (Years 1-4)

After multiple attempts to reengineer parts of their homegrown legacy IT systems platform, during year 1 and 2 of our case analysis the insight gradually emerged in the banking organization we studied that a new IS strategy was needed based on the core idea of a major platform transformation. The motivation for embarking on such a challenging and long-term journey resulted from several experiences that drove home the lesson that it would be difficult, if not impossible, to meet the organization's objective of significantly increasing its cost competitiveness (i.e., improving its cost-income-ratio or CIR) with the existing platform. The banking IT platform up to this point in time consisted of a heterogeneous technology mix, monolithic software, and data and software redundancy. Through a series of workshops and lessons learned sessions from various IT integration and technical reengineering efforts in the past, it gradually became clear that continuous and recurrent reengineering of the legacy IT systems was not the solution. This view manifested itself in the organization's top management team for several reasons, including: (1) the fact that certain technology solutions were near the end of their lifecycle, (2) the existing technology in use posed constraints for reengineering efforts, and (3) the high degree of IT complexity resulted in high project risks and costs. Lessons from experience showed that outsourcing and offshoring reengineering tasks frequently entailed a high amount of hidden costs that offset the benefits to a large extent, largely due to the high amount of customer- and industry-specific knowledge that needed to be shared with the vendor. In addition, with each merger or acquisition, IT integration costs increased yet further and the complexity of the IT landscape increased dramatically. The result of all these developments was an undesirable ratio of 'run-the-bank costs' to 'change-the-bank costs', low flexibility, long time-to-market, and a lack of cost competitiveness (i.e., unsatisfactory cost-income-ratio). A C-level IS manager explained:

"*We kick-started the first phase of our transformation with a focus on costs already a long time ago through a major restructuring effort . . . . But we wanted to improve even further our cost-income ratio . . . we realized that the next phase of our transformation efforts had to be initiated and this could only be achieved with extensive process streamlining and reengineering, driven by a major IT transformation. The idea was born to service all of our banking business units in the long term through a single integrated platform.*"

This focus on reducing costs in order to increase bank profitability was also influenced by the turbulent business environment. In particular, starting long before year 1 of our case analysis, the financial services industry was changing dramatically. Competition was becoming fiercer and more global, and local markets were gradually reaching the stage of saturation. The implications of these developments were that only limited possibilities now existed for organic growth, particularly in home markets, and there was an increased need for other means of growth, which was reflected in the increased M&A activity in the market. To stay competitive, the organization we studied also engaged in M&A activities, particularly in year 1 and 2 of our case study. As the organization's top management team envisioned that these would not be the last M&As in the near future, the implication for IS strategy was that a merger-ready IT platform was needed that would be sufficiently scalable and that would enable faster and more cost-efficient IT integration. During year 1 and 2, the organization had already experienced the challenges of post-merger IT integration given the limitations of their existing legacy systems landscape.

As a result of the above, our case organization kick-started a major IS transformation planning effort in year 3 of our case analysis, which resembled an IS innovator strategy. A series of workshops and initiatives in the organization were triggered, driven mainly by IS executives, to engage in an in-depth strategic planning effort focusing on the organization's IT transformation and to develop a vision for IS as a strategic business partner that would not only support but actually enable a business strategy focused on

growth (e.g., through mergers) and efficiency (e.g., improving the CIR). A vision was developed that a major step-change and paradigm shift was needed. In particular, this implied a much higher degree of standardization of IT products, processes, and technology than in the past. A C-level IS manager explained to us that the increasing level of sophistication in the banking IT services market provided new opportunities for change.

Preliminary talks and high-level negotiations with selected external service providers, offering or hosting standard packaged solutions for the banking industry, had already started many years before, but the historic context explained above led to serious planning efforts in year 3 and 4. A senior IS executive involved in these transformation planning efforts from the very beginning explained:

"*We had a vision. Compared with a car, [name of provider] had one of the world's best motors [referring to a standard packaged solution], but in the banking business they didn't have a good chassis and gear unit. We had a good gear unit, a workflow system based on a service-oriented architecture (SOA), and a very good chassis, a frontend system and architecture that had won several prizes and our proposition was that combining their motor with our chassis, gear unit and so on would lead to a win-win situation.*"

Our interviewee explained further how it took him and his team several years (starting on a high-level basis in year 1, followed by intensive and more serious planning efforts in years 3 and 4) to both develop and find support for their vision within the organization. For example, regular meetings were organized between a key C-level member of the top management team and a key stakeholder of the involved service provider. In addition, experts and specialists from external consultancy firms as well as internal strategic IT projects, for example from the above mentioned initiative to develop a new SOA-based workflow management system, were involved in the planning efforts.

While these concrete planning efforts for a major IT transformation were gradually gaining momentum in the organization, a series of smaller initiatives and projects were being successfully implemented during years 3 and 4 that convinced many skeptics in the organization that a major paradigm shift towards a higher degree of standardization was feasible and probably the most beneficial option when compared with the other options (e.g., continued reengineering of legacy systems, greenfield in-house development approach). Among these efforts was the above mentioned transition to a SOA-based and highly standardized workflow management system. This project and related efforts during this time period gradually led to a shared perspective within the organization, including both business and IS executives that a major IT transformation was not only necessary, but might also be feasible.

The innovative planning efforts culminated in a detailed plan in year 4, based on an extensive cooperation with an enterprise software vendor. Despite these significant advancements, a major business decision triggered a change in perspective and triggered the development of a hybrid IS strategy, as explained in our case analysis.

Case Analysis: Ambidextrous IS Strategy Evolution

Our case study is about the evolutionary and dynamic process of IS strategy development during the pre-deal phase of a large bank merger in the turbulent financial services industry. The core theme that emerged inductively from our data was the recurrent adaptation of IS strategy over time. We observed this theme as an organizational balancing act in which the acquiring firm moved toward developing a truly hybrid IS strategy by finding the best combination between merger-related goals (e.g., fast synergies from IS integration) and transformation-related goals (e.g., replacement of existing banking platform with an innovative and sustainable new one). The need for this balancing act resulted from a long-term strategic IS-driven transformation planning effort at the acquiring firm that was interrupted by the business announcement of a large merger. Subsequently, the acquiring firm found itself in a challenging situation of resolving the tensions caused by the juxtaposed goals of timely merger-driven IS integration and organizational transformation to a sustainable and innovative banking platform that would strengthen the organizations' long-term competitiveness in the market. Our process analysis sheds light on the evolution and dynamics of IS strategy development when two organizational goals that are extremely difficult to achieve individually, collide. Through our process analysis, we were able to identify three distinct phases of hybrid IS strategy evolution that are examined in the following.

Transition to Phase 1 (End of Year 4): Pressure to Focus on Merger Integration

Key event: During year 4, the strategic plans for acquiring a large competitor in the market were officially communicated by the banking business organization.

The decision to acquire a large competitor resulted in a new strategic IS planning effort resembling that which one would expect of a firm adhering to an IS conservative strategy. This time, for example, the planning process was driven primarily by business executives and the 'architects' of the merger. The merger announcement was paired with a communication of synergy goals, particularly resulting from integrating IT and operations of the two banks. However, the prior goal of making a long-term strategic investment for a sustainable and highly innovative IT transformation produced tensions when juxtaposed with the new goal of creating synergies from the announced merger based on integrating IT and operations.

Second, the competitor to be acquired (referred to as RB2 in the following) had already carried out a major IT transformation in the past, based on cooperation with a standard software provider. The resulting banking platform at RB2 was regarded as a potentially valuable asset in case the merger deal was closed. Naturally, the idea came up at the acquiring organization (RB1) that eventually the existing IT assets from RB2 could be exploited, rather than reinventing the wheel and exploring new IT transformation opportunities. As explained by a senior IS executive:

"*We realized that the IT platform of [RB2] was potentially a huge asset. Driven by the acquisition business case, this insight was leveraged to develop a joint strategic IT transformation and merger integration plan, based on an extensive reuse of the existing platform, for the case that the deal was closed.*"

It became clear that the IS strategy needed to be redefined to accommodate for the new merger situation.

Phase 1: IS Hybrid-Coexistence (Year 5)

The IT integration planning efforts triggered by the merger announcement from the business organization prompted the IS organization to move in the direction of what we call a 'hybrid-coexistence IS strategy'. In particular, the IS innovator strategic planning efforts that started in phase 1 were continued while initiating a new parallel work stream for post-merger integration planning on the basis of the IS conservative strategic plans that were developed in response to the merger announcement. With regard to the IS innovator strategy focused on the key notion of transformation, some key adaptations and decisions were implemented as a response to the merger announcement. The guiding perspective for strategic transformation planning during phase 1 was explained to us by a C-level IS manager:

"*Viewing the transformation plans in the foreground, the merger announcement was actually well received and served us as a catalyst. The fundamental question we asked was: shouldn't we reorganize our transformation plans directly in a way to accommodate for the merger?*"

An IS executive commented on some of the first adaptations that were made:

"*. . . then came the announcement of the merger, the due diligence process started, and as a result our internal transformation planning became more focused on [SW: standard software solution that RB2 had already implemented in the past] . . . the strategic decision towards IT standardization and for a major IT transformation was taken before the merger announcement, but in the light of the planned merger it was developed further and finally the decision headed towards implementing SW.*"

The IS organization started to conduct an internal feasibility study in cooperation with the provider of SW. It was also during this time period that not only was the scope of the entire transformation strategy reduced, but the strategic planning also evolved from a pure IS planning to a joint business and IS planning. Prior to phase 1, the strategic transformation planning was primarily IS-driven. In light of the business-driven merger, and the resulting pressure to switch to an IS conservative strategy, IS executives realized in phase 1 that they had to adapt their strategy to obtain business commitment for their ideas. An IS executive from RB1 explained:

"*We realized that a transformation of IT without significant business benefits in the context of a merger was not feasible.*"

Another IS executive explained how eventually a business case could be constructed around the idea of transforming not only the IT platform, but the entire core banking business:

"*. . . then we decided to conduct the SW feasibility study. While this was being done, we also realized that transforming the bank's IT platform could be a well-received change trigger for transforming the entire core banking business, including process and product standardization . . . if we hadn't received support for that idea from business stakeholders, we probably would have opted for a brute force merger and IT integration strategy.*"

During the same time period, the pressure exerted onto the IS organization during year 4 to switch to an IS conservative strategy focused on quick systems integration and cost synergies resulted in a parallel strategy. An IS executive explained:

"*We received the work order from [C-level business leader] to design the future IT platform with the clear message that particularly in the IT and operations domains cost savings and synergies were expected through post-merger integration and that IT played a major role for the merger business case. Even though the merger-related business strategy was not fully formulated and announced at that time, we did have some high-level strategic propositions to work with that were sufficient for us to start with integration planning.*"

The IS organization contracted with a leading consultancy company that had established relations with both organizations, RB1 and RB2. Together with the consultancy, the IS organization worked on a strategic post-merger integration plan in cooperation with RB2 that would avoid a complete shift to an IS conservative strategy. In particular, a joint vision was developed for a truly hybrid transform and merge program that would require close cooperation between the two banks. Both organizations would have to accept a major transformation and change. An IS executive explained:

"*Our negotiations had advanced to the point that in case of a merger we were ready to implement a joint transformation and merge IT program.*"

Transition to Phase 2 (Beginning of Year 6): Opportunity for Transformation

Key event: In the transition from year 5 to year 6, the negotiations between RB1 and RB2 came to an unexpected halt. The formal and legal process of acquisition did not advance at the expected pace. An IS executive explained:

"*From our perspective there was not enough motivation on behalf of [RB2] to come to a joint agreement. The management board members at [RB2] decide for their own company in which direction to go with their IT. . . . Certainly, a large IT reorganization would have been the consequence [of the jointly developed plans] … [RB2] viewed the negotiated plans as too risky and decided against them.*"

In addition, RB2 was somewhat relaxed with regards to the success of the merger and cooperation negotiations. From RB2's perspective, it was not totally clear yet at that point in time whether RB1 would really be successful with the acquisition plans. On the other hand, RB1 had been pursuing transformation plans for a long time already and their IS organization was eager to make a decision so that they could start implementing the plans that had been developed during the past four years. Some interviewees also mentioned that with merger cooperation talks stagnating, pressure needed to be exerted on the prospective merger partner by surging ahead and making a transformation investment decision that would send out a clear signal to both the market and the merger partner.

The stagnation of merger talks provided the IS organization with an opportunity to position their transformation plans in the foreground, as explained in the following.

Phase 2: IS Hybrid-Sequential (Year 6)

The merger process did not advance according to expectations, a turbulent financial services industry produced additional uncertainty, and the organization's top management team did not want to wait any longer after having spent at least 4 years on strategic IS planning. Multiple projects had finished during this time period and a significant amount of resources were now available. In essence, it was time to take a decision. A C-level IS manager explained:

"*When we couldn't reach an agreement [with RB2] we concluded that we could not wait any longer and so we decided that we start marching ahead with our transformation plans on our own.*"

In other words, the IS organization grasped the opportunity to position their transformation plans in the foreground, pushing the merger integration plans to the background. The C-level IS manager continued to explain how the lengthy merger process actually improved the chance of implementing a truly hybrid IS strategy:

"*If the process of taking over [RB2] would have gone faster, this would have been detrimental. In this case the discussions and energy would have focused on the new leadership, filling organizational boxes with names, etc. This wouldn't have been beneficial for the transformation plans, actually counterproductive. But this way we first had time to prepare and mobilize our team internally for the transformation that was inevitable anyway. Besides, we never really knew whether the merger would really happen, we still had the option to sell our stakes again.*"

Accordingly, the stagnation of the merger process actually enabled our case organization to opt for a hybrid transform and merge strategy with the option of implementing only the transformation strategy in case the merger would not be realized. However, our case organization did not switch entirely to an IS innovator perspective, which is focused on innovation and transformation. Rather, a strategic vision for a 'hybrid-sequential IS strategy' was developed, which entailed transforming first to a merger-ready platform but with the clear vision that at the right point in time the change towards a focus on merger-driven IT integration would be made.

Despite the pressure from a prospective merger that had already illustrated during year 4 that it could potentially derail any IS-driven strategic transformation plans, the IS organization was able to maintain a spirit of innovation as they pressed forward. The vision was communicated within the organization to build a sustainable merger-ready banking platform paired with the slogan 'building the IT to last'. A picture of a highway illustrated the new IS hybrid-sequential strategy in which RB1 would get on the highway (symbolic for the new IT platform) first, and RB2 would hop on the same highway at a later stage. The picture had enormous symbolic character as it contained the message that RB1 would maintain its plans to transform to the best possible IT platform first, thus creating a basis for future merger activities. In internal communications, IS executives referred to the new program as a paradigm shift and resources were mobilized for one of the largest IS-driven transformation programs in the organization's history. Early in year 6, a C-level IS manager announced:

"*IT is a business driver and catalyst. It ought to be flexible, cost-efficient and scalable in order to support business growth . . . we are looking forward to shaping the industry and setting new standards to manage processes and services even more consistently and efficiently with a new core banking system. [provider of SW]'s solution portfolio offers the core banking functionality to improve our effectiveness at all levels."*

The decision was made to implement SW based on the business case of transforming not only IT but also business products and processes with a focus on standardization and efficiency. The following comment by an IS executive illustrates the strategy shift from IS hybrid-coexistence to IS hybrid-sequential:

"*As a response to the stagnating merger negotiations we decided to focus to 100 percent on ourselves and move ahead with the transformation plans. The message that was sent out to the project teams was: don't worry about [RB2] and focus on being successful with implementing the transformation goals.*"

What followed was a large project ramp-up phase with program members from both business and IS departments. The initiative was driven primarily by the IS organization. A program member from the business explained:

"*We [from business] of course knew about the new transformation project. Some of us had followed the planning and negotiation activities in cooperation with [name of SW provider], the letter of intent that was signed [referring to activities in year 5] and we also knew that some work and particularly staffing activities in terms of project ramp-up were on the way [referring to activities in year 6]. However, initially this was not communicated within our business organization sufficiently and it took some time until we were also formally and actively integrated into the program, actually in late [year 6] when the*

contract with [name of SW provider] was signed and when the official kick-off for the project was announced."

But after this initial ramp-up phase that was driven predominantly by IS executives, more and more business executives and program members were gradually integrated into the governance boards and work teams, resulting in a joint business-IS approach for implementing the project.

In the meantime, the next key merger-related event caused yet another disruption of the IS strategy.

Transition to Phase 3 (End of Year 6): Pressure to Focus on Merger Integration

Key event: During year 6, the merger talks between RB1 and RB2 were resumed. The advancement of merger negotiations put enormous pressure on the IS strategy to focus more on merger integration and the quick realization of synergies.

As explained by a senior IS executive, a key problem was that the organization realized that the transformation program could potentially generate too many costs if it was implemented as previously planned:

"*Then came the merger settlement announcement and of course we had to ask ourselves whether our transformation plans were sufficiently aligned with the merger plans and if the sequential strategy to transform first and integrate later was feasible at all . . . we realized that the market, expecting quick synergies from the merger, would not wait as long as we needed and in addition we realized that executing our transformation plans as previously planned would potentially be too costly. It became clear that we needed to adapt our strategy once again."*

The pressure exerted from the business organization to focus on the faster realization of merger-driven synergies led to the negotiation of a cooperation agreement between RB1's and RB2's IS organizations to form joint work teams with members from both organizations with the expressed aim of first making advancements towards merger-driven IT integration. This triggered a new phase of what we call a 'hybrid-staggered IS strategy'.

Phase 3: IS Hybrid-Staggered (Year 7)

While the transformation project that was kicked off in year 6 continued throughout that year in parallel to the merger settlement announcement, it was during the course of year 7 that this important event eventually caused yet another change in terms of the organizational perspective on IS and the associated strategy. The strategic adaptation process started with intensive negotiations between RB1 and RB2 to seek a cooperation agreement. Even though legal restrictions persisted and still posed some limitations for cooperating, certain areas were identified in which from a legal perspective it was possible to work together, particularly with regards to the development of a long-term vision and strategic plan for a shared and integrated banking platform. Rather quickly, the discussion of reusing existing IT assets and resources from RB1 and RB2, and the related discussion of generating some quick synergies from the merger to satisfy analysts and investors dominated further IS strategizing activities. As a consequence, the IS strategy shifted to what we call 'IS hybrid-staggered'.

The new hybrid IS strategy was based on the key idea of integrating and aligning transformation and merger-related goals by searching for complementarities and synergies rather than viewing the two goal sets as competing and coexisting alternatives as in the IS hybrid-coexistence strategy in phase 1. In particular, this strategic reorientation resulted in closer coordination with regards to both planning and executing the 'transform' and 'merge' strategies simultaneously. A new work program focused on merger integration was initiated alongside the transformation work program with regular interactions between the two teams. In addition, a new release plan was crafted in cooperation with the merger partner to ensure a step-by-step alignment and integration from both an organizational and technological perspective.

Overall, the vision was to maintain to a high degree innovative elements from the IS-driven transformation plans but allowing for the necessary compromises to satisfy analysts and achieve the

merger-related goals at the same time. An IS executive gave some insights into how a stronger emphasis on merger integration was implemented and how the strategy shifted from phase three to four:

"*After taking over a majority stake in [RB2], we started with a new merger cooperation program in parallel to our internal transformation program . . . due to this change the possibilities and nature of cooperation with [RB2] changed fundamentally. This means that now we have a different situation, [RB2] integration is now of greater importance.*"

The cooperation agreement between the two merging banks that was negotiated after the merger settlement announcement started to produce results and led to a much closer coordination of work activities in the transformation and merger work streams. An IS executive from RB1 explained:

"*In [year 7] we made a fundamental change to our strategic integration approach. While our initial approach was sequential (referring to the plan of transforming first and integrating later), our new approach could be described as staggered in which we transform and integrate in parallel with a high degree of coordination so that the we [RB1 and RB2] grow together just like a zipper.*"

Accordingly, the focus was on generating synergies from the merger much earlier and faster than originally planned and also delivering new business functionality earlier. The program roadmap was accelerated by approximately one year to achieve these goals and placed more emphasis on efficiency. It was clear that these merger-driven goals could not be achieved without a significant amount of asset reuse and exploitation of existing solutions, many of them residing at RB2.

As a result of the strategic reorientation towards asset reuse and efficiency in achieving the transform and merge goals, the long-term strategic plan and vision for the integrated target IT landscape also changed. In particular, the new target map represented a negotiated best-of-breed solution with RB1 dominating some domains and RB2 dominating others. From an IS strategy perspective, the new perspective represented the best compromise between transformation-related goals and merger-related goals.

Outcome Conditions (Year 8)

By the end of year 7, a vision for a joint RB1-RB2 banking target platform had been successfully developed, based on a constructive negotiation and cooperation process between the two organizations. RB1's top management team was on a good path to achieve two goals at the same time. First, during the last 7 years, the organization had successfully explored and partially begun to implement new strategic transformations of its banking IT. This exploration of new opportunities for an innovative business and IT transformation was driven by IS executives. Second, driven by the business strategy which was focused on growth through acquisition and the reaping efficiencies from merger activities, the IS strategy also moved in the direction of searching for possible ways to exploit existing IT assets and capabilities at both RB1 and RB2. The rationale behind this was that in case of a merger, the market would expect quick synergies and an increased efficiency based on integrating the two organization's IT and operations. Cooperating and engaging in joint strategic planning efforts with RB2 would provide RB1 with several advantages, including a lower risk of organizational transformation and merger-driven integration. In summary, the evolution of RB1's IS strategizing activities in the context of M&As illustrates the dynamics and challenges of pursuing a truly hybrid (i.e. ambidextrous) IS strategy.

Discussion of Findings

Our examination of the evolution of hybrid IS strategy development resulted in the identification of three IS hybrid strategy archetypes. In Phase 1 of our case analysis, our case organization pursued an IS hybrid-coexistence strategy. Figure 1 depicts the conceptual notion of this strategy in which two competing IS strategies coexist over time in competition with each other and the resulting tensions are resolved through differentiation tactics, i.e. separating the two strategy planning work streams from one another (Gibson and Birkinshaw 2004; Gilbert 2006; Jansen et al. 2009; Tushman and O'Reilly 1996). In our case, strategy A was the 'transform' and B the 'merge' strategy.

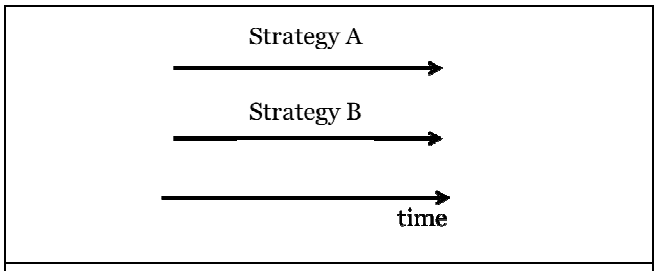

Figure 1. IS Hybrid-Coexistence (Phase 1 in our case)

Subsequently, our case organization shifted toward an IS hybrid-sequential strategy, which is depicted in Figure 2. In this strategy archetype, the tension between two competing strategies is resolved by sequentially tackling one at a time. Thus, the new approach in phase 2 of our case analysis for resolving the tensions from pursuing two IS strategies simultaneously was based on temporal differentiation tactics (Andriopoulos and Lewis 2009; Brown and Eisenhardt 1997; Puranam et al. 2006).

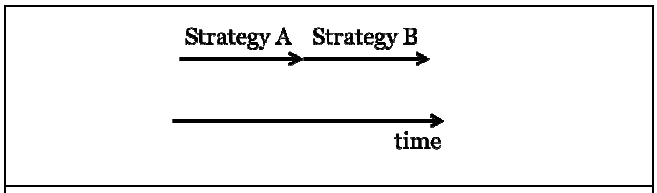

Figure 2. IS Hybrid-Sequential (Phase 2 in our case)

Finally, our case organization shifted in phase 3 toward an IS hybrid-staggered strategy, which we depict in Figure 3. In this phase, the tactics for resolving tensions was based on integration tactics (Gilbert 2006; O'Reilly and Tushman 2008; Raisch 2008; Raisch et al. 2009).

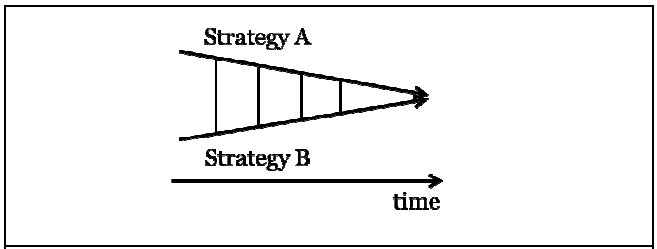

Figure 3. IS Hybrid-Staggered (Phase 3 in our case)

Implications for Research

This case study of a banking organization of searching for the right IS strategy in the pre-deal phase of a bank merger yields novel insights for research on IS strategy, the dynamic and co-evolutionary strategic relationship between business and IT, M&A-driven IT integration and transformation, and organizational ambidexterity.

The most important contribution of this paper is to extend Chen et al.'s (2010) IS strategy typology, which differentiates between 'IS innovator' and 'IS conservative', but does not explore what we found in our case study: an 'IS hybrid' (or 'IS ambidextrous') strategy. While Chen et al. (2010) acknowledge that "it is

possible that some organizations may exhibit both explorative and exploitative behaviors" (p. 244), they state that an organization "should be focused on being an IS innovator *or* an IS conservative" (p. 245). Leidner et al. (2011) conducted an empirical study in which they tested Chen et al.'s (2010) IS strategy typology and found that not all organizations in their sample could be unambiguously classified into the strategy types proposed by Chen et al (2010). Thus, they concluded that "perhaps an ambidextrous IS strategy, which is a combination of innovative and conservative strategies, exists in a larger percentage of organizations than given credit for" (Leidner et al. 2011, p. 422). However, Leidner et al. (2011) do not discuss how organizations balance the tensions associated with pursuing such an ambidextrous IS strategy. Our research contributing to this 'theoretical puzzle' by being the first study to develop rich and empirically grounded insights on the evolution, development, and nature of an IS hybrid (ambidextrous) strategy. We identified three different 'archetypes' of IS hybrid strategy, which are conceptualized in Table 2 based on a careful comparison between our data and existing theory.

Table 2. IS Hybrid Strategy Archetypes

IS hybrid strategy archetype	IS hybrid-coexistence strategy (see Figure 1)	IS hybrid-sequential strategy (see Figure 2)	IS hybrid-staggered strategy (see Figure 3)
Definition	IS strategies coexist over time in competition with each other	IS strategies are tackled one at a time in sequential order	IS strategies are gradually aligned and combined to achieve convergence and integration
Resolution of tensions	Differentiation tactics, particularly spatial separation	Differentiation tactics, particularly temporal separation	Integration tactics
Literature used for comparisons with our data	(Gibson and Birkinshaw 2004; Gilbert 2006; Jansen et al. 2009; Tushman and O'Reilly 1996)	(Andriopoulos and Lewis 2009; Brown and Eisenhardt 1997; Puranam et al. 2006)	(Gilbert 2006; O'Reilly and Tushman 2008; Raisch 2008; Raisch et al. 2009)

While the identification and conceptualization of three different archetypes of IS hybrid/ambidextrous strategy is the most significant theoretical contribution of this paper (Table 2), our study also sheds light on the question of what capabilities are necessary to be ambidextrous and pursue a hybrid IS strategy (Leidner et al. 2011, p. 432). Based on our findings we suggest that the successful development of a hybrid IS strategy necessitates a very strong IS organization that has a basic orientation towards being a leader in its industry and has a self-conception of being a strategic business partner. In our case study, the pressure exerted onto the IS organization through the merger business strategy and pressure from a turbulent financial services industry could not have been much higher, neither could have been the frequency and pace at which external or environmental conditions changed, requiring recurrent adaptation and change. Our analysis of transitions from one phase to another illustrates that the IS organization had the 'dynamic capability' (Eisenhardt and Martin 2000; O'Reilly and Tushman 2008; Teece et al. 1997) to recurrently and appropriately adapt, integrate, and reconfigure organizational skills and resources to match changing environmental conditions. The dynamic capability of our case organization to respond effectively to environmental turbulences became salient in two different ways. First, by resisting the pressure to focus predominantly on merger integration, the organization avoided going down a path which would have been detrimental to achieving the objectives of a sustainable organizational transformation aimed at increasing the firm's long-term profitability and competitiveness. Second, by advancing with the IS strategy focused on sustainable organizational transformation when the internal and external environment provided an appropriate window of opportunity.

Another contribution of this study is that it provides deeper insight into the interplay between business and IS units that takes place as a result of the evolutionary and dynamic process of developing an IS hybrid strategy (Sabherwal et al. 2001). In particular, key business and IS leaders in our case were

successful at negotiating and recurrently adapting their shared understanding and perspective on the role of IT in their organization based on constantly changing contextual and situational requirements. At times, business leaders triggered the renegotiation of shared understanding (particularly pronounced in the transitions to phases two and four), while frequently it was the role of IS leaders to drive the business strategy towards a truly hybrid 'transform & merge' strategy (this theme becomes salient throughout the entire process analysis, particularly in the transition to phase three). Thus, our findings extend IS strategy literature that understands strategic alignment as a dynamic (Baker et al. 2011; Sabherwal et al. 2001) and social emergent (Silva et al. 2007) process, involving the negotiation of shared understanding between business and IS executives (Preston and Karahanna 2009).

In addition, we are also able to provide some tentative insights into the question "how does the relative importance of differentiation and integration evolve over time?" in organizational ambidexterity (Raisch et al. 2009, p. 693). The evolution of IS hybrid strategy archetypes in our case suggests that differentiation tactics are more important in early stages and integration becomes more important in later stages (see Table 2). A possible explanation for this observed phenomenon is that "integration, that is, the behavioral mechanisms that enable organizations to address exploitation and exploration activities within the same unit," (Raisch et al. 2009, p. 686) is far more difficult to achieve because of the natural constraints of individuals taking on both types of activities simultaneously (Bushe and Shani 1991; March 1991) and because of the difficulties in realizing strategic integration when sufficient external knowledge has not yet been internalized (Benner and Tushman 2003; Raisch et al. 2009).

Our study also makes an important contribution to the IS M&A literature (Tanriverdi and Uysal 2011). In general, the topic of IS strategy in the context of a merger, particularly in the pre-merger phase, is underresearched and we have yet very little understanding about this important determinant of M&A success (Henningsson and Carlsson 2011; Merali and McKiernan 1993; Robbins and Stylianou 1999). To the best of our knowledge, we are the first to analyze the evolution of IS strategy in the pre-deal phase of a merger and to provide rich empirical evidence for the existence of hybrid/ambidextrous IS strategy in M&As. Prior research has shown that in the context of M&As IS strategizing is an extremely difficult task due to the "operational chaos" that is frequently found in M&A situations (Leidner et al. 2011, p. 431), or that the principle of cost reduction and realization of quick synergies through IT integration dominates decision making, leaving no room for an IS strategy other than IS conservative (Wijnhoven et al. 2006). In this case, the question of IT integration strategy dominates the organizational strategy discourse (Henningsson and Carlsson 2011). Our case study results provide indication that in cases of organizational ambidexterity and a hybrid IS strategy such as the 'transform & merge' strategy in our case, the general IS strategy may even be more important and dominant in the organizational IS strategy discourse, extending prior IS strategy research in the context of M&As (Alaranta and Henningsson 2008; Mehta and Hirschheim 2007).

Conclusions

This paper contributes to the literatures on IS strategy, organizational ambidexterity, and IS M&As by explaining the evolution, development, and nature of IS hybrid/ambidextrous strategy in pre-merger contexts based on a rich empirical case study of 'transform & merge' in the banking industry. Our findings with regards to hybrid IS strategy address an important limitation of prior literature that contains inconclusive and in parts also contradictory evidence for the existence and nature of such an ambidextrous strategy. Organizational research has long acknowledged that ambidexterity is a key capability for firm performance, particularly in turbulent, unstable, and competitive environments, which are becoming the norm, rather than the exception. Yet research on ambidexterity in IS contexts is still in its infants (Napier et al. 2011; Ramesh et al. 2012; Tiwana 2010). Thus, given the importance of this critical phenomenon in our case study, which is about one of the largest and most strategic initiatives in the corporate history of a leading international banking organization, we call for more research on ambidexterity in diverse IS contexts. In addition, future research should empirically test the IS hybrid strategy archetypes proposed in this paper as well as the associated findings that relate to the required capabilities for IS hybrid/ambidextrous strategies.

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