

Spring 5-29-2015

A Change for the Better: Realizing Business-IT Alignment Through Organizational Change

Arjan Rozendal

University of Groningen, arjanrozendal@hotmail.com

Eric T.K. Lim

UNSW Australia, e.t.lim@unsw.edu.au

Chee-Wee Tan

Copenhagen Business School, cta.itm@cbs.dk

Follow this and additional works at: http://aisel.aisnet.org/ecis2015_cr

Recommended Citation

Rozendal, Arjan; Lim, Eric T.K.; and Tan, Chee-Wee, "A Change for the Better: Realizing Business-IT Alignment Through Organizational Change" (2015). *ECIS 2015 Completed Research Papers*. Paper 151.

ISBN 978-3-00-050284-2

http://aisel.aisnet.org/ecis2015_cr/151

This material is brought to you by the ECIS 2015 Proceedings at AIS Electronic Library (AISeL). It has been accepted for inclusion in ECIS 2015 Completed Research Papers by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

A CHANGE FOR THE BETTER: REALIZING BUSINESS-IT ALIGNMENT THROUGH ORGANIZATIONAL CHANGE

Complete Research

Rozendal, Arjan, University of Groningen, Groningen, The Netherlands, arjanrozen-
dal@hotmail.com

Lim, Eric T. K., UNSW Australia, New South Wales, Australia, e.t.lim@unsw.edu.au

Tan, Chee-Wee, Copenhagen Business School, Copenhagen, Denmark, cta.itm@cbs.dk

Abstract

Investments in information technology will only yield dividends whenever technological spending complements corporate objectives, a phenomenon termed as business-IT alignment within extant literature. Synthesizing extant literature on business-IT alignment and organizational change, this paper argues for effective change management as a means for organizations to realize business-IT alignment. Findings from a grounded theory study revealed that having clear assessment criteria, promoting information exchange, getting managers to act as role models, expanding the involvement and participation of employees in decision making as well as drawing on positive collaborative experiences in the past bolster the success of change initiatives for realizing business-IT alignment. Conversely, pursuing partisan interest at the expense of the organization, speaking different professional languages, displaying apprehension and hesitation when interacting with one another as well as holding on to misguided technological expectations hinder change management efforts aimed at realizing business-IT alignment.

Keywords: Business-IT Alignment, Organizational Change, Change Enablers, Change Inhibitors.

1 Introduction

Investments in Information Technology (IT) are substantial (Luftman and Brier 1999). To justify the scale of such investments, IT should be deployed by organizations in ways that bolster business performance. Prior research has demonstrated that technological investments contribute to organizational performance whenever there is synergy between business and IT strategy (Sabherwal and Chan 2001). Consequently, the alignment of technological planning with corporate objectives has been a top priority for business and IT executives alike (Preston and Karahanna 2009b). Although the importance of business-IT alignment has been repeatedly emphasized by numerous scholars (e.g. Lim et al. 2012; Luftman and Kempaiah 2007; Reich and Benbasat 2000; Strong and Volkoff 2010), its realization remains an elusive and persistent challenge (Preston and Karahanna 2009b).

Business-IT alignment can be construed as “the congruence between an organisation’s business strategy and IS strategy” (Preston and Karahanna 2009b, p. 162). Within extant literature, a distinction has been drawn between the intellectual dimension and the social dimension of business-IT alignment (Reich and Benbasat 2000). Whereas the intellectual dimension accentuates the alignment of functional elements within organizations (e.g., corporate strategy, planning, infrastructure and business processes), the social dimension emphasizes mutual understanding between business and IT executives and their commitment to the mission, plans and objectives of both parties (Reich and Benbasat 2000; Preston and Karahanna 2009b). With this distinction in mind, we contend that transforming the functional elements of an organization is inadequate in attaining business-IT alignment. Rather, there must

be an equal emphasis on altering relationships among social actors within the organization (Mayasandra et al. 2011; Reich and Benbasat 2000), especially when social alignment has been found to be deterministic of intellectual alignment (Preston and Karahanna 2009b).

While several researchers have hinted that business-IT alignment may be realized through change-oriented factors such as communication, leadership, managerial support and participation (e.g., Reich and Benbasat 2000; Preston and Karahanna 2009a, 2009b; Luftman et al. 1999), none has established a clear linkage between the attainment of business-IT alignment and change management efforts. Arguably, contemporary knowledge about organizational change may yield compelling insights into factors affecting change initiatives aimed at realizing business-IT alignment. Armenakis et al. (1993) defined organizational change as “the need to implement changes in strategy, structure, process, and culture” in order to cope with an increasingly dynamic market environment (p. 681). In this sense, research streams on business-IT alignment and organizational change share strong commonalities on two fronts. Not only do both attest to the existence of intellectual and social elements within organizations, they are also unanimous in accentuating the importance of leveraging and configuring these elements to fulfil corporate objectives (Armenakis et al. 1993; Reich and Benbasat 2000). From this premise, we maintain that organizations could harness change management as a means of realizing business-IT alignment. Adhering to grounded theory procedures (Strong and Volkoff 2010; Urquhart et al. 2010), this study aims to elicit change management factors that enable or inhibit the realization of business-IT alignment within a public utility service corporation in the Netherlands. This study therefore departs from conventional approaches to case studies in that we will not conduct an extensive review of extant literature on business-IT alignment and organizational change, but rather weave in theoretical concepts pertinent to our findings as they emerge (Strong and Volkoff 2010). In doing so, we endeavour to provide answers to the following two research questions:

- (1) *What change management factors are pertinent to business-IT alignment within organizations?*
- (2) *How do these factors impact the process of business-IT alignment during change initiatives?*

To this end, we examine the case of UtilServ, a public utility service corporation with operations across many regions in the Netherlands. Because UtilServ was formed from the merger of multiple public utility service corporations, it inherited a diverse portfolio of technological systems and software applications, a leading cause of misalignment between business and IT departments within the organization. This misalignment culminates in suboptimal performance for both departments. To resolve the misalignment, UtilServ embarked on a change initiative to restructure the IT function within the organization. The case of UtilServ hence provides the appropriate context and a rich setting for uncovering change management factors that shape business-IT alignment within organizations.

2 Business-IT Alignment & Organization Change: An Overview

Despite extensive scholarly deliberations on business-IT alignment, multiple definitions continue to persist in extant literature. As acknowledged by Preston and Karahanna (2009b), “no agreed-on definition or model has emerged” for business-IT alignment (p. 161). Likewise, Chan et al. (1997) claimed that “alignment is a nebulous concept that is difficult to understand” (p. 126). Early definitions of business-IT alignment introduce the concept as the application of technology in a way that is in harmony with business requirements, goals and strategies (Luftman and Brier 1999; Luftman et al. 1999). Though such a definition places a strong emphasis on the application of technology to fulfill corporate objectives, there is increasing recognition that alignment is not unidirectional in reality. According to Luftman and Kempaiah (2007), alignment must “focus on how IT and the business are aligned with each other” (p. 166). A core premise of business-IT alignment thus resides in the reciprocal relationship between the two entities. Reich and Benbasat (1996) also recognized this symmetrical relationship by underlining that IT should support and be supported by the business. Likewise, Preston and Karahanna (2009a) defined IS strategic alignment as “the congruence between an organization’s business strategy and IS strategy” (p. 1).

When defining business-IT alignment, attention should be paid to its multi-faceted nature (Reich and Benbasat 1996, 2000). Particularly, scholars have distinguished the intellectual dimension of business-IT alignment from its social dimension (Reich and Benbasat 2000). Whereas the intellectual dimension denotes the alignment of technology with corporate strategy (Chan et al. 1997; Henderson and Vankatraman 1993; Sabherwal and Chan 2001), planning (Reich and Benbasat 1996), infrastructure and business processes (Henderson and Vankatraman 1993), its social dimension is concerned with attaining consensus among organizational actors with respect to mutual understanding and bilateral cooperation (Nelson and Coopriider 1996; Reich and Benbasat 2000). Any conception of business-IT alignment should thus reflect the reciprocal relationships between business and IT and the duality of intellectual and social elements embodied within such relationships. We therefore define business-IT alignment as the degree of intellectual and social congruency between business and IT and the willingness of both parties to realize and maintain this congruency.

Although noteworthy advancements have been achieved in identifying constituents of business-IT alignment (e.g., Luftman and Kempaiah 2007; Luftman et al. 1999; Preston and Karahanna 2009a, 2009b; Mayasandra et al. 2011; Reich and Benbasat 1996, 2000) and proposing benchmarks by which one can gauge the maturity levels of such alignment (e.g., Luftman and Kempaiah 2007), less progress has been made on how business-IT alignment can be realized within organizations. Drawing parallels with extant literature on organizational change, we argue for change management as a means of realizing business-IT alignment within organizations.

2.1 Change Enablers and Inhibitors of Business-IT Alignment

To align the business and IT domains within an organization, one must focus not only on altering the intellectual aspects of the organization (i.e., strategy, structure, planning, infrastructure and processes), but also on revamping the social relationships among organizational members (Reich and Benbasat 2000; Preston and Karahanna 2009b). Conceivably, business-IT alignment can be construed as the eventual outcome of organizational change in that the latter can be seen as the “*need to implement changes in strategy, structure, process, and culture*” in order to cope with an increasingly dynamic environment (Armenakis et al. 1993, p. 681).

McAllaster (2004) attested to the importance of organizational change by stressing that “*change is ever present in society and its organizations*” (p. 318). Effective management of organizational change is hence deterministic of an organization’s tenacity to keep pace with transformations in its immediate environment (e.g. Armenakis et al. 1993; Graetz 2000; Kanter 1985; Kotter and Schlesinger 1979; McAllester 2004). While organizational change is often portrayed favourably, it can be taxing on employees. Kanter (1985) noted that even though change is universal, employees affected by the change may still resent it, culminating in behaviors of active or passive resistance. Consequently, *resistance to change* is generally hailed as the main reason for failed change initiatives (Chawla and Kelloway 2004) with managers assuming a *reactive* role in diagnosing sources of resistance and undertaking measures to circumvent such inhibitions (Kotter and Schlesinger 1979).

Yet, at times, employees may profess support for organizational change when they feel that the change is necessary and managed appropriately (Armenakis and Harris 2009; Bertsch and Williams 1994; Chawla and Kelloway 2004). The same sentiments were expressed by Armenakis et al. (1993), who distinguished between readiness and resistance. Armenakis et al. (1993) advocated that managers should concentrate on bolstering employees’ *readiness to change* because it serves as a cognitive precursor to their attitudes and behaviors towards change initiatives (i.e., support or resistance). This in turn, accords managers the option of assuming the role of *proactive* agents in spearheading change initiatives (Armenakis et al. 1993; Armenakis and Harris 2009).

Managing readiness however, stems from the preemption of *inhibitors* that can trigger resistance and the promotion of *enablers* that establish support for a change initiative (Armenakis et al. 1993). Change initiatives can only succeed if organizational members are supportive of the change and exhibit low resistance (Elving, 2005). Yet, as acknowledged by Cenfetelli (2004), change enablers and in-

hibitors are not polar opposites (Cenfetelli 2004). Change enablers denote factors which, by their existence, facilitate the process of change management and in their absence, may or may not impact the change effort. Conversely, the presence of change inhibitors tends to obstruct the process of change management even though their absence may not necessarily ease the change effort.

Synthesizing the research streams of business-IT alignment and organizational change, we advance an analytical framework that posits the extent to which business-IT alignment can be realized through change management is dependent on the interplay between the intellectual and social dimensions of business-IT alignment as well as the enablers and inhibitors of organizational change (see Table 1). This analytical framework will be applied to UtilServ to draw attention to factors that can inform organizations in: (1) structuring change initiatives to avoid pitfalls when managing organizational change, and; (2) empowering managers to be proactive agents in realizing business-IT alignment.

Business-IT Alignment Organizational Change	Intellectual	Social
Enabler	Factors facilitating functional alignment of technology with corporate strategy	Factors facilitating mutual understanding and bilateral cooperation among organizational actors
Inhibitor	Factors disrupting functional alignment of technology with corporate strategy	Factors disrupting mutual understanding and bilateral cooperation among organizational actors

Table 1. Proposed Analytical Framework

3 Methodology

Data is collected via an exploratory case study. As emphasized by Eisenhardt (1989b), case studies are “especially appropriate in new topic areas” (p. 532) because they offer an opportunity to engage in theory-building for phenomena where there is relatively little prior knowledge and demand rich descriptions of the social environment (Yin 1994).

3.1 Research Setting

UtilServ is a public utility service corporation that boasts of a huge client base in the Netherlands. The company is owned primarily by provincial and municipal governments in the country. UtilServ has a long history of mergers with business departments that are distributed over multiple geographical regions. These business departments used to be autonomous and independent organizations before they were merged. Under the leadership of a new CEO, UtilServ has embarked on a series of change initiatives to transform both its culture and structure. The intention is to transform UtilServ from a bureaucratic, internally-focused organization to one that is ambidextrous and responsive to the expectations of its external stakeholders. In light of this major transformation, special attention has been paid to the IT department and its relationship with the business side of the organization.

In the past, the main responsibility of the IT department lies in the integration of different pre-existing technological systems in the former autonomous and independent business departments. Under the old arrangement, business and IT departments were poorly aligned, resulting in suboptimal performance for both parties. Furthermore, conflicts tend to arise between business and IT departments due to misunderstanding of each other’s functions. Business departments generally accused the IT department of pushing for systems and software applications that do not match the requirements of the organization, while the IT department often countered that the business departments are incapable of translating their demands into comprehensible system requirements and inputs for devising feasible technological solutions for the entire organization. Each business department has the habit of pressing the IT de-

partment to install systems and software applications that would only satisfy its own departmental objectives. Demands from different business departments were not properly analyzed and synthesized to craft technological solutions that can benefit the organization as a whole.

To enhance business-IT alignment, UtilServ had initiated the restructuring of its IT function within the organization. Over a period of 1½ years, the IT department made plans, with the advice of external consultants, to restructure the IT function of UtilServ. With a Business-Demand-Supply architecture, UtilServ intends to bridge the gap between business and IT departments. A ‘Demand’ department was created in the organization to accomplish this goal and the original IT department became the ‘Supply’ department. Under this new architecture, business departments are expected to approach the Demand department with queries pertaining to technological systems or software applications. The Business departments are held responsible for communicating clear technological demands to the Demand department. As a boundary spanner, the Demand department has to translate these technological demands into concise system requirements, which are then used by the Supply department to craft technological solutions that fit the overarching IT policy of UtilServ. The first authors was an intern attached to the Demand department for the period of the case study and it was against this backdrop that we sought to uncover enablers and inhibitors of change in the organization’s pursuit of business-IT alignment. Figure 1 depicts the way UtilServ functions before and after organizational change.

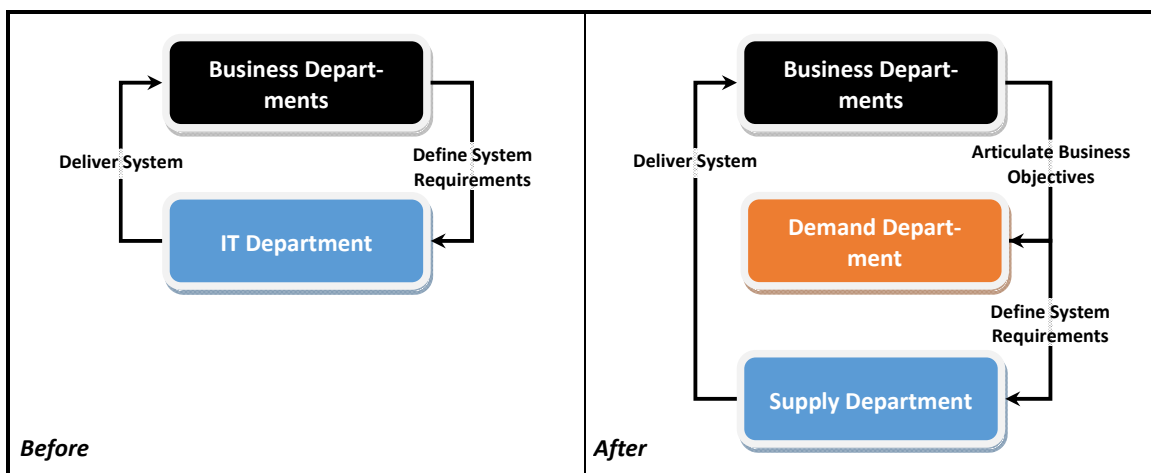


Figure 1. Illustration of Case Company Before and After Organizational Change

3.2 Data Collection

Data was primarily gathered over a five-month period using several methods. A focal aspect of the data collection process was in the form of face-to-face interviews conducted with 28 employees in the organization. Interviewees were deliberately selected to reflect a representational cross-section of the organization: they were recruited from various departments that span both business and IT domains, representing different hierarchical levels within the organization. Interviewees from the business side of the organization come from departments dealing with production and distribution of utility services (e.g., Distribution and Production) as well as fundamental administrative functions (e.g. Human Resources and Finance). Interviewees from the IT side were recruited from the IT department, which is responsible for coordinating IT projects and daily IT operations. This ensures sufficient coverage of cross-hierarchical and inter-departmental issues relevant to the change initiative within UtilServ. A breakdown of the distribution of interviewees is summarized in Table 2 below.

Business Units Hierarchical Level	Production & Distribution Departments	Client Support Department	Finance and Human Resource Departments	IT Departments	Total Interviews
Director	2	-	-	-	2
Manager	3	3	1	3	10
Team Leader/ Employee	5	2	2	7	16
Total Interviews	10	5	3	10	28

Table 2. Distribution of Interviewees across Departments and Organizational Hierarchy

In semi-structured interviews, questions were posed to interviewees about their awareness of the change initiative, the factors affecting the success of this change initiative and the impact of this change initiative on business-IT alignment within the organization. Confidentiality was assured at the start of each interview. Given the negative connotations associated with change inhibitors, conditions of anonymity help to mitigate the tendency to which interviewees will lean towards socially desirable responses. Each interview lasted between 1 and 1 ½ hours. All interviews, conducted in the Dutch language, were digitally recorded to augment the transcribing process. Interviews were transcribed literally to prevent information loss and minimize biases on the part of the researchers. In addition, each interviewee was offered the opportunity to review the transcript for his/her interview. Beyond the interviews, the first author, as an employee of the company, could observe the change initiative in action and gain access to archival documents concerning the impact of this change initiative on both business and IT departments. These secondary data sources enrich our contextual understanding behind the change initiative and aid in triangulating insights gleaned from direct interviews.

3.3 Data Analysis

Although there is extensive debate on the relative merits between interpretivist and positivist approaches in information systems (Walsham 1995a), we opted for an interpretive approach during data analysis due to explanatory nature of our research objectives (Walsham 1995b). It is not our intention to establish cause-effect relationships through the case study, but rather, we are trying to gain an in-depth appreciation of how change initiatives could aid in realizing business-IT alignment.

Interview transcripts form the basis of our data analysis efforts. Thematic analysis was employed to analyze the data (Boyatzis 1998). Thematic analysis is a data-driven technique where themes are generated inductively from raw data (Orlikowski 1993). To perform thematic analysis, we began by combing through each interview transcript to isolate patterns that recur among interviewees. A pattern, in the context of this study, refers to a quote from an interviewee highlighting one or more factors that affect the success of the change initiative, be it positively or negatively. Related patterns isolated from the interview transcripts were then grouped into themes according to theoretical proximity. These themes were in turn mapped to our analytical framework (see Table 1) and given theoretical labels.

As an illustration of the data analysis process, we noticed several instances during the interviews where interviewees underscored employees’ inclination to pursue partisan interests at the expense of the organization. As mentioned by a number of interviewees, departments in UtilServ tend to be internally focused with employees who are more concerned with strengthening their own department, rather than engaging in inter-departmental cooperation to bring about added value for the organization:

“At this moment we are way too busy with creating value for our own departments.” (Manager, Business Process Department)

“A factor that will inhibit the creation of added value is the culture of separated islands within UtilServ. People are strongly focused on their own process area and making sure that things are going fine only in their own area.” (Employee, IT Department)

Collectively, the aforementioned patterns testify to the existence of an ‘empire building’ mentality among employees of the same department, which in turn adversely affect the willingness of business and IT departments to communicate with one another (Li 2009). Applying the same data analytical principles, we arrive at five change enablers and four change inhibitors. Of the five change enablers, two are associated with the intellectual dimension of business-IT alignment whereas three relate to the social dimension. Of the four change inhibitors, two are associated with the intellectual dimension of business-IT alignment whereas three relate to the social dimension Table 3 summarizes these change enablers and inhibitors together with the frequency and intensity with which a change enabler or a change inhibitor was mentioned during the interviews.

Theme		Frequency†	Intensity‡
Change Enablers			
Intellectual	Clear Assessment Criteria	24/28	46/556
	Information Exchange	24/28	54/556
Social	Managerial Role Model	25/28	32/556
	Involvement and Participation	27/28	52/556
	Positive Collaborative Experience	17/28	27/556
Change Inhibitors			
Intellectual	Empire Building	25/28	49/556
	Misguided Technological Expectations	23/28	34/556
Social	Differences in Professional Language	22/28	27/556
	Lack of Open Communication Climate	20/28	34/556

† Number of interviewees over total number of interviewees who have mentioned the corresponding change enabler or inhibitor.

‡ Number of quotes over total number of quotes for which the corresponding change enabler or inhibitor have been mentioned.

Table 3. Results from Thematic Analysis

4 Case Analysis and Discussion

In this section, we present empirical findings from our case study of UtilServ. Consistent with the grounded theory approach, for each identified change enabler and change inhibitor, sample quotes from interviews are provided and interweaved with theoretical concepts from extant literature to arrive at lessons learnt about managing change initiatives aimed at realizing business-IT alignment.

4.1 Change Enablers

We uncovered five change enablers, namely clear assessment criteria, information exchange, managerial role models, involvement and participation as well as positive collaborative experience.

4.1.1 Having clear assessment criteria facilitates business-IT alignment by ensuring that both business and IT departments are aware of mutual expectations

Having clear assessment criteria has been acknowledged by interviewees as a key driver of business-IT alignment. Without which, the IT department of UtilServ often expresses frustration with what they deem to be ambiguous expectations from the business departments:

“Business for example expresses that they expect of an IT system to always work. In return, IT is wondering whether business really means that the system should work 100 percent of the times, or that 90, 95, or 99 percent of the times will also be acceptable.” (Manager, IT Department)

The value of defining clear assessment criteria has also been recognized by McGreevy (2009), who stated that the objectives of any change initiative have to be consensual among all parties involved. Because managers and employees can assess situations differently (Kotter and Schlesinger 1979), establishing a standardized set of assessment criteria offers clarity on the costs and benefits of change initiatives: organizational members will know what is expected of them and what the anticipated outcomes will be. As surmised by Bertsch and Williams (1994), “formulating appropriate corporate objectives is ineffective if they cannot be reviewed in a meaningful way” (p. 15). Having clear assessment criteria thus grants transparency to members from both business and IT departments in terms of comprehending the added value of business-IT alignment as remarked by one interviewee:

“The added value can be made more concrete by showing that the system results in time savings, simplification of the working processes and risk reduction. By setting clear criteria in advance you know what the added value will be.” (Director, Production & Distribution Department)

4.1.2 Information exchange facilitates business-IT alignment by promoting knowledge sharing among business and IT departments, leading to enhanced mutual understanding

Communicating and exchanging information among business and IT departments facilitates business-IT alignment by fostering mutual understanding and acceptance of one another:

“Exchanging information with each other will breed acceptance and understanding.” (Team Leader, Business Process Department)

It is obvious from the interviews that information exchange breeds knowledge sharing between business and IT departments. This in turn fosters mutual understanding between both parties and aids in the realization of business-IT alignment:

“In creating alignment for UtilServ as a whole, it is very important that people gain knowledge from each other. This mutual knowledge can be shaped by exchanging information with each other.” (Employee, IT Department)

Past studies have alluded to information exchange as a salient antecedent in building commitment towards change initiatives (Elving 2005; Kanter 1985). Elving (2005) noted that the “first goal of organizational communication should be to inform employees” (p. 131). In the same vein, Armenakis et al. (1993) recommended persuasive communication as an influential strategy to cultivate readiness for a change initiative because it is “primarily a source of explicit information regarding discrepancy and efficacy” (p. 688). Kotter and Schlesinger (1979) also agreed with the aforementioned position in that “communication of ideas helps people see the need for and the logic of a change” (p. 109). To the extent that business-IT alignment is reliant on coordination between business and IT departments, it is vital for both parties to share information about goals, planning and scope of the change process (Elving and Bennebroek Gravenhorst 2005).

4.1.3 Managerial role models facilitate business-IT alignment by acting as boundary spanning ambassadors among business and IT departments

The third change enabler, which emerges from our data analysis, is that of managerial role models. Interviewees emphasized that it is crucial for managers to act as role models of business-IT alignment: *“In cultural change, management should take a leading position.”* (Manager, Human Resource Department)

According to one interviewee, it is imperative for managers to spearhead change initiatives by displaying positive attitudes that could prove to be contagious to others:

“Management has to show that they have a positive attitude towards the change. They have to be a role model of the change.” (Team Leader, Finance Department)

To ensure the success of change initiatives aimed at realizing business-IT alignment, scholars have advocated for the personal involvement of managers from both business and IT departments (cf. Bertsch and Williams 1994). As observed by Chrusciel and Field (2006), active and visible support from organization management is crucial to the success of organizational change. If managers are unwilling to change, employees are also likely to follow suit (Ackerman-Anderson and Anderson, 2009). This underscores the pivotal position of managers as role models for perpetuating desired behaviours essential to the realization of business-IT alignment (cf. McAllaster 2004). Interviewees have pointed to the instrumental role of a department manager in framing employees' impression of other departments. Having a positive attitude of employees towards other departments should enhance cooperation and collaboration between departments:

“Managers have a crucial role in cooperation. Managers are the chairmen of their departmental meetings, in these meetings they also have to deal with complains about IT. The way managers react in these situations is crucial for the image of IT within that department. A negative attitude of the management will result in a negative attitude of the complete department.” (Employee, IT Department)

4.1.4 Employees' involvement and participation in change initiatives facilitates business-IT alignment by securing decisional acceptance among business and IT departments

Involvement and participation of employees in the change initiative has been identified as another factor enabling business-IT alignment. From our findings, involvement and participation may not necessarily be concomitant. In general, interviewees agree that not everyone needs to participate in making decisions. Sometimes, the possibility of being involved in sharing ideas would suffice:

“Not everybody needs to be able to make decisions. This will only slow down the decision making process. Nonetheless people should have the opportunity to share their ideas on a topic.” (Employee, IT Department)

Moreover, even when decision making power is absent, organizational members situated at lower levels of the corporate hierarchy do appreciate the opportunity to be involved:

“My experience is that people on a lower hierarchical level in the organisation also appreciate it when they are being involved.” (Employee, IT Department)

Within extant literature, the importance of employees' involvement and participation in change initiatives cannot be understated as it gives “people a say in shaping their future” (Ackerman-Anderson and Anderson 2009, p. 4; see also Coch and French 1948). Indeed, Bartlem and Locke (1981) noted that employees' participation in the decision-making process culminates in successful change outcomes, which often leads to better organizational performance. Kanter (1985) explained that the reactions of organizational members to change initiatives depend on their evaluation of the controllability of the situation: involving people in the change process accords feelings of greater control in the change process. Even though participation and involvement have often been used interchangeably in past studies, we draw a distinction between the two concepts to be consistent with our empirical findings. Chawla and Kelloway (2004), differentiated between decision-control and process-control. Whereas decision-control refers to “control over actual decisions made”, process-control denotes “the opportunity to simply state one's case” (Chawla & Kelloway 2004, p. 488). Similarly, while interviewees admit that employees do not necessarily have to participate in making decisions, they did reiterate the importance of consulting employees from business and IT departments when undertaking change initiatives. If the decision maker listens to employees' suggestions and respond to them, the latter is more likely to perceive that they have been sufficiently empowered:

“The ability for employees to make decisions is not necessary although they should be able to give their advice. The decision maker has to listen to the employees, because they possess a lot of practical

knowledge. By listening to their advice, employees have the ability to influence the decision making process.” (Employee, IT Department)

4.1.5 Positive collaborative experience facilitates business-IT alignment by building trusting relationships among business and IT departments

Results highlighted that instances of bad collaboration history between business and IT departments may adversely affect change initiatives aimed at business-IT alignment. Particularly, one interviewee pointed out that problems in the past continue to haunt the IT department:

“A negative image around IT change processes is created by problems with the implementation of new IT systems in the past.” (Team Leader, Client Support Department)

Additionally, dismal historical collaborative experiences affect the building of trusting relationships between business and IT departments:

“In the relationship between business and IT, history plays an important role. A negative history will have a negative effect on the building of trust between the two domains.” (Manager, Production & Distribution Department)

Conversely, positive experiences in the past can breed trust, which in turn facilitates business-IT alignment:

“A lack of trust is often caused by disappointments that result from past business-IT projects. By doing this right in the present situation, trust can be bred.” (Director, Production & Distribution Department)

Within extant literature, previous collaborative experience between business and IT departments has also been recognized as a change enabler influencing business-IT alignment. Reich and Benbasat also (2000) identified IT implementation success as a factor that can influence business-IT alignment in a profound manner. Likewise, Rockart et al. (1996) noted that successful system implementations enhance the IT track record and renders business-IT alignment more realizable for the organization.

4.2 Change Inhibitors

We uncover four change inhibitors which, by their presence, will negatively influence the success of change initiatives in realizing business-IT alignment, namely *empire building*, *differences in professional language*, *lack of open communication climate* and *misguided technological expectations*.

4.2.1 Empire building hinders business-IT alignment by compelling business and IT departments to emphasize partisan rather than collective interests

This theme of Empire building manifested in UtilServ, when organizational members appear to be primarily focused on their own department:

“At this moment we are way too busy with creating value for our own departments.” (Manager, Production & Distribution Department)

Moreover, business and IT departments in UtilServ tend to function independently with little or no cross-department collaboration:

“If you want to create alignment, there should not be separated department next to each other. There has to be an overlap between the departments in which alignment can be created.” (Manager, Client Support Department)

The danger of empire building to business-IT alignment is best explained by one interviewee. When everybody is making decisions in favour of their own departments, the entire organization suffers:

“There is a risk that individual managers will make choices that are suboptimal for the integrated business processes. They might make decisions that will gain the manager himself extra money, but that will cost money to two peer managers.” (Manager, IT Department)

Within extant literature, empire building has been associated with the agency problem. The agency relationship can be defined as: “a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent” (Jensen and Meckling 1976, p. 308). Within this relationship, the agent might not always act in the best interest of the principal, which is termed as the agency problem (Jensen and Meckling 1976). The agency theory applies to “employer-employee, lawyer-client, buyer supplier and other agency relationships” (Eisenhardt 1989a, p. 60). Hence, if organizational members try to influence decisions to further their departmental agendas and bolster their own bargaining positions, business-IT alignment is less likely to be realized.

4.2.2 Differences in professional language hinders business-IT alignment by enacting barriers to information exchange and knowledge sharing among business and IT departments

The second change inhibitor, which emerges from our data analysis, is differences in professional language. Differences in professional language serve as barriers to business-IT alignment, especially when a basic level of knowledge is taken for granted when business and IT departments interact:

“I think language can be a big problem. There is a risk that a certain level of basic knowledge is assumed at the user’s level. Later on it might appear that the user did not understand the message. This can result in difficult situations.” (Employee, IT Department)

The following quote further underscores how differences in language and terminology act as obstacles to business-IT alignment:

“Nothing is as hard to achieve as good communication. You can use words which have a certain meaning in your job area, while these same words have a different meaning in another job area. This is also the case in the IT and business area. There is a difference in terminology, language, and background.” (Director, Production & Distribution Department)

Seamless exchange of ideas, knowledge and information between business and IT departments has been identified by Luftman and Kempaiah (2007) as a key element that dictates the maturity of business-IT alignment within organisations. Exchanging information between business and IT departments to create shared domain knowledge will only be successful when they understand each other at a deep level (Reich and Benbasat 2000). Preston and Karahanna (2009b) identified shared language as an antecedent of shared understanding, a critical prerequisite for the inducement of meaningful and well-functioning relationships among business and IT managers.

4.2.3 Lack of open communication climate hinders business-IT alignment by arousing suspicion among business and IT departments with regards to one another’s intentions

The fourth change inhibitor we have identified from our data analysis is the lack of an open communication climate between business and IT departments within UtilServ:

“With UtilServ we have a closed communication climate in which we do speak about each other, but do not speak with each other.” (Manager, Client Support Department)

Interviewees admitted that in the absence of candid and transparent interactions, hidden agendas are more likely to dominate, leading to suspicion between business and IT departments:

“We just have to sit down with each other and be transparent. If there is no open communication with each other, hidden agendas will occur.” (Manager, IT Department)

The interviewees also highlighted a relationship between the communication climate and the social component of business-IT alignment:

“It is disastrous for the mutual trust if someone is not open in his communication and has a hidden agenda.” (Employee, IT Department)

“It is important that people can say what they think when they personally interact with each other. In this way an open communication climate will occur, which in turn makes sure that trust can be created.” (Team Leader, Client Support Department)

In light of the significance of information exchange in realizing business-IT alignment, open communication is indispensable during organizational change (Elving 2005). Besides informing organizational members, communication in change processes also plays another principal role. This has to do with the way in which the communication is taking place before, during or after a change initiative—what Elving and Bennebroek Gravenhorst (2005) labelled as communication climate. Communication climate thus reflects the symbolic value of communication in organizational change (Armenakis et al. 1993; Bordia et al. 2004; Spector 1989). The existence of an open communication climate can create trust (Elving and Bennebroek Gravenhorst, 2005), *“foster favourable attitudes towards change”* (Chawla and Kelloway 2004, p. 487) and *“helps to foster a sense of fairness and procedural and interactional justice”* (Difonzo and Bordia 1998, p. 299), which in turn leads to greater outcome acceptance (i.e., business-IT alignment) from the change initiative.

4.2.4 Misguided technological expectations hinder business-IT alignment by amplifying discrepancies between expectations and performance among business and IT departments

Interviewees identified a mismatch in performance expectations between business and IT departments: *“The mismatch between business and IT is created by problems with the performance. It takes a lot of time before problems are solved.”* (Employee, IT Department)

As highlighted by one interviewee, while the objective performance is important, the perceived performance as experienced by system users plays an equally salient role as well:

“If people experience the functionality of the systems as insufficient, the supporting bases for the systems overall will decrease.” (Director, Production & Distribution Department)

Interviewees recognized that trust will only manifest when systems are working as anticipated:

“If you want to breed trust from the business in IT, there should first be a stable basis of systems that are performing well.” (Manager, Client Support Department)

The next quote underlines the importance of managing the expectations of business departments towards IT systems. It needs to be clear what can be expected from the technology, in order to prevent a decrease of trust and subsequently inhibit business-IT alignment:

“In order to build trust it is important to align what you can expect from each other and how the results are going to be assessed. The expectations can be aligned by agreeing on service levels. When for instance something is working the whole year, but does not work at the moment somebody really needs it, dissatisfaction will occur immediately. This will lead to having no trust in the IT organization as a whole for that moment. If this person has to fill in a survey about the satisfaction with the ICT organization, the results will be influenced negatively.” (Manager IT domain)

Within extant literature, we observed that technological expectancy has been found to be an influential factor in business-IT alignment. Lim et al. (2005) revealed that the expected performance of the technology and the required effort to reach this performance shapes the attitudes of organizational members towards technology. When technology does not meet expectations, user acceptance will be low. These expectations must thus be managed carefully. Preston and Karahanna (2009b) also expressed the same opinion by testifying that the tempering of expectations among top management teams is predictive of business-IT alignment.

5 Conclusion

Findings from this research contributes to both theory and practice in several ways. First, we reviewed past theorizations of business-IT alignment to arrive at a viable working definition that could be ap-

plied by researchers in future studies of the phenomenon. Second, we advance an analytical framework that distinguishes between change enablers and change inhibitors as distinct factors affecting the success of change initiatives aimed at realizing both intellectual and social dimensions of business-IT alignment. Based on a case study conducted at a public utility service corporation in the Netherlands, we discovered that having clear assessment criteria, promoting information exchange, getting managers to act as role models, expanding the involvement and participation of employees in decision making as well as drawing on positive collaborative experiences in the past will bolster the success of change initiatives for realizing business-IT alignment. Conversely, we uncovered that pursuing partisan interest at the expense of the organization, speaking different professional languages, displaying apprehension and hesitation when interacting with one another as well as holding on to misguided technological expectations will hinder business-IT alignment during change management.

In doing so, this study integrates extant literature on business-IT alignment and organizational change management, and reveals enabling and inhibiting factors that can be harnessed by organizations to structure change initiatives for attaining intellectual and social alignment between business and IT departments. Until now, business-IT alignment and organizational change management have existed as two separate streams of literature. By integrating them, this study yields novel insights into the dynamism between change processes and business-IT alignment such that organizational change can be undertaken in an informative and purposeful fashion.

This study also bears implications for practitioners by first highlighting change management as a possible route for organizations to realize business-IT alignment. Second, practitioners can glean insights from this study about enabling and inhibiting factors that cannot be ignored when undertaking change initiatives for realizing business-IT alignment. Third, the case study of UtilServ exposes practitioners to successful change management practices that can inform organizations embarking on comparable change initiatives and it also discloses pitfalls that should be avoided. Practitioners can draw lessons learnt to better structure change initiatives for realizing business-IT alignment.

5.1 Limitations and Further Research

Although our study offers novel insights into the relationship between business-IT alignment and managing organizational change, findings must be interpreted conservatively. Because findings from this research are generated on the basis of a single case study, we caution against generalizing lessons learnt from our case analysis to organizations that do not share similar characteristics to UtilServ. Future research can expand on our work by conducting additional case studies in other organizations to validate and refine our analytical findings. Analyses of comparable cases in the future can provide the legitimacy to generalize lessons learnt from our case analysis beyond organizations like UtilServ. In a way, this study takes a small but concrete step towards investigating the plausibility of organizational change management as a means to realizing business-IT alignment.

References

- Ackerman-Anderson, L., and Anderson, D. (2009). Leading change. *Leadership Excellence* 26 (11), 3-4.
- Armenakis, A. A., and Harris, S. G. (2009). Reflections: Our journey in organizational change research and practice. *Journal of Change Management*, 9 (2), 127-142.
- Armenakis, A. A., Harris, S. G., and Mossholder, K. W. (1993). Creating readiness for organizational change. *Human Relations*, 46 (6), 681-703.
- Bartlem, C. S., and Locke, E. A. (1981). The Coch and French study: A critique and reinterpretation. *Human Relations*, 34 (7), 555-566.
- Bertsch, B., and Williams, R. (1994). How multinational CEOs make change programs stick. *Long Range Planning*, 27 (5), 12-24.
- Bordia, P., Hunt, E., Paulsen, N., Tourish, D., and DiFonzo, N. (2004). Uncertainty during organiza-

- tional change: Is it all about control? *European Journal of Work and Organizational Psychology*, 13 (3), 345-365.
- Boyatzis, R. E. (1998). *Transforming Qualitative Information: Thematic Analysis and Code Development*, Sage Publications, CA.
- Cenfetelli, R. T. (2004). Inhibitors and enablers as dual factor concepts in technology usage. *Journal of the Association for Information Systems*, 4 (11-12), 472-492.
- Chan, Y. E., Huff, S. L., Barclay, D.W., and Copeland, D. G. (1997). Business strategic orientation, information systems strategic orientation, and strategic alignment. *Information Systems Research*, 8 (2), 125-150.
- Chawla, A., and Kelloway, E. K. (2004). Predicting openness and commitment to change. *Leadership and Organization Development Journal*, 25 (6), 485-498.
- Chrusciel, D., and Field, D. W. (2006). Success factors in dealing with significant change in an organization. *Business Process Management Journal*, 12 (4), 503-516.
- DiFonzo, N., and Bordia, P. (1998). A tale of two corporations: Managing uncertainty during organizational change. *Human Resource Management*, 37 (4), 295-303.
- Eisenhardt, K. M. (1989a). Agency theory: An assessment and review. *Academy of Management Review*, 14 (1), 57-74.
- Eisenhardt, K. M. (1989b). Building theories from case study research. *Academy of Management Review*, 14 (4), 532-550.
- Elving, W. J. L. (2005). The role of communication in organizational change. *Corporate Communications: An International Journal*, 10 (2), 129-138.
- Elving, W. J. L., and Bennebroek Gravenhorst, K. M. (2005). Communicatie en organisatieverandering: De rol van commitment en vertrouwen, *Tijdschrift voor Communicatiewetenschap*, 33 (4), 317-329.
- Graetz, F. (2000). Strategic change leadership. *Management Decision*, 38 (8), 550-562.
- Henderson, J. C., and Venkatraman, N. (1993). Strategic alignment: Leveraging information technology for transforming organizations. *IBM Systems Journal*, 32 (1), 4-16.
- Jensen, M. C., and Meckling, W. H. (1976). Theory of the firm: Managerial behavior, Agency costs and ownership structure. *Journal of Financial Economics*, 3 (4), 305-360.
- Kanter, R. M. (1985). Managing the human side of change, *Management Review*, 74 (4), 52-56.
- Kotter, J. P., and Schlesinger, L. A. (1979). Choosing strategies for change. *Harvard Business Review*, 57 (2), 106-114.
- Li, X. (2009). Managerial entrenchment with strategic information technology: A dynamic perspective. *Journal of Management Information Systems*, 25 (4), 183-204.
- Lim, E. T. K., Pan, S. L. and Tan, C. W. (2005). Managing user acceptance towards Enterprise Resource Planning (ERP) systems – Understanding the dissonance between user expectations and managerial policies. *European Journal of Information Systems*, 14 (2), 135-149.
- Lim, E. T. K., Tan, C. W., Cyr, D., Pan, S. L. and Xiao, B. (2012). Advancing public trust relationships in electronic government: The Singapore e-filing journey. *Information Systems Research*, 23 (4), 1110-1130.
- Luftman, J. N., Papp, R., and Brier, T. (1999). Enablers and inhibitors of business-IT alignment. *Communications of the Association for Information Systems*, 1 (11), 1-32
- Luftman, J., and Brier, T. (1999). Achieving and sustaining business-IT alignment. *California Management Review*, 40 (1), 109-122.
- Luftman, J., and Kempaiah, R. (2007). An update on business-IT alignment: ‘A Line’ has been drawn. *MIS Quarterly Executive*, 6 (3), 165-177.
- Mayasandra, R., Pan S. L., and Leidner, D. (2011). Examining the strategic alignment and implementation success of a KMS: A subculture-based multi-level analysis. *Information Systems Research*, 22 (1), 39-59.
- McAllaster, C. M. (2004). The 5 P’s of change: Leading change by effectively utilizing leverage points within an organization. *Organizational Dynamics*, 33 (3), 318-328.

- McGreevy, M. (2009). Why change works sometimes. *Industrial and Commercial Training*, 41 (6), 305-313.
- Nelson, K. M., and Coopridge, J. G. (1996). The contribution of shared knowledge to IS group performance. *MIS Quarterly*, 20 (4), 409-432.
- Orlikowski, W. J. (1993). CASE tools as organizational change: Investigating incremental and radical changes in systems development. *MIS Quarterly*, 17 (3), 309-340.
- Preston, D. S., and Karahanna, E. (2009a). How to develop a shared vision: The key to IS strategic alignment. *MIS Quarterly Executive*, 8 (1), 1-8.
- Preston, D. S., and Karahanna, E. (2009b). Antecedents of IS strategic alignment: A nomological network. *Information Systems Research*, 20 (2), 159-179.
- Reich, B. H., and Benbasat, I. (1996). Measuring the linkage between business and information technology objectives. *MIS Quarterly*, 20 (1), 55-81.
- Reich, B. H., and Benbasat, I. (2000). Factors that influence the social dimension of alignment between business and information technology objectives. *MIS Quarterly*, 24 (1), 81-113.
- Rockart, J. F., Earl, M. J. and Ross, J. W. (1996). Eight imperatives for the new IT organization. *Sloan Management Review*, 38 (1), 43-55.
- Sabherwal, R., and Chan, Y. E. (2001). Alignment between business and IS strategies: A study of prospectors, analyzers, and defenders. *Information Systems Research*, 12 (1), 11-33.
- Spector, B. A. (1989). From bogged down to fired up: Inspiring organizational change. *Sloan Management Review*, 30 (4), 29-34.
- Strong, D., and Volkoff, O. (2010). Understanding organization-enterprise system fit: A path to theorizing the information technology artifact. *MIS Quarterly*, 34 (4), 731-756.
- Urquhart, C., Lehmann, H., and Myers, M. D. (2010). Putting the 'theory' back into grounded theory: Guidelines for grounded theory studies in information systems. *Information Systems Journal*, 20 (4), 357-381.
- Walsham, G. (1995a). Interpretive case studies in IS research: Nature and method. *European Journal of Information Systems*, 4 (1), 74-81.
- Walsham, G. (1995b). The emergence of interpretivism in IS research. *Information Systems Research*, 6 (4), 376-394.
- Yin, R. K. (1994). *Case Study Research: Design and Methods*. Sage, London.