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Evaluating the strategic alignment maturity in a large company

A proposal on how to assess higher maturity between two departments

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Abstract: Strategic alignment has been a top concern for executives for the past two decades. The study aims to investigate how the social dimension of strategic alignment is perceived between an IT department and business department. The study consist of three phases, where the first phase includes two semi-structured interviews to define the problem area at the company in focus. By linking the answers given in the interviews to the well-known strategic alignment maturity model we are able to derive the criteria communication, partnership, skills and governance and their factors affecting the social dimension of strategic alignment. In the second phase we conduct 16 structured interviews based on these criteria to be able to get an indication of the maturity which we then in phase three investigate further through four semi-structured interviews. By using the strategic alignment maturity model we are able to articulate the indicated maturity on respective criteria and its factors. We thereafter propose changes and actions the company can take depending on the departments' maturity situation in order to reach a higher maturity level.

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1 Introduction

Information technology (IT) is an important area of organizations substantial investment due to the incensement of the general business performance (Uçaktürk & Villard, 2013). A significant challenge for information systems (IS) is to align the IT strategy with the business strategy (Luftman, 2012). Over many years, both in practice and in broad research findings, a correlation between these two factors has been verified and has been shown to have a substantial impact on organizational performance (Gerow, Thatcher, & Grover, 2015; Kearns & Sabherwal, 2006; Reynolds & Yetton, 2015). IT planning, and its importance, has been recognized for a long time, but earlier literature has been focused on planning for individual IT projects and development portfolios (Kearns & Sabherwal, 2006). As IT's contributions to organizations have progressed to the strategic era, the objectives of IT also broadened from IT project planning to shaping and supporting the IT strategy of the organization (Kearns & Sabherwal, 2006).

One important criterion using an IT strategy to leverage the overall business is to align it with the business strategy. It has become an increasingly important focal point for businesses as IT has taken a more strategic role rather than an administrative role in today's organizations (Alaceva & Rusu, 2015; Henderson & Venkatraman, 1993). This explains why the strategic alignment phenomena has been a top ten concern of IT and business executives for the past two decades (Alaceva & Rusu, 2015; Coltman, Tallon, Sharma, & Queiroz, 2015; Luftman & Ben-Zvi, 2010; Luftman et al., 2012; Schlosser, Wagner, & Coltman, 2012; Ullah & Lai, 2013).

Pearlson and Saunders (2013) discuss the importance for general managers to partake within IS decisions. As IS can leverage movement, exchange and the way information is processed, it is becoming increasingly important to fit IS to a given operating environment, thus if not, no realized value will be given. The business strategy goals and objectives should be supported and complemented by the IS-strategy (Pearlson & Saunders, 2013).

Henderson and Venkatraman (1993) argue the same; due to the lack of strategic alignment between the IS strategy and the business strategy, an inability in realizing value from IT investments will prevail. As the strategic alignment is not an event, but a process of continuous adaption and change within organizations, several questions arises for managers. These questions aim to answer what the implications IT has on the business, competence allocation, role of managers in leveraging IT capabilities, organizing IT functions etc. (Henderson & Venkatraman, 1993).

1.1 Problem

Strategic alignment has been a frequent studied domain by researchers, but a lot less research has been done with a focus on the social dimension of the strategic alignment concept, highlighting the relationship between business and IT departments. Social dimension includes the communication, common understanding, trust, respect, culture, informal structures and values (Alaceva & Rusu, 2015; Reich & Benbasat, 2000; Schlosser et al., 2012).

As Luftman and Ben-Zvi (2010) states, there is no shortcut towards business and IT alignment. There are many strategic decisions that has to be taken concerning the components of the strategic alignment maturity model, e.g. communication, competency and value measurements, governance, partnerships, scope and architecture, and skills (Luftman & Ben-Zvi, 2010). As an example, Simon, Fischbach, and Schoder (2014) identifies that one of the most critical factors to good business and IT alignment is to overcome the weak communication strategies to lower organizational levels.

Coltman et al. (2015) emphasizes Palmer and Markus' (2000) statement that the strategic alignment concept has become institutionalized, meaning that it no longer drives competitive advantage for companies. Therefore, one could argue that the meaning of strategic alignment still matters, but in a new and different way (Coltman et al., 2015).

We have through interviews identified factors that inhibit the strategic alignment in a multinational company. We have found that factors such as communication, partnership, skills and governance all affect the company's social dimension of strategic alignment. It is perceived by the interviewees that they are currently working in silos, and that the business and IT departments are living their own lives, hence affecting the social dimension of strategic alignment between the departments. With these problems in mind, we attempt to answer the following research questions presented in the next section.

1.2 Research questions

Reich and Benbasat (2000) seek to highlight two paradigms that can be identified in strategic alignment research, the intellectual and the social dimension, which is based on emphasis from Horovitz's (1984) study on strategizing. The intellectual dimension concentrates on examination of strategies, structure and methodology in organizations. Meanwhile the second mentioned social paradigm focuses on the actors in organizations, by examining their values, communication and the mutual understanding of the respective domain (Reich & Benbasat, 2000). This phenomenon has also been highlighted by Alaceva and Rusu (2015) who consider two aspects of alignment, an intellectual dimension and social dimension. This thesis focus will be on the social dimension of alignment. The research questions are thus:

1. How is the social dimension of strategic alignment perceived between the IT department and business department in a large company?
2. What possibilities, considering the social dimension of alignment, exist for a large company to assess better strategic alignment between the IT department and business department?

1.3 Purpose

The purpose of this study is to investigate a large company's strategic alignment maturity between the IT department and business department and by doing so provide suggestions on how to further improve it. Thereby we will also be able to validate certain frameworks as well as give implications on additional improvement factors that the company in focus can consider.

1.4 Delimitation

This study will only focus on business and IT alignment as a whole, and will therefore not solely focus on one specific type of business and IT strategy. Another delimitation is that the study will only take focus on the factors affecting the social dimension of the strategic alignment recognized in the literature, hence we will leave out the intellectual dimension of alignment as well as other technical and infrastructural aspects. Our research will also focus on only two departments within the large organization: an IT department and business department.

2 Literature review

In this chapter we will review previous literature needed for conducting our study. We will go through the definitions of the business and IT strategy to highlight the differences, as well as the difference between traditional linkage and strategic alignment between business and IT. A presentation of two models that will be applied later will be done. First, the strategic alignment model explains how the alignment crystallizes within organizations. Second, the strategic alignment maturity model, in order to explain the components that will be used later in this work to give an indication where maturity is high or low under different categories. Furthermore, an explanation of factors affecting the social dimension of strategic alignment will be given.

2.1 Business strategy

Organization's business strategies have received much attention among researchers (Cragg, King, & Hussin, 2002). Storey (1994) studied business strategy in smaller firms and identified business strategy as one of the three main components that contribute towards growth in organizations. There are in general two categories of business strategies that can be distinguished. Organizations have the option to either adapt a cost leadership strategy to compete as the lowest-cost producer in their industry, or to choose a differentiation strategy by providing unique products or services (Chen & Jermias, 2014; Porter, 1985). In addition, Porter (1996) highlights that an organization's ability to deliberately select a set of activities, that will deliver a unique mix of values to its customers, is the essence of the organization's business strategy. To summarize, business strategy is a set of objectives, plans and policies for an organization to be able to successfully compete in its markets with some of its key characteristics (Dubey, 2010):

- It is long-term.
- It specifies the competitive advantage it will give the organization.
- It lays its focus on key areas.

Other researchers also argue over the necessity of a clear business strategy. However, most seem to agree that the business strategy alone cannot help organizations to achieve high performance and competitive advantage. They suggest that the business strategy should be supported by effective compensation systems (Chen & Jermias, 2014; Govindarajan, 1993; Waterhouse & Svendsen, 1998).

For this research, a more detailed definition of the business strategy is not needed as it can take many forms in organizations. However, it is good to get an understanding of its principal meaning to later be able to emphasize on how the relationship between the two strategies emerges.

2.2 IT strategy

"IT strategy is simply business strategy with an information hat on" (Goldsmith, 1991, p. 1).

It is IT's task to support, enhance and expand organization's business strategies. Therefore organizations need a long-term view of IT in the form of an IT strategy (Dubey, 2010). IT strategy is an iterative process to align an organization's IT capabilities with its business requirements (Glaser, 2004), and its role is to provide effective, efficient, responsive and flexible systems to meet the current and future business requirements (Dubey, 2010). Rather than being simply a tool for information keeping, a system developed out of strategic thinking supports business processes and provides a cost-effective framework for executing the business strategy (Dubey, 2010).

Peppard and Ward (2004), argued for a movement from strategic information systems towards development of the IS capabilities, concentrating on the sustainability of value through IT. Mainly to understand how to nurture and exploit the delivered value an IT investment can give (Peppard & Ward, 2004). The capability has also been discussed as how to form, mobilize and deploy IT resources in combination or simultaneously with other existing resources and capabilities within the organization (Bharadwaj, 2000). This will improve the alignment since stronger IT capabilities and the business strategy will be incorporated with IT investments (Peppard & Ward, 2004).

2.3 Alignment

The alignment between the business strategy and IT strategy is available when business and IT departments collaborate to create and adapt their strategies together as well as working together striving to achieve the same goals (Alaceva & Rusu, 2015). Maes, Rijsenbrij, Truijens, and Goedvolk (2000), define business and IT alignment as management's continuous, conscious and coherent process of interrelating all components of a company, contributing to its performance over time.

As an example, business and IT alignment can lead to cost reduction, higher efficiency, improved relationships with customers and suppliers and may enhance the creation of business solutions and opportunities. On the other hand, an organization without alignment may face scarce IT-related investment decisions, higher financial and opportunity costs as well as an overall lower acceptance and communication towards IT's contribution to the business (Carcary & Zlydareva, 2014; Weiss & Anderson, 2004).

There is a long research and practice history concerning the most effective means of linking technology and business strategies, in which Henderson and Venkatraman's (1993) Strategic Alignment Model (Figure 2.1) in some ways reflects. However, the concept of strategic alignment is in four ways different from the traditional views (see table 2.1). First, the Strategic Alignment Model promotes a fundamental shift in the focus of the IS function. This means changing focus from an internal orientation toward one of strategic orientation fit within the IT domain, thus creating recognition of the external IT marketplace in terms of the desired level of competencies and the scope of technologies and the governance's position. (Henderson & Venkatraman, 1993)

Second, Henderson and Venkatraman (1993) argue that instead of only linking IS activities with the business requirements, a future challenge for organizations is to select the appropriate alignment perspective from the Strategic Alignment Model that has the best fit with the business objectives and conditions. This requires a broader view of the potential role and scope of IT within an organization by the business leadership (Henderson & Venkatraman, 1993).

Lastly, different roles carried out by both IT and IS executives is highlighted within the different alignment perspectives. A manager must be able to sometimes assume a traditional leadership role associated with strategy implementation, however alignment requires roles of business and technology visionary and prioritizer. The recognition of different roles and the insurance that they are present for the right alignment perspective is according to Henderson and Venkatraman (1993) an important enabler of achieving strategic alignment. Finally, to achieve strategic alignment, the criteria for performance assessment expand from only including cost and service considerations to including operational and strategic goals as well (Henderson & Venkatraman, 1993).

Table 2.1: Difference between strategic alignment and traditional linkage (Henderson & Venkatraman, 1993, p. 481).

Characteristics	Traditional linkage	Strategic alignment
Predominant focus of information systems and technology	Internal IS function and organization	Internal IS function and organization <i>and</i> external IT marketplace
Management objectives	Ensuring that IS activities are linked to business requirements	Selecting appropriate alignment perspectives for achieving business objectives
IS executives roles	Line leadership and IS functional support	Multiple executive roles for line and IS managers
Dominant criteria for performance assessment	Cost and service consideration	Multiple criteria

The following sections will present different approaches that have tackled the concept of strategic alignment such as the strategic alignment model, which explain the alignment situation and the strategic alignment maturity model on how to assess the maturity of an organization.

2.4 Strategic alignment model

Henderson and Venkatraman's (1993) strategic alignment model on the strategic alignment between the IT and business strategies has gained a lot of credit among by researchers (Avison, Jones, Powell, & Wilson, 2004; Bricknell, Darrell, Nilsson, & Pessi, 2007; Lee, Kim, Paulson, & Park, 2008). This model explains that alignment emerges both internally and externally. Internal in this manner, is emphasized by the authors as decisions concerning the organizational

structure and design and revision of business processes, development of products and skills within the firm. The external domain is the environment in which the business competes, and the chosen set of business strategies that are explained under the business strategy section i.e. cost leadership or differentiation (Henderson & Venkatraman, 1993).

To reach alignment according to Henderson and Venkatraman (1993), as also discussed by many other researchers (Avison et al., 2004; Coltman et al., 2015; Lee et al., 2008; Schlosser et al., 2012), the strategic alignment model illustrates four dominant interrelationships between the business strategy, IT strategy, organizational infrastructure and process, and IS infrastructure and process domains.

We will only present the business strategy and IT strategy as a driver, since the research is delimited to the social dimension of strategic alignment. We argue for that the other two - organizational infrastructure and process as well as IS infrastructure and process - are of the intellectual dimension which consists of methodology, processes and technical aspects, clarified in section 1.2 Research Question.

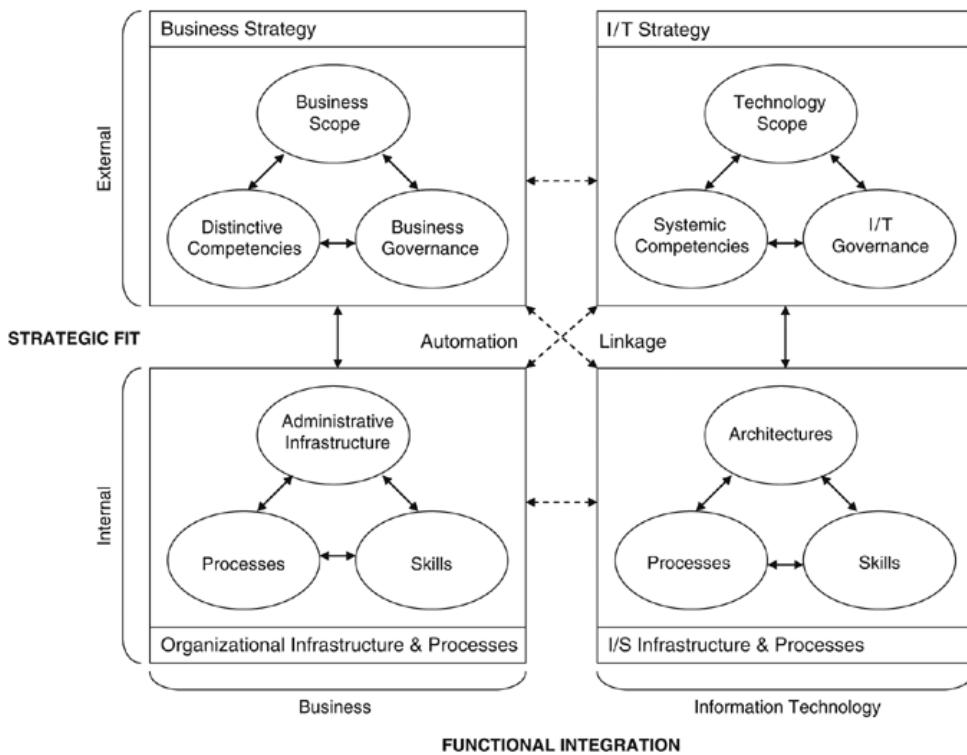


Figure 2.1: The strategic alignment model by (Henderson & Venkatraman, 1993, p. 476).

2.4.1 Business-strategy as a driver

The business strategy as a driver for alignment is the first perspective, which highlights that the business strategy has been articulated thus setting the design of both the organizational structure and IS infrastructure. However, another perspective on this can be taken, and is when the chosen business strategy is implemented in regards of the properly chosen IT strategy on the requirement of the IS infrastructure. In relation to the previous perspective, this one does not consider the current organizational structure, thus its ability to recognize the best possible skills and architecture on the market. These two perspectives illustrate when the business strategy has

impact on the IT strategy and the following effects on the architecture and processes. (Henderson & Venkatraman, 1993)

2.4.2 IT-strategy as a driver

The following perspectives use the IT strategy as an enabler for alignment. The first perspective takes into consideration the competitive potential that can be gained exploiting IT capabilities to further increase the business scope in terms of influencing the company's products or services etc. This means that the business strategy will be influenced by the IT strategy that is set. The second perspective is taking the service level into consideration and could be viewed as necessary to ensure effective use of IT. The IT strategy comes first, and will be influencing the IS infrastructure primarily to be able to meet customer demand, as the business strategy in this perspective helps to set the direction of the business. As the business will be dependent on the IS infrastructure, it has to be responsive to the fast changing market to meet the customer demand. (Henderson & Venkatraman, 1993)

2.5 Factors influencing the social dimension of alignment

Schlosser et al. (2012), highlight that the social dimension of alignment in research are about relationships and cognitive linkages, and defines it further as a socially organized human behaviour which exists between many actors. This also includes the socially constructed environment of the business and IT domains such as relationships, mutual understanding, cultural issues and informal structures. Core elements included are also mutual trust and respect, informal communication, and culture emphasized further upon below (Schlosser et al., 2012).

The factors influencing the social dimension of strategic alignment we will focus on are derived from Reich and Benbasat's (2000) study. Furthermore, these factors are discussed in Alaceva and Rusu's (2015) research. As these factors have been recognized as influencing strategic alignment by several researchers, we have also identified that they influence the problem area in our research context, and that they therefore are worth investigating. Below we present each factor and its definition.

2.5.1 Shared domain knowledge

Shared domain knowledge is defined as "... the ability of IT and business executives, at a deep level, to understand and be able to participate in the others' key processes and to respect each other's unique contribution and challenges" (Reich & Benbasat, 2000, p. 86)

There is a notable relationship between common knowledge and communication (Cohen & Levinthal, 1990). The shared knowledge construct has been of interest of IT academics for decades, and many studies prove the importance of shared knowledge for IT-line partnerships, IT performance and IT use (Boynton, Zmud, & Jacobs, 1994; Henderson, 1990; Nelson & Cooprider, 1996; Reich & Benbasat, 2000). Reich and Benbasat (2000), also state that IT and business executives relationships influences, and are influenced by, increased business knowledge.

To be able to integrate knowledge that will pervade through the organization, individuals need to have an underlying base of shared domain knowledge (Nelson & Cooprider, 1996; Reich & Benbasat, 1996, 2000), common knowledge (Grant, 1996a, 1996b) or mutual knowledge (Cramton, 2001). An example that Kearns and Sabherwal (2006) emphasizes on, this is when an IT manager shares special knowledge with a business manager. The business manager needs to have an underlying base knowledge of the IT manager to be able to comprehend and take in the information that is shared. This enhances the capability of the recipient to absorb the new knowledge and enables the individuals to further integrate knowledge that are not common for them, which will contribute to business and IT alignment (Kearns & Sabherwal, 2006).

2.5.2 Successful IT history

In a study made by Kearns and Sabherwal (2006), answers from 274 senior information officers indicated that implementation problems in IT projects result in a weaker relationship between business and IT departments. Due to this, the credibility of IT departments and line managers confidence in IT departments competence is lowered if there have been past failures in IT contribution. These failures also pose a threat to the IT and business executives relationship by lowering their trust, cooperation and support from management and users (Brown, 1991; Lucas Jr, 1975; Reich & Benbasat, 2000; Senn, 1978; Ullah & Lai, 2013). These problems also create a lack of belief in IT which can cause organizations to reduce the budget allocation for IT. However, for the alignment between business and IT to be successful, IT must be seen as an organizational asset or resource (Ullah & Lai, 2013).

In contrast, if the IT contributions have been successful, business executives' interest to communicate with IT executives becomes greater and IT is considered more carefully in the business planning at all levels (Reich & Benbasat, 2000; Rockart, Earl, & Ross, 1996; Ullah & Lai, 2013).

2.5.3 Connections between business and IT planning

Many studies on alignment explicitly say that IT planning is the crucial time during which alignment is made. In a study made by Lederer and Burky (1989), the result proved that IT executives who participated in business planning also had better understanding of the top management objectives than those who had participated less. Zmud (1988), also argues that in order to build IT-line partnerships for establishing new technologies, associations between structural mechanisms (e.g. technology transfer groups) and communications and management systems (e.g. planning and control mechanisms) are needed.

IT personnel can enhance their business understanding by establishing an improved joint IT planning between the business and IT units. This supports the mutual understanding and the relational linkage between the business and IT units as discussion and definition of the key objectives will be made mutually, thus increasing the degree of alignment (Chung, Rainer Jr, & Lewis, 2003; Reich & Benbasat, 1996).

2.5.4 Communication between business and IT executives

There is evidence in literature that communication leads to alignment or mutual understanding (Reich & Benbasat, 2000). Luftman (1997), states that the degree of relationship between IT

and business executives is one of the major factors that influence alignment within an organization. Interactions and exchanges between IT and line managers make it possible for an effective application of IT, and this is done by creating and sharing information to reach a mutual understanding (Boynton et al., 1994; Reich & Benbasat, 2000). This will over time also lead individuals to converge or diverge in their mutual understanding of a specific topic (Everett, 1986; Reich & Benbasat, 2000). By having direct personal contacts across units, liaison roles and project teams, not only can a successful linking take place, but it is also more likely for group members to share ideas (Clark & Fujimoto, 1988; John & Stephen, 1996; Reich & Benbasat, 2000).

2.6 Strategic alignment maturity

This section describes Luftman's (2000, 2003) six strategic alignment maturity criteria which are evaluated when deriving an organization's level of strategic alignment maturity. All six criteria are displayed in Figure 2.2.

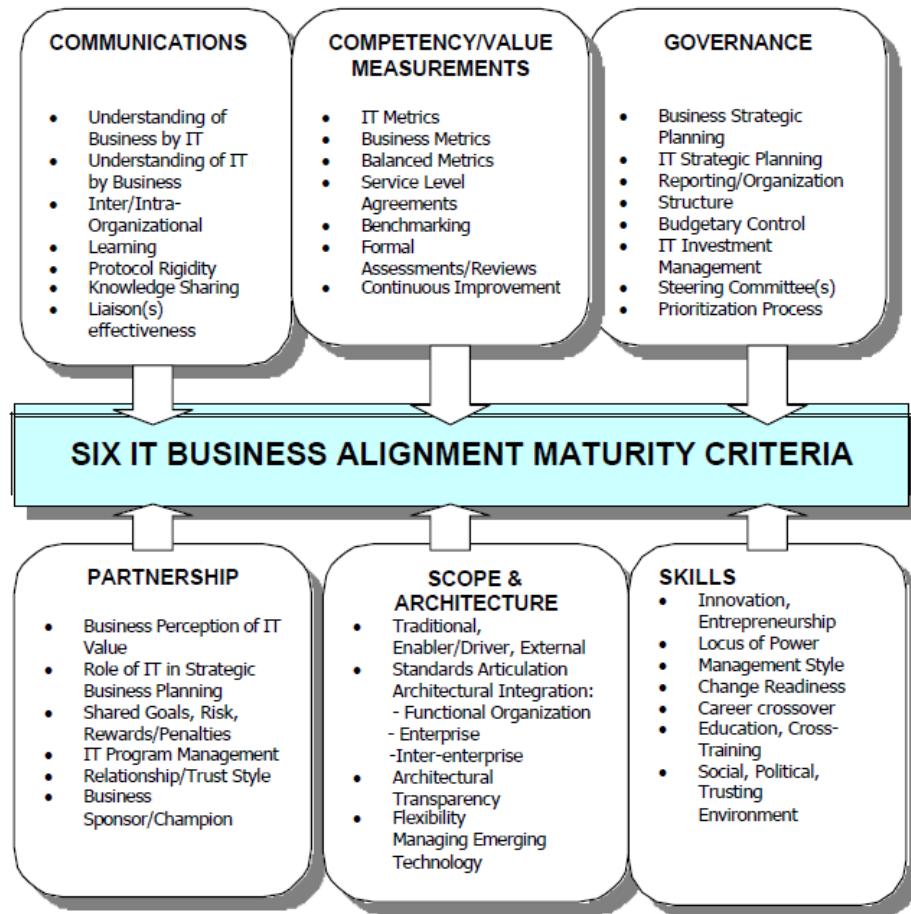


Figure 2.2: Alignment maturity criteria (Luftman, 2000, p. 12).

The strategic alignment maturity model is one of the dominant alignment models and, in accordance to El-Masri, Orozco, Tarhini, and Tarhini (2015), it helps us to identify alignment practices influencing the alignment strategy of an organization. The model has been widely applied in this research domain, with some key examples presented in the table below. Mainly,

the model identifies management practices and other enablers an organization has to support and take into consideration to assure mature strategic business and IT alignment (El-Masri et al., 2015).

Within each of the six criteria in the model, there are factors influencing the strategic alignment maturity. Luftman (2000) proposes the evaluation of the degree of alignment maturity through these different factors, where each factor is measured using a five-level scale of maturity fitted for the factor (see table 3.4 in the method chapter). Below in table 2.2, five overall levels of maturity is presented which each factors' maturity can be translated into.

Table 2.2: Maturity levels derived from Brodbeck, Henrique Rigoni, and Hoppen (2009) and Luftman (2000).

Maturity Level	Description
Level 1: Initial/improvised process	An organization at this level is unlikely to achieve an aligned strategy between business and IT by failing to handle their IT investments.
Level 2: Committed process	The organization begin to recognize the potential opportunities and is the start of a more mature strategic alignment. The business and IT communities are still impeding the alignment as they tend to have limited awareness of the various usages of IT within the organizational functions. Enabling of alignment at a local level is typically not leveraged by the organization.
Level 3: Established and focused process	An organization at this level has established a focused process of strategic alignment maturity. The organization has an IT that is in early stages of implementation within the business and application systems demonstrate more management related aspects. Business decision making is using the information in contrast with traditional systems of transaction processing.
Level 4: Enhanced/managed process	The organization demonstrates effective services and governance that strengthen the concept of IT as a value hub. In order to obtain competitive advantages, the focus is set on directing the improvement of processes by leveraging IT assets as far as possible. The organization sees IT as a strategic contributor towards the success of the business.
Level 5: Optimized process	Governance processes is sustained by the organization to integrate business and IT strategic planning processes. IT is used to its full extent to achieve full reach of the organization and throughout the value chain.

Below, a table is presented with researchers that have used the strategic alignment maturity model developed by Luftman (2000 & 2003). We present this table in order to show that it is a frequently used and well known framework for assessing the strategic alignment maturity.

Table 2.3: Strategic alignment maturity model used in research.

Author(s)	Research
Silvius, De Waal, and Smit (2009)	Uses the maturity criteria as building blocks of alignment, and discusses how alignment can be achieved through these.
Khaiata and Zualkernan (2009)	Transforms the strategic alignment maturity model into a survey instrument to address alignment issues for a company.
Carcary and Zlydareva (2014)	Investigates how the IT-capability maturity framework can be mapped and assisted with the strategic alignment maturity model.
Brodbeck et al. (2009)	Empirically tested the strategic alignment maturity model and found the most important and most promoted factors (communication, skills, scope and architecture) within their scope of study.
Kaoutar and Bounabat (2010)	Uses the strategic alignment maturity model to position the level of strategic alignment and proposes a meta model for enterprise architecture to assess and measure alignment.
Plazaola, Flores, Vargas, and Ekstedt (2008)	The authors develops an enterprise architecture meta model based on the strategic alignment maturity model in a case study.
Luftman, Dorociak, Kempaiah, and Rigoni (2008)	Using the strategic alignment maturity model combined with other research in this domain to demonstrate the strategic alignments relationship to firm performance.
Adaba, Rusu, and El-Mekawy (2010)	Evaluates the strategic alignment maturity at a public organization using the strategic alignment maturity model.
Gutierrez and Lycett (2011)	Studies the relationship between business and IT in five strategic projects in a large organization and measures the level of alignment. Identifies root causes to misalignment.
El-Masri et al. (2015)	Uses the strategic alignment maturity model in a mixed method approach to investigate the importance of each criteria.

Author(s)	Research
Belfo and Sousa (2013)	Empirically validated and evaluated the strategic alignment maturity model and concludes that the governance criterion is of most importance and that it is generally a promising instrument.
Chen (2010)	Applies the model in a study on Chinese companies to assess their maturity level and develops a measurement method fitted in the context.

Following sections presents a more detailed description of each criteria in the strategic alignment maturity model.

2.6.1 *Communications*

Luftman (2003), articulates that the exchange of ideas and understanding on how to facilitate a successful strategizing process is of importance. There are too often little awareness on IT or lower IT appreciation on parts of the business, and therefore, knowledge sharing is a key success factor in this manner (Luftman, 2000, 2003). There are many organizations that choose to draw on connections to facilitate this knowledge sharing. Facilitators whose role is to serve as the sole conduit of interaction among different organizations is often seen by authors, although this approach often tends to stifle rather than foster effective communications. Organizations should avoid stiff protocols that hinder discussions and the sharing of ideas (Luftman, 2000).

Luftman (2003), further studied IT-business alignment and concluded that it continues to be a great issue for organizations. No single activity will enable an organization to reach and sustain alignment due to the dynamic relationship between the IT and the business strategy.

Dale (2004), noted that communication between business and IT are often very vague and not straight forward, hence face-to-face encounters between the participants is preferred to ease tensions that may emerge through impassioned negotiations and consensus making.

2.6.2 *Competency and Value Measurements*

Furthermore, the authors conclude that competency and value measurements maturity has an impact on the alignment. Many organizations have trouble demonstrating business values in terms that the business understands. Therefore, it could be recommended to have a mutually developed dashboards between the strategies that demonstrates IT value in terms of contribution to the business as well as service levels assessed by IT translated in terms of the business (Luftman, 2003).

It is also highlighted by Luftman (2003) that a significant amount of resources are put towards measuring performance indicators. Organizations take fewer actions based on these measurements and are more focused on the return on investment of a project, hence leaving out the analysis on how objectives actually are met after a project or another investment is done.

2.6.3 Governance

Governance maturity is also discussed by Luftman (2003) as one of the assessment factors of IT-business alignment. This includes questions such as how a clearly defined authority for resources, risks, conflict resolutions and responsibility for IT is shared among various stakeholders within the organization. Also, what projects are chosen to focus on and invest in as well as prioritization of these (Luftman, 2003). This authority of decision making needs to be clearly defined by organizations (Luftman, 2000).

2.6.4 Partnership

How to assess the partnerships between the business and IT departments is also an important criterion of alignment and includes intertwining the IT functions equally in the business strategizing process. Other factors under this category that influences the alignment are the trust among the participants, establishment of business sponsors and leading IT initiatives and the sharing of risks and rewards. The main advantage when good partnerships are established can be seen when IT both enables and drives changes to business processes and strategies. This is easier to reach when management executives has a clearly defined and shared vision (Luftman, 2003).

2.6.5 Scope and Architecture

This factor focuses on the technology scope maturity and defines to what extend the IT can contribute to the business. This could include how IT pervade beyond the back and front office, if the organization has a flexible and transparent infrastructure, how the organization make use of new technology, if IT enables or drive business processes and strategies as well as how the organization can be flexible towards customer needs (Luftman, 2003).

2.6.6 Skills

The last maturity factor is about the skills that are included in the organization. Taking an IT human resource perspective, this factor focuses on what kind of employees that are required or not, motivation, training, education and culture. By taking this perspective, it is possible for an organization to evaluate whether it is capable of change, if the employees are capable of quick learning or feel personal responsibility for innovativeness or if the organization is leveraging the spirit of entrepreneurship among the employees. A traditional perspective focusing on an organizations culture and social environment is therefore not taken, such as a focus on for example training, salary and career (Luftman, 2003).

2.7 Summary

This chapter has presented how we define the business strategy and IT strategy, as well as how the strategic alignment between the strategies differs from the traditional linkage. This will help us explain in our analysis how our company in focus leans toward a more traditional or aligned relationship between the two departments. By presenting the strategic alignment model and strategic alignment maturity model together with its components, we are not only able to

identify how alignment takes place but also to get an indication of the company's maturity level on different factors, and be able to investigate this deeper. We also explain the factors affecting the social dimension of alignment, since this is our focus area and our stand-point from which we conduct our study. Exactly how we conduct and proceeded with our study will be presented under next section.

3 Method

In this chapter, we explain how we have proceeded with our study. We justify our decisions on how we collected our data and how we considered the ethical aspects during and after our interviews. We also present an assessment of the validity of our study.

3.1 Research strategy

Since the purpose of this study was to investigate the maturity of business and IT strategy alignment focusing on the social dimension between two departments in a multinational company, we decided to use a qualitative research method. Qualitative methods have been developed in the social sciences and helps researchers to study social and cultural phenomena. Qualitative research methods is therefore used to study people and why they tend to make decisions and act out the way they do in the context where they live, operate and behave (Recker, 2013). We have through two initial semi-structured interviews (phase one), 16 structured interviews (phase two), and four complementing semi-structured interviews (phase three) collected our data from participants with relevant company roles for our research. This was done in accordance to figure 3.1 below.

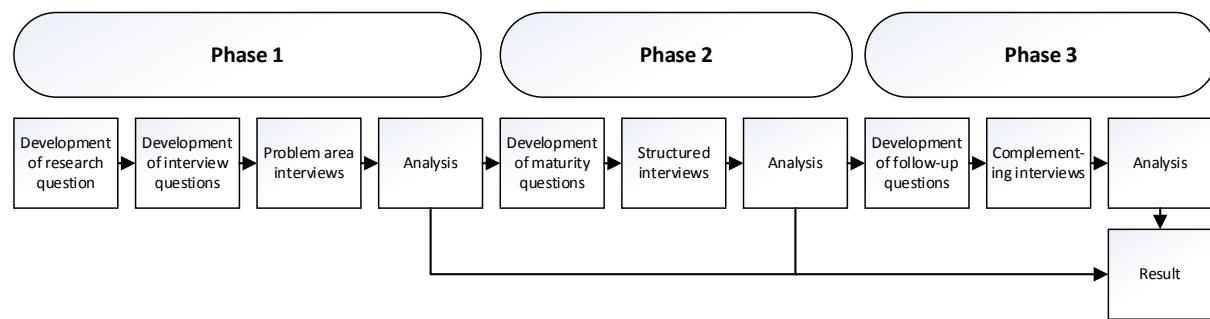


Figure 3.1: The three different phases with underlying activities.

Phase one consisted of first developing our research question and narrowing down our specific problem area. First we identified a gap in the literature to be worth investigating for a contributing to the body of knowledge. Through the literature we could develop questions derived from Reich and Benbasat (2000) and Alaceva and Rusu (2015), which helped us to identify the specific problem the organization in focus face. The derived questions were used to specifically focus on the social dimension of strategic alignment. By analyzing the data collected from two initial interviews, we coded the answers to fit the strategic alignment maturity model which we then revised. The revised version ended up with the social factors that suited the themes that were identified from the initial interviews.

Proceeding to phase two, we could develop our structured interview questions based on Luftman's (2000) study on strategic alignment maturity assessment which we had revised. We then performed 16 structured interviews where the results of these were analyzed. We could clearly see in the result that the perceived maturity on certain factors differed among the stakeholders within and across departments.

In phase three we developed generic interview questions that were formulated depending on the interviewee's answers from the structured interviews in phase two. By doing this we were able to follow up and get a deeper understanding of the perceived strategic alignment maturity. We chose to select the participants that had different management levels within the two departments for the structured interviews. Four interviews were then conducted and the results were analyzed. By selecting interview participants from both the IT department and business department and with different management levels, we could compare and discuss the different approaches on how to assess higher strategic alignment maturity.

3.2 Data sample

Initially in phase one, we interviewed two managers from the administrative and operational business. These managers were selected due to their management level, insight and understanding of both strategic and operational issues that could affect the strategic alignment. The reason why we only interviewed two managers from the business department was that they generally presented similar problems which helped us to define our scope of the study. Below we present the participants and general information about the interviews.

Table 3.1: Problem area interviews conducted in phase one.

Participant role	Department	Date of interview	Time duration
Manager of Replenishment	Business	2016-04-24	56:54
Master Data Manager	Business	2016-04-24	41:58

Secondly in phase two, we conducted structured interviews including questions that we derived from Luftman (2000) which will be presented in section 3.5 Structured interviews guide. The data sample in this case consisted of a wide variety of roles including directors, general managers, analysts and architects from both the IT and the business department. This variety of organizational roles on different management levels helped us to cover issues that we wanted to investigate. A summary of the participants is presented in Table 3.2.

Table 3.2: Structured interview participants in phase two.

Participant role	Department
Senior Architect	IT
Customer Stock Analyst	Business
Senior Trainer	IT
Director	Business
Project Manager	IT
Master Data Manager	Business
Lead Analyst	IT
Senior Analyst II	IT
Global Process Manager	Business
Manager Planning & Quality	Business
Anonymous	Unknown
Manager of Replenishment	Business
Manager Supply Chain Optimization	Business

Participant role	Department
Senior Work Manager	IT
Site & Senior Resource Manager	IT
Head of IT Department	IT

In phase three, we conducted four more interviews. We contacted the Senior Architect, Senior Analyst II, Manager Planning & Quality and the Customer Stock Analyst for complementing interviews. By analyzing the answers from their structured interviews we concluded that they had interesting varieties in their answers that we wanted to investigate. Their specific roles were also a reason why we wanted to include them further in our research. The roles of the Senior Architect and Manager Planning & Quality are on a higher management level and include having a more holistic view of the issues concerning strategic alignment which we wanted to investigate further. Furthermore, the Customer Stock Analyst and Senior Architect II's opinions gave us insight on how the strategic alignment issues are communicated and perceived at the lower level of management. We developed a standardized interview guide (see table 3.4) to be able to follow the same structure in the interviews. However the questions were modified to fit each interviewee's view point from their answers in the structured interview.

Table 3.3: Complementing interviews participants in phase three.

Participant role	Department	Date of interview	Time duration
Senior Architect	IT	2016-05-16	38:08
Senior Analyst II	IT	2016-05-16	57:15
Manager Planning & Quality	Business	2016-05-17	28:32
Customer Stock Analyst	Business	2016-05-17	28:37

3.3 Data collection

This section will present what data collection techniques that were used in this study. We motivate why these were well suited and how they are fitted for this kind of research.

3.3.1 *Semi-structured Interviews*

In a qualitative analysis, there are varieties of ways of collecting data, but one of the most prominent forms is through interviews. An interview makes it possible to set focus directly on the selected topic, and is a very insightful data collection strategy (Recker, 2013).

Conducting the interviews, we used a semi-structured approach, thus we followed a pre-defined structure for respective interview to make sure that all the topics of the social dimension in strategic alignment that we studied were covered. However, flexibility made sure that follow up questions and discussions related to the topics could occur. The interview questions was started broadly covering each topic and then became the basis of possible questions that were not pre-formulated which gave the respondent the freedom of speaking freely and enhance a two way communication and therefore was able to confirm and give the opportunity for learning as well as more likely to discuss sensitive problems (Recker, 2013).

This technique opened up room for improvisation, and gave us more open interviews and possibility of follow-up questions (Bhattacherjee, 2012; Myers & Newman, 2007; Recker, 2013). We sent the interviewees the prepared questions beforehand the interviews were taken place, in order to give them time to elaborate on possible answers. We believe this is a good way to enhance the quality of the interviews and the data collected.

The interviews were also recorded to make it easier to analyze, code and transcribe the data in the future. Denscombe (2009), argues that qualitative data, in whatever form, must be organized before being analyzed. Therefore we followed the same transcription template for each interview held. This enabled us to easily find relevant data and to compare and analyze the answers.

However, our interview guide was followed strictly, also because the same questions need to be answered by more than one person, thus changing the questions could result in inadequate data collected (Bhattacherjee, 2012).

The interviews were conducted in an environment where the respondents felt comfortable, more specifically at their workplace. The interviews were formed so that the respondent had the room to speak freely about the question without any interruptions. By demonstrating enthusiasm, the importance of the study was communicated towards the respondent and better answers were possible generated. The respondents were also protected through confidentiality and privacy, thus the answers remained in our hands (Bhattacherjee, 2012).

3.3.2 *Structured interviews*

It is possible for a qualitative research to use structured interviews as a data collection method (Kvale & Brinkmann, 2009). According to Lindlof and Taylor (2010), this data collection method is beneficial when the researcher wants to compare and distinct the responses from a focus group, which also fits our research strategy.

To be able to conduct the structured interview, we needed to develop a questionnaire and firstly we considered Recker's (2013) guidelines on how to conduct a proper one.

Report the approach used to randomise or select samples – This means that transparency needs to be fulfilled, thus describe explicitly to the reader how the sampling occurred (Recker, 2013). In this study, we set focus on subgroups within the population. These were managers and employees that work both operationally and strategically. It is important to note that we are not doing a statistical analysis, and therefore it is not needed for our sample group to represent the population fully.

Report a profile of the sample frame – A description of the sample frame is a minimum criteria for the reader (Recker, 2013). To create this frame we only focused on managers and employees that work closely with IS and IT and close to the operational business.

Report characteristics of respondents – A report on the characteristics of respondents will make sure that the reader appreciate the chosen sample (Recker, 2013). This was done with the motivation that these personas that were chosen for the study had relevant expertise and experience within the area of IS and IT and the operational business.

Establish the validity and reliability of the survey instrument – The empirical findings in the survey needs to be aligned with the statistical validity criteria (Recker, 2013), but since we just wanted an indication about the alignment maturity on certain factors from different perspectives, the statistical significance was not important for our study. For this research, we used a web-based program to conduct the structured interview, due to the low time consumption, cost, effort and response time.

Furthermore, the exact questions formulated in the structured interviews can be found under section 3.5 structured interview guide. We also assured that the structured interview was pre-tested to make it as effective as possible and we tested and revised the instruments that were being used.

3.4 Initial interview guide

The following questions are derived from Reich and Benbasat's (2000) and Alaceva and Rusu's (2015) studies which are focusing on factors affecting the social dimension on business and IT alignment. We will be able to use these questions to get answers that take a social perspective, and later be able to match these with factors in Strategic Alignment Maturity Model that has social characteristics.

We have also structured our questions in a chronological order according to Bryman, Carle, and Nilsson (1997), which creates a red thread in our questions. The questions are not too specific and direct to give the interview person space to answer. By using a terminology that was relevant in our research context and familiar to our interview persons, this prevented misunderstandings (Bryman et al., 1997). Below, we present examples and motivations of questions asked in the interviews. A more detailed interview guide can be found in Appendix 1.

In order to understand the participant's perspective on answers, we asked general questions about the role and background of the participant. The interview then continued with the theme shared domain knowledge. Questions such as "In what ways are the knowledge sharing managed?" and "How is your understanding of the IT environment?" were asked. These questions provided information on the overall knowledge-sharing between IT and business executives and how it is exchanged. They also helped us get information about the factors swaying the knowledge sharing within the organization.

The next set of questions was about successful IT history. An example of a question that we asked was "How do you believe IT demonstrates its value to the business?". By getting questions like these answered we got to understand to which degree the IT executives realize the IT projects and how they produce value to the organization. They also gave us information on possible factors influencing the success of IT projects.

Regarding communication between business and IT executives, an example of question we asked was "How well do you think business and IT executives communicate with each other, and how is it done?". The questions were asked to understand how communication is taken place within the organization and to discover the main issues hindering this to take place.

Last theme was connections between business and IT planning with questions for instance “Do business managers participate in IT planning and vice versa?” and “What are your thoughts on the relationship between business and IT managers?”. These questions gave us the overall picture on how business and IT executives work together. They also disclosed the key issues influencing the planning of strategies.

3.5 Structured interview guide

These criteria and scales are derived from Luftman's (2000) study on how to measure the strategic alignment maturity in an organization. However, we modified certain scale options under certain categories since they were clearly miswritten, more specifically the scale on the factor change readiness where the two highest options were the same. Additionally, we added questions regarding each criterion in order to clarify the purpose of the specific factor. The structured interview was pre-tested on three initial participants who were asked to evaluate the level of understanding of the interview as a whole. No feedback or complaints were received and we then proceeded with the other participants. The whole structured interview guide is presented in table 3.4 below.

Table 3.4: Structured interview guide.

Criterion	Factor	Question	Scale
Communications	Understanding of business by IT	Please list how you believe the perception of IT is of the business. On what scale is IT aware of the business?	1. IT management not aware 2. Limited IT awareness 3. Senior and mid-management 4. Pushed down through the organization 5. Pervasive
Communications	Understanding of IT by business	Please list how you believe the business perceives IT. Is the business generally aware of IT?	1. Business management not aware 2. Limited business awareness 3. Emerging business awareness 4. Business aware of potential 5. Pervasive
Communications	Inter- / intra-organizational learning	This question is to get a better picture on how you perceive the learning potential of both IT and the business. How do you perceive the learning potential?	1. Casual, ad-hoc 2. Informal 3. Regular, clear 4. Unified, bonded 5. Strong and structured
Communications	Knowledge sharing	This question is to get a better picture on how knowledge sharing is perceived. How do you think knowledge sharing is facilitated?	1. Ad-hoc 2. Semi structured 3. Structured around key processes 4. Institutionalized 5. Extra enterprise

Criterion	Factor	Question	Scale
Communications	Protocol rigidity	Protocol rigidity is how formally controlled the communication is between business and IT. How formal/informal is the communication between business and IT?	<ol style="list-style-type: none"> 1. Command and control 2. Limited relaxed 3. Emerging relaxed 4. Relaxed, informal 5. Informal
Communications	Liaison breadth / effectiveness	How is the communication facilitated between the business and IT?	<ol style="list-style-type: none"> 1. None or ad-hoc 2. Limited tactical technology based 3. Formalized, regular meetings 4. Bonded, effective at all internal levels 5. Extra-enterprise
Partnership	Shared goals, risk, reward / penalties	Please rate how the risks/goals between IT and the business are shared.	<ol style="list-style-type: none"> 1. IT takes risk with little reward 2. IT takes most of the risk with little reward 3. Risk tolerant; IT some rewards 4. Risk acceptance and rewards shared 5. Risk and rewards shared
Partnership	Business perception of IT value	Please rate how the business perceives the value IT brings to the organization.	<ol style="list-style-type: none"> 1. IT perceived as a cost of business 2. IT emerging as an asset 3. IT is seen as an asset 4. IT is part of the business strategy 5. IT business co-adaptive
Partnership	Role of IT in strategic business planning	What role does the IT have in the strategic business planning?	<ol style="list-style-type: none"> 1. No seat at the business table 2. Business process enabler 3. Business process driver 4. Business strategy enabler/driver 5. IT Business co-adaptive
Skills	Education, cross-training	Please rate how education and cross-training is facilitated in the organization.	<ol style="list-style-type: none"> 1. None 2. Minimum 3. Dependent on the functional organization 4. At the functional organization 5. Across the organization

Criterion	Factor	Question	Scale
Skills	Change readiness	Please rate the organization's capability of change.	<ol style="list-style-type: none"> 1. Resistant to change 2. Dependent on the functional organization 3. Recognized need for change 4. Low, focused 5. High, focused
Governance	Business strategic planning	Please rate how integrated business strategic planning is within the organization.	<ol style="list-style-type: none"> 1. Ad-hoc 2. Basic planning at the functional level 3. Some inter-organizational planning 4. Managed across the enterprise 5. Integrated across and outside the enterprise
Governance	IT strategic planning	Please rate how integrated the IT strategic planning is within the organization.	<ol style="list-style-type: none"> 1. Ad-hoc 2. Functional tactical planning 3. Focused planning, some inter-organizational 4. Managed across the enterprise 5. Integrated across and outside the enterprise

3.6 Complementing interview guide

The complementing interview guide was based upon the criteria and factors used in our structured interview guide. We created a standardized interview guide where, based on answers from the structured interview, we easily could change the questions to make them personal and fit the chosen interviewee. Our questions were formed so that the interviewee easily could emphasize on their given answer from the structured interview. We mixed types of questions to get a deeper understanding of our interviewee's answers by asking whether a statement was correct, if we interpreted it correctly, and if they could emphasize upon this. Other techniques to enhance our understanding were to simply ask for an example. We also asked for their personal opinion on what has to be improved if this issue was not covered.

Below, in table 3.4, we present a set of questions regarding one factor from each criterion. The complete complementing interview guide is presented in Appendix 4.

Table 3.5: Example of questions regarding one factor from each criterion.

Criterion	Factor	Standardized question
Communications	Understanding of business by IT	<ol style="list-style-type: none"> 1. On understanding of business by IT, you put an X, meaning _____. 2. Would you like to explain how this works? 3. What makes it good/bad? 4. Do you have any examples on why business might perceive that it is lower/same/higher?
Partnership	Shared goals, risk, reward / penalties	<ol style="list-style-type: none"> 5. According to goals/risks/rewards between IT and business, you have answered an X, that _____. 6. What are the consequences of this?
Skills	Education, cross-training	<ol style="list-style-type: none"> 7. According to how the organization facilitates education and cross-training, you voted an X, meaning _____. 8. What do you think of this?
Governance	Business strategic planning	<ol style="list-style-type: none"> 9. Regarding the business strategic planning, you have answered an X, compared to the X on IT strategic planning – meaning a bit higher/lower on IT. 10. Do you believe that the IT planning is a more/less isolated process? 11. Do you believe that they need to be more integrated? 12. How could this be done?

3.7 Data coding

Since all our interviewees had Swedish as mother tongue we chose to conduct the structured and semi-structured interviews in Swedish to further assure as valuable answers as possible. The semi-structured interviews were transcribed in Swedish but when citing strong statements from the transcriptions we translated the quotes into English. The quotes used in our result where selected on the level of relevance to the discussed topics and to highlight important themes that we identified.

The structured interviews were as above mentioned derived from Luftman (2000). Luftman's (2000) criteria and scales where also translated into Swedish from English to reduce possible misunderstandings. The possible answers the participants could choose between could due to their scale one to five be indirectly coded into numbers. This was done to easily compare the result from each participant. The scale of each factor in the structured interview guide was presented one to five, where one represented the lowest (initial/improvised process), and five represented the highest maturity (optimized process) of strategic alignment.

3.8 Reliability and validity

A good study should consist of high internal validity (Jacobsen, Sandin, & Hellström, 2002). To control this validity, we have interviewed enough people to ensure our problem domain. It has been important to us that the interview persons have had the opportunity to have similar interview situations, which can be hard since the interaction between people are shaped differently. We have chosen to conduct the interviews at the interviewee's workplace, to assure that they feel comfortable and enhance the chance of informative answers. To assure the interviews knowledge and interest we have carefully chosen our persons of interest in relation to our research question. Furthermore, we have asked our interview persons to answer from their point of view and prior experiences, to assure good validity.

Klein and Myers (1999), have developed seven different principles for interpretive studies derived from different philosophies. It is highlighted that they are principles, which means that they are not mandatory to use, as long as they fit the research (Klein & Myers, 1999). As this is an interpretive research we will use the following principles:

The fundamental principle of the hermeneutic cycle – Suggests that all human understanding is achieved through iterations between considering the interdependent meaning of parts and the whole that they form, thus this principle is fundamental to all the other principles (Klein & Myers, 1999). We argue that by following the principles below, we assured the fundamental principle and thus the quality of our research.

The principle of contextualization – This principle requires critical reflection of the social and historical background of the research setting. So the intention is that the audience should see how the current situation under investigation emerged, thus strive to reach transparency and replicability in the research (Klein & Myers, 1999). We argue for that due to our choice of method, and the conducted interviews, we were able to uncover issues from the organization in focus point of view. We can also argue that our initial interviews, which identified our problem areas, show the reader how the situation under investigation emerged, meaning that this principle was covered.

The principle of interaction – This is a critical reflection on how the research data were socially constructed through interaction between the researcher and the participants. This is also about how we as researchers have preconceptions about participants that are affected by the construction, documentation and organization of the material, which should be elaborated upon. A suggestion given by the authors is to clarify how the data was created through inter-action, and how data collection and interpretation affect each other (Klein & Myers, 1999). We explicitly describe our data collection procedure in our method and by being as transparent as possible with our data sample, motivation of questions and coding of answers we argue for that the principle of interaction is met.

The principle of abstraction and generalization – We related the research to theories and general concepts that describes the nature of human understanding and social actions to separate our findings from anecdotes, which could mean that we, according to Klein and Myers (1999), relate our research to social theories and other researchers work. This principle is also fulfilled.

The principle of dialogical reasoning – We strived to make the historic intellectual basis as transparent as possible for the reader and to tell the story as the data tells us and subsequently revise this according to Klein and Myers (1999) guidelines.

The principle of multiple interpretations – We continuously discussed and analyzed the different standpoints among the different interview persons and reviewed how their answers were interpreted. As we interviewed different managers on various levels, a good thing would be to consider the different power conflicts, values or budget implications (Klein & Myers, 1999).

The principle of suspicion – Indicates that we have to be sensitive to possible biases and distortions in the data that we collect from the participants and explain these explicitly in the research (Klein & Myers, 1999). By being transparent when it comes to our data collection, and presenting the results accordingly, we attempted to tackle this principle.

Furthermore, Easterby-Smith, Thorpe, and Jackson (2012), provide ten guidelines, which we will follow, on how to protect the interest of the research subject and the respondents in interviews and to assure that biases are minimal and that the research is accurate:

- Ensure that no harm comes to the participants of the study
- Respect the dignity of the participants
- Ensure that the participants are fully informed
- Protect the participant's privacy
- Ensure confidentiality
- Protect the anonymity
- Avoid deception about the aim of the research
- Declaration of conflicts of interest
- Be honest and transparent when communicating the research
- Avoid misleading of research findings

4 Result

Our result will be presented in different sections; introduction of the company, the problems derived from the initial interviews, a presentation of the revised model of the strategic alignment maturity model, the result of the questionnaires and lastly the complementing interviews.

4.1 Introduction of the Company

Our company in focus is one of the world leading companies in the food packaging and processing industry. They are active in over 80 countries with an employee count reaching up to 23 000. The company has several different branches within the same industry, and our focus area is more specifically a branch where certain products are delivered to a customer, thus a supply chain department, which we refer to as the business department. Another department in our focus is their global information management department, from now on referred to as the IT department, which is responsible for all the IT strategizing and infrastructure worldwide.

The IT department's main responsibilities are to consolidate data and applications gaining a high data availability, ability to share data and reach information integrity. Secondly, they buy program packages and interfaces to enhance the interoperability, version control and to improve the cost profile of the company. By exploiting the existing platforms in use, they can leverage investments that have been decided and simplify and standardize these. They can also, by using the right IT, rigorously manage their suppliers and reach cost control, stability and alignment goals. Striving for a single IT process and a single IT department function, in order to govern the effectiveness, efficiency and master data management, they are aware of the importance of pro-actively enhance the business performance through IT. This to maximize business value from IT and eliminate the focus on only lowering costs.

The supply chain department provides supply operations, global planning and customer order handling for several services. They serve the European and Asian market with order administration that are handled centrally from a department located in Sweden, together with delivery of products as requested by their customers.

Our specific focus area in the business department is their Planning & Quality function, which creates and secures availability of products in all stocks throughout the whole lifecycle. Being cost effective and customer oriented, they drive and develop the quality processes, tools and mind-set of the global department.

In accordance to our research project, it has come to our knowledge on how they handle their IT questions. Mainly, the issues goes through a certain business support function within the department where the identified IT gaps gets prioritized and handled, hence the needs often come from the business and not from IT opportunities presented by the IT department.

4.2 Problem

In this section, a presentation of the initial interviews will be done. By presenting key statements and elaboration of concepts made by the interview participants, we are able to associate the key statements to the respective factors of the strategic alignment maturity model which will be presented by the end of this section.

4.2.1 Shared domain knowledge

One interesting result from the interviews was that both interview participants highlighted the belief of that they worked in silos, and was one of the main reasons of the vague shared domain knowledge. The Manager of Replenishment further discussed that islands of applications that emerge is a good example on how the business and IT departments live their own lives. Generally, both participants stated that the knowledge sharing was lower than they wanted it to be.

"But I feel that the knowledge sharing is pretty low, also on a strategic level, since I don't recall that we have an IT-strategy within our department"
– Manager of Replenishment (Appendix 2, row 20-21).

A verification of this statement was made by the Master Data Manager who stated:

"Talking about overall strategies from the IT side is not mediated so well. It happens on a higher level. It is not really articulated." – Master Data Manager (Appendix 3, row 22-23).

According to the barriers affecting the knowledge sharing and shared domain knowledge of the business and IT strategies, it is believed by both managers that it is not considered on their level. It is mainly done on a higher level, but is not communicated down. It is also highlighted that they have not answered important questions themselves. The Manager of Replenishment stated that they work a lot in the present, hence they forgot to answer questions such as "What strategy do we have?", "What do we want?" and "How do we want to work with information sharing?". Furthermore, the same manager stated that their way of being gap-oriented is forcing the needs to come from the business, but without any knowledge of general possibilities on the IT department.

Both managers highlight the lack of presence and advertising of IT-capabilities throughout the organization and the Manager of Replenishment stated:

"Maybe it could be as easy as that they should just come here and tell us for starters, and how everything could be connected in relation to how the IT department works" – Manager of Replenishment (Appendix 2, row 70-71).

According to what could be improved in the relationship between the business managers and IT managers, the managers had different viewpoints. The standpoints varied from an understanding of how IT could be useful for their department but also how it is communicated or how decisions are based in relation to the department. The Manager of Replenishment stated that they need to get an understanding on how IT is build-up in relation to their department, and the importance on having that knowledge as well. Regarding the same issue, the Master Data Manager stated:

"More communication on all levels, and not only on management level, because it is obvious that it is done on a pretty high management level where discussion about strategies and decisions are taking place, but that it should also be discussed on a lower level." – Master Data Manager
(Appendix 3, row 46-47).

Another interesting point which was highlighted by the managers was the concern of the importance of IT within a company in other manners. Such as the importance of having updated IT instead of risking it to become obsolete affecting the company's strategy of being an attractive employer for younger professionals negatively. The Master Data Manager highlighted the importance of having new and effective tools and what the market offers, in order to prevent the company to fall behind using old tools and versions of programs. This statement was confirmed in the interview with the Manager of Replenishment as well.

4.2.2 Successful IT-history

It was stated by both managers that the view on importance of IT varies throughout the organization. The Manager of Replenishment stated that the general interest in IT of the line-managers could vary and be the result of less IT-projects.

"So, since the IT-drive is direct linked to how driven in IT respective line manager is, than it is more centrally managed" – Manager of Replenishment
(Appendix 2, row 80-81).

A general perception of the department's IT is, according to the Master Data Manager, the difficulty to meet the demands of the business but also the rapidness of change.

"Our systems aren't fast enough, there are a lot of transactions with lots of data. Furthermore, we need the rapidness when it comes to change, because the business changes faster than IT can with possible solutions, it is not hand in hand." – Master Data Manager (Appendix 3, row 57-59).

Both managers highlight how they work in projects and that they are gap-oriented, meaning that the business has to come up with their own needs and go through a department called business support. This business support unit prioritizes these gaps, meaning it could take time before a project is initiated. The Manager of Replenishment explained that if they have a gap problem, it has to be specified exactly how they should do it. This will later be prioritized over something else, and can be more problematic than having IT strategies on how they want to work further in the future, long term.

Another result of being gap-oriented according to the Master Data Manager was the belief that IT fulfils its demand up to 50%. It was further highlighted that the rapidness is not fulfilled and when something is needed, the timeliness can be scarce.

"For small things, I feel that we are supported but for big things it is a very heavy process. Then we put resources to do other solutions in-between. We need higher responsiveness" – Master Data Manager (Appendix 3, row 63-64).

If IT is part of the business competitive advantage and whether it is discussed among managers, was highlighted by both managers. The Manager of Replenishment stated that it might be the

case, but due to that they work in silos, they did not know. Meanwhile, the Master Data Manager highlighted the need to consider the soft values that IT brings:

"No, I think that there is little knowledge of that, since we are quite steered by the process thinking, and it is also very driven by costs, as we count costs... It is hard to motivate whether things generate quality, goodwill, and all the other soft values, that also contribute to competitive advantage." –
Master Data Manager (Appendix 3, row 67-70).

Regarding how IT expresses its value to the business both the managers had the same view. The Master Data Manager stated that IT had a very central role in the business and that more was needed. The Manager of Replenishment further discussed that the IT department was not marketing themselves well enough; hence they did not know what the agenda on IT was or what occurred in other departments.

Lastly, the trust and relationship between the IT and business regarding less successful projects differed between the managers. The Manager of Replenishment was sceptical towards the IT, in one example, due to the workload his team still had even with an IT-implementation. Furthermore, the Master Data Manager stated that it was only something that would be spoken of since a lot of money would have been spent, but everybody would still share the responsibility.

4.2.3 Communication between business and IT executives

Today, the communication between IT and business executives is scarce. Both managers said that the communication between managers often only takes place during projects. The Manager of Replenishment also stated that communication is limited and it usually goes through the earlier mentioned business support. Communication needs to be more open in between projects as well and according to the Master Data Manager, they need to talk more generally within the business department, letting people know what projects, activities and needs they may face in the future. They do not know what strategies and upgrades they have and need to sync and discuss those matters. They would then be able to present what was to come, state their needs and together generate a solution.

Different backgrounds and experiences among IT and business executives matters a lot for both participants, but one particular problem the Manager of Replenishment explained was that IT managers may have too little knowledge of the business and vice versa. The ones that have good knowledge about both business and IT must be more involved in projects. Lack of this knowledge can often cause misunderstandings and the Master Data Manager continued that this probably is the result of not communicating enough and creating a common interest.

"There is also a responsibility on the IT department to perhaps create an interest in new IT projects. If I hear of sassy new stuff regarding IT I might be more interested" – Master Data Manager (Appendix 3, row 123-124).

The lack of communication can also, according to the Manager of Replenishment, cause misunderstandings which lead to the birth of several questions. Question highlighted were for instance what the plan is for the next ten years and if the process owner is IT or business, and whom should have the responsibility.

Both managers agreed that a better planned strategy in between IT and business would result in both better communication and alignment. There is a lack of understanding on who should drive the possible projects forward, which because of time-pressure, results in the department creating their own projects and applications without the IT department's full awareness. According to the Manager of Replenishment they are in need of clearer divisions of responsibilities that has to be communicated more clearly.

The cooperation between business and IT managers, coordinated by the higher management, is working well in big projects according to both managers. Where it fails is when informing people that may benefit or be interested in the information. They have a roadmap together with the IT department where they follow up all the ongoing IT projects, but the Master Data Manager stated that this roadmap is not communicated out in the organization, but instead communicated to a certain level.

4.2.4 Connections between business and IT planning

“The planning would be better if it was more together with IT. I feel that they could have been more involved earlier in the process.” – Master Data Manager (Appendix 3, row 172-173).

Strategizing and planning are not mutual activities according to both managers. The Master Data Manager said that they often just look for gaps in their own processes and business. These gaps are then later reviewed in a group where they take decisions on which gaps they are going to act upon. When the Manager of Replenishment was asked if business managers are involved in IT planning and vice versa, the answer was:

“If there are big projects, then yes we are. But in everyday life where we tend to push the business forward and assess the projects to invest in, then no.” – Manager of Replenishment (Appendix 2, row 173-174).

It is currently a big challenge to understand how a smaller part of the business fits the whole organization. The Manager of Replenishment is unsure how they should secure the correct system and a mutual way of working. The company has different processes and teams with different responsibilities and historically, they have never worked outside these borders. They need, according to the Manager of Replenishment, to take more responsibility to be able to drive the business forward.

4.2.5 Summary

In this section, we have identified a number of problems influencing the social dimension of the strategic alignment in our company in focus. We can see that both managers that were interviewed shared the same viewpoints on many of the questions asked. Likewise, the answers from respective interview participant also complemented each other by highlighting different aspects on the questions. Below a summary of each factor affecting the social dimension of strategic alignment is presented.

Shared domain knowledge. The company’s departments in focus currently work in silos which is the main reason of the lack of shared domain knowledge. The fact that lack of knowledge sharing prevails affects this since strategies are not well communicated throughout

the organization, which is something that is wanted to improve. Business needs are forced to come from the business without any knowledge of capabilities from an IT-perspective, due to lack of inter-organizational advertising from the IT department. They need to get a better knowledge on how IT is build up in relation to their department as well as discussions need to reach the lower levels of the organization.

Successful IT history. Within this factor the general interest of IT in respective line manager was discussed as a reason of less IT projects. It was also highlighted that the IT department had difficulties to meet the demand of the business as well as its rapidness of change due to the fast pacing business environment. The gap-oriented way of initiating IT initiatives was highlighted as a problem due to its heavy process and that they need higher responsiveness. Whether IT were used as a competitive advantage was hard to motivate for both participants due to silos within the organization. It was also hard to motivate what IT brings in this manner due to the focus on costs, even if IT has a very central role in the business.

Communication between business and IT executives. The communication between IT and business executives is today limited and does practically only take place during projects. This lack of communication can lead to misunderstandings and the result of IT executives not having enough knowledge about the business and vice versa. Both managers agreed that a better planned strategy in between IT and business departments would result in both better communication and alignment. There is also a lack of information sharing about ongoing projects and the strategies which both managers find to be important.

Connection between business and IT planning. According to both managers, strategy planning is not a mutual activity. The different organisation units often only look for gaps in their own organization, therefore business executives only get involved with the IT planning if these gaps turn to projects. Different processes and teams with different responsibilities tend to never work outside their own borders, but to drive the business forward they need to take more responsibility.

4.3 Revised version of the strategic alignment maturity model

In this section we will revise the strategic alignment maturity model to fit our research context. Therefore we have excluded the "criteria of competency/value measurements" and "scope and architecture". Both mentioned criteria are excluded due to our focus on the social dimension of strategic alignment. Some of the factors from "competency/value measurements" such as how IT demonstrates its value to the business is covered under the criterion "communications". "Scope and Architecture" is technical in its nature, and therefore not considered in this research. With the questions asked in the interviews, these criteria were not highlighted to the same extent as the remaining criteria. Below in table 4.1 we present our revised version of the strategic alignment maturity model.

Table 4.1: Revised version of the strategic alignment maturity model.

Problem themes from initial interviews	Criterion	Factors from Luftman (2000)
<ul style="list-style-type: none"> • Departments working in silos • Overall strategies are not mediated well • Strategies is mainly considered on a higher level • Lack of presence and advertising of advertising IT-capabilities • Limited communication between IT and business executives • Too little knowledge for business and vice versa • Gap oriented organization • The need of communicating through business support for IT-enhancements 	Communications	<ul style="list-style-type: none"> • Understanding of business by IT • Understanding of IT by business • Inter- / Intra-organizational learning • Knowledge sharing • Protocol rigidity • Liaison breadth/ effectiveness
<ul style="list-style-type: none"> • Different interest in IT among managers • Lack of interest between IT and business managers • The ones that have good knowledge about both business and IT must be more involved 	Partnership	<ul style="list-style-type: none"> • Shared goals, risk, reward / penalties • Business perception of IT value • Role of IT in strategic business planning
<ul style="list-style-type: none"> • Too little knowledge for business and vice versa • Business changes faster than IT are capable of 	Skills	<ul style="list-style-type: none"> • Education, cross-training • Change readiness
• Strategy and planning is not a mutual activity	Governance	<ul style="list-style-type: none"> • Business strategic planning • IT strategic planning

4.4 Result of structured interviews

In this section we will present the results from the structured interviews that we have sent out to different stakeholders on various organizational levels within the company. In total, we conducted 16 interviews, whereas one was anonymous. The rest were divided into eight respectively seven interviews in each department. A detailed presentation of the answers can be found under Table 4.2 and 4.3 where we divided up the participants from IT and business in respective sections. According to the answers, we can see tendencies under each factors and interesting differences in answers among the stakeholders which will be discussed below.

In this section, we will only analyze the interesting tendencies and the different opinions and perceptions among the participants between the two departments. As it was stated in our method chapter, our sample frame are not presentable of the population within the organization, thus

we cannot assess the correct maturity of each factor. However, tendencies towards a maturity level can be given, discussed and argued for. We will make use of the average scores on each factor, to give indications on what maturity level that prevails. Note that this is not a quantitative research, and we will therefore not use statistics to draw our conclusions, but elaborate on tendencies and indications we can see in our result.

Understanding of business by IT. Analyzing the first factor under the communication criteria, we can see the obvious result where the IT department perceives that their understanding of the business is higher than the business department believes. In general, the IT department participants voted one point higher than the business.

Understanding of IT by business. Regarding this factor, both the business and IT departments have almost the similar perception. However, the result is lower than the previous factor, meaning that the overall indication is that it is believed that business has a lower understanding of IT than vice versa.

Inter-/intra-organizational learning. This factor indicates a relatively lower learning in the business department than in the IT department. However, looking at the individual answers from the IT department, we can see that the Senior Architect scored the factor a 1 (casual, ad-hoc) meanwhile the Senior Trainer scored a value of 5 (strong and structured), meaning that these two participants share different opinions on how the learning within the organization is carried out between the two departments.

Knowledge sharing. Roughly, as shared place on lowest voted factor, knowledge sharing was perceived as poorer from the business' point of view. In general it was quite low according to the IT department as well, also as their lowest scored factor.

Protocol rigidity. This factor is almost on shared place as lowest factor with knowledge sharing. But according to the result it is perceived as lower by the business department than by the IT department.

Liaison breadth / effectiveness. This factor was also perceived equally as quite low by both departments, indicating that this result is not standing out as much compared to the rest of the factors.

Shared goals, risk, reward/penalties. The same as above can be concluded in this factor, quite similar answers on both departments. Neither did a single individual stand out in their answers in comparison to the first factor for instance.

Business perception of IT value. This factor shows results where individual participants' answers vary on all levels on the 1-5 scale. This gives an indication that different views on IT pervades among our participants.

Role of IT in strategic business planning. The same variation can be seen in this factor as in the business perception of IT value. The Senior Architect from the IT department scored it a 1 (no seat at the business table) meanwhile Manager Supply Chain Optimization from the business department scored a value of 5 (IT business co-adaptive). Additionally, within the IT department we also note that two participants have scored it a value of 5, meaning that various perceptions on this factor exists across and within the department. This tendency can also be found in the business department.

Education, cross-training. There is a unified perception of this factor in the IT department, where all participants have scored it a 3, which means that the education and cross-training is dependent on the functional organization.

Change readiness. This factor was scored generally high in regard to the IT department, also in comparison to the other factors. Two participants scored the factor a value of 5 (high, focused) and in average 3 of the remaining participants this gives us an interesting result from the business' point of view. The IT department scored that the change readiness were quite low with mostly 3 (recognized, need for change) and 2 (dependent on the functional organization) on the scale.

Business strategic planning. The business department scored this factor a bit higher than the IT department, although there are no bigger varieties on the answers between all the participants.

IT strategic planning. Answers in the last factor from the interviewees in this factor were unified, meaning that the perception were the same across and within the departments.

Below, table 4.2 and 4.3 presents the results from the structured interviews that were sent out.

Table 4.2: Presenting the result on communication factors from the structured interviews.

Initial questions		Communications					
Role	Department	Understanding of business by IT	Understanding of IT by business	Inter-/intra-organizational learning	Knowledge sharing	Protocol rigidity	Liaison breadth / effectiveness
Senior Architect	IT	5	3	1	2	2	2
Senior Trainer	IT	4	2	5	3	2	3
Project Manager	IT	3	3	4	2	2	3
Lead Analyst	IT	3	3	2	2	2	2
Senior Analyst II	IT	3	4	4	3	3	3
Senior Work Manager	IT	4	4	3	3	4	3
Site & Senior Resource Manager	IT	4	3	3	2	3	3
Head of IT Department	IT	4	4	3	3	4	3
IT average		3.75	3.25	3.13	2.50	2.75	2.75
Customer Stock Analyst	Business	4	4	3	3	3	2
Director	Business	3	3	2	2	1	3
Master Data Manager	Business	3	3	2	2	2	2
Global Process Manager	Business	2	2	2	1	1	3
Manager Planning & Quality	Business	2	3	2	2	3	-
Manager of Replenishment	Business	2	2	2	2	3	2
Manager Supply Chain Optimization	Business	3	4	3	2	1	4
Business average		2.71	3.00	2.29	2.00	2.00	2.67
Anonymous	-	4	3	3	4	2	3
Total average		3.31	3.13	2.75	2.38	2.38	2.73

Table 4.3: Presenting the result on partnership, skills and governance factors from the structured interviews.

Initial questions		Partnership			Skills		Governance	
Role	Department	Shared goals, risk, reward/penal ties	Business perception of IT value	Role of IT in strategic business planning	Education, cross-training	Change readiness	Business strategic planning	IT strategic planning
Senior Architect	IT	3	1	1	3	3	3	2
Senior Trainer	IT	4	4	5	3	3	3	2
Project Manager	IT	4	4	2	3	3	4	4
Lead Analyst	IT	2	2	2	3	3	2	3
Senior Analyst II	IT	3	2	5	3	2	3	3
Senior Work Manager	IT	4	4	4	3	2	5	5
Site & Senior Resource Manager	IT	2	3	2	3	3	3	3
Head of IT Department	IT	4	4	4	4	4	4	4
IT average		3,25	3,00	3,13	3,13	2,88	3,38	3,25
Customer Stock Analyst	Business	3	4	4	4	5	4	3
Director	Business	2	4	5	4	3	4	3
Master Data Manager	Business	4	1	2	3	3	3	3
Global Process Manager	Business	3	1	4	2	3	4	4
Manager Planning & Quality	Business	2	3	4	4	5	5	4
Manager of Replenishment	Business	3	2	2	3	2	3	2
Manager Supply Chain Optimization	Business	4	5	5	3	4	4	3
Business average		3,00	2,86	3,71	3,29	3,57	3,86	3,14
Anonymous	-	2	3	3	3	3	4	4
Total average		3,06	2,94	3,38	3,19	3,19	3,63	3,25

4.5 Result of complementing interviews

In this section, we will present our result from the complementing interviews. We will follow the same structure as in the structured interviews by presenting each criterion with its belonging factors.

4.5.1 Communications

Understanding of business by IT. Generally, it is stated that the understanding of business from the IT department increases the more involved they are in projects together. However, the understanding differs throughout the department due to that. But the understanding of the business' IT related parts, how the business works and their processes is considered high. It was also stated that depending on the management level – on which the understanding and level of detail varies.

The IT department is also working towards being a partner rather than a service provider, to be able to and better on presenting suggestions to be implemented in the business, this to justify their existence a little bit.

“We have started to understand this; that we need to market ourselves better” – Senior Analyst II (Appendix 6, row 15-16).

From the interviews concerning the business department, both participants had different viewpoints. Manager Planning & Quality stated that when it comes to local applications and business requirements, it is not always it gains the support from the IT department. As an example, when something is new or a little different in a request, which is not within the frame of the ERP the company uses, this could be the problem. On the other hand, the Customer Stock Analyst perceived that within the department, it was easier to get support from the manager, since it was perceived that good IT equals doing a better job, and that possibilities to improve IT exists.

Understanding of IT by business. In this question it was highlighted once again that the IT department has been a receiving and delivering organization to the business, and that the business gives requirements and the IT department delivers to meet the demand. It was also articulated that the understanding depended on how engaged the business-team were, which they could see with their finance department that scouted for possible opportunities and solutions that could benefit them.

“They do not involve themselves and ask – What is our future in IT? – which I also believe is important” – Senior Architect (Appendix 5, row 29-30).

It was also added by the Senior Analyst II that the IT department have a certain program called Application Specialist, where scheduled meetings occur every second week with the business. This has been implemented to solve easier problems due to the heavy gap-process where business requirements have to go through and can take months to reach a decision. The same participant also highlighted the belief that it will reach other departments as well. The IT is at the moment trying to strengthen the architecture between the business and IT to be able to work better with questions such as increasing the mutual understanding. Furthermore, the IT

department has aligned themselves as a business unit with the one in the business creating a better partnership among them, to be able to learn business and IT mutually.

The awareness of IT is generally high within the business. Both participants talked about the need of right system support and the understanding of it, but not really how they have insights into how the IT department works. The manager of planning & quality emphasized on a new initiative when it comes to using IT-integrations in their products more and more and due to that the awareness is on its raise.

Intra- /inter-organizational learning. The Manager Planning & Quality had not been on any IT educations at the company nor been requested to participate in any, it is more a question when something is needed. Furthermore, it was stated that a push from the IT department towards the business could be beneficial when it comes to education and increase the awareness on how to make use of IT in the business, and awareness on how IT can be used in relation to the organization as a whole. It was also stated that the IT department is quite strict on what types of applications that should be implemented, rather than being focused on what actually brings value to the business.

The Application Specialist Program was highlighted under this concern as well, which goal is to increase the learning and increase the understanding on the type of possibilities that exists in the systems. What could have been better accordingly is to increase the awareness of the business within the IT department, to learn how they work, by sitting in the same corridors and partake in the discussions that occur. An example was given by the Senior Analyst II, that the relationship with the business was established during a long term project. Therefore, job rotations and the IT being more active within the business is important, but also a question of costs short term. The other IT department participant highlighted the concept of self-learning, that it would be good if each individual could access the right information themselves and that it is something that is emerging. It was also pointed out that the business take use of business experts involved within the IT department, but due to their heavy workload they could be hard to reach.

Knowledge sharing. This factor was discussed from different viewpoints whereas the Manager Planning & Quality highlighted that it is structured within projects and even more in bigger projects. When it comes to daily operations it is a lot less structured. On the other hand knowledge sharing within the business department is done with the use of regular communication and work instructions to the entire team. But across departments it is perceived low with great knowledge gaps meaning that different levels of IT knowledge is lower on other departments overall.

The Senior Analyst II stated, from a technical point of view, that the knowledge sharing to start earlier in projects due to the time spent on service and correcting mistakes after being out teaching the business the new way of working. In that case, they could focus more on analyzing the business needs and be able to deliver flawless applications or other IT related components.

Otherwise, knowledge sharing existed in projects due to its contribution to support, but also towards the receiving organization. As for the rest, knowledge sharing in between groups or people it is not naturally occurring as it should.

“It is not occurring naturally, but in projects if it is planned” – Senior Architect (Appendix 5, row 51-52).

Protocol rigidity. Discussing the formality of the communication, it was stated from the Manager Planning & Quality that due to the tools they use today such as the ticket system, it is quite formal. Furthermore, it was highlighted that a balance between formal and informal could be beneficial, since the formal can take care of issues that come up. Meanwhile, the informal communication will enhance relations and strengthen the IT department's knowledge about the business. Regarding this factor, the Customer Stock Analyst again highlighted that the colleague fought for a BI-solution integrated in their system for a year before they realized it would not work. The same interviewee perceived that the IT department had very strict time frames and budgets, and that could be the reason that they do not market themselves and show what possible potentials that exists.

"So one year was missed where the new BI-system could contribute to us" –
Customer Stock Analyst (Appendix 8, row 55).

Continuing with the IT department interviewees, it was perceived that the communication was strict to some extent. On one hand, it was strict due to the governance structure for their project portfolio and the roadmap. Otherwise it was not until initiating projects one has information, but now when the IT organization has been reorganized and having business partners, this will be better but silos will still exist. On the other hand, the Senior Analyst II stated that the business gets a lot of help outside the systems, which is a lot more pleasing than communicating through ticket systems. A goal is to be structured when it comes to issues, and be able to have super users within the business where the regular user can turn for help.

Liaison breadth. The governance structure were highlighted under this factor as well by the Senior Architect and stated that the IT department had little information about the business future plans and that it is one of the strongest needs both from a business and IT perspective.

"We need to know more about the business strategy so we can link it with our own strategy" – Senior Architect (Appendix 5, row 83-84).

Other communication channels that was highlighted were the Application Specialist Program once again with schedule meetings every second week with the business. Otherwise it is the ticket system which can be complicated sometimes, and the updates which are communicated down in respective organization in the business which also was confirmed by the Manager Planning & Quality from a business perspective. It was also stated by the Manager Planning & Quality that communication is working well within projects where IT naturally is more involved, but it should reach the daily business too.

Communication improvements. Manager Planning & Quality stated the fact that geographical proximity enhances communication and has been proved for the company since the IT department has moved to the place where the business of our focus is located. Other departments within the company has representatives directly linked to the directors that is following the development in a certain domain such as human resources and communications. Applying this to IT-related questions would be beneficial. Furthermore, the Customer Stock Analyst stated that planning together could improve the communication, since it is hard to know about IT's limitations or possibilities from her perspective.

The Senior Architect discussed that the business and IT departments should fall under the same CIO, to intertwine the strategies better as IT is starting to get more important to the business.

Having a holistic view of the company and an enterprise perspective to avoid silo thinking is also one of many obstacles to overcome. By restructuring the communication structured after having delivery areas and business units the company could reach the enterprise view that could cover the whole value chain. There are many projects that tackle the same things, but other department has no clue.

4.5.2 Partnership

Shared goals, risk, reward / penalties. All of the interviewees answered that both the IT and business department have different views on goals. According to the IT department, they are being measured on how they deliver their solutions within the assigned budget, while the business department looks at on what scale they achieve the business case requirements. Both departments should be measured the same on the outcome of a project, i.e. what it has delivered to the business. If not, there is a risk that the departments will have different project priorities. Another risk, as said by the Senior Analyst II, may be that if it is about a new system implementation, then the business department will take the risk that the system might fail and result in business down-time.

From the business department view, one disadvantage of not having the same shared goals and risks between the two departments is that the IT department may not be positive towards future projects that the business department brings forward. Today, they are not working at their optimal level which may result in half-hearted project solutions and it would certainly be better if both departments shared and had the same goals according to the Customer Stock Analyst.

Business perception of IT value. This factor was voted higher from the IT department than from the business department. The organization often works with global process teams at the beginning of new projects where they gather information about the projects and analyzes them. The cost for these process teams are often not included in this planning, however when they need to involve the IT department in a project they have to calculate their involvement as a cost within the business case. As a result the IT is seen more as a cost, and the process teams try to bring a project as far as possible before involving the IT department.

The Senior Analyst II gave one project as an example on how the IT is viewed upon. The company invested in a new ERP solution, which was very expensive and took a long time to implement. They faced a lot of problems while the project was ongoing, which it took a while to solve, and it was not until the IT department had come up with solutions and the business started to run efficiently again as the business saw the value of the project. The value of IT is therefore often only measured by the return on investment.

The interviewed persons in the business department can see an improvement in the value of IT and that it gradually takes a greater part of their strategy. It is very important that the business has IT support so that they can do a good and interesting job. IT is needed to be able to develop the business processes which the business department cannot do on its own. The organization has recently launched the new e-business system that takes them to a global level, but according to the Manager Planning & Quality they are ten years behind other companies and stated:

“I believe that we are a bit immature to actually invest in IT. Maybe due to the lack of seeing how much it will give us in the future.” – Manager Planning & Quality (Appendix 7, row 83-84).

Role of IT in strategic business planning. The IT department is involved in the IT planning, but has no bigger role in the strategic business planning according to the Senior Architect and the Senior Analyst II who both scored low numbers on this factor. Though there has been a minor improvement, this is only the result of the IT department forcing themselves into the business planning to some extent. Due to the relatively new business units and how they are working with the IT department's delivery areas and directors, the incorporation of IT in the business planning may have evolved, but it is still something the IT department wants to improve. If they could align the IT and business strategy better, they could work more proactive than reactive.

Both participants from the business department gave this factor relatively high numbers. According to the Manager Planning & Quality, business has their IT roadmap which is the driver in many bigger projects. These roadmaps do not work to a 100 percent though, due to that the organization may prioritize other projects instead, thus leaving projects until the next year. Projects often have some involvement from the IT department and the Manager Planning & Quality stated that "...there is typically at least one IT component involved in a typical medium-sized project." (Appendix 7, row 92-93).

The IT department believes that in order to improve the partnership between the two departments, they have to improve the cooperation when planning their strategies. The Senior Architect proposed to change from having both an IT and business strategy to a unified strategy by stating:

"I definitely think both IT and business strategy must go hand in hand. You have to do this together for IT to be proactive and not reactive. A digital strategy is IT strategy and business strategy together, and it is no longer possible to have two different ones." – Senior Architect (Appendix 5, row 128-130).

The business department believes that the IT department needs to be more involved and active within the organization. They would then get a better understanding of the business and a better context overall. A suggestion is made to maybe in the future change from their tailored systems towards best practice solutions. This way, the organization would be more adaptive to new system updates and improvements.

4.5.3 Skills

Education, cross-training. Both departments believe this factor is more or less satisfactory as it is today. Workers at the company get the education needed for executing their job and if there are other things they find interesting there is their self-learning system. The new self-learning system will according to the Senior Architect make it easier and cheaper for the company to educate more workers. The Senior Analyst II highlighted that, within projects, the education should be started earlier and involve users already in the testing phase. The education can be nowadays be inadequate due to other priorities.

The Customer Stock Analyst stated that it would have been beneficial for both departments if they would have shared more information with each other. The IT department could come to the business department and inform about new projects, solutions and future technology. Business could also inform the IT department on how they work and come with suggestions of improvement in their way of work.

Change readiness. It is today difficult to change the way the company is working as a whole and it would take a lot of time. There have been more modifications in business processes than in the IT department according to the Senior Architect. IT is often driven to adapt systems to the business standard instead of taking the industry standard and best practices in consideration instead. The way they work now may have been best practice twenty years ago, but not anymore. There is a resistance of changing the way the organization works and this mindset needs to be changed before making bigger changes.

Both participants from the business department voted high on change readiness. The business is according to them ready for change when they see the value it will bring. The Manager Planning & Quality stated that managers on a lower level are also open minded when it comes to new IT solutions, but the IT department needs to market themselves better.

Skills improvements. The organization needs to use industry best practice in the future, but the biggest obstacle is the mindset which needs to be changed.

“...it is more about changing the way people think. To change the mindset is a process that probably would take several years. It is a high barrier to overcome.” – Senior Architect (Appendix 5, row 158-159).

From the business view, the IT department needs to inform the business what is new today. They could come to the business and present what is in the pipeline, new solutions and what the future will bring in terms of IT which the business could take advantage of.

4.5.4 Governance

As this factor was covered in one question in our complementing interviews, the two factors regarding governance will be presented combined with each other.

Business and IT strategic planning. All interview participants agreed that the business and IT planning should be more intertwined with each other. It was stated by Manager Planning & Quality that from a higher perspective, it is structured within business planning in a sense where all components of IT are identified in the upcoming projects. This is where the IT roadmap enters the picture; however, this is the only knowledge the business department gets. Therefore, it is suggested by the Manager Planning & Quality that a dedicated person from IT should learn how the business works to be able to integrate the IT that is new and outside the projects.

From the IT department's perspective, the IT planning process is perceived as a more isolated process, and they recognize the need of being more proactive in this manner. They need to translate the business strategy into an IT strategy to be able to plan the infrastructure, skill sets and technology.

“We need to recognize that there is change in the wind, and that we need to be ready to run when we need to run, and not only say - This is not what we used to do” – Senior Analyst II (Appendix 6, row 166-168).

Summary. In conclusion of this chapter, our result shows that the communication between the business and IT department is inadequate. This is the result of very strict communication channels leading to flawed knowledge about the opportunities and requirements of respective

department. It is stated explicitly by the majority of the interview participants that the communication needs improvement. It has come to our understanding that the communication has to be more casual between the departments. They should also strive for intertwining the departments' interests in mutual planning to a larger extent.

Considering the partnership criterion, the departments are not measured in the same manner when it comes to project outcomes. This results in that they are not working towards the same goals. This can lead to half-hearted project solutions and lower the appreciation of the IT department's future contributions. Furthermore, IT is seen as a huge cost for the business, yet overall they have started to realize that it has to take a greater part in their strategy.

The skills criterion is something that is needed to take into consideration to a larger extent, in the form of self-learning and experts within each department. However, to reach this goal, improved information sharing has to pervade in-between the departments. The business department states that they are open minded to change, and that they want the IT department's help. However, the IT department does not share the same view. Lastly, the mindset has to change throughout the organization, which can be seen as the bigger problem in this context.

The governance within the organization is structured on a higher management level, and when there are requirements, it is here IT is taken into consideration for upcoming projects. Furthermore, the IT and business strategies are isolated from each other. The business strategy determines the IT strategy to a large extent. Being project and gap oriented as an organization it is only in this context the IT department is involved in developing the business.

Finally, it is stated that the IT department strives to become a partner to the business rather than being a service provider. This is worth highlighting to show that the strategic alignment is on its way towards improvement between the two departments.

5 Discussion

5.1 Problem / Initial interviews

By comparing the way the company works with the strategic alignment model, we can explain how their alignment with business and IT works. As it was stated in the interviews we initially made, both managers highlighted the gap-oriented way of implementing IT. On the other hand, in regards to big projects which are often cross-functional or even global, initiatives can come from the IT department. Thus, we can see tendencies of two of the four ways alignment takes place in the model. Firstly, the IT development within the business is depending on the business strategy, thus business strategy as a driver. Secondly, in rare occasions, it is the IT strategy that works a driver.

From the business department, the business strategy works as an instigator, and determines the design of the organizational structure and IS-infrastructure in the sense of highlighting gaps. Management takes the role as the strategy formulator when highlighting said gaps and presents it to the business support function. The strategy implementer, would be the IT department, implementing the required infrastructure and processes that support the chosen business strategy direction. Thus again, the alignment starts from both the IT strategy and the business strategy. Taking this into consideration a discussion, whether the relationship between the business and IT departments is more of a traditional linkage or strategic alignment, can crystallize.

Analyzing the interviews from the viewpoints of the four ways of alignment, one could argue that the business and IT relationships are aligned on certain points, but more traditionally linked on others. On the fundamental shift of the IS function, in terms of the external technology capabilities, this is somewhat realized. New capabilities, according to our initial interviews, are taken into consideration and implemented in larger projects in the organization by the IT department. We can see tendencies going towards a traditional linkage on a lower level as the IS function becomes more internal, which is explained by both the interviewed managers as the gap-oriented way of working. This represents the internal IS function and organization in terms of leaving out the external IT marketplace, focusing only on the needs of the business, and self-developed applications to support the business.

Regarding the second point of management objectives, one could argue that the company has a traditional linkage. The traditional linkage involves ensuring that the IS activities are linked to business requirements rather than choosing the right alignment perspective for achieving business objectives. We believe that this is the case since strategies are not well articulated and communicated down to the lower levels of the department. The gap oriented way of working is therefore equal to the traditional linkage definition in this case.

Discussing the roles of line managers it is argued that they should take traditional leadership roles as well as acting business and technology visionaries and prioritizers. By relating this to the initial interviews, we can see that this is the case, but due to silo-thinking and lack of communicated strategies the lack of alignment still prevails. Regarding IT managers and their roles as traditional and functional, resource optimizers and technology architects, it is hard to argue on their behalf, but according to the initially interviewed managers it works in larger

projects where steering groups are assigned. However, this should be considered a constant goal, thus we argue that the organization is working in a manner that is too traditional since there are several improvement opportunities.

Regarding the last view, in traditional linkage performance assessment is considered only on a cost and service level and in strategic alignment as a tool for reaching wider, multiple criteria. The interviewed managers highlighted the need of multiple criteria, including softer values as an example. Therefore, they believed that the overall organization viewed IT as a costly way of doing business rather than a business enabler or opportunity for business development.

5.2 Evaluating maturity / Maturity implications

We have conducted structured interviews with individuals with different organizational roles using the strategic alignment maturity model. In doing so, several different implications regarding our company in focus can be discussed.

We can see that answers depending on the management levels varies not only between the departments but also within the business and IT department respectively. However, we want to highlight that since this is not a quantitative study, and due to the method of choice, we do not attempt to draw any conclusions statistically. However, as stated before, we can easily see that different perceptions on communication, partnership, skills and governance regarding strategic alignment vary in the two departments in focus.

This part of the thesis includes taking into consideration all our interviews where we can see that the company considers IT as a cost, and that it comes in second hand after the business. It is stated mainly that the business sets the requirements and not vice versa, which was discussed in the previous section. Furthermore, the variations between answers depending on what management level the interviewee is from is interesting. The above mentioned issues will compose the foundation of the thesis discussion.

In this section we will discuss our findings under each criterion from Luftman (2000) that we identified in our interviews. In the end of each discussed factor a section will be presented with the indicated maturity in regards to the maturity levels presented in table 2.2 in the literature review. In the end of the discussion we will also give implications and discuss what actions that can be taken to evolve from a certain level of maturity to the next one.

5.2.1 Communications

Understanding of business by IT. What our structured interviews indicate is that the level of maturity is perceived differently in each respective department. Starting by analysing the IT department, one answer had the highest of score of 5, meaning that understanding is pervasive from the perspective of a Senior Architect who has a holistic view of the IT landscape of the organization. It also came to our understanding that this individual's knowledge of the business was quite high due to the work related tasks that were involved in the role. Low, mid and senior management perceived the understanding of business quite high as well, more specifically at 4, that it is pushed down through the organization. Meanwhile, the rest of the interview participants from the IT department gave it a score of 3, meaning that it is perceived that the knowledge of business stays isolated within senior and mid management. Obviously, one could

argue that by looking at our answers, pushing down decisions, motivations, future plans and strategies is not adequate. The average ends up to a 3.75 on this factor. This means that on the levels of maturity, the average understanding is perceived as established and focused. IT is in the early stages of implementation with the business, and they have recognized the value of information. The level 4 process among the levels of maturity, enhanced/managed process, includes the criterion of leveraging IT assets, which we argue that they have not yet reached as IT is still seen as a huge cost.

The business perceives this factor quite differently with only one score of 4 (pushed down through the organization) by the Customer Stock Analyst. Mid and senior management scored it a value of 3, meaning that it is perceived that only mid and senior management at the IT department has knowledge on how their business works. Furthermore, the remaining three managers gave it a score of 2, implying that the understanding from the IT department is perceived as if they have little awareness about the business. The business average under this factor ended up with 2.71.

We argue that this factor is in between maturity level 2 (committed process) and level 3 (established and focused process). This due to its early stages of the mutual understanding but the recognition of it. We claim that the result of the low scores from the business department is also the desire of having the IT department more involved in the daily business.

Understanding of IT by business. By reviewing the result from the structured interviews, it has come to our understanding that the business department perceives this factor lower than the IT department. This means that the IT department might overestimate the business awareness on how to make use of IT and what possibilities and opportunities that IT might bring in the future. The factor received an average score of 3.25 from the IT department's participants. It was scored a 4 by the Head of IT Department, Senior Work Manager and the Senior Analyst II, meaning that the IT department recognize that the business is aware of IT's potential to some extent. The rest of the IT department's participants answered in general a 3, meaning that there is an emerging awareness of IT by business. However it came to our attention that the Senior Analyst II had worked close to the business department before and can therefore be seen as the reason why it was given such a high score. Furthermore, the same participant also highlighted the Application Specialist Program, meaning that IT has started to be more integrated with the business.

From the business participants, understanding IT by business was scored lower as it received an average value of 3. As stated in our interviews, one reason this factor has been scored higher by the IT department than the business department may be due to the fact that the requirements come from the business department only and not vice versa. Analyzing the answers we received from the interviews with the business participants, we can also argue that this factor was scored lower by business due to lack of information about the potential of IT from the IT department. Due to our result, concerning the IT department's recent initiatives and the business department's statements on the lack of IT marketing, we argue that the business has a limited IT awareness which is increasing towards an emerging awareness. The result of different views on understanding of IT by business is also left into the hands of each manager and thus dependent on their general interest of IT.

Our findings indicate a maturity level 3, meaning that it is an established and focused process. This is due to the fact that the IT department just recently recognized the need of being more present in the business and being more of a partner rather than a service provider.

Inter-/intra organizational learning. By analyzing the result from the IT department, we can see that it was perceived quite low. The high management gave this factor a score of 3 which represents learning at a regular and clear level. This might be due to the standard of being project oriented, as projects is mainly the only time IT is involved in the business operations. Right now, the IT department seeks to fulfill the business needs at the lowest cost possible and due to this we argue that learning does not occur naturally or casually. Therefore the organizational learning is to some extent at level 3 maturity level, regular and clear from the IT department's point of view.

Analyzing the result from the business department, it becomes clear that the organizational learning is low. High management gave it a score of 2 meaning that learning between the departments is informal. The rest of the participants scored a 3 (regular and clear), leaving this factor with an average of 2.29.

We argue that at a level 2 committed process, the department has recognized the opportunities and needs of improving the learning processes but are still limited today due to working in silos.

Knowledge sharing. This factor has gotten low answers from both departments which are quite unified though out the management levels as well. Starting by analyzing the IT answers, knowledge sharing scored a value of 2 (semi-structured) but is to some extent also perceived as being 3 (structured around key processes). It has been stated frequently in interviews that this factor emerges naturally and is more of a standard in projects, which is an occasion where it is needed. It is also emphasized on the need of increasing the awareness of the business department with regular meetings to give updates on how the IT department works. We also believe this would enhance the knowledge sharing from being semi-structured to structured around key processes.

From a business perspective, knowledge sharing is perceived as a 2 (semi-structured), whereas the Customer Stock Analyst scored it a 3 due to the good information sharing when needed between co-workers within the department. We argue that the knowledge sharing level today does not contribute to alignment to a larger extent since it is practically teaching and learning how to use systems. Strategies are not communicated and knowledge is not shared to a greater extent on how the business and IT departments are linked, yet again the IT department follows the business requirements. There is also an emerging vision in the business department that general knowledge about the IT would benefit the business department, which we argue for as well. Thus, depending on what type of knowledge is shared, the strategic alignment is affected differently.

Today, knowledge sharing can be considered at a maturity level 2, committed process, due to the lack of communication about strategies but the recognition of it. Therefore we suggest that increasing the mutual understanding of both the departments should be considered in order to reach maturity level 3, an established and focused process.

Protocol rigidity. Considering that the alignment is influenced positively by the informality of communication, we argue that the company in focus has to improve their protocol rigidity factor. The higher management of the IT department perceives that the communication is a 4 (relaxed and informal) while the majority of the remaining participants see it as a 2 (limited). However, to some extent we can see tendencies that in the lower levels of the departments, the communication tends to be more informal. This might be due to the handling of smaller issues that has to be handled in the business, where communication naturally is taking place in a more informal context.

The business department has diverse opinions considering this factor, where the majority of the high management level sees that the communication is guided by command and control, thus a score of 1. The average of 2 still indicates that the formality is affecting the strategic alignment. This may be due to the fact that they communicate with the IT department through the gap-process and their business support function. We argue that the formality of the communication affects the strategic alignment in the sense that the business cannot be pro-active regarding IT due to the slow responsiveness between the two departments.

We argue that the factor indicates a maturity level of 2 (committed process) due to the average that has not even passed an average of 3 (established and focused process). In order to improve, the two departments need to go over how issues or ideas is targeted to the relevant stakeholder which then could be administered correctly through a higher rate of informal communication.

Liaison breadth / effectiveness. Regarding how the communication is facilitated, the IT department answered with a majority of 3 (average 2.75), meaning through formalized and regular meetings. The business department has almost the same perception of this factor with an average of 2.67. Both departments has highlighted how they facilitate issues that emerges in the business via their ticket system. We argue that concerning issue handling, a certain tactical and technology based level is critical, and should thus not be too informal.

Again, we argue that both departments need to be more effective in communicating their strategies, at all internal levels to increase the strategic alignment and to raise the awareness of the IT and business at respective department to lower the silo thinking. This is due to the perception that many interviewees had, as they stated that IT related questions enters the picture technically via the ticket system and within projects through the heavy gap-process.

Communicating strategies and opportunities has to be taken more seriously and be more informal and relaxed in order to improve from a maturity level 2 (committed process) to a level 3 (established and focused process) where mutual understanding is higher.

5.2.2 Partnership

Shared goals, risk, reward/penalties. This factor was given the average score of 3 by both departments, indicating that it is perceived that there is a risk tolerance between the departments and that IT has some rewards. Today the departments are measured differently on the outcome of their respective projects. The outcomes of the IT department's projects are measured by costs and the business department's outcomes is measured by how they achieved the projects

requirements. We believe that this may have a negative effect on the relationship in the long term, causing IT to hold back on new solutions that may help the progress of the business. Similarly, as told by the Senior Architect, this affects the grade of wanted IT involvement in projects by the business department since they want to proceed far as possible without including IT in projects due to cost restrictions.

Even though the average score were at 3, we argue that this factor is at maturity level 2 (committed process, but in the process of advancing to level 3 (established and focused process). This is due to late involvement of IT in the business' projects as IT is seen as a costly resource. The IT department has to be involved from the beginning of projects where IT may be a possible solution to enhance the strategic alignment.

Business perception of IT value. The result from the structured interviews demonstrates a wide variety of answers in both departments which leave us with an average of 3 from the IT department and 2.86 from the business department. These findings indicate that overall, IT is seen as an asset by business. However, at an upper management level this factor is perceived to be higher as it primarily was scored at a value of 4 which means that IT is part of the business strategy. We claim that this is the result of better communication channels between the IT and business departments on the higher management level, which also has been confirmed in the interviews. This information needs to be communicated down to the lower levels of management more efficiently.

As stated in the previous factor, the Senior Architect has the view that IT is perceived as a cost of business due to the late involvement of IT in projects. Our findings suggest that this can be the reason why the results from the IT department were mixed.

We argue that this factor has a maturity level 3 (established and focused process), and for this factor to climb up one maturity level, we suggest that the business department has to enhance their knowledge of IT and the IT department's strategy. As suggested by all interview participants from the business department, the IT department needs to increase business awareness about IT in general and how it may be as assistance of business processes in the future.

Role of IT in strategic business planning. This factor, like the previous one, received a lot of different numbers. Overall it was scored an average of 3.13 from the IT department which means that IT is seen as a process driver when it comes to the strategic business planning. The scores from the business department indicated a value close to 4, meaning that IT is a business strategy enabler/driver. However, by analyzing the result, we see tendencies of higher scores from both business and IT's top management on this factor as well. We believe this is the result of only communicating the role of IT during projects and through the IT roadmap where only higher management is involved. The Senior Architect stated that due to the late involvement of IT in projects, the IT department is working in a more reactive rather than proactive manner.

We propose that the maturity of this factor is at maturity level 3, established and focused process. With the information provided, we suggest that the business department needs to involve IT to a greater extent in their strategic planning to enable a proactive way of working for the IT department.

5.2.3 Skills

Education, cross-training. There are quite similar views on the level of education and cross-training in the IT department, specifically a 3, that it is dependent on the functional organization. It is slightly higher from the business department's point of view where it got a few scores on 4, indicating that higher management conceive that it works well outside the functional organization as well. Otherwise it is the same as the IT department, meaning that it is depending on the functional organization. Consequently, there is also a tendency that the factor is perceived better on the higher the level of management.

It was also stated by some of the interview participants that the level they are at now is enough. Therefore we question whether a higher maturity on this factor would affect the strategic alignment more positively. Again, both departments have recognized the importance of sharing information, ideas and visions with each other to strengthen the relationship.

We argue that this factor is at maturity level 3, as an established and focused process as education and cross training comes in naturally when it is needed. The business department and IT department should work more integrated, emphasize on new projects solutions and the future which we argue for is a part of the cross training to reach a mutual understanding.

Change readiness. The Head of IT Department gave the factor a score of 4, that the change readiness is lower but focused. Meanwhile, the remaining gave 3 as a score, that they have recognized the need for change.

A lot of shared opinions can be found at the business department with a spread of scores from 2 to 5. With an average of 3.57 it is perceived as higher in the business department compared to the IT department's 2.88, meaning that it has an established and focused process from this point of view. We claim the same for the IT department as top management has scored, together with a variety of other levels, an average close to 3.

We argue that the change readiness maturity is on level 3 (established and focused process). Instead of using customized solutions, it could also be beneficial to use industry standards and best practices to influence the strategic alignment positively. This would require to change the mindset of the workforce, which could be one of the most difficult tasks that lie ahead.

5.2.4 Governance

Business and IT strategic planning. We will follow the same procedure as under the complementing interviews and its result by presenting both factors as business and IT strategic planning. Both factors discuss the same phenomena from different viewpoints. Firstly it is how the two departments perceive how business planning is done across the enterprise, and secondly, how IT strategic planning is done the same.

By focusing on the first, business strategic planning, this factor was scored 3.38 in average with 5 (integrated across and outside the organization) and 4 (managed across the enterprise) from the Senior Work Manager respectively the Head of IT Department together with the Project Manager. The rest of the answers ended up on average 3. From the business perspective this

was perceived slightly higher, more specifically on a score of 3.86. There are some tendencies that some inter-organizational planning are emerging. On a higher level, a strict governance structure prevails, where the IT-roadmap enters the picture. Hence IT is involved to some extent in business planning.

The IT strategic planning factor was perceived a little lower for both departments with an average of 3.25 from the IT department's point of view. The reason of the lower scores could be due to the lack of involvement of IT in the overall strategic planning. It was stated during the interviews that IT department is shown in the IT roadmap only when IT components are involved in projects.

Furthermore, it has also been continuously stated that the IT enters the picture to support the business requirements. From the business' point of view, the level was perceived to be quite unified with mainly scores of 3 and a few on 4 from higher management, thus the average score of 3.14.

As budget control is considered one of the basic components in the governance criteria, this is something that has been brought up by many of the interviewees from both departments. The business department has to motivate their gap well enough to get a project prioritized and initiated and this is where the cost factor weights heavier than the softer values. Hence, they have to change the view on IT from a cost perspective to a competitive advantage and an asset. Furthermore, it was highlighted from the IT department that they are perceived as a cost from the business point of view, and is expressed when the business involves IT as late as possible in their project. We believe that these are some of the important techniques to lower the isolation of the business planning process and to strive towards integration and intertwining of business and IT planning.

We therefore establish the maturity level 3 (established and focused process) on business strategic planning in total. We argue that even though the positive answers from the business department and its closeness to a maturity level 4, the business strategic planning is not yet managed across the enterprise.

We also conclude that the maturity level of IT strategic planning is an established and focused process, level 3. This is due to the tendencies toward some inter-organizational planning that we have identified, which could be improved.

Summary. Below, a summary table is presented based on the above discussion. We present each criteria and factor with the indicated level of maturity as well as the actions that can be taken to increase the maturity.

Table 5.1: Summary of maturity rates from discussion.

Criterion	Factor	Indicated maturity level	Actions to increase maturity
Communications	Understanding of business by IT	2.5	<ul style="list-style-type: none"> • Communicate to lower levels more actively • Transform the view of IT from being a cost
	Understanding of IT by business	3	<ul style="list-style-type: none"> • Improve mutual understanding by communicating their way of working • Involve IT in daily business • Continue and improve the Application Specialist Program
	Inter-/intra-organizationa l learning	2	<ul style="list-style-type: none"> • IT marketing • Enhance the general interest of IT • IT should be a partner rather than service provider
	Knowledge sharing	2	<ul style="list-style-type: none"> • Let the IT department come with possible improvements, not only business requirements • More informal communication
	Protocol rigidity	2	
Partnership	Liaison breadth/effect iveness	2	
	Shared goals, risk, reward/penalt ies	2.5	<ul style="list-style-type: none"> • Measure both IT and business the same on outcome of projects to be able to strive for the same goals • Involve IT from the beginning of projects • Communicate to lower levels more actively
	Business perception of IT value	3	<ul style="list-style-type: none"> • Improve mutual understanding by communicating their way of working • Increase business awareness of IT • Involve IT more in strategic business planning
Skills	Education, cross-training	3	<ul style="list-style-type: none"> • Integrate the departments to be able to emphasize on the future • Industry standards and best practices to be able to tackle changes • Change the mindset
	Change readiness	3	

Criterion	Factor	Indicated maturity level	Actions to increase maturity
Governance	Buiness and IT strategic planning	3	<ul style="list-style-type: none"> • Change the view of IT as a cost to competitive advantage and asset • Involve IT from the beginning of projects • Make IT and business planning common planning

5.3 Other implications

Conducting this study using Luftman's (2000) strategic alignment maturity model, there are a few questions that we want to articulate and discuss. It has come to our knowledge that the perceived maturity varies throughout the different levels of management within the departments of the company in focus. Therefore one could argue that the model is missing an element representing the different management levels within the company in focus. By reviewing our result from the structured interviews, we see tenancies of different opinions from different management levels of several factors. Due to this we believe it could be hard to assess the maturity on a precise level without leaving out a discussion on how the individual management levels are working towards a strategic alignment. Therefore, we attempt to highlight the different answers provided by the different levels of management.

We also want to highlight the concern on whether a large company has to have both a business strategy and an IT strategy. We believe that due to the importance of IT today, a company should not separate the strategies, but intertwine them instead and recognize their equal importance. This was highlighted by the Senior Architect who stated that by doing this, the company could work more proactive towards goals.

6 Conclusions

The purpose of this thesis was to investigate a large company's strategic alignment between the business department and IT department using the strategic alignment maturity model developed by Luftman (2000) and strategic alignment model developed by Henderson and Venkatraman (1993). Focusing only on the social dimension of strategic alignment, we derived the criteria and factors affecting the social alignment from Luftman's (2000) framework. Communication, partnership, skills and governance were the criteria that were found to be the suited for our company in focus.

The study consists of three phases, where phase one initially investigated and defined the problem area along with the scope of the study through two semi-structured interviews. The second phase consisted of 16 structured interviews, where the participants gave their opinions and perceptions on the factors being investigated. In the third phase, we further investigated the answers through four complementing interviews to get a deeper understanding of the perceived maturity. Our research has therefore answered the following research questions:

1. How is the social dimension of strategic alignment perceived between the IT department and business department in a large company?
2. What possibilities, considering the social dimension of alignment, exist for a large company to assess better strategic alignment between the IT department and business department?

We can through the criteria and factors identify similarities and diversities between the two departments. These diversities arise when communication, partnership, skills and governance are not adequate enough to uphold a mature strategic alignment. Through our findings we found indications that the social dimension of alignment is a concern for both departments. Mainly, it is the business strategy and its requirements that sets the direction of the business, thus IT strategy as a driver is perceived as minimal. Due to this, the business department desires that the IT department should be more intertwined within the business, thus be able to set this direction more often.

Furthermore, we identified that managers on different levels perceive the strategic alignment maturity differently both within and across the departments. Higher management tend to have a more optimistic view on the strategic alignment in comparison to the views of lower level management. We argue that this is due to the fact that strategic planning and project planning are done on the higher level and not thoroughly communicated and pushed down to the lower levels. Unfortunately, adequate communication between the departments occurs mainly in the context of project planning. In order to improve the strategic alignment between the departments, IT should permeate the day-to-day business activities.

We have identified several possibilities for our company in focus to increase their strategic alignment maturity level. As we have identified the perceived maturity level from both departments depending on each factor, we were able to propose changes and actions the company can take depending on the departments' maturity situation in order to reach a higher level. We have listened to the interviewees' needs and their own suggestions while also taking the literature into consideration in order to determine the next levels of maturity while we have discussed possible actions to take to reach this level.

We argue that the overall action that needs to be taken in order to increase the maturity levels is transforming the overall perception of IT as mainly a costly department toward IT as a provider of competitive advantage as well as an overall asset. Higher managers need to communicate strategies down so it reaches all levels of the organization. Furthermore, the IT department should be involved in projects at an earlier stage which would give the effect of minimizing the cost perspective of it. The above actions would require changing the mindset of a lot of people within the workforce. Lastly and most importantly, the two departments need to integrate the business and IT planning into common planning in order to utilize the strategic alignment. These actions would help the departments improve the overall strategic alignment maturity level. However, each factor has a set of specific individual actions that can be made to further increase the alignment which we argue is the second step to be taken.

6.1 Future research

In terms of future research, this study could be resumed in order to further investigate the different implications given on the level of management, whether it should be added as a dimension in the strategic alignment maturity model. It could be done by quantitatively or qualitatively test this in other contexts. We can also see that it is needed to test whether companies today rather should have one common strategy instead of having a separated IT and business strategy. Studies on how this would affect the strategic alignment positively could be necessary.

Appendix 1

Initial interview guide

Theme	Question
Initial questions	1. Tell us about your role at Company X. 2. How long have you had this role at Company X and for how long? 3. What are your main responsibilities?
Shared domain knowledge	4. How is knowledge sharing assessed between business and IT executives at Company X? 5. In what ways are the knowledge sharing managed? 6. In what ways are skills, knowledge and experiences shared between IT and business environment? 7. How is your understanding of the IT environment? 8. How is your understanding of the business environment? 9. What do you believe are the main factors that hinder knowledge sharing and the mutual understanding of the strategies? 10. What would be your suggestions to further improve this relationship?
Successful IT history	11. Can you tell how IT is generally perceived by business to respond to the company's needs? 12. To what extend do you believe that IT fulfil its commitments? 13. Do the business and IT executives share the knowledge on how the IT is a part of the competitive advantage of the firm? 14. How do you believe IT demonstrates its value to the business? 15. How is the outcome of IT projects measured and presented to the company? 16. How is management assessed during IT projects? 17. How are risk and rewards shared during IT projects between business and IT?

Theme	Question
Communication between business and IT executives	<p>18. How is the relationship between business and IT affected by past failures of IT projects?</p> <p>19. How well do you think business and IT executives communicate with each other, and how is it done?</p> <p>20. What are your thoughts about how different backgrounds and experiences of managers affect development of strategies, projects and implementations?</p> <p>21. What are the main reasons of misunderstandings between business and IT executives?</p> <p>22. What could be the barriers that affect the communication between IT and business managers?</p> <p>23. How could the communication be improved?</p>
Connections between business and IT planning	<p>24. What are your thoughts on the relationship between business and IT managers?</p> <p>25. Formally, how is the relationship between business and IT managers managed?</p> <p>26. How is the connection between business and IT managers coordinated by the corporate governance?</p> <p>27. Can you generally explain the steps of a planning process of a project where you have been a participant?</p> <p>28. Do business managers participate in IT planning and vice versa?</p> <p>29. Are strategy and planning a mutual activity between business and IT managers?</p> <p>30. Is IT supported by business executives?</p> <p>31. What are your thoughts on challenges regarding development of business and IT strategies?</p> <p>32. How could the planning be improved?</p>

Appendix 2

Interview 1
Manager of Replenishment
2016-04-22

Interview transcripts are not included in this version of the master thesis.

Appendix 3

Interview 2
Master Data Manager
2016-04-22

Interview transcripts are not included in this version of the master thesis.

Appendix 4

Complementing interview guide

Criterion	Factor	Standardized question
		13. Please tell us more about your role here at the company and how long you have had this role. 14. What are your main responsibilities?
Communications	Understanding of business by IT	15. On understanding of business by IT, you put an X, meaning _____. 16. Would you like to explain how this works? 17. What makes it good/bad? 18. Do you have any examples on why business might perceive that it is lower/same/higher?
Communications	Understanding of IT by business	19. On understanding of IT by business you voted that it was higher/lower, more specifically an X, that _____. 20. Is this something that you could elaborate for us? 21. Is it not until lately that the business started to understand IT, and why? 22. How do IT/business work to improve this?
Communications	Inter- / intra-organizational learning	23. On inter- / intra-organizational you voted an X, meaning _____. 24. Is there something that you want to change when it comes to learning?
Communications	Knowledge sharing	25. Knowledge sharing was voted an X, that _____, from you. 26. When is knowledge shared/not shared? 27. What can be changed in this regard? 28. Would more knowledge sharing be beneficial?
Communications	Protocol rigidity	29. Is the communication done through certain channels/is it strict? 30. You have voted an X, meaning that it is _____. 31. Could you give us an example on how the communication is taking place and what effects it gives?
Communications	Liaison breadth / effectiveness	32. Here we mean how the communication is facilitated and you have answered with an X, meaning _____. 33. How is the communication done today and why?

Criterion	Factor	Standardized question
Communications	General concluding questions	34. Regarding communications and the factors that we have talked about so far, what do you think has to be done in order to improve the overall communication? 35. Do you have any concrete implications and how would this be beneficial to you and the organization?
Partnership	Shared goals, risk, reward / penalties	36. According to goals/risks/rewards between IT and business, you have answered an X, that _____. 37. What are the consequences of this?
Partnership	Business perception of IT value	38. According to how business sees value in IT you were very ___ voting an X, meaning that _____. 39. Why is that? Do you have any examples?
Partnership	Role of IT in strategic business planning	40. According to what role IT has in strategic business planning you have voted an X, _____. 41. How is this reflected and how does it affect the relationship between business and IT?
Partnership	General concluding questions	42. How do you think that the intertwining of the IT and business should be done?
Skills	Education, cross-training	43. According to how the organization facilitates education and cross-training, you voted an X, meaning _____. 44. What do you think of this?
Skills	Change readiness	45. Regarding change readiness, how capable the organization is of changes, you have voted an X, _____. 46. How does the relation between business and IT look like in this context? [Example: if IT has a new innovative idea that could be implemented – what is the response from the business?]
Skills	General concluding questions	47. Generally, what do you believe has to be done regarding the above discussed questions?
Governance	Business strategic planning	48. Regarding the business strategic planning, you have answered an X, compared to the X on IT strategic planning – meaning a bit higher/lower on IT. 49. Do you believe that the IT planning is a more/less isolated process? 50. Do you believe that they need to be more integrated?

Criterion	Factor	Standardized question
		51. How could this be done?
Governance	IT strategic planning	52. See the above question.

Appendix 5

**Interview 3
Senior Architect
2016-05-16**

Interview transcripts are not included in this version of the master thesis.

Appendix 6

**Interview 4
Senior Analyst II
2016-05-16**

Interview transcripts are not included in this version of the master thesis.

Appendix 7

Interview 5
Manager Planning & Quality
2016-05-17

Interview transcripts are not included in this version of the master thesis.

Appendix 8

Interview 6
Customer Stock Analyst
2016-05-17

Interview transcripts are not included in this version of the master thesis.

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