ALIGNMENT OF BUSINESS AND IS/IT STRATEGY AT TELENOR SWEDEN

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Abstract
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1. Introduction

1.1. Background

The increasing employment of information technology to support business operations has been inexorable in the last few decades. The role that IT plays has, however, changed over the years: the initial sole emphasis on efficiency has shifted to strategic value creation (Pearlson & Saunders, 2006). The new role of IT as a strategic asset in providing competitive advantage requires that it be tied to business processes and, crucially, aligned with business strategy (Gray cited by (Rusu, 2009, p. 50).
The increasing ubiquity of IT in organizations has led to escalating investments in IT. Effective business-IT alignment has consequently become an even more pertinent issue to business executives, as poorly planned systems may result in customer dissatisfaction, bloated production costs, and unnecessary and costly delays in supporting business needs (Rusu, 2009, p. 39). This may subsequently hamper an organization's ability to move swiftly as a strategic player in a turbulent environment.
Information technology is, however, not only an enabler of effective business strategy execution, but also a driver. It is not uncommon today for a technological innovation to propel an organization to alter its strategy in order to exploit it and so gain a competitive advantage. Regardless of the role that IT plays, it is of great significance that it is aligned with the business goals of the organization. Numerous models have been designed to assist managers in assessing the role of IT and its alignment with business in their organizations; however, as is usually the case, theoretical models do not always mirror the reality of the industry.

1.2. Research Goal

The goal of this paper is to apply the concept of strategic alignment between business and IT, and to some extent organizational design, on Telenor Sverige AB. The project thus focuses on analyzing their business and IT strategies individually, and subsequently assessing the extent to which they are aligned. The case

study aims to reveal means of promoting business-IT alignment by looking at how the process is de facto performed in the industry.

1.3. Research Methodology

Our research is a qualitative one, in the form of a case study. Four theoretical models – the Information Systems Strategy Triangle, Venkatraman's Strategic Alignment Model, Luftman's Strategic Alignment Maturity Model, and McFarlan's Strategic Grid – were employed as the theoretical basis for the case study. The case study is partly based on existing papers, previous case studies and published articles; however, the most significant input came from conducting two interviews at Telenor: one with a key business manager and one with a key IT manager. Their responses form the basis of the assessment of strategic alignment at Telenor Sverige AB.
The interviews were semi-structured. Some questions were sent to our interviewees beforehand according to their wishes in order to enable them to form an idea of our expectations and to prepare. For one of the interviews, some quick answers were elicited in advance, prior to the meeting – the reason being the limited time available on the day of the interview. Therefore, that interview was slightly less structured than the other, allowing the interviewee to delve deeper into questions and situations that demanded interactive deliberation.

1.4. Resources

The theory that is presented in this paper is primarily abridged from (Pearlson & Saunders, 2006) and (Luftman, Bullen, Liao, Nash, & Neumann, 2004). This literature constitutes the compulsory reading in the "Strategic Management of IT" course, given at the Royal Institute of Technology (KTH) in the spring of 2009.
Our research on the strategies employed by Telenor - both the Telenor Group and Telenor Sverige AB - was pursued through the help of newspaper articles and interviews with Telenor personnel. Additionally, previous papers investigating Telenor's operations were also consulted.
Last but not least, the primary resource in delivering this case study on Telenor is the result of the two interviews that were conducted with Helene Ålander and Jesper Hedblom. Ms. Ålander is Head of Planning and Design of IT Systems, while Mr. Hedblom is Head of Product Management at the Stockholm office of Telenor Sverige AB.

1.5. Limitations

The primary concession is the result of the limited amount of time that was available for this project. As part of the "Strategic Management of IT" course given by the Royal Institute of Technology (KTH), the authors had a time frame of only five weeks. After building the team, finding a company for the case study, and securing the interviews, there was precious little time left for conducting background research, preparing questions, and – most importantly of all – conducting the analysis.
Secondly, the case study is primarily based on the input of two top managers of Telenor Sverige AB. While the knowledge and insight that they kindly shared was undoubtedly valuable, a more comprehensive case study would have necessitated interviews with more employees – and at varying echelons of the organization. That would surely have consolidated, or perhaps even altered, the findings of the research. Having more readily access to project portfolios and financial figures, such as budget distribution, would also have greatly facilitated our research and led to the drawing of more accurate conclusions.

1.6. Target Audience

This paper is primarily targeted towards providing another case study of business-IT alignment, and it is thus beneficial to the research community and the industry alike. Telenor Sverige AB is not only an important player in the Swedish market, but the Telenor Group is also the predominant group in Scandinavia and one of the major telecommunication groups in the world (Telenor Sverige AB, 2009). That makes this case study even more significant as a source of how the process of aligning business and IT is being managed in today's increasingly information driven world of business.
Furthermore, hopefully this paper can, to some extent, prove useful for Telenor Sverige AB as an external assessment of the level of cooperation between business and IS/IT, or better said between product management and the architectural level in this case. Perhaps the evaluation can provide some indications of what needs to be done in order to promote further the never ceasing process of aligning business and IT.

2. Telenor Sverige AB

2.1 Background

Over 150 years of experience in the telecom industry have led Telenor to its position today as the 7th largest mobile operator in the world. Behind its success is a long story of development, innovation, ambition and strategy. Today, Telenor operates in 12 countries across Europe and Asia, with more than 38,800 employees and 164 million subscriptions. The company offers a wide range of services to private customers and businesses alike, such as mobile and fixed line services, broadcasting, satellite communication, Internet and broadband, as well as other telecom-related services (Telenor Group, 2009).
A critical milestone in the company's history occurred in the year 2000 when Telenor became partially privatized and listed in the stock market, after being government owned for more than 100 years. The need for privatization became even more pertinent after the failed merger between Telenor and the Swedish operator Telia in 1999. In fact, at that time, the status of the two companies as government owned strongly participated in the conflicts between the respective management groups, which led to the termination of the merger within only two months of its formation (Schmid & Daniel, 2009).
Telenor Sverige AB established itself as a mobile operator in 2005 when it acquired the third largest carrier in Sweden, Vodafone Sverige. Prior to that, Vodafone had in turn acquired the Europolitan operator (Telenor Sverige AB, 2009). Telenor's acquisition of Vodafone promoted it as a major player and competitor in the Swedish telecom industry. Moreover, having a good financial status, Telenor Sverige AB adopted an extensive acquisition strategy between 2005 and 2007, which was reflected by its purchase of two Internet service providers: GlocalNet and Bredbandsbolaget. In addition to that, the company includes the television distributor Canal Digital. Through its multiple brands and its wide service portfolio, Telenor Sverige AB has reached its position as the 3rd largest mobile operator and the 2nd largest provider of broadband services in Sweden (Telenor Group, 2009).
In addition to its acquisition strategy, Telenor Sverige AB has built several alliances that enhanced its status and promoted its development. For example, its agreement with DaimlerChrysler Services Fleetboard consists of equipping a large number of European trucks with SIM cards from Telenor, allowing them to communicate over the mobile network. This has effectively confirmed Telenor's leadership in the Machine-to-Machine (M2M) business (Telenor Group, 2009). Another measure taken by the company is to contract Ericsson to integrate its IMS-based Business Communication Suite (BCS) in Telenor's own IMS network, allowing efficient mobile unified communication for business users (Telenor Group, 2009). Furthermore, Telenor Sverige AB has signed a partnership agreement with Finnish telecom company Elisa that involves common development, marketing and support of solutions to large and medium-sized companies in the Nordic market. This agreement entails a common and single contact point for the customers of the two companies, as well as a common business solution in the Nordic region (Telenor Group, 2009).

2.2 Business Strategy

Today, Telenor builds its business strategies around a set of core values, namely simplicity, inspiration, respect and honesty, as well as its vision: "we're here to help". However, as the telecom industry becomes more and more competitive, Telenor needs to take into account several challenges when establishing its business strategies, such as maturing markets, financial instability, pricing pressure, and regulatory issues. Besides the external challenges, the company faces internal challenges, mostly correlated with the continuous changes in the corporate structure resulting from mergers, acquisitions, and expansions. In fact, it has been difficult for Telenor to strike the right balance between centralization and decentralization of its management structure due to the interdependencies between its units and the complexity of its business, which also affects its business strategies (Telenor Group, 2009). Telenor has defined a set of objectives and goals that it wants to achieve within the next two years. The fundamental objective is formulated as:

> *"By 2011, we aim to be one of the fastest growing mobile operators in the world, with a strong broadband position in all markets, successfully developing new services and adopting new and responsible business models."* (Telenor Group, 2009)

As for its goals, Telenor aims first to increase its profits mostly from existing businesses and by expanding to new markets, as well as by focusing on emerging fields such as M2M communication. Another measure that will be taken to increase profit is to adopt benchmarking and best practice sharing within the company, which would help reduce costs and improve cash flow operations. The company also seeks to strengthen the performance culture within the group by promoting decentralized management, combined with a common and shared governance model, which takes advantage of both local approach and global expertise. Furthermore, Telenor has been an active force in fighting climate change as it considers environmental awareness to be a responsibility, but also beneficial to the company in terms of energy saving and limitation of risks. Another key goal for the company is to offer outstanding and unique customer experience by prioritizing the customers' needs and being able to satisfy them. In addition to customer satisfaction, Telenor aims to achieve a competitive advantage by focusing on innovation and promoting change and renewal; in fact, the company is currently targeting five main areas of innovation: broadband outside the Nordic region, M2M communication, financial services, partner-driven innovation, and solutions for the climate change (Telenor Group, 2009).

2.3 IS/IT Strategy

As previously mentioned, Telenor has undergone several drastic changes in its organization and business strategies after its privatization in 2000. These changes were accompanied by specific IT strategies that were implemented to assist and support the company's metamorphosis. In fact, during 2001 Telenor realized that it needs to establish a collaborating and innovative workspace as new markets were entered, new services were provided, and clearly new ways of doing business were adopted. Among the measures taken were the implementation and adoption of an e-learning platform that consisted of twelve modules covering different topics such as "ICT solutions" and "new ways of working". The learning program was mandatory and identical for all employees. The motive behind the e-learning system was to gain competitive advantage by acquiring new skills and knowledge in a faster and more efficient way than its competitors. In addition, the e-learning project was intended to contribute to the transformation of the company from a hierarchical organization to a more decentralized organization (Netteland, Wasson, & Mørch, 2007).

Furthermore, Telenor realized the importance of adopting information sharing to support its expansion strategy. In fact, information sharing helped realize several business goals such as the rapid development of new opportunities, the expansion to new markets, and the consolidation of internal and external value networks. Several tools have been adopted over the years to facilitate information sharing, such as

Microsoft SharePoint, Live Meeting, and Confluence. This has induced a stronger synergy among the group, considerable cost reductions, and an opportunity for more innovation (Allee & Taug, 2006).
Another important issue that Telenor faced throughout its expansion strategy was the lack of automation in its business processes, such as ordering and billing. The problem became evident when the company decided to work with many sub-contractors, as a result of increased competition on cost reduction. With multiple sub-contractors to work with, Telenor could not any longer afford to do the transactions manually, and turned to the business process management solution, TIBCO, to automate the process of case-specific distribution of orders to the most appropriate subcontractor (TIBCO Software, 2007). The benefits of this strategy were demonstrated by a 47% ROI over one year and savings of 7.59 million USD.

3. Application of Information Systems Strategy Triangle on Telenor

As was mentioned before, Telenor adopted a wide expansion strategy between 2005 and 2007, which resulted in the acquisition of four different companies. This business strategy drove changes in the organizational strategy of Telenor as it has undergone several reorganizations. According to Hedblom (Interview on the Business-IT Alignment at Telenor Sverige AB, 2009), in the fall of 2008 the company also merged the business and customer sides, which resulted in even more changes in the organization of the company.
On the other hand, the mergers also had a significant impact on IT, as the newly reorganized organizational structure necessitated unified and shared IT tools. For example, Telenor needed to have one point of contact with its customers in terms of billing and support, which would represent the various brands of the company. According to Hedblom (Interview on the Business-IT Alignment at Telenor Sverige AB, 2009), initially there were three different billing setups, of which two covered the fixed services provided by Bredbandsbolaget and GlocalNet, and one covered the mobile side. After the merger, a large-scale billing migration project was needed and thus promptly implemented by the IT department.
Furthermore, since the mergers, the company has been facing the problem of having its computers connected to three different LANs. As Hedblom (Interview on the Business-IT Alignment at Telenor Sverige AB, 2009) explains, the employees are not able to connect to their desktops from remote locations within the company since the computers are configured to one of Bredbandsbolaget, GlocalNet or Telenor, with varying access to resources. Another problem is that the e-mail servers are still separated among the three companies, which means that the employees can only share Outlook calendars with people on the same LAN. To tackle to those issues, the IT department is implementing several projects to unify the company's infrastructure.
The above examples provide demonstrations of instances where Telenor has been successful in harmonizing its various strategies. The mergers were the result of a business opportunity that was exploited according to the dictates of the company's business strategy. The merging of companies necessitated restructuring of the organizational design – an issue of organizational strategy. To facilitate these organizational changes, changes to the IT strategy, and subsequently to the IT infrastructure, were needed. The IT department has thus, in turn, decided to launch several projects to unify the merged organizations' infrastructures. Such initiatives clearly promote the alignment between business and IT strategies.
Having presented some cases where the ISS triangle has been balanced, we now turn to examining a reverse situation. One of the business strategies that Telenor employs to subdue competition is speed. In fact, as Hedblom (Interview on the Business-IT Alignment at Telenor Sverige AB, 2009) presents it, the time to market of a product or service needs to adhere to the assigned deadline for the project in order for the company to retain its competitive advantage and satisfy its customers. However, Hedblom sees a problem with Telenor's mobile services, as the IT department is unable to handle all projects adequately and needs to rely on consultants at some stage. As a result, a certain project's delay becomes unacceptable, and the company cannot market the product or service as fast as it would like to, which effectively hampers its ability to achieve a competitive advantage. Thus, in this particular case there is an

obvious misalignment between business and IT strategies. This misalignment is currently of priority zero for Telenor (Hedblom, Interview on the Business-IT Alignment at Telenor Sverige AB, 2009).

4. Application of Venkatraman's Strategic Alignment Model on Telenor

4.1 Strategic Fit

In terms of business scope, Telenor Sverige AB offers a wide portfolio of services that are adapted for its corporate and private customers in Sweden. These services have mostly started out in smaller companies that were later acquired by Telenor. As a result, the company itself has a different market positioning for each type of service. According to Hedblom, Telenor is "struggling to find its unique position in the marketplace" (Hedblom, Interview on the Business-IT Alignment at Telenor Sverige AB, 2009), in contrast to its main competitors – Telia, Tele2 and 3 – that already have clearly defined positions. However, each of Telenor's subsidiaries has a more clearly defined market position in relation to its competitors. For example, Bredbandsbolaget had attained product leadership by establishing itself as the highest broadband speed provider. Today, speed is no longer exclusive for Bredbandsbolaget, as competitors have imitated this strategy and are able to provide the similar speeds to their customers. Therefore, Bredbandsbolaget is now defending its position in the market by offering new ways and new functionalities for broadband that the customers can have (Hedblom, Interview on the Business-IT Alignment at Telenor Sverige AB, 2009). Another important thing to mention is that Telenor has for some time been focusing on M2M services, and has managed to achieve a strong position in that domain. M2M and telematics are a major part of the company's processes, and have empowered the governance of Telenor through alliances with other big companies. For example, the company has established an agreement with DaimlerChrysler, which consists of implementing an M2M network between European trucks through SIM cards provided by Telenor (Telenor Group, 2009).

As for the strategic fit between Telenor's business strategy and its organizational strategy, the actual structure of the company must be observed. In fact, Telenor Sweden belongs to the Telenor Group, but – as other subsidiaries – the company has its own management group that can be closely associated with a geographic organization. Moreover, Telenor Sweden has acquired and encompasses several subsidiaries, which initially had their own organizational structures that were rather decentralized. However, as the company is fighting to achieve a strong position in the market, it needed to reduce its costs and to provide a unified point of contact with its customers. As a consequence, Telenor has undergone several reorganizations, with the biggest occurring in the fall of 2008 (Hedblom, Interview on the Business-IT Alignment at Telenor Sverige AB, 2009). This change in organizational design was mainly motivated by the need to align the business with the organizational and administrative structures, and thus achieve a strategic fit that would help the company gain competitive advantage.

Innovative and business-aligned IT strategies will create competitive advantages for the organization. Implementing fast and timely strategic fit between IT strategy and IT infrastructure is a challenge for most of companies, including Telenor. In implementing its e-learning system, for instance, one of Telenor's main challenges resulted from slow changes to the needed infrastructure in order for employees to be able to start working on the system (Netteland, Wasson, & Mørch, 2007).

4.2 Functional Integration

At Telenor, in terms of functional integration, IT is primarily seen as an enabler, and to some extent a driver, of business processes and strategy execution (Ålander, 2009). In the following section, the functional integration between IT and business, both in the external domain – i.e. the alignment between business strategy and IT strategy – and the internal domain – the support provided by the IT infrastructure to the organizational structure – is described along with its implications. As IT is primarily employed as an enabler, IT will be used as the starting point to see how it supports the analogous components on the business side.

On a strategic level, IT should support and enable the business strategy through appropriate scope, unique competencies, and effective governance. In terms of scope, Telenor's self-service customer portal is an example of a critical IT system that was developed to reduce the burden on its call centers, and to enable new, personalized services for the customers (Accenture, 2009). This customer support application plays a critical role in supporting the scope of Telenor's business. In terms of competencies, Telenor in the year 2000 decided to employ e-learning systems. This systemic competency was leveraged to enable and enhance Telenor's business competencies – including the ability to keep costs low – and to enable Telenor's staff, to learn faster than its competitors (Netteland, Wasson, & Mørch, 2007). Finally, in terms of governance, Telenor has formal steering committee meetings regularly and shares risks across IT and business partners. Every six months, IT and business management have an overall steering committee meeting where the IT group presents the costs and the committee decides upon prioritizing and investing on IT projects (Hedblom, Interview on the Business-IT Alignment at Telenor Sverige AB, 2009). Telenor has a steering model – a 'road tracking model' – which management uses to define resources, and to prioritize, plan and define IT programs (Ålander, 2009). Furthermore, by having the CIO as an active member of the corporate management team, Telenor are attempting to ensure that strategic choices by business and IT remain explicitly linked.

On an operational level, the IT infrastructure needs to support the organizational infrastructure. In terms of IT architecture, it is currently not supporting the organizational structure adequately since it has not been integrated on an enterprise-wide level. They have shared access points and other, similar, means of integration; however, there remain considerable issues, such as the existence of multiple LANs. Attempts of enterprise-wide integration are being undertaken and will be achieved in due course. A successful example of this has been the merging of different customer billing systems, such as those of Bredbandsbolaget and GlocalNet. Such initiatives clearly aim to support the organizational structure. In terms of processes, functional integration is also being pursued actively. As one of the key business managers at Telenor, Mr. Hedblom (Interview on the Business-IT Alignment at Telenor Sverige AB, 2009) explains, on the operational level, IT staff work closely with business staff in order to build effective systems for supporting business processes. Finally, in terms of skills, both IT and business staff are trained to work in cross-functional teams, and to be able to take inter-unit roles on demand.

5. Application of Luftman's Strategic Alignment Maturity Model on Telenor

Communication

The most important indicator of alignment in communication between IT and business is whether business managers perceive IT as a strategic business partner. Telenor's communication maturity alignment is assessed to level 3. IT management at Telenor has a reasonably good understanding of IT; however, Telenor's business manager sees the IT department only as a service provider for the company (Hedblom, Interview on the Business-IT Alignment at Telenor Sverige AB, 2009). Business awareness within IT is facilitated by business analysts and the IT enterprise architectures group who are responsible for translating business needs to IT staff. Senior level managers are aware of the importance of IT, and the CIO, Krister Skålberg, is an active member of the corporate management team. Also on the operational level, in implementing IT projects, there are cross-functional teams where IT and business staff work closely together. In the mid-level management level, however, communication of strategy is more on an ad-hoc basis with no formal and regular meetings (Hedblom, Interview on the Business-IT Alignment at Telenor Sverige AB, 2009). Recently, Telenor has been improving this aspect by placing more emphasis on formal IT-business meetings, which take place once every quarter (Ålander, 2009). Moreover, business managers have been asked to work closer with IT unit staff: to co-operate and to consider their opinions and ideas regarding strategy and projects (Ålander, 2009).

Other important factors in communication maturity are the learning and knowledge sharing processes between IT and business staff. Telenor has been improving its learning and knowledge sharing strategies by implementing an e-learning system (Netteland, Wasson, & Mørch, 2007). Telenor has a reporting system for projects that keeps track of knowledge, skills and time that employees work on business programs (Hedblom, Interview on the Business-IT Alignment at Telenor Sverige AB, 2009).

Competency/Value Measurements

Like many other organizations, Telenor's IT unit is struggling to demonstrate its value in terms that business understands. Telenor's competency/value measurement maturity has thus been assessed to level 2+. As Mr. J Hedblom (Interview on the Business-IT Alignment at Telenor Sverige AB, 2009) explained, there are no service level agreements for internal IT projects. Technical reports are mostly based on the performance of individual pieces of hardware and software, including measurements such as uptime. Hedblom would prefer to measure "the actual service distributed to the customer", which would entail adding up the chain of hardware and software that make up the service. Moreover, Ms. H Ålander (Interview on the Business-IT Alignment at Telenor Sverige AB, 2009) said that at Telenor Sverige, where different companies have been merged together, the main competency of IT lies in making business processes more efficient.

Governance

IT governance maturity emphasizes the importance of formal and regular meetings to prioritize and allocate resources for IT projects. At Telenor, the CIO is a member of the corporate management team, which is responsible for planning the overall strategy. On the architectural level, IT is mainly responsible for translating business strategy into IT strategy and technical requirements (Ålander, 2009). IT still has a limited strategic planning role and it is seen by some parts of the business as a cost center in the company (Hedblom, Interview on the Business-IT Alignment at Telenor Sverige AB, 2009). Telenor's governance maturity level is notwithstanding this assessed to 3+ due to the high level of cooperation at the senior management level. Furthermore, the reporting system at Telenor is federal, where the CIO reports directly to the CEO. The frequency of steering committee meeting depends on the project complexity. An overall steering meeting takes place every six months, where top management re-evaluates its strategy and decides on the implementation steps to achieve its strategic goals (Hedblom, Interview on the Business-IT Alignment at Telenor Sverige AB, 2009). Telenor has a steering model – a so-called 'road tracking model' – which they use to define resources, as well as to prioritize, plan and define IT programs (Hedblom, Interview on the Business-IT Alignment at Telenor Sverige AB, 2009).

Partnership

The relationship maturity between IT and business is an important enabler for the alignment process. Telenor is assessed to level 3+ due to its recent endeavors to improve the partnership between IT and business. The score is kept down since business still sees IT as cost of doing business. Although IT should be an enable – and potentially a driver – of business strategy in order to provide competitive advantage for the company, Telenor currently faces some problems in its execution of IT projects. For example, in mobile services, there is a lack of clear and structured processes, and deadlines are not adhered to. This constitutes a big business risk for Telenor, as such IT projects are more of an inhibitor than an enabler for the business (Hedblom, Interview on the Business-IT Alignment at Telenor Sverige AB, 2009). While, interestingly, according to Ms. Ålander, IT is an enabler and sometimes even a driver of business process innovation. For example, in merging companies, IT projects can drive business process change to make the business more efficient (Ålander, 2009). These two contradictory views of IT and business partnership illustrates that IT and business lack something in terms of their relationship in the company (Ålander, 2009).

Scope and Architecture

This criterion defines to what extent IT can be integrated at varying levels of the organization: functional, enterprise or inter-enterprise. Telenor achieves level 2+ in scope and architecture maturity, as ERP systems are employed within the organization (Ålander, 2009); however, the integration is predominately achieved through shared access points to folders and by filling in various reports. Another nuisance is presented by the existence of multiple LANs, one for each operation, forcing higher-level managers responsible for more than one operation to shift frequently between them in order to gain adequate access (Hedblom, 2009). As Telenor has merged four different companies, the subsequent integration of the different systems has been, and remains, an important responsibility for Telenor's IT department. Telenor is currently working to achieve enterprise level integration. For instance, Bredbandsbolaget and GlocalNet had different customer billing systems, which Telenor decided to merge in order to promote enterprise-wide consistency (Ålander, 2009).

Skills

Skills maturity involves all human resource considerations, including innovation, entrepreneurship, change readiness, cross-functional responsibilities and education, as well as the organization's social and political environment. Telenor is assessed to level 3+ in terms of skills maturity. Telenor's management promotes informal discussions and makes decisions primarily based result consensus. The company's power has traditionally resided in the functional units, but recently the company's power has shifted and started to emerge across the organization. Telenor encourages career crossover outside the top management level and across the functional organization. IT and business staff are ready to take new responsibilities within both IT and business departments. For encouraging innovative ideas in the IT department, enterprise architects along with domain architects are responsible for discovering new ideas. Telenor's three levels of innovation are: business innovation, social innovation, and technology innovation. The social innovation level emphasizes the employment of social innovation, such as global teams and communities of excellence (Netteland, Wasson, & Mørch, 2007). As Mr. Hedblom (Interview on the Business-IT Alignment at Telenor Sverige AB, 2009), business manager at Telenor, explains, business staff is being trained and educated to maintain closer co-operation with the IT department.
A detailed outlook of the attributes of each criterion is available as Appendix E.

CRITERION	ASSESSED LEVEL
COMMUNICATION	3
COMPETENCY/VALUE MEASUREMENTS	2+
GOVERNANCE	3+
PARTNERSHIP	3+
SCOPE & ARCHITECTURE	2+
SKILLS	3+

Table 1 Telenor Sverige AB placed on an alignment maturity scale

6. Application of McFarlan's Strategic Grid on Telenor

Although this research did not include a detailed analysis of Telenor's project portfolio, the interviews with Ms. Helene Ålander, Head of Planning & Design of IS/IT, and Mr. Jesper Hedblom, Head of Product Management, gave some indications as to Telenor's current position on the strategic grid. Telenor has four overarching programs within IS/IT in which IT projects are grouped. Two of these are dedicated to new products, while the other two dedicated to support business processes and administration. Without knowing how the budget is spread across these programs, this would ostensibly indicate that IT has a strategic value in addition to its more traditional supportive role. Ålander also contends that this is the case, and she did not wish to say that IS/IT has a greater impact on business operations than on business strategy (Ålander, 2009).

Another factor indicating the appropriate position on the strategic grid is with whom the responsibility for designing, implementing and managing IT initiatives lies. On the strategic level, the responsibility appears to rest solely on IS/IT, with the business strategy merely being one of the inputs - albeit a very important input. On the architectural level, there appears to be closer cooperation between business and IT, with workshops as a means for business goals to be communicated to IT (Ålander, 2009). However, it still seems to be a matter of business strategy driving IS/IT initiatives rather than vice versa.

To get a more comprehensive picture of the de facto workings, it is also necessary to consider the perspective of business. According to Hedblom (Interview on the Business-IT Alignment at Telenor Sverige AB, 2009), IS/IT has a certain level of impact on business strategy at the top level, as the CIO, Krister Skålberg, is part of the corporate management team. As of yet, there is however nothing formal set up on a strategy level in order to promote business-IT alignment – this is supposedly in the process of being done. On the architectural level, communication is predominantly done on an ad-hoc basis. This communication is mostly one-way, where product managers ensure that the architectural teams are meeting the business needs. On the project level, there are often cross-functional teams working together. Hedblom believes that communication between IT and business has improved in the past six months; in fact, this was one of the tasks that were given to him when he joined Telenor.

Interestingly, in contrast to Ålander, Hedblom perceives IT as a cost rather than a strategic asset, although he recognized its potential as the latter. In fact, on the mobile side, Hedblom showed concern about the inability of IT to support adequately 'time to market': he labeled this issue one of Telenor's currently largest business risks. To some extent, he thus views IT as constituting a limiting factor when it comes to strategy execution. An ongoing discussion is taking place between product management and IT regarding this issue (Hedblom, Interview on the Business-IT Alignment at Telenor Sverige AB, 2009).

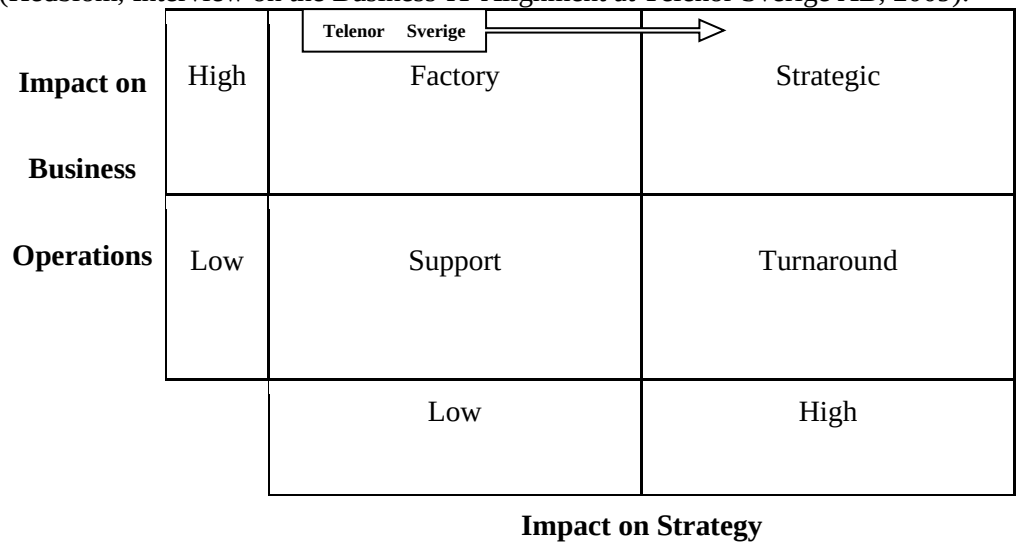

Figure 1 Telenor Sverige AB placed on McFarlan's Strategic Grid

In light of these comments, IS/IT at Telenor is arguably still best placed in the factory quadrant of the strategic grid. The impact of IT projects on business operations is - as would be expected from a telecom company - high, and cross-functional teams are often responsible for designing, implementing and managing those projects. As a more formal forum is in the process of being set up to promote further alignment of business and IS/IT, and as business seems to recognize the potential of IT to act as a strategic partner, it will in due course be able to move into the strategic quadrant.

7. Conclusions

Telenor Sverige AB has demonstrated awareness of the need to align IT with business through the many initiatives it has undertaken recently in the endeavor of further promoting this process. It realizes the potential of IT as a strategic partner in an increasingly competitive and turbulent market, although it is still primarily perceived as an enabler. The fact that the CIO, along with other senior IT executives, are part of the corporate management team, and thus has a say in strategy planning, is a good indicator of this. The architectural teams are dedicated to ensuring the effective communication of business strategy to IT – a requisite for successful alignment. This communication and cooperation process is further facilitated on the operational level by frequent employment of cross-functional teams. Moreover, senior managers, such as Jesper Hedblom, Head of Product Management, have been asked to work closer with IT.

That said, it should be noted that complete alignment is a never ceasing endeavor rather than an attainable objective. Telenor, like many other information intensive firms, are struggling with this. This fact is primarily manifested by the dissimilar perceptions of IT in the organization. According to Helene Ålander, Head of Planning and Design of IS/IT, the role of IT is both to support business operations and to exploit strategic opportunities. This view is not mirrored by Jesper Hedblom, Head of Product Management, who views IT as primarily constituting a cost of doing business. Mr. Hedblom was concerned with the inability of IT – on the mobile services side at least – to adhere to project deadlines, thus hampering its 'time to market' abilities.

Some of the difficulties that Telenor is currently facing stem from the fact that it has fairly recently become a conglomerate as a result of its aggressive acquisition strategy. The merging of numerous companies, each with their own business strategy, organizational design and information systems, is a daunting task. The integration process is well underway, with the successful integration of several disparate billing systems serving as testimony to that. Enterprise-wide integration has, however, not been accomplished yet.

The various theoretical models and frameworks that were applied on Telenor confirmed many of the above findings. For instance, when Luftman's maturity model (section 5.2) was applied on Telenor, the organization was assessed to level 3 – on a scale from 1 to 5 – in terms of strategic alignment maturity between business and IT. This level indicates that the organization has an established process for aligning business and IT. To reach a higher level, Telenor is advised to, for instance, employ balanced metrics, where business managers can measure IT project results not only on a unit level but also on a service-to-customer level.

On McFarlan's strategic grid (section 6.2), Telenor was positioned in the factory quadrant, while showing signs of moving into the strategic quadrant in due course. This indicates that IT has a large impact on business operations, but less so on strategy. Perhaps further empowerment of IT will speed this process along and effectively allow Telenor to move into the strategic quadrant.

8. Further Research

As of yet, in-depth research has not been conducted on Telenor's business-IT alignment due to limitations imposed on the authors. Further research could follow many paths, perhaps using the work presented in this paper as a basis. Two complementing issues would be of particular interest.

Obviously, one direction would be to deploy better means of investigating Telenor's fit into the theoretical models. Having the possibility to interview two key managers, one from the business side and one from the IT side of Telenor, provides a very solid outlook, but not a complete view. Strategies are always initiated at the top level of the company, but strategies are coordinated and managed at the next levels as well, leaving room for important details to be concealed. Research needs to be done on the entire project portfolio to determine the de facto role of IT, its impact on business operations versus strategy. Furthermore, it is not only the vertical perspective of Telenor that needs to be addressed, but also the horizontal. Our research could be aided further by interviewing other top managers at Telenor Sverige AB, like the Infrastructure Manager, presently Magnus Zetterberg.

Theory has predominantly sprung out of observations and inferences from case studies. In other words, there will always be theoretical aspects that are modeled for the first time or remodeled based on what reality shows. Therefore, one key aspect of future research would be to think out of the box and see which innovative methods and processes does Telenor Sverige AB employ that could shape new concepts regarding the alignment between its business and IT strategies. More empirical studies need be conducted and Telenor Sverige AB fits this placeholder of analysis to a large extent due to its recent acquisitions and the experience of the Telenor Group.

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