Business IT Alignment

and a Market Orientation

How business and IT could be aligned when implementing a Market Orientation

A final thesis in order to receive the academic degree

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This thesis is dedicated to

Els Kouwenhoven

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Abstract

Implementing a market orientation involves changing both business and IT in an organisation. A condition is that both business and IT need to be aligned to be effective. Therefore the aim of this thesis is to create a deeper understanding of the business IT alignment process of Dutch publishing houses when implementing a Market Orientation.

A theoretical foundation based on the concepts of market orientation, information technology and business IT alignment is created. However, this framework is too declarative and only answered "what can be aligned". Therefore it was extended with possible strategy implementation models and it was decided to use Archimate to make detailed snapshots of the alignment process and its outcomes to business and IT over a longer period in a exploratory case study.

A pilot and main case study were conducted at Dutch publishing houses, respectively IDG Nederland and Sdu Uitgevers. Data was collected by conducting interviews and gathering documentation covering an extended period of time (i.e. the transition).

It can be concluded that the Archimate modelled snapshots gave a clear insight in the strategy implementation pattern. A collaborative and incremental implementation model was found. The incremental changes made a "Strategy execution perspective" as the primary alignment perspective. Two cycles of improvement were defined. One that improves the organisation (i.e. business and IT) and another that improves the alignment process itself. Based on the findings, an implementation framework is created, presenting an approach to implement a MO.

Keywords: business IT alignment, information technology, market orientation, strategic marketing concept, Archimate.

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Chapter 1   *Introduction*

The aim of this thesis is to *create a deeper understanding of the business IT alignment process of Dutch publishing houses when implementing a Market Orientation.* In this chapter, first of all, the background of the research is given to clarify the reason for this thesis. Secondly, the research question is derived from the research problem to indicate the purpose of the thesis. Thirdly, the academic and managerial relevance is given to justify the execution of the research. Finally, the structure of the document is given to provide a reading guide.

1.1 Research Problem

Let me introduce the case of the commerce department manager working at a large firm which has recently adopted the strategic marketing concept and starts thinking about implementing a MO. He wants to increase the amount of (qualitative) market information collected by sales and marketing employees. The reason he want this, is to be able to have a more customer focused marketing strategy and product development. In addition he wants to have this information disclosed through the existing intranet to make sure all employees are reached. This intranet has been around for a while and is normally used to inform employees on business events and provide document templates. The IT department is involved with high end IT projects, but these projects are all externally focused projects. How should this manager of the commerce department approach this situation? How should he change the business and also have the IT department involved? He needs their involvement because without the correct IT systems he will not be able to disseminate the market information through the organisation. Therefore this organisation not only needs to design the business structure and processes but also the IT domain (i.e. IT architecture and processes) of

the organisation. Both domains need to be aligned to effectively implement a Market Orientation (MO).

This fictive company is not the only company confronted with this problem. The strategic conception requires a shift in focus towards building customer relationships as a means to gain a position of competitive advantage. This implies an adaptive organisation, which is capable of changing to adapt to the needs and wants of the customer. This concept assumes "*that achieving organisational goals depends on determining the needs and wants of target markets and delivering the desired satisfactions more effectively and efficiently than do competitors*" (Kotler & Armstrong, 1999b, p. 14). This presupposes a fundamental *outside-in orientation* of the business, marketing academics have now however, redirected attention to the concept of market orientation as the implementation of the strategic marketing concept (e.g. Kohli & Jaworski, 1990; Narver & Slater, 1990). Kohli & Jaworski define marketing orientation as "*the organisation-wide **generation** of market intelligence pertaining to current and future customer needs, **dissemination** of the intelligence across departments, and organisation-wide **responsiveness** to it*" (Kohli & Jaworski, 1990, p. 6). This implies that changes have to be made to the organisation's business processes and structure in order to increase the market orientation.

Ever since the 1970s, the generation and, dissemination of market intelligence and the value creation (i.e. responding), have been related to information and communication technology (IT), consisting of equipment, applications and communication facilities (Looijen, 2001). When the strategic marketing concept was conceived, companies tried to realise sustainable competitive advantage by determining the needs and wants of target markets and delivering the desired satisfactions more effectively and efficiently, the developments in IT were following each other rapidly. One of the most important roles for IT is supporting the management of the market intelligence by setting up and integrating databases to manage the information within a business process and to be able to share information. Day (1994a) argues that IT in the context of MO can

have an especially useful role in the organisational memory (i.e. IT support for the organisation, maintenance and accessibility of market intelligence). However, it is stated by Rockart (2004) most focus is on transaction processing systems (e.g. enterprise resource planning systems) and significant less on the information provision. He argues that "*information is still in islands although data warehouses are growing. The pieces are not linked to effectively serve the organisations needs. There is little top-down activity aimed at seizing the opportunities provided by effective design and use of information*" (p. 1). This lack of alignment between business and IT is illustrated by Raaij (2001) who argues that when implementing MO the organisational storage of market intelligence is often neglected in all cases.

It could be concluded that an organisation implementing a market orientation needs to align both business and IT domains when implementing a MO. Only in this way will IT effectively support the collection and management of market intelligence *and* make IT related business development market focused. The process responsible for the alignment of the business and IT is often referred to as *the business-IT alignment process* (Cumps, Viaene, Dedene, & Vandenbulcke, 2006). The business-IT alignment process can be described as the process involving management and design processes interrelating all components of the business – IT relationship (Luftman, Papp, & Brier, 1999). Henderson & Venkatraman (1993) states the components related are the business strategy, the IT strategy, the business infrastructure and the IT infrastructure. "*These components or domains although important in their own context, they only gain value when employed as a cohesive whole*" (Papp, 2001, p. 3).

This brings us to the main question: *how does one align business and IT when implementing a MO?* Many of the current models describing the process of aligning business and IT, can be determined as prescriptive. They describe the structure of what to align, but give less insight in the current process. Also the enablers and inhibitors of the alignment process (e.g. Luftman, 2003; Luftman et al., 1999) only give a list of organisational elements that influence the outcome of the

alignment process in a positive or negative way, but do not give insight in the actual process of how to aligning business and IT over a period of time.

1.1.1 Context of the Research Problem

At the present time, the publishing sector is one of the most dynamic economical sectors in the Netherlands. With the advent of IT the old business models, which remained unchanged for years, have been under pressure. With an increasing amount of information directly published on the Internet, the possibility of adding value by simply bundling information and publishing has diminished. Many publishing houses are, therefore, looking for other ways to stay successful in the future.

Publishing houses are now trying to follow the information consuming patterns of target markets. Because a more long term focus is desirable, the ultimate objective of publishers is to go from a re-active or customer-led to a more proactive market orientation (Slater & Narver, 1998). In their attempt to satisfy the needs and wants of the target market, large international publishers are executing an acquisition strategy and form coalitions. Smaller publishing houses are trying to satisfy the smaller niches coming into existence because of the changing needs. The general focus point of these strategies is to be able to deliver information with high value and superior service for target markets. These changes on the publishing market interfere deeply with the product orientated organisation of many publishing houses.

In addition to making a shift to a market oriented organisation, publishing houses need to make a shift from dedicated folio production to online publishing products. KPMG concluded that knowledge of the potential and possible use of IT for value creation is increasing (Huibers & Timmers, 2005). The paper copy slowly looses from the digital copy. As a result, publishing houses should increase knowledge of the information function of different technologies in relation with target markets and its information consumption patterns. After the hype around the potential of IT,

publishing houses now make an effort to use well considered IT instruments to inform specific target groups. Current trends in product portfolios and distribution are: paid information services on the internet, RSS feeds, video streaming and databases with information to offer customized information. The trend evolve/ move fast and are becoming increasingly important.

Most publishing houses are at the beginning of transforming to MO organisations. They are beginning to pick up on the fast changing trends (market and IT) which maybe will give them the edge over the fierce competition. As no other they are facing the problem of how to align Business & IT.

1.2 Research aim and objective

It can thus be concluded from the research problem and from the context of publishing houses the aim of the research is *to create a deeper understanding of the business IT alignment process of Dutch publishing houses when implementing a MO*. The objective of this research is to create insight in how business and IT could be aligned when implementing a MO.

1.3 Relevance

1.3.1 Managerial

As mentioned before the need for many publishing houses to implement a MO is relatively large. Many publishing houses in 2005 stated that they will transform to a market oriented organisation in the coming years. The expectation for 2007 was that 70% of the publishing houses in the Netherlands are trying to be market oriented and are transiting towards a market orientation (Huibers & Timmers, 2005).

In the market-orientation concept three keystones will lead to create greater customer value via the building and maintenance of core capabilities (Slater & Narver, 1994b). *Firstly*, customer service should be exceeding the customer's expectations. The costs of keeping a customer are only a

fraction of the costs made acquiring a new customer. Therefore, after sales contact and the measuring of satisfaction are very important. *Secondly*, the quality of the product is driven by customer satisfaction. All functions in the company should be coordinated to ensure the quality. *Thirdly*, innovation is being conceived as an important core capability. Market orientation is seen as the driver for innovation. This is in contrast with the opinion that innovation is technology driven. Concluding, the three keystones result in higher customer value by improving customer service, quality and innovation, see Figure 1-1.
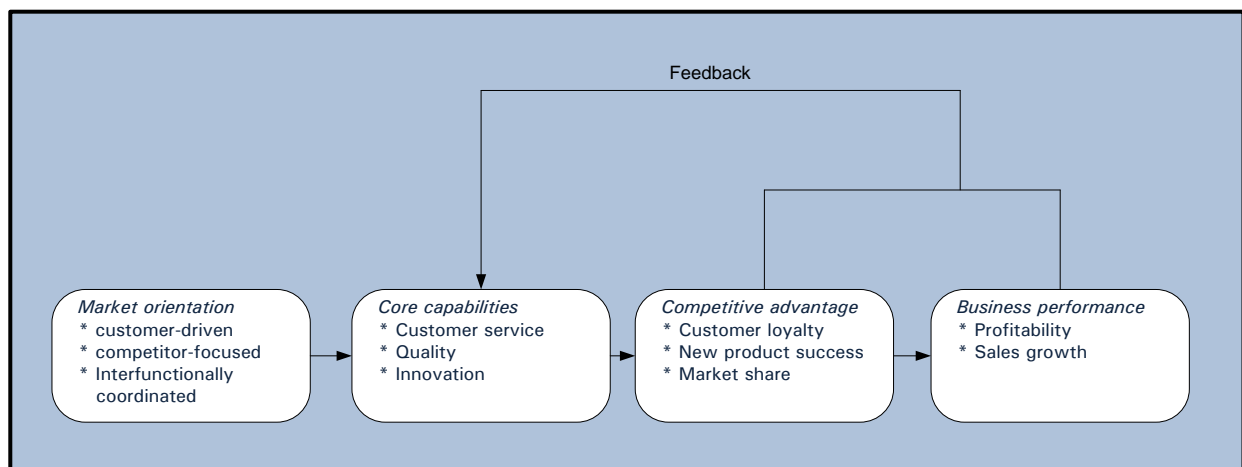
Figure 1-1. MO, competitive advantage and business performance Slater & Narver (1994b).

It can thus be concluded that the managerial relevance of this research can be found in the fact that more insight in the alignment process can help positively affect implementing a MO and thus increasing business performance.

1.3.2 *Academic*

Academics have focused on the marketing concept since the 50's and have conceptualized it ever since (Barksdale & Darden, 1971; Drucker, 1954; Houston, 1986; Levitt, 1960; Webster, 1988). With the conception of the MO concept the first focus was on the definition of the concept of the market orientation. Next, the performance and modelling issues of the MO were researched. Finally

the implementation of MO was given attention (e.g. Day, 1999; Narver, Slater, & Tietje, 1998). Raaij (2001, p. 6) describes several quotes from influential articles stating the relevance of further research in the context of the implementation of a MO. Below are some examples:

- *"The most important question to practitioners becomes, 'how does one increase and sustain a market orientation'"* (Narver & Slater, 1990, p. 34).

- *"Conduct in-depth studies of a few organisations engaged in the change process so as to better understand the factors that influence the initiation and implementation of change efforts directed at improving the market orientation of a business"* (Jaworski & Kohli, 1993, p. 65).

- *"A lot more work has to be done in coming up with practical suggestions for enhancing market orientation"* (Jaworski & Kohli, 1996).

This research would contribute to the research done on how to implement a OM by describing this from a business IT alignment process perspective. This is relevant because it helps understand the process of implementing MO.

In addition this research focuses on the alignment process itself. Research on the alignment process is still widely executed. This research can help scholars researching the alignment process to assess enablers and inhibitors of the alignment process currently advocated or help understand the usage of the currently used somewhat prescriptive models as the Strategic Alignment Model (SAM) (Henderson & Venkatraman, 1993). It is suggested by Wehmeyer (2005) that more research is needed in the specific domain of strategic marketing and business-IT alignment process and the use of the Henderson & Venkatraman's SAM for this domain.

1.4 Methodology

Research is an organized and systematic way of finding answers to questions. The question asked in this research is: "*how business and IT could be aligned in a Dutch publishing house when implementing a Market Orientation*". To find the answer to this research in an organized and systematic way, a body of practices, procedures, and rules in the form of a methodology is described in this paragraph.

The research philosophy, describing the relationship between the data and the theory at a philosophical level, is described in the subparagraph 1.4.1. This relationship is important to understand the choices made in the steps of the research design. The research design, providing insight in the methodology and gathering of data, is described in the paragraph 1.4.2. The objective is to explain and outline the plan of how the research objectives are going to be completed.

1.4.1 Research Philosophy

The research methodology at a philosophical level describes the relationship of data and theory in a research. Understanding of the relation between theory and the data in the conducted research is important for three reasons (Easterby-Smith, Thorpe, & Lowe, 2002). *Firstly*, it can help clarify the research design. *Secondly*, it can help recognize what research designs work and don't work. *Thirdly*, understanding can help selecting or adopting designs that were outside the experience of the researcher.

Easterby-Smith et al. (2002) suggest the two generally accepted descriptions of positivism and social constructionism, that can best be used to describe the contrasting views on how social science can be conducted. To further explain the philosophy of this study, first the implications of positivism and social constructionism on the research methodology, adapted from Easterby-Smith et al. (2002), Hughes (1997) and Saunders et al. (2007) are described in Table 1-1. Implications of Positivism and Social constructionism.

Table 1-1. Implications of Positivism and Social constructionism.

	Positivism	Social constructionism
Methodological	Quantitative research focused on hard data gathered trough structured questions and statistically valid measurement. Thus generalization is done trough statistical probability or theoretical abstraction.	Qualitative research focused on deeply describing people, their behaviours, experiences, interpretations and their environment
Value freedom	Social entities exist in a reality external to social actors and objective criteria are used to describe the phenomena	Social phenomena are created from the perceptions and consequent actions of those social actors concerned with their existence. Thus human beliefs and interest are used when describing the phenomena.
Explanation	Explaining is done by identifying causal or external explanations and fundamental laws on human behaviour	Aims to increase general understanding of the situation in which is explained why people have different experiences
Theoretical concepts	Concepts are operationalized measurable.	Incorporate stakeholder perspectives.
Independency of the researcher	The researcher should be independent.	The researcher is being part of what is researched.
Belief in reductionism	Problems are better understood if they are reduced to the simplest possible elements.	Focusing on the phenomena as a complex whole will lead to better understanding.
Research progression	Proclaims deductive reasoning, which embraces several steps (Robson, 2002). Firstly a hypothesis is deduced from theory. Next, the hypothesis is expressed in operational terms, followed by the test of the operational hypothesis. The outcome is examined and finally if necessary modified in the light of the findings.	Proclaims inductive reasoning, which is development of propositions from the analysis of rich data gathered. This is the inference of a generalized conclusion from particular instances and the opposite of reductive reasoning.

The traditions described above are, however, only two contrasting stereotypes. "*The practical reality is that research rarely falls neatly into only one philosophical domain*" (Saunders et al., 2007, p. 116). In this project a more pragmatic approach is chosen, combining the elements of the extremes to describe an integrated research philosophy with a favour towards social constructionism:

1) It is believed a qualitative approach is most appropriate because this research is not focusing on causal explanations of variables, but on insight in organisational factors by deeply describing the people, their behaviours and their environment.

2) The domain of the strategic alignment process and the domain of a market orientation are broad and touch many different aspects. It is believed that the freedom of the researcher to determine what and how it is studied, is the most effective approach to conduct an academic relevant research.

3) Although a more social constructionism based philosophy is adopted in this research, it is not believed that one can only aim to increase general understanding of the situation by explaining why people have different experiences. It is believed that a focus on what people, individually and collectively are thinking and feeling is not an appropriate approach for this research. This way culture, cultural belief and other social aspects, which are social constructionism constructs, are excluded.

4) The concepts of this research are not made measurable because this is not necessary or wanted for this qualitative research.

5) In line with the belief that a qualitative research more suitable, it is believed that being part of the researched publishing house is much more informative because it is believed best understanding of the phenomena is gained through detailed knowledge of the phenomena by observing it in its natural context.

6) To be able to give a clear answer to the research question, it is believed that observing the phenomena as a complex whole is more appropriate to give insight in the alignment process and its outcome than observing it from a reductionism perspective. Because the alignment process and its outcome is widely spread and integrated in the processes the organisation, it is not believed that this should be seen as a system that can be reduced to simple elements, because only when observing as a complex whole can an answer be given to the research question. However, some restraint should be taken not to observe from a pure holistic perspective.

7) It is believed that this qualitative research can best answer the research question with an inductive approach for two reasons. First of all, although from the existing literature some propositions can be deduced, describing the general relationship between organisational factors, the alignment process and its outcome, it is believed that with inductive reasoning more insight can be given in the complex working of the alignment process. Secondly, this qualitative research can best answer the research question with an inductive approach because the research context is relatively uncharted and relative little theory is available to deduce hypotheses.

It can be concluded that the purpose of this research, is to research Dutch publishing houses and examine the organisational factors contributing to the alignment of marketing intelligence activities and IT. The theoretical framework is used to create a context and scope of relevant theory to explore the alignment process and its outcome. The qualitative data gathered will provide insight in the enablers and inhibitors of the alignment process and the aligned or misaligned outcome of this process and demonstrate external effects. As a result of this research hypotheses can be induced for further research.

1.4.2 Research design

"The research design is the logical sequence that connects the empirical data to a study's initial research questions and, ultimately, to its conclusions" (Yin, 1994, p. 19). This paragraph therefore describes the research design to provide insight in the methodology and gathering of data.

Purpose

Several research purposes (or motivations) for a research can primarily be distinguished as exploratory, descriptive, and explaining (Saunders et al., 2007). Because, the precise nature of the problem is unsure and the purpose of the research is to clarify the understanding of the research problem, the exploring purpose seems most fitting. This type of research helps to find out what is happening and to seek new insights. It can be concluded that the purpose of this research is to *explore* how business and IT could be aligned in a Dutch publishing house when implementing a MO.

Research strategy

Several research strategies can be used, namely an experiment, a survey, a case study, an action research, a grounded theory, an ethnography and an archival research (Saunders et al., 2007). The research question to be answered with the research design described below is: "*how could business and IT be aligned in a Dutch publishing house when implementing a MO*". To answer this question a case study as research strategy is chosen first because of all the boundaries between the phenomenon and context are not clearly evident (Yin, 1994). Robson (2002, p. 178) defines a case study as "*a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence.*" In addition, a case study is appropriate because this research is based on a "how" question, it is focused on contemporary events and requires no control of behavioural events (Yin, 1994).

In addition, Yin (1994) argues that an case study can be a single case study or a multiple case study. This research is focused on the exploration of a Dutch publishing houses. It is not certain a

final framework of the study can be created in one instance. Therefore a pilot case study will be done first to finalize the framework. After the pilot case study a single case study will be conducted. It is also argued the study can be holistic or embedded. This case study will focus on a single unit of analysis and will not define more than one unit of analysis. Therefore a holistic single case study strategy is chosen.

Time horizon

Saunders et al. (2007) describes two types of time horizons of a research namely the cross-sectional and longitudinal. Because the time reserved for this research is limited[1] and the research question does not require a longitudinal research, a cross sectional approach is in favour to research the phenomena. However, because business and IT is not aligned in one moment, the study will focus on evidence from a longer period of time that could give insight into the alignment process overtime.

1.5   Thesis outline

In this paragraph the outline of the thesis will be described to give the reader a guideline for the research. Chapter one describes the research proposal. The conceptual foundation of the research is described in chapter two. Chapter three describes the case design. Chapter four describes the pilot case study and the implication for the conceptual foundation and case design. Chapter five describes the actual case study. The results are analysed in chapter six. Finally, in chapter six the results are discussed and possible use for further research is discussed. Figure 1-2 outlines this in a schema:

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[1] At the start of the research a six to seven month period was reserved.
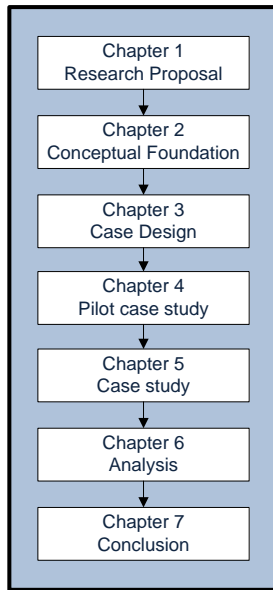
Figure 1-2. Thesis outline.

Chapter 2   *Theoretical framework*

To help create insight in how business and IT could be aligned when implementing a Market Orientation (MO) a solid framework is needed . To serve as an instrument the framework should included the necessary theoretic concepts.

First of all, a foundation will be determined consisting of the MO activities and managerial actions to implement a MO. Secondly, as this study focuses on the alignment of business and IT, a foundation needs to be created on how IT can support and enable MO. A final requirement is that the MO and IT foundations must be placed within a framework to relate business and IT changes to each other.

2.1 *Market Orientation*

To be able to describe the changes made to the business domain to implement a MO, first of all a *definition* of MO is needed. Secondly, the *activities and processes* executed in the organisation by organisational roles that are relevant need to be defined. This makes it possible to define a scope. Thirdly, the *managerial interventions* to implement a MO, are needed to describe the design and planning process or in one word the alignment process. Below an overview of the intended framework and the order of steps:
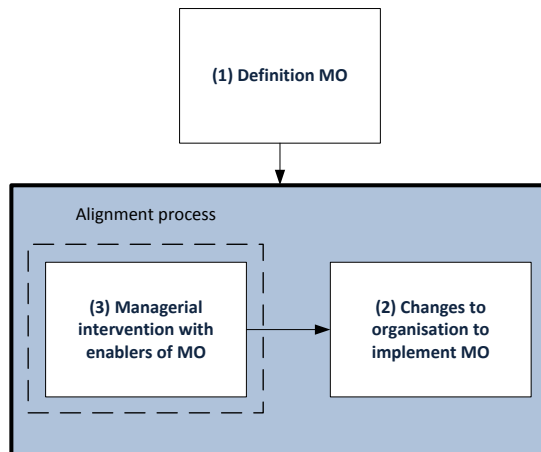
Figure 2-1. MO framework to develop.

2.1.1 Definition of MO

To create this foundation first the concept of a market orientation needs to be defined in more detail. The origin of this business philosophy or ideal (Kohli & Jaworski, 1990) is determined by defining marketing. Marketing was defined by American Marketing Association (AMA) in 1985 as "*the process of planning and executing the conception, pricing, promotion and distribution of ideas, goods and services to create exchange and satisfy individual and organisational objectives.*" (Keefe, 2004). The 2004 definition states that "*marketing is an organisational function and a set of processes for creating, communicating and delivering value to customers and for managing customer relationships in ways that benefit die organisation and its stakeholders*" (Keefe, 2004). The new definition implies marketing is an organisational function and its purpose is to create value while the old definition is focussed on the managerial function and only the satisfaction of customers (Darroch, 2004). This implies that the organisation as a whole is involved in delivering value, where "v*alue is what buyers are willing to pay for a product or service, and the cost of performing the activities involved in creating it, determines profits"* (Porter, 1985, p. 16). With this definition of marketing as a philosophy for achieving organisational goals, organisations are "*orienting the activities of the business to satisfying customer needs and wants*" (Ruekert, 1992, p. 225) and "*put the customer at the top of the organisational chart*" (Day, 1994a, p. 37). Kotler (1997) states that

"*the marketing concept holds that the key to achieving organisational goals consists of being more effective than competitors in integrating marketing activities toward determining and satisfying the needs and wants of target markets*" (p. 19). This last definition is adopted because "*the three pillars of the marketing concept (customer focus, coordinated marketing, profitability)*" (Kohli & Jaworski, 1990, p. 3) and the behavioural component of competitor orientation (Narver & Slater, 1990) are included. It can be concluded that when adopting the marketing concept the organisation as a whole is involved.

Next, in addition to the development of the marketing concept, the contemporary literature focuses on the adoption of the marketing concept by organisations. This has led to the conceptualization of a market orientation (i.e. the implementation of the marketing concept). As stated by Kohli & Jaworski (1990) "*we use the term market orientation to mean the implementation of the marketing concept. Hence, a market oriented organisation is on whose actions are consistent with the marketing concept*" (Kohli & Jaworski, 1990, p. 1). Kohli & Jaworski and Narver & Slater are most adopted as definitions of market orientation. In addition there are some alternative customers focused concepts with their implementation to be found in literature. Therefore a choice has to be made first on what definition is used as a basis for the framework to be able to analyse what activities and organisational aspects have changed to implement a market orientation.

Firstly, Kohli & Jaworski (1990) state that "*Market orientation is the organisation wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organisation wide responsiveness to it*"(Kohli & Jaworski, 1990, p. 6)*. The basis of market orientation is collecting market information. This is a broad term and it implies more than the (formulated) needs of customers. It includes among others an analysis of exogenous factors, such as legislation, technological developments, competitors and other surroundings strengths, which influence the needs. It is argued that actions are taken based on market intelligence and not on customer opinions alone. *Intelligence dissemination* consists of

activities being conducted to communicate and disseminate market information to relevant departments. *Responsiveness* is the action taken in response to the intelligence that is generated and disseminated. Kohli & Jaworski (1993) suggest responsiveness can be divided in planning and executing actions. In addition it is suggested that the scope of the coordination needed between departments is on market information.

Secondly, Narver & Slater (1990) state that that realization of customers concerns and organisations' long-term profit goals can be brought about by the three keystones customer-orientation, competitor-orientation, and inter-functional co-ordination. Customer orientation is "*the sufficient understanding of one's target buyers to be able to create superior value for them continuous*". (p. 21). A competitor orientation implies that "*a seller understands the short-term strengths and weaknesses and long term capabilities and strategies of both current and potential competitors*" (pp. 21-22). Inter-functional coordination means "*the coordinated utilization of company resources in creating superior value for target customers*" (p. 22).

However, there is a difference between the approaches of a market orientation they define. Kohli and Jaworski (1990) use the term *market orientation* to describe organisational behaviours and activities that manifest the adoption of the marketing concept philosophy. Narver & Slater (1990, p. 21) state that marketing it is "*the organisation culture that most effectively creates the necessary behaviours for creating superior value for buyers, and thus, continuous superior performance for the business.*"

The strategic implementation is concerned "with the translation of strategy into organisational action trough organisational structure, design, resource planning and the management of strategic change" (Johnson & Scholes, 1999, p. 22). It is suggested that the strategy development can be the outcome of cultural and political processes or a managerial intent (Johnson & Scholes, 1999). When strategic development is the outcome of cultural and political processes, the deeper assumptions and beliefs shared by the organisation play a role in the development of the strategy. In addition the

political view suggests that strategic development is the result of processes of bargaining and negotiation among powerful internal or external stakeholders. In contrast with the cultural view, strategic development by managerial intent suggests it can be done deliberate. *Firstly*, strategic development by formal strategic planning can be used to formulate a strategy and the implementation plan. For example this can be useful to coordinate the strategy between business units and communicate the formulated strategy. *Secondly*, the command view in which an individual or group develops the strategic direction, but not necessarily by formal planning. *Thirdly*, the logical incremental view of strategic development is based on incremental steps with a long term management view.

Because, only the strategic development trough managerial intent fits the philosophy of this study, the definition of Kohli and Jaworski is adopted for this study:

> *"Market orientation is the organisation wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organisation wide responsiveness to it"(Kohli & Jaworski, 1990, p. 6).*

Figure 2-2. The adopted definition of the Market Orientation concept for this thesis.

2.1.2 MO activities and processes

Now that the MO is defined for this framework, the organisational changes to be implemented to enable a MO must be defined. An activity framework will be created to show what activities and process are related to a MO. This framework will help structure the case study and the analysis. Also will it help as reference to define the managerial interventions to implement an MO.

The adopted definition states three categories of activities that can be used to help namely generating, disseminating, and responding of/to market intelligence. However, it is important to make it more tangible and further define the activities of the respective categories. Raaij (2001, p.

89) suggests Kohli & Jaworski (1990) provide a sufficient basis for defining the activities. Kohli &

Jaworski (1993) also provide some activities in the MARKOR scale (see Appendix C). Furthermore,

there are some activities defined by Day (1994a) who provides a description of market oriented

capabilities. Finally, the strategy formulating activities are adopted from Ruekert (1992). Below are

the activities stated per category (Raaij, 2001, p. 89):

Generation and dissemination

- *Market-driven firms are distinguished by an ability to sense events and trends in their markets ahead of their competitors (Day, 1994a)*

- *Establish procedures for collecting secondary information and distribution of information about needs and responses of the market, how it is segmented, how relationships are sustained, the intentions and capabilities of competitors and the evolving role of channel partners (Day, 1994a).*

- *Day (1994a, p. 43) also suggest the sorting, classification and simplification of the information to reveal coherent patterns.*

- *Kohli & Jaworski (1990) state market intelligence can be generated through collecting primary data or consulting secondary sources. Mechanisms include meetings, World Wide Web, analysis of sales reports, formal market research, etc and is not only the responsibility of the marketing department. Activities are monitoring factors such as government regulations and competition that influence the needs and preferences of their customers. Analyzing changes in customers industries and their impact on the needs and wants of customers. Monitoring competitor actions and how that might affect customer preferences. Analyzing of how customer needs and wants are affected by exogenous factors as government regulation, technology, competitors and other environmental forces. And analyzing anticipated customer needs.*

- *Market oriented firms acquire information about the buyers and competitors in the target market (Narver & Slater, 1990)*

- *Market oriented firms measure customer satisfaction systematically and frequently (Narver & Slater, 1990)*

- *For an organisation to adapt to market needs, market intelligence must be communicated, disseminated, and perhaps even sold to relevant departments and individuals in the organisation. (Kohli & Jaworski, 1990)*

- *Market oriented organisations disseminate market information throughout the business (Narver & Slater, 1990)*

Response planning

- *Selecting target markets (Kohli & Jaworski, 1990)*

- *Designing and offering products/services that cater to the customers' current and anticipated needs (Kohli & Jaworski, 1990)*

- *Business units develop customer focused strategies which set objective, allocate resources, and assign responsibility for carrying out the plan (Ruekert, 1992)*

Response executing actions

- *Producing, distributing, and promoting the products in a way that elicits favourable end-customer response (Kohli & Jaworski, 1990)*

- *Having close collaborative relationships with critical customers (end users and resellers) (Day, 1994a)*

- *The implementation and execution of a customer oriented strategy by being responsive to marketplace needs and wants (Ruekert, 1992)*

The generation of market intelligence together with the dissemination describes the collection, management, and sharing of market intelligence. Raaij (2001) therefore suggests to combine these categories and also rename the responsiveness categories to customer value conception and customer value generation. These categories are adopted for this research.

Finally, it is suggested by Raaij (2001) that the activities in the customer value generation category, and especially the processes in direct contact with the market (e.g. sales and service support) also collect market intelligence. This view is adopted for this research. The following figure depicts the activity categories and their relations:
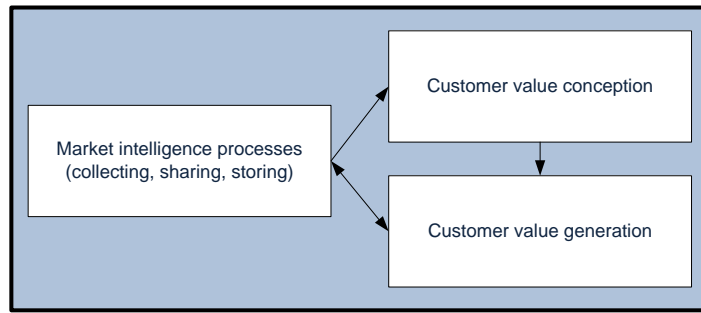
Figure 2-3. The MO activities and processes.

It can be concluded that this activity framework gives sufficient body to define MO activities and serve as reference for defining the managerial interventions.

2.1.3 Managerial interventions

Finally, it is important to define the scope of the managerial process. In general by managerial intent several types of changes can be made to the organisation, namely changes to **processes**, changes to the **organisational structure**, and changes to **skill's**. However, what does the management need to focus on when implementing a MO?

Kohli & Jaworski (1990) and Jaworski & Kohli (1993) suggest interdepartmental dynamics as an antecedent of a market orientation and promote connectedness through physical proximity and IT. Jaworski & Kohli (1993) and Ruekert (1992) also suggest the 'measuring and rewards' systems have positive influences on antecedents of market orientation. As the interdepartmental dynamics and measuring and rewards systems imply inter-functional coordination, a deeper insight in the inter-functional coordination is given. Several types of coordination are noted by Luftman (2003). *Firstly*, cross-functional coordination in which cross departmental boundaries are crossed by a process and serves as a coordination mechanism for *cross functional* teams. *Secondly*, the coordination between decision maker and organisation is described. The objective is to motivate decision makers to meet not only the goals of the team they belong to, but also other teams. There are many ideas advocated to integrate decision makers and organisation such as span of control, delegation of authority,

communication of goals from higher in the hierarchy and budgeting. Also incentives to meet the goals of the team are designed, such as the balanced score card (Kaplan & Norton, 1992). *Thirdly*, functional and departmental integration is described. These changes are made because departments often depend on each other for input. Distinct parts of processes are often executed by different departments and functional integration helps support process integration. Besides the classical view of hierarchical command structures, the view that the business processes are needed to overcome the vertical organisation became dominant in the 1990s. Galbraith (1995) suggests the use of process owners or process teams with members from each of the functional departments. Also, a balanced scorecard has been described in the context of marketing by Peelen (1999) in which it is also concluded that integration is important to be able to follow a long term marketing strategy. *Finally*, Ruekert (1992) suggests recruiting and training as a positive influence on market orientation.

However, these interventions and antecedents of a market orientation are not provided in a clear framework. Although the several coordination types deliver some form of framework, it does not include all enablers and clear categories. Therefore, it is suggested by Raaij (2001) to use the Motivation, Opportunity and Ability (MOA) framework to create a framework for the management actions to increase the market orientation. This framework, has been applied to various management disciplines, and is well known. See Table 2-1 for the framework with the enablers of a market orientation:

Table 2-1. Enablers of market oriented behaviour based on the MOA framework (Raaij, 2001).

Enabler	Management action
Motivation	
Feedback	Evaluate and reward collection, dissemination, and use of market intelligence, and provide employees with information about their market performance.
Management behavior	Display exemplary behavior and consistently engage in providing feedback.
Opportunity	
Information exchange	Implement networking activities and arrange the physical networks location of people such that internal and external networks can develop.
Roles & responsibilities	Incorporate market oriented activities in job design.
Tools	Invest in tools to support market oriented behavior (e.g. IT).
Processes & procedures.	Develop and communicate desired processes and procedures
Ability	
Skills	Develop appropriate skills base via recruitment, selection, and training.

It can be concluded that this framework gives a sufficient handle to identify managerial interventions made to implement a MO.

2.2 Information Technology and a MO

As described in the managerial interventions, IT can be used as a tool to support the MO activities and processes. To have a better understanding of the sort of IT that can be used an overview will be created.

As described above IT is perceived as an tool to enable a MO. First a framework is needed that categorizes IT by its impact on the organisation. This way relations can be identified between how an organisation uses IT to help implement a MO and the organisational perspective on the alignment of business and IT. In an attempt to conceptualise these variations Orlikowski (2000) has defined three levels of IT support. *Firstly*, IT can be primarily used to preserve the status quo of an organisation which is indicated as 'inertia'. *Secondly*, when IT is utilised in its application-role to enhance the existing way of doing business it is referred to as 'enhancement'. *Thirdly*, when IT fulfils a change-

role to be used as a transforming philosophy to gain a strategic advantage, it is called 'enabling'. However, these variations only enable to make distinction between types of IT at a certain moment in time. These variations cannot be used overtime because an "advanced" database at present time, will become a commodity in the future and is needed by all organisations to preserve the status quo.

Besides being able to analyse the variations of IT used to support the organisation, it is important to have a better understanding of the IT architectural design decisions that need to be made when implementing a MO. Therefore a better understanding is needed of the different types of IT systems that can be used. MO is often related to the concept of a learning organisation (LO) (e.g. Day, 1994a; Hurley & Hult, 1998; Sinkula, Baker, & Noordewier, 1997; Slater & Narver, 1995). Organisational learning is defined as the process of improving actions through better knowledge and understanding (Fiol & Lyles, 1985). This concept consists of three processes, namely information acquisition, information dissemination and shared interpretation supported by the organisational memory (OM) (Sinkula, 1994). Day (1994a) argues that IT in the form of databases can have an especially useful role in supporting the OM. In addition Day (1994a) suggests IT can be used as an *enabler* by organisations to do things they were previously not able to do and transform the organisation capabilities. He argues that an integrated approach of using IT can create an integrated market information database, containing among others market research information. This database can facilitate the marketing, sales and customer services. A marketing database with customer information enables effective marketing actions. The customer service can use more integrated electronic channels with customers. Integration as described by Day is also argued by Luftman (2003). He suggests application integration can be done through Remote Procedure Calls (RPC), ERP, and workflow software. Web services, SCM, and CRM systems can be used to integrate business processes, and knowledge management systems can be used by decision makers to collaborate.

Although additional frameworks and categories of IT used in marketing are presented in literature (e.g. Brady, Saren, & Tzokas, 2002; Conviello, Milley, & Marcolin, 2001; Hummel, 2002), it

can be argued that the level of detail on the variations in support and types of IT used is sufficient to define the IT used in the case study.

2.3   Strategic Alignment Model

The changes made to business and IT to implement a MO on themselves do not say anything about the alignment between the two domains. Therefore the MO and IT foundations must be placed within a framework to relate business and IT changes to each other. In addition the alignment process must be related to all changes that are made. This framework should also make it possible to analyse the order and specific focus of implementation steps that are taken over time.

The development of the business IT alignment concept is extensively described in literature. A conceptual framework referenced extensively to explain and conceptualize the domains of business and IT is the Strategic Alignment Model (SAM) proposed by Henderson & Venkatraman (1993). Because of the widely spread usage of this model, the SAM will be adopted for this research.

Luftman, Lewis, & Oldach (1993) and Luftman (2003) defined the important components of the defined domains in the SAM. *Firstly*, the business strategy consists of business scope, distinctive competencies and business governance. *Secondly*, the organisational infrastructure including administrative structure, processes and human resource considerations. *Thirdly*, the IT strategy consists of technology scope, systemic competencies and IT governance. *Fourthly*, the information systems infrastructure and processes consist of architecture, processes and activities to develop and maintain IT infrastructure and human resource considerations. Below the SAM:
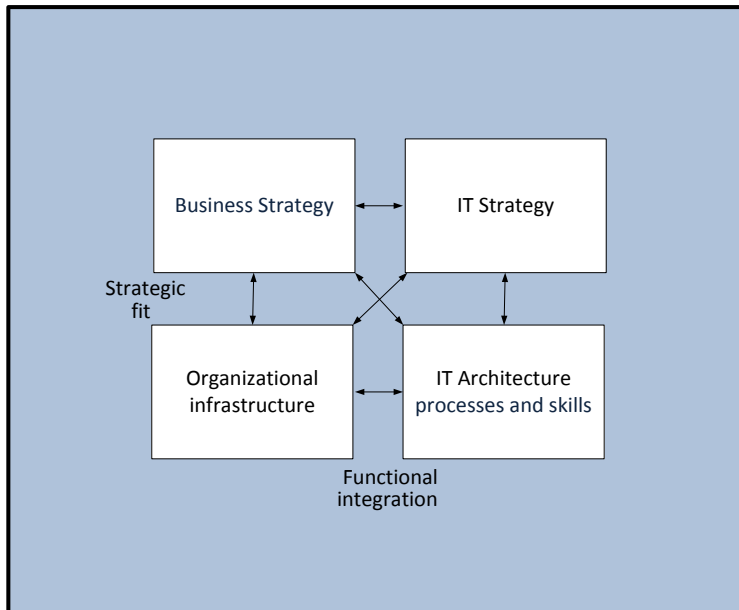
Figure 2-4. The Strategic Alignment Model (SAM).

Between the strategic domains and the infrastructure domains exists a strategic fit linkage as is illustrated in figure 1-2. This linkage concentrates on "*the need to make business decisions that determine the position of the firm in the market place as well as the infrastructure, processes and skills that determine the internal focus necessary to achieve the desired market position*" (Papp, 2001, p. 3). The functional integration linkage "*extends the principle of strategic fit to the functional domains of business and information technology. The information technology strategies must change as the business strategies change and correspondingly, infrastructure and processes must keep pace as either business or information technology undergoes change.*" (Papp, 2001, p. 3)

Next it is important to adapt this framework to describe the changes made to increase the MO of collecting market intelligence.

2.3.1 Business strategy domain

The business strategy domain is described by Papp (2001) by three components: the business scope, distinctive competences and business governance of an organisation. *Firstly*, the business scope includes: the values and mission of the organisation, markets, products, services suppliers,

etc. *Secondly*, the distinctive competences includes: the areas in which the organisation stands out, for example brand, research, and manufacturing. This includes the critical success factors needed to achieve these competences as a customer satisfaction strategy, first rate marketing channel and services. *Thirdly*, the business governance focuses on the business ownership.

However, the description of the business strategy domain is somewhat limited and makes the adaption of the SAM for a MO difficult. Therefore a more elaborate definition is chosen. A business strategy in general is defined as "*the direction and scope of an organisation over the long-term: which achieves advantage for the organisation through its configuration of resources within a changing environment, to meet the needs of markets and to fulfil stakeholder expectations*" (Johnson & Scholes, 1999, p. 10). In addition, a differentiation is made by Hamel & Prahalad (1994) between an environmental-led strategy, gaining a competitive advantage through correct positioning and differentiation directed by market need and a resource-led strategy, gaining a competitive advantage through *distinctive* competences suited to or creating market need. It is believed that with current dynamic markets, competitors can quickly copy market positions but competitive advantage achieved through doing activities different with distinctive resources is more difficult (Porter, 1996). Hunt & Morgan (1995b) argue that a MO is a resource because it "*could potentially enable a firm to produce a market offering for some market segments more efficiently or effectively than one's competitors*" (Hunt & Morgan, 1995b, p. 11). "*Moreover, a market orientation is intangible, cannot be purchased in the marketplace, is socially complex in its structure, has components that are highly interconnected, has mass efficiencies, and is probably increasingly effective the longer it has been in place*" (Hunt & Morgan, 1995b, p. 13). They conclude that "*there are good ground to believe that a truly market-oriented firm can enjoy a sustainable competitive advantage*" (Hunt & Morgan, 1995b, p. 13).

In this perspective, with MO as a resource for a competitive advantage, the strategic component of the SAM can be adapted to only contain MO as a competence. However, it is argued

by Raaij (2001) that MO is a capability resource and not a competence resource. It is argued that a competence is a resource based on technical skills and a capability is the resource built on the ability to coordinate and manage processes. Therefore "*a market orientation would have to be understood as an organisational capability, as it refers to the ability to manage processes of intelligence generation, dissemination, and use in the creation of distinctive customer value*" (Raaij, 2001, p. 133). As a result a MO as capability can be placed at the competences component in the strategic domain of the SAM. It can be argued that to be able to implement a MO, an organisation has to have a capability to manage processes of intelligence generation, dissemination, and usage to create value (Day, 1994a; Raaij, 2001).

In addition, it is argued by Hunt & Lambe (2000) who relate MO to the business strategy, MO is a measure of the activities and behaviour that reflect the strategic marketing concept which is not a business strategy but a philosophy or strategic orientation. They formulate MO as the bridge between the chosen business strategy and the organisations business philosophy (i.e. marketing concept), as the MO is "*(1) the systematic gathering of information on customers and competitors, both present and potential, (2) the systematic analysis of information for the purpose of developing market knowledge, and (3) the systematic use of such knowledge to guide strategic recognition, understanding, creation, selection, implementation, and modification*" (Hunt & Morgan, 1995b, p. 11). This makes the marketing concept an antecedent of business strategic success (Kohli et al., 1993).

It can be concluded that only a MO as a capability can remain in the business strategic domain of the SAM. Because the MO is a strategic orientation and not a strategy, all other components of the domain are removed. The resulting adaption is shown below:
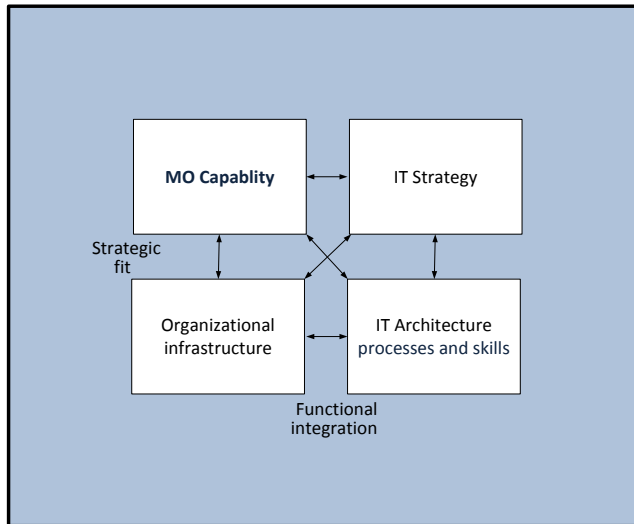
Figure 2-5. The Business Strategy domain adapted for the implementation of a MO.

2.3.2 IT strategy

Papp (2001) states the information technology strategy domain is the counterpart of the business strategy domain and consists of three components namely, the technology scope, systematic competences and information governance. *Firstly*, the technology scope is based on the important applications and technologies. *Secondly*, the systematic competencies are the capabilities that distinguishes the organisation (e.g. access to information about customers and reliability). *Thirdly*, information technology governance focuses on the alliances and partnerships.

However, because a MO capability is an antecedent of a successful strategic development, the external focus of the IT strategy cannot be aligned with the external business strategy objectives. In addition only the MO as capability is given in this scope to align to. As a result only a supporting IT capability for the MO as a business capability is included. In the perspective of not having business objectives, it is suggested by Ross (2005) that because the "*business strategy rarely offers sufficiently clear direction for development of stable IT and business process capabilities*" (p. 1). It is suggested organisations should focus on defining "*the necessary level of business process integration and standardization*" (Ross, 2005, p. 1). This approach requires an organisation to make two choices.

Firstly, how standardized their business processes should be across operational units (e.g. business units). *Secondly*, how integrated their business processes should be across the same operational units. This enables the creation of an IT capability for a long term.

It can be concluded that an IT capability can be created to support the MO capability. Because the scope of this framework is on MO, all other components and capabilities are excluded. The resulting IT strategy domain is shown below:
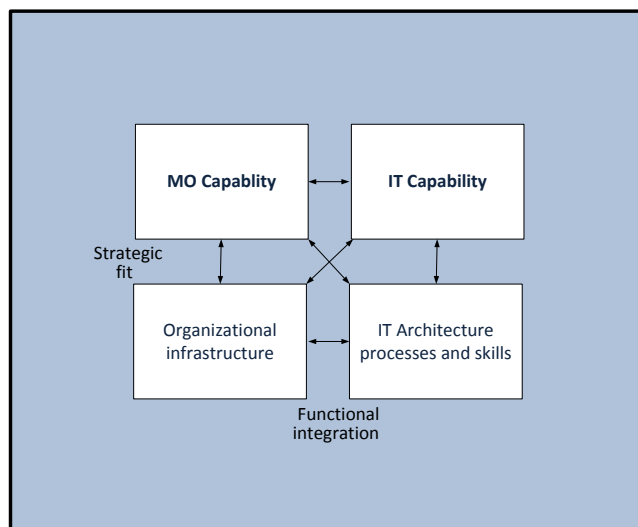

Figure 2-6. Strategic IT domain of the SAM adapted for the implementation of a MO.

2.3.3 Organisational infrastructure domain

The components of the organisational infrastructure domain are the administrative structure, process and skills (Papp, 2001). *Firstly*, the administrative structure consists of the authority structure, responsibilities and roles within the organisation. *Secondly*, business processes determine the work flow. *Thirdly*, focuses on the training and experiences, definition of competences, salaries and rewards of human resources. The enablers of a MO can be found in the complete scope of the domain. It is therefore included in the framework as it is.

2.3.4 IT infrastructure domain

The components of the IT infrastructure domain are the IT architecture, IT process and skills (Papp, 2001). *Firstly*, the architecture consists of the technology priorities, policies and choices made surrounding IT. It is argued by Papp (2001) a distinction needs to be made between operational IT on a short term and capability building IT on a long term. As a result of the long term use of IT an information architecture is needed. These are "*the technology priorities, policies and choices that allow applications, software, networks, hardware and data management to be integrated into a cohesive platform*" (Luftman, 2003, p. 18). *Secondly*, processes describe the activities to maintain and develop the IT infrastructure. *Thirdly*, skills focuses on the training and experiences, definition of competences, salaries and rewards of human resources. No adaptations need to be made to this domain of the model because all aspects of this domain are relevant when implementing a MO.

2.4 SAM extension

The MO activities and processes describe activities for collecting and managing market intelligence, value conception and generation. However the SAM does not explicitly differentiate those activities. In line with the MO concept and the organisational memory, Marchand et al. (2000) argues that "c*ompanies must do more than excel at investing in and deploying IT. They must combine those capabilities with excellence in collecting, organizing and maintaining information, and with getting their people to embrace the right behaviours and values for working with information*"(pp. 69-70). This vision is shared by Maes and implemented in the SAM (Maes, 1999, 2003; Maes, Rijsenbrij, Truijens, & Goedvolk, 2000). Maes argues that the alignment of business and IT cannot be seen apart from the use of the information by responding to it and the sharing of incoming information by those processes.

In addition, architectures have played an important role in the IT infrastructure for a long time (Aerts, Goosenaerts, Hammer, & Wortman, 2004). Maes (1999) argues that there should be an

architectural vertical level to address the strategic importance. In addition he argues that also the operational level becomes more and more strategically important and therefore a explicit focus point. Below the generic framework (i.e. the adapted SAM):
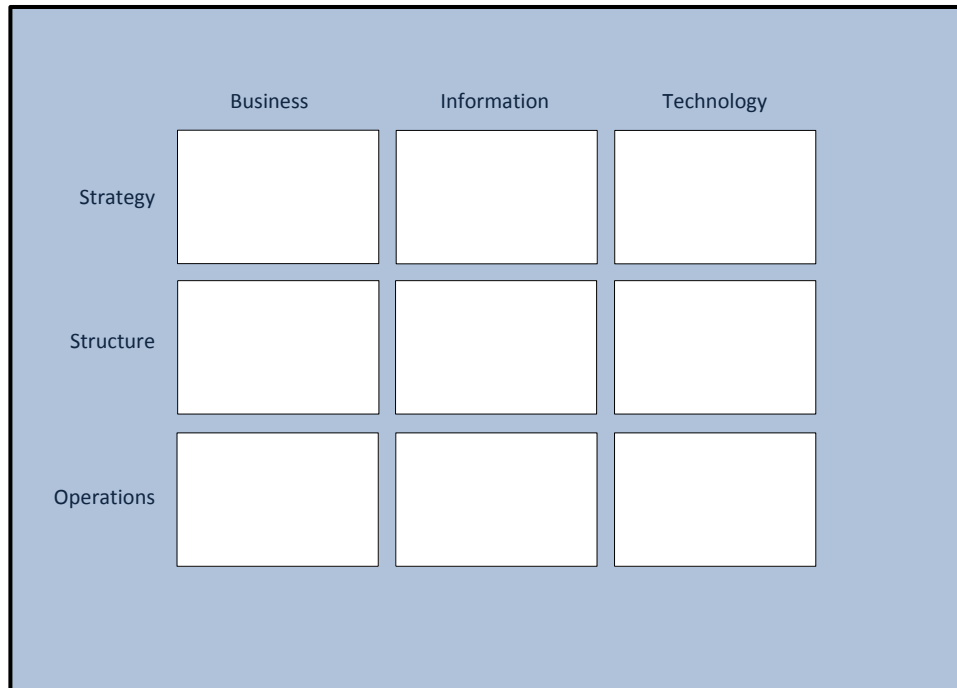

Figure 2-7. The Generic Framework. From: Maes (1999).

Because of the explicit differentiation between business processes and information processes, this model is adopted for this research.

2.5 Conclusion

With the combination of the different frameworks a theoretical framework is established that enables an exploratory research on the alignment of business and IT when implementing a MO. By defining MO the processes and activities of a MO are clear and the enablers of a MO can be recognized. In addition the business IT alignment process is defined, what domains need to be aligned and what the relations are between those domains. MO is defined as a capability that can be perceived as a strategic choice and the other domains can be aligned with it.

However, having built the framework, it still doesn't tells us about how business and IT are actually aligned, it does not give insight in how a publishing house could align business and IT when implementing a MO. This will answered in the analysis of the case study. In the next chapter the design of this case study is described. It is then determined how and with what techniques this insight can be achieved.

Chapter 3   *Case design*

In this chapter the case design is described. This design describes the actual step that will be taken to perform and analyse the case study and assure its quality.

3.1.1 Propositions or success criteria

The research question driving this study is "*how business and IT could be aligned in a Dutch publishing house when implementing a Market Orientation*". Two descriptive sub questions can be derived that require an answer for this study to be successful:

Firstly, "*what changes are implemented in the business and IT domains, as the explicit outcome of the alignment process during the transition?*" Secondly, "w*hat changes are made to the business IT alignment process responsible for the design and implementation of changes during the transition?*" From these two descriptive questions criteria are derived by which this exploratory case study can be judged.

From the first question the following success criteria are derived focussing on the outcome of the alignment process. *Firstly*, insight is gained on the implementation of enablers for market intelligence collecting and management processes. *Secondly*, insight is gained on the implementation of enablers for value conception. *Thirdly,* insight is gained on the implementation of enablers for value generation. *Finally*, insight is gained on the IT architecture supporting the MO activities.

From the second question the following success criteria can be derived focussing on the different parts of the alignment process. *Firstly*, insight is gained on the alignment process activities

responsible for the changes to the business domain. *Secondly*, insight is gained on the alignment process activities responsible for changes made to the IT domain.

Finally, the previous steps combined lead to the following success criterion directly linked to the research objective of the thesis, namely: *create a deeper understanding of the business IT alignment process of Dutch publishing houses when implementing a Market Orientation.* These criteria will be referenced to in the conclusion to see if the research was successful. This will be done by comparing what was the level of insight before the study (i.e. using a retrospective) and what is the level of insight at the end of the study. This way a critical analysis can be made of the study.

3.1.2 Sampling and Case Selection

Because it is impractical to research the entire population and the time of this study is limited, sampling is used to reduce the amount of cases from which data has to be collected. In this subparagraph first the selection of the sampling technique is described to motivate the chosen technique and the selection criteria. Next, the selected cases are described to give a general insight in the cases before being described in greater detail in the next chapters.

Sampling techniques

There are two sampling techniques namely the probability or representative sampling technique and the non-probability or judgmental sampling technique (Saunders et al., 2007). With the probability or representative sampling technique the chance of each case being selected from the population is known. These techniques are mostly associated with survey based studies. With the non-probability or judgmental sampling technique the change of a case being selected is unknown and this makes it impossible to answer research questions that require statistical inferences about the population.

Because the research question requires cases that can provide enough information to meet the criteria by which the study is judged successfully and a sampling frame is not available, a non-

probability sampling technique is chosen. In the non-probability division several techniques can be distinguished, namely quota sampling, purposive sampling, snowball sampling, self-selection sampling, and convenience sampling (Saunders et al., 2007).

Purposive sampling is believed to be best suited as sampling technique, because the chosen research strategy is an exploratory case study strategy which implies working with a small sample and some particular cases providing sufficient information to answer the research question. In addition the cases for the sample are not difficult to identify in the population of Dutch publishing houses thus the purposive sampling technique can be used. There are several strategies for the purposive sampling technique, namely extreme cases sampling, heterogeneous sampling, homogeneous sampling, and critical case sampling.

The most suitable non-probabilistic purposive sampling strategy as the basis for the sampling is believed to be homogeneous sampling. To answer the research question it is important all cases meet the same basis criteria to be able to gather a substantial amount of data and gain in depth knowledge. Several steps are taken to define criteria and select the cases.

The first step focuses on the market oriented behaviour. The population of Dutch publishing houses, as context of the research problem, is chosen because it is believed a significant number of Dutch publishing houses are currently increasing their market oriented behaviour and use IT to support this behaviour. To identify these cases, it is determined that if the market developments, driving Dutch publishing houses to adopt an outside in orientation, must apply at a case. Several market developments can be distinguished (Raaij, 2001). *Firstly*, increased competition and more demanding customers can be distinguished as a driving force. It is argued by Raaij (2001), to identify potential cases, not the actual presents of these development are important. Because its presents can be questionable and hard to determine, instead the perceived increase of competitive pressure and emancipation of the customer by the (potential) case are important. *Secondly*, business

performance can be below business targets which can be ascribed to lack of external focus by the management. *Thirdly*, macro economic developments, as privatisation deregulation and cutbacks on government subsidies can drive Dutch publish houses to behave more market oriented. An example of increased market oriented behaviour would storing information competitor information.

The second step focuses on the size of the selected Dutch publishing houses. This is expressed in full time employees, which is referred to as a fulltime equivalent (FTE). To be able to gather sufficient data the cases need at least an IT department supporting the internal processes and developing services and products. In addition marketing and sales combined should consist of sufficient FTE to deliver enough data. Finally, the organisation as a whole (i.e. management, marketing, sales, and management of redaction) should consist of sufficient FTE to ensure a relative complexity and thus data to analyse. The redaction can mainly exist of freelancers, significantly reducing the number of FTE. As a result the minimum of FTE for the cases is set to 50.

The third step makes a selection in the nature of the Dutch publishing houses. The nature of the Dutch publishing houses is divided in several groups by the Nederlands Uitgeversverbond (NUV), namely general publishers publishing non-fiction, fiction and children's books, educative publishers, daily newspapers, public magazines and publishers for professionals and science (Huibers & Timmers, 2005). This study focuses on the publishing houses for professional and science, because these publishing houses have diversified services, products and sales channels that all must be developed and can be used in response to market intelligence.

Finally, within these selected cases, a variation strategy is pursued because with variation, "*any patterns that do emerge are likely to be of particular interest and value and represent the key themes*" (Saunders et al., 2007, p. 232). It is suggested by Patton (2002) that sample selection criteria are formulated to create variation. The relative homogeneous selected publishing houses in the previous steps can be described by two dimensions, namely the size of the publishing house and the target markets (i.e. business to consumer or business to business) for publishing products and

services (advertising is primarily business to business). These dimensions are used as variation criteria to select the cases. This study explores two cases which are selected from the population. The first case is IDG Nederland and will be the pilot case study. The main case study is Sdu Uitgevers.

IDG Nederland

IDG Nederland will be used as a pilot case to test the preliminary case design. IDG Nederland's target markets are mainly consumers and some businesses. It was founded in 1984 as daughter of the International Data Group (IDG) and is focussed on publishing about information technology. Until recently, the strategic scope of IDG Nederland, here after called IDG, was focused on publishing hardcopy IT magazines and other media like DVD's to consumers, and stand alone online websites like the in 1995 launched site-only magazine WebWereld. Sixty percent of the revenue was received from advertisement sale. The remaining part of the revenue was received from printed media, events and enclosed DVD's. During that period the number of different magazines had grown significant due to an insufficient defined scope.

Because of a downward economic trend a number of magazines, especially the few business to business products, became under pressure and seven titles were removed from the portfolio in 2003. Current products in the portfolio are Computer!Totaal, Tips & Trucs, Gamez, WebWereld, InfoWorld, ComputerPartner, RetailPartner, TipWereld, Zoom.nl, TechWorld. Five of these magazines are only published online. Currently, the focus of IDG is shifting towards intermediating of information with the objective to initiate contact between people with same the interests, opinion and knowledge and between people and advertisers. A currently constructed online platform is functioning as the fundament for the intermediating of information and connects all information available. Consumers need to find information independently and this information should be reasonably independent from editorial staff and brand. Customers should be able to choose their own channel and moment to receive the information. It is believed by IDG that the technological developments are causing a convergence of IT and entertainment. The personal computer is moving

to the living room and is integrating with other media in the living room and the difference is fading. Therefore the information scope of IDG is now extended with games and entertainment. It is believed that this extension should be made possible with the use of mobile content, broadband, DVD, et cetera. Video will have an increasingly important role. It can be distributed via the online platform but also via relative new channels as pay-tv. With cross and up selling of products and services, the revenue from advertising should become less important. Because of the shift from qualitative IT magazines and isolated online magazines towards the generation of value trough intermediating information, the responding to the market intelligence is becoming much more important.

Sdu Uitgevers

The actual case study, describing **Sdu Uitgevers**, is the relative large sized Dutch publishing house with mainly businesses as target market. Sdu Uitgevers is part of Sdu N.V. which became commercially active in 1988 by a transformation in which the government of the Netherlands kept the shares but gave Sdu N.V. the freedom to act in its own interest. Sdu N.V. is however still obligated to deliver services to the state by contract. These services, provided for several centuries, mainly consist of printing all publications and legislation of the State for supporting the internal information flow and disclosing the information externally. In addition to the contracts with the State, a certain amount of other similar contracts with government organisations and professional associations constituted the portfolio of both customers and the providers of information in the beginning of the commercialisation. Before 2007, the Dutch government owned Sdu N.V. In January 2007 ABN Amro and Aliance (AAA) took over Sdu N.V. Sdu Uitgevers and Sdu Identification are part of the Sdu N.V. holding. Sdu N.V. also has a 45,33% share in the German juris. In addition, Sdu Fiscale & Financiële Uitgevers (SFFU) is part of the Sdu N.V. holding and Sdu Uitgevers takes part in SFFU. The next figure illustrates the organisational structure of Sdu N.V.
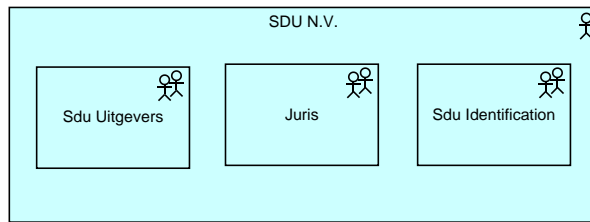
Figure 3-1. Organisational structure of Sdu N.V.

However, this case study will focus on Sdu Uitgevers and not on Sdu N.V. The three headed board of directors (BOD) is in charge and has the responsibility to set out the overall strategy of Sdu. With the acquisition of Koninklijke Vermande, Vuga Systemen, Academic service, VNG Uitgeverij (49%) and ten Hagen & Stam, several geographical locations now fall under the direction of Sdu Uitgevers. Over the years Sdu has moved all the physical geographical spread locations to the main office in The Hague. However, many products remain in separate strategic business units (SBU). The current strategic objective of Sdu is striving for providing solutions for delivering and gathering information. The aim of Sdu is to be the most important, with the most complete government information, which provides on commercial terms, the most modern media products, with high value for the State but also the professional and commercial market.

With the up come of the Internet and IT, the strategic ambitions of Sdu Uitgevers are shifting towards information processing services for organisations. This shift implies an increase in the need of IT expertise. To acquire this expertise in IT, the company Sdu E-Grant was created in February 2007. This company also supports other governmental organisations with the enhancing and improving of delivering digital service. In addition, Sdu Uitgevers is focussing on focussing on providing services, with a technological focus, to enhance the information processing for government and professional organisations. An example is the NewVote service in which the installation, testing and delivering of Voting computers and providing the election results is done by Sdu. However, E-Grant and its services will not be included in the case study which only focuses on the publishing services of Sdu Uitgevers.

The publishing services of Sdu Uitgevers have transformed over the last ten years. An acquisition strategy transformed Sdu Uitgevers and decreased the dependency on these contracts and increased the turnover. Sdu Uitgevers went from only law and state related publishing services to a broad spectrum of publishing services in many different types of professional markets. Current clusters of products are General Law and Jurisprudence, Construction and Real Estate. The cluster Practical Information provides information on legislation on several subjects as Arbo, CAO, chemical industries and transport. The cluster IT publishes the magazine Automatisering Gids and IT books under the Academic Services brand. The cluster Public Governance contains products such as the Staatscourant, Staatsalmanak, Europese Almanak and VNG Magazine. The cluster Language, Management and Education publishes for example Groene Boekje, Schrijfwijzer, Handboek Stijl and several management books under the Academic Services brand. Besides the clusters described above, Sdu Uitgevers still publishes the official publications of the State. Additionally, congresses are held to keep professionals up to date and let them exchange information.

In the past Sdu was known as a printing business and was physically printing the products themselves. This activity is outsourced as it did not fit in the core activities of the organisation anymore. All other processes are kept as they are perceived as core business and unique to the organisation. Besides these departments, IT, information services, and realisation are supporting the SBUs. In 2002 it was explicitly decided not to outsource the customer service (customer contact and customer order processing) because of the complexity of the products, quality customer database, ineffective control and the commercial advance. Finally, with the acquisition of ten Hage Stam in 2005, advertising became a service for several specific products of Sdu Uitgevers. Several channels of advertisement are provided by Sdu Uitgevers. For example events, interactive media and customer information from research among readers can be interesting to advertisers.

In addition to the change in scope of publishing services, the use of IT changed. In the 90's Sdu Uitgevers published also a large amount of electronically content besides the folio products. This

was mainly done via CD-ROMs and straightforward one way online publishing sites. In the preceding years these CD-ROMs were replaced by dynamic online publishing services for disclosing information. Also electronic newsletters with relevant information are currently being sent as a service.

A distinctive strength perceived of its self by Sdu Uitgevers is the management of content and especially legal and governmental information. Because of the relatively long period of managing content in databases and enriching this information, the ability to manage governmental and legal information is a distinctive strength of Sdu Uitgevers. The development of this competence resulted in the dedicated department for the management of the content and is a perceived as a critical success factor for this competence. Additionally, Sdu Uitgevers is aware of the fact that with the strategy formulated an increasing competence of Sdu Uitgevers should be knowledge of customers and market to create value. This is perceived as an upcoming strength, as it is forced upon the organisation through the changing of the marketing organisation, processes, measuring marketing results and responsibilities.

3.1.3 Unit of analysis

The unit of analysis is defining what the "case" is (Yin, 1994). Because this research relates to the broader body of knowledge on the business IT alignment process and generalizes to a business IT alignment process topic, the business alignment process is the chosen unit of analysis. It can be suggested that knowledge of market orientation is also directly related to the research. However the concept of market orientation only determines the scope of the research on the alignment process. This research is focusing on a Dutch publishing houses in general. The unit of analysis depends on the level of strategic decision making that need to be involved. Strategies exist at different levels of the organisation. *Firstly*, the corporate strategy is concerned with the overall purpose and scope of the organisation often reflected in the mission of the organisation. *Secondly*, the business unit

strategy is concerned with how to compete in a particular market: the concerns are therefore about how advantage over competitors can be achieved. In contrast with the corporate strategy, which is about the organisation as a whole, the business unit strategy is about a specific strategic business unit concerned with a distinct part of the market. This is emphasized by (Huizingh, 2004) who observes an overall corporate strategy and a marketing strategy concerned with how to compete. It is important to understand the difference between a business unit and a division, as a business unit is an organisation for strategic making purposes and a division is not. *Thirdly*, at the lowest level the operational strategies are concerned with how the component parts of the organisation in terms of resources, processes, people and their skills effectively deliver the corporate and business level strategic direction (Johnson & Scholes, 1999).

Decisions to be implemented at SBU's (to implement an MO) are taken at corporate management level and supporting overall departments (e.g. central marketing department) and the SBUs will not be analysed individually for changes, only changes applied to most SBUs (i.e. that can be generalized) will be included in the case study. However, Sdu Uitgevers as unit of analysis is too broad because the research only focuses on the MO activities and processes, the enablers of a MO, the supporting IT and the business IT alignment process. Other aspects of the organisation will therefore be excluded.

3.1.4 Collecting the evidence; data linked to purpose

In this research multiple sources of information are used to examine the unit of analysis. Those sources are primary sources consisting of interviews and surveys and secondary sources consisting of data already collected for some other purpose (Saunders et al., 2007). Yin (1994) defines six sources of evidence, four primary sources and two secondary sources. The primary sources are interviews, direct observation, participant observation and physical artefacts. The secondary sources are documentation and archival records. Saunders et al. (2007) broke the secondary sources further down in documentary containing written materials and non-written materials, multiple sources of

evidence containing area based data and time series based data, and finally surveys as secondary data containing censuses, continuous and ad hoc surveys. However, Yin (1994) will be used as basis for describing the sources of evidence, because most secondary evidence in this exploratory case study will be written reports.

First of all, interviews are a main source of evidence to be used in this study. The strengths of interviews are that they are targeted and insightful (Yin, 1994). As this is an exploratory study, the insightfulness of interviews can effectively help achieve the objectives of this study. Saunders et al. (2007) and Yin (1994) describe several types of interviews. *Firstly*, structured interviews can be held using questionnaires. These questionnaires are based on a standardised set of questions. Saunders et al. (2007) argue that this type of interview is not useful in a exploratory study. *Secondly*, semi-structured interviews can be used when a list of topics and questions are available. The list of topics may vary per interview and also the order of questions may vary. *Thirdly*, unstructured interviews are informal interviews that can be used to explore a general topic in depth. This type of interview can be an informant or respondent interview. In an informant interview the interviewee is free to talk about everything inside the context, this is also called non-directive. In a respondent interview the interviewer asks the questions. The semi-structured and unstructured interviews are non standardised interviews and can best be used in an exploratory case study (Saunders et al., 2007).

However, several weaknesses of interviews are distinguished (Saunders et al., 2007; Yin, 1994). *Firstly*, possible bias through wrong questions (i.e. interviewer bias). *Secondly*, bias in the response (i.e. response bias). Easterby-Smith et al. (2002) give two arguments why response bias can occur in management research. The first reason is that management is rarely absent of politics because "*management is essentially about controlling, influencing and structuring the awareness of others*" (p. 58). In addition it is argued that in management research the subjects of research are often more powerful than the researcher. *Thirdly*, possible inaccuracies in the transcription can be made. These weaknesses are addressed in the quality control.

Secondly, documentation is used as source of evidence because documentation is stable, unobtrusive, exact and has broad coverage (Yin, 1994). Documentation can contain several types of documents (e.g. letters, memoranda, minutes of meetings, and administrative documents as proposals) (Yin, 1994). Possible weaknesses are that retrievably can be low, biased selectivity, reporting bias and access can be deliberately denied. These weaknesses are addressed in the quality control. Based on prior research used in studies, it is determined what evidence is available to collect for this study's objective. Below are the different sources of evidence, described for both the outcome of the business IT alignment process and for the business IT alignment process.

Table 3-1. Sources of evidence.

Evidence for	Source of evidence			
	Documentation		Interviews	
	Administrative documents	Formal studies	Open ended	Focused interview
The implementation of activities for collecting and managing market intelligence collecting, value conception and value generation.	Business unit strategies Evaluation reports Job designs Process flows Organisational charts Training programs Job designs Organisational charts	Reports on the use of management information Studies on the business performance	marketers, market managers, publishing manager, customer service manager, sales managers and IT manager, and IT architect	marketers, market managers
Implementation of IT supporting the MO activities.	IT project documentation IT architectural blueprint		marketers, market managers, publishing manager, customer service manager, sales managers and IT manager, and IT architect	
The strategic (marketing) planning process	Marketing strategic plan		strategic marketing managers and business development	
The strategic IT planning process, planning of IT capabilities, planning of IT architecture and project management	IT strategic plan Project management documentation		strategic IT managers, project managers, IT architect and business development	

3.1.5 Analyzing the data

After the data collection, the data needs to be analysed. It is important to have a general analytic strategy because it reduces the danger of conducting the case study without any idea of how the evidence is to be analysed. With an analytic strategy the priorities for what to analyse and why are defined. Yin (1994) suggests three general analytic strategies namely relying on theoretical propositions, the use of rival theories which is basically relying on propositions with rival hypotheses and developing a case description. Because it is currently not clear how to perform the analysis, the analytic strategy to create a case description is chosen.

Next, the inductive analytic procedures for this explorative case study are defined. It is argued by Swanborn (2000) three traditions of analytic orientation can be distinguished. The tradition of Yin is described, the tradition of Miles and Huberman (1994), and a diversified group qualitative of traditions. Most important is the tradition of Yin providing pattern matching, explanation building and time analysis as analytic procedures. Although, explanation building is related by Yin (2003) with an inductive oriented case study analysis procedure in Glaser and Strauss (1967), these procedures are not sufficiently elaborated and have little inductive focus. Time analysis, however, does enable an analytical approach. By applying a chronology it is possible to describe the transition of implementing a MO over time. By using this approach the causal effects (e.g. intervention of management to implement MO) would be described. In addition the firm level logic model approach can be adopted to help describe causal effect.

Therefore the analysis in this study is based on a case description strategy with the use of the adapted SAM. However, a technique was needed to model the processes and make it possible to analyse the differences between the timestamps in the timeline. After consult with Dr. J.W.P. Groenewegen, at Leiden University the idea was conceived to use Archimate (*Archimate 1.0 Specification*, 2009). This is a modelling language capable of giving clear snapshots over time. Archimate makes a clear distinction between business, application and technology and is therefore

very suitable for modelling the case (i.e. the changes over time in organisational processes and structure).

3.2 Quality control

Yin (1994) states that "*because a research design is supposed to represent a logical set of statements, you also can judge the quality of any given design according to certain logical tests*" (Yin, 1994, p. 32). Three tests, applicable for this case study, are given to assess the quality of a case study. *Firstly*, the purpose of the construct validity is to "*establish correct operational measures for the concepts being studied*" (Yin, 1994, p. 32). The steps taken to ensure the construct validity of this case study are described in paragraph 0. *Secondly*, external validity focuses on the domain to which the findings can be generalized. The choices made to improve the external validity of this case study are described in paragraph 3.2.2. *Thirdly*, the reliability is about "*demonstrating that the operations of a study – such as the data collection procedures can be repeated, with the same results*" (Yin, 1994, p. 33). The methods used in the operations of this case study to ensure the reliability are described in paragraph 3.2.3.

3.2.1 Construct validity

The construct validity is firstly ensured by using triangulation. In this case study interviews are held, project documentation and other documentation is gathered of both the business IT alignment process and the outcome of the alignment process. These sources are analyzed together to make sure the interpretation is done by using several different sources.

Secondly, the bias in the response of interviewees addressed by the triangulation is also addressed by the sampling technique used to select the cases (Saunders et al., 2007). The selected cases are organisations, including the management, that are willing to change and become more market oriented. However, it must be accepted that this type of bias can never be ruled out. In addition the chance of interviewer and response bias is reduced by, if possible, supplying

interviewees with information about the context and the themes to be discussed (Saunders et al., 2007).

Thirdly, a chain of evidence is maintained. A chain of evidence is based on the principle "*to allow an external observer to follow the derivation of any evidence from the initial research question to ultimate case study conclusions*" (Yin, 1994, p. 89). First of all, this is done by referring in the report to relevant portions of the database. Secondly, a database is maintained so that all evidence is in the database. Thirdly, the circumstances are consistent with the procedures and questions in the protocol. Finally, the reading of the protocol indicates the link between the content of the protocol and the initial study questions.

3.2.2 *External validity*

A case study cannot be seen as a representative sample (Yin, 1994). It is therefore not possible to use statistical generalization. In addition, because of the exploratory nature of this case study the usage of literal or rival theories is not applicable, as no propositions are defined and replication logic therefore is not possible. However, by using a case study in which the case study is a "whole" study, the insight and knowledge will be greater and thus also the chance of meeting the success criteria. This makes the study stronger and can be accepted easier.

3.2.3 *Reliability*

Reliability is first of all ensured by using the same case study protocol at each case study. The case study protocol is describing the protocol for the investigation of the case studies. "*The protocol is an especially effective way of dealing with the overall problems of the reliability of case studies*" (Yin, 1994, pp. 54-55). The case study protocol guides the investigator in conducting the case study. The case study protocol consists of an overview of the case study, the field procedures, case study questions and a guide for the case study report (Yin, 1994). The overview of the case study consists of background information describing the context and perspective and a procedural element

including a letter of introduction. The field procedures emphasize the initial scheduling of field visit, the determination of persons to be interviewed and the questions to be used in the interviews. In addition the questions are accompanied by a list of possible resources to help collecting the information needed. Finally, the guide for the case study report describes the outline for the case study report and ensures the same outline for every case. The case study protocol is described in Appendix A.

In addition the reliability can be compromised by some of the weaknesses of the sources of evidence used. To minimize the possible inaccuracies in the transcriptions of interviews the interviews are reviewed by the interviewed. In addition the case study report is also reviewed by the executives of the organisation to make sure it is correct.

Finally, the reliability is improved by, if possible, storing the gathered information in a centralized database. For example, the interviews are converted to digital transcripts to make storage in a database possible. This way the reliability in increased.

Chapter 4   IDG Nederland

This chapter describes the case of IDG Nederland. This is a pilot case study to test the case design and see if the descriptive approach in combination with snapshots modelled with Archimate make it possible to create more insight. First of all the start of the transition is described to give the reader a clear view of the organisation and the situation at the start. Next per year the changes are described.

4.1 Start of the transition

IDG Nederland has started a transformation towards a MO in 2004. It was suggested by the general manager IDG was not focussing on the how and why, with the editors and publishers in the lead and not marketing (I011-RG). The Management Team (MT) conceived the consensus that these changes need to be made by increasing the involvement of the marketing department over time and make the processes less led by publishers and editors. Focus must be on gathering customer knowledge, identify customers, committing to customer relationships (I011-RG).

4.1.1 Organisational structure

At the start of that period the following top organisational structure existed (D2005-001).
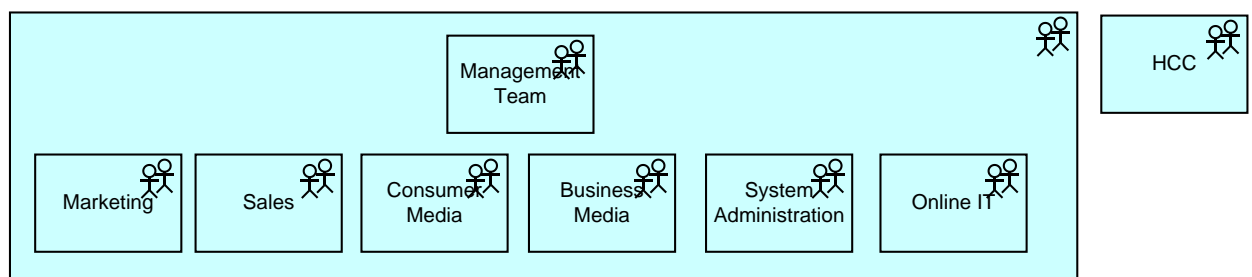
Figure 4-1. Organisational structure IDG Nederland in 2004.

The main decision organ of IDG was formed by the Management Team (MT). The MT consisted of the managers from Sales, Consumer Media, Business Media, Planning & Control and the General Director. See below for an overview:
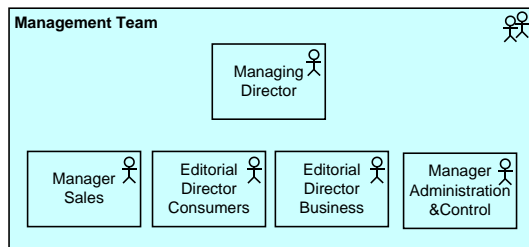
Figure 4-2. IDG Management Team in 2004.

Consumer media and business media both have the same structure. They are managed by the editorial director and contain all brands for consumer media (e.g. ComputerTotaal, GamePro and Tips & Trucs) or business media (e.g. WebWereld and InfoWorld). The brands all have a head editor. Below an overview of the generic structure:
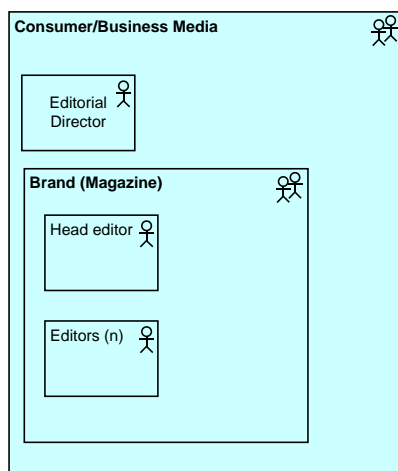
Figure 4-3. Consumer/Business Media in 2004.

The marketing department in 2004 consisted of two sub departments, namely marketing and subscriptions administration. The marketing department is managed by the marketing manager. See below for an overview:
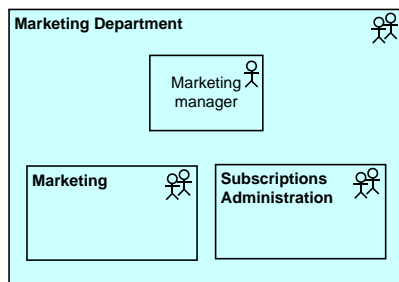
Figure 4-4. Marketing department in 2004.

In addition to the internal structure, IDG cooperated with Hobby Computer Club (HCC). Most of the subscriptions on folio magazines were combined with a membership of HCC. All other sales went via retail in shops. As a result HCC maintained their own customer database and IDG had no insight in their customers.

4.1.2 Collecting and managing market intelligence

Little active formal gathering of market information was conducted at the beginning of the transition. However, a very small amount of subscriptions is administered by IDG. This is done with a nameless customer information system.
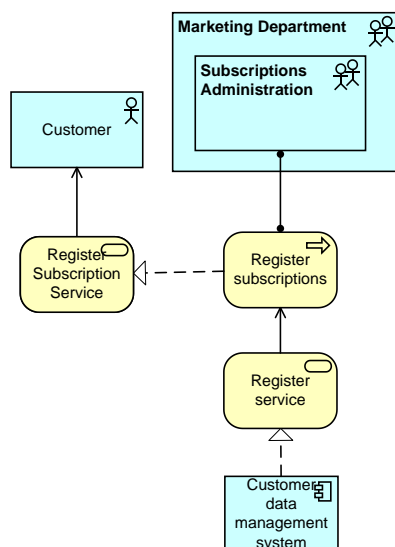
Figure 4-5. Subscription administration.

At the start of the transition most customer information was stored and maintained at HCC and no insight or possibilities to manage this data were available. In addition the analysis of the

customer information from the different online sites was not possible, because of the many different systems interfaces, etc.

4.1.3 *Design and planning processes*

Internal systems were developed or installed and configured by the system administration department. The system administration was often involved from the start to deliver consult. In some instances administration was involved when the implementation phase started (I007-WG). The MT assesses the proposal. A steering group was created to manage the project and is periodically checked by the MT.
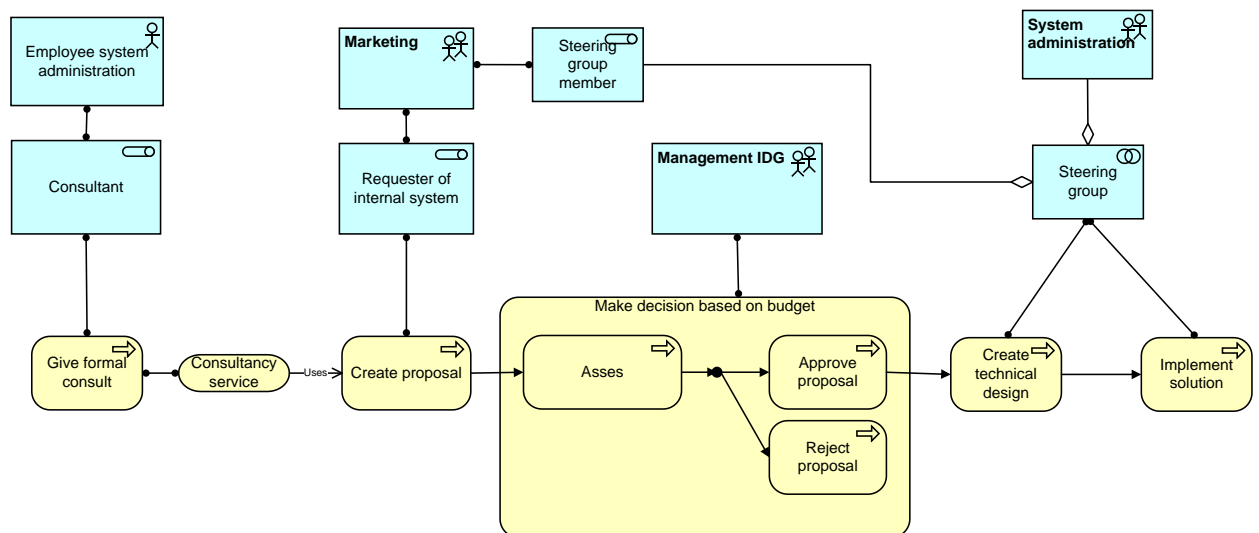
Figure 4-6. Internal systems development in 2004.
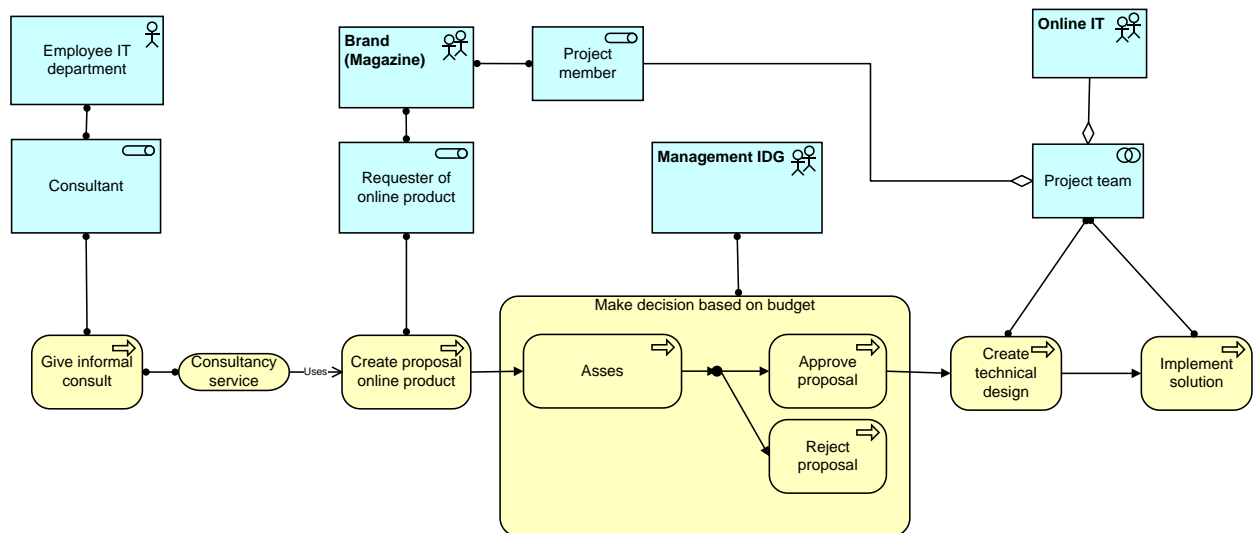
Figure 4-7. Online projects in 2004.

At the start of the transition, there were several problems with the process (I001-JK). Firstly, the costs and prioritising was insufficient. In addition, the magazines had a long history in hardcopy folio and this had its influence on the quality of the proposals for online products. These proposals were all different, and the design was not compatible with the technical possibilities. In addition, there was no standard template. Finally, the magazines were not coordinated as a group. They requested consult from online IT separately from each other, although they often had similar problems. The actual development of their systems were therefore specifically designed with no general architecture.

In addition, as a result of the fact that IT was not represented in the MT, no formal IT strategy was created in 2004. A first step was made by hiring an external party to make an initial strategic IT analysis and future plan.

4.2 2005

4.2.1 Collecting and managing market intelligence

In 2005, a single CMS (GX) was installed to host all online magazines and contain all the assets used to create both the online site but also the hardcopy. The enabled not only reuse of assets and have one source for multiple media, but also to gather the statistics of the customer to enable possible analysis. This CMS did not contain all the magazines yet.
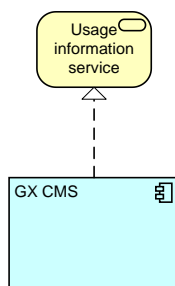
Figure 4-8. Usage information service of the new CMS in 2005.

4.2.2 Value generation

At the end of 2005, HCC!Service was created. This new organisational unit was a cooperation between HCC and IDG. The customer service was done by this new organisation, owned and managed by IDG and HCC. HCC!Service was responsible for administration of customer database, maintaining customer contact and transactions. This change enabled IDG to collect customer information and enable a more efficient process and have a customer focused approach (e.g. cross and up selling). IDG became 50% owner of the customer information. The general director and marketing director were responsible for this change.

The process was supported by a new information system named ZENO. Formally the internal systems were owned by the system administration, however this system was owned by the marketing department. The system was the result of functional requirements gathered by a business team and system administration. This system enables the storing of the customers in one single

database and offers more mature functionality than its predecessor at IDG. However, there was no connection between the Content Management System (CMS) and the websites. See below for an overview:
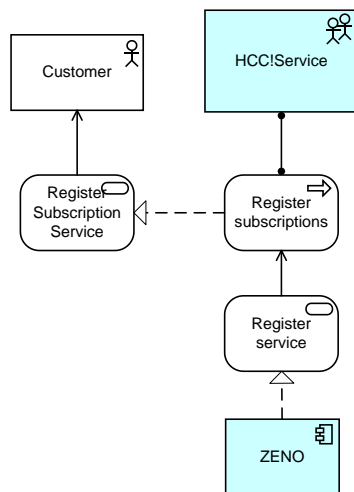
Figure 4-9. The subscription administration in 2005

A problem that still existed was the fact that when subscribing for a magazine, it could take too long before a confirmation was sent and the subscription was processed (I008-EV). It was suggested there was a minimum of commercial mindset (inherited from the HCC culture). In addition, the requests for a subscription made via the websites of the different individual online magazines were printed and re-entered again.

In addition to the subscription process, the customer service process for registering questions, complaints and feedback of subscribers was implemented in the HCC!Service organisation. This process was supported by the Right Now system. See below for an overview:
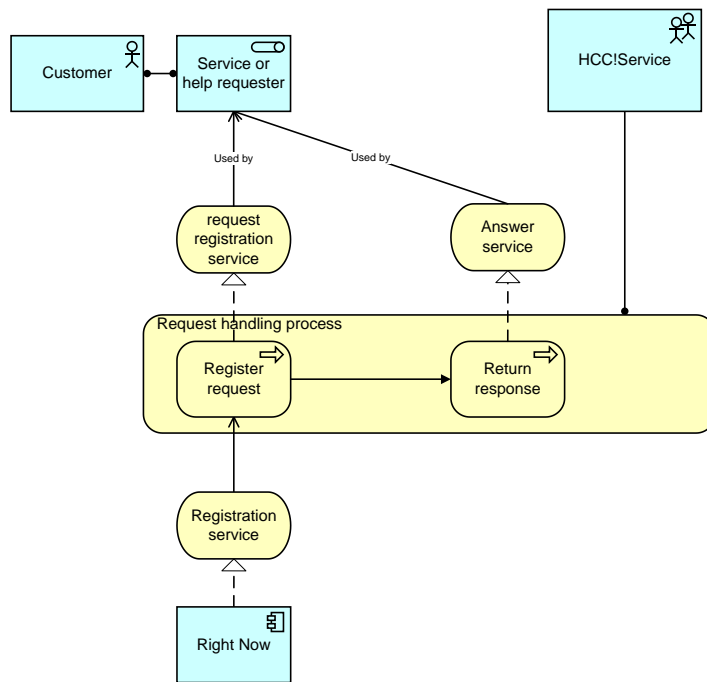
Figure 4-10 Customer service in 2005.

Besides gathering and using market information, HCC!Service was responsible for analysing the customer database. The information is provided as a service and can be used for example by the marketing department.
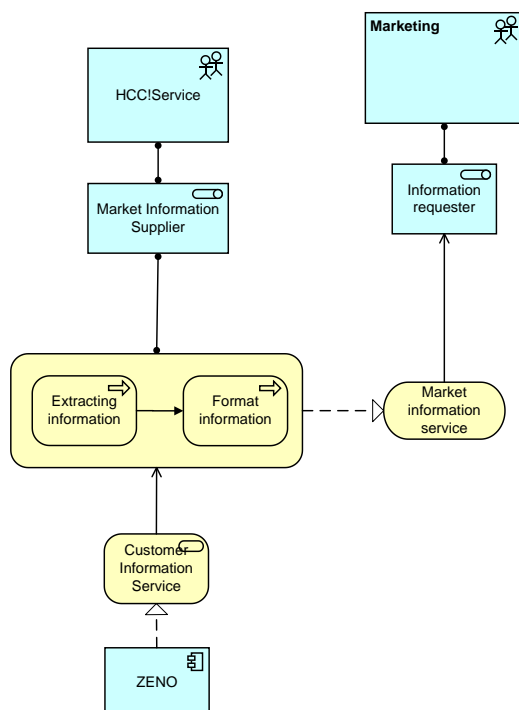
Figure 4-11 Customer information analysis in 2005.

This information is from the processes above is input for the management of market intelligence processes.

4.2.3 Planning and design processes

In 2005, the marketing manager was added to the MT. With this change IDG hoped to have a better alignment between the changes made to the business and the development and with the business strategy. In addition, to enable more alert MT and enable a better alignment of business and IT strategy the manager of online IT was added to the MT. However, he was removed the next year is therefore not in the overview below:
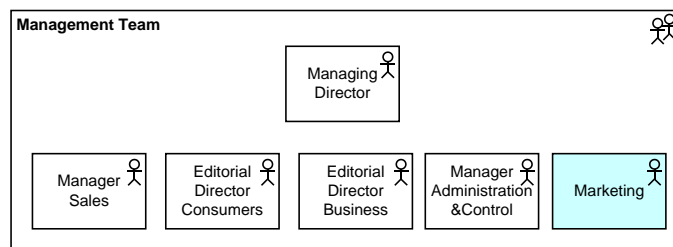
Figure 4-12. The management team in 2005.

In addition, the marketing department had the business development (BD) department installed under its authority. The responsibilities were:

- To prevent the wild growth of products initiated by the brands.
- Keep developments of the brand within the scope of the long term view (i.e. business strategy).
- Develop IT initiatives that exceed the scope of one single brand (magazine).

As a result of the implementation of one single CMS (GX) for all online magazines in 2005, a more controlled process for product development became possible. BD and online IT were able to provide a template for future developments. This also enabled a better way to make sure the plans were fitting into the business strategy. BD would help control this for future developments, to do this BD also collaborated with the magazines. See below for an overview:
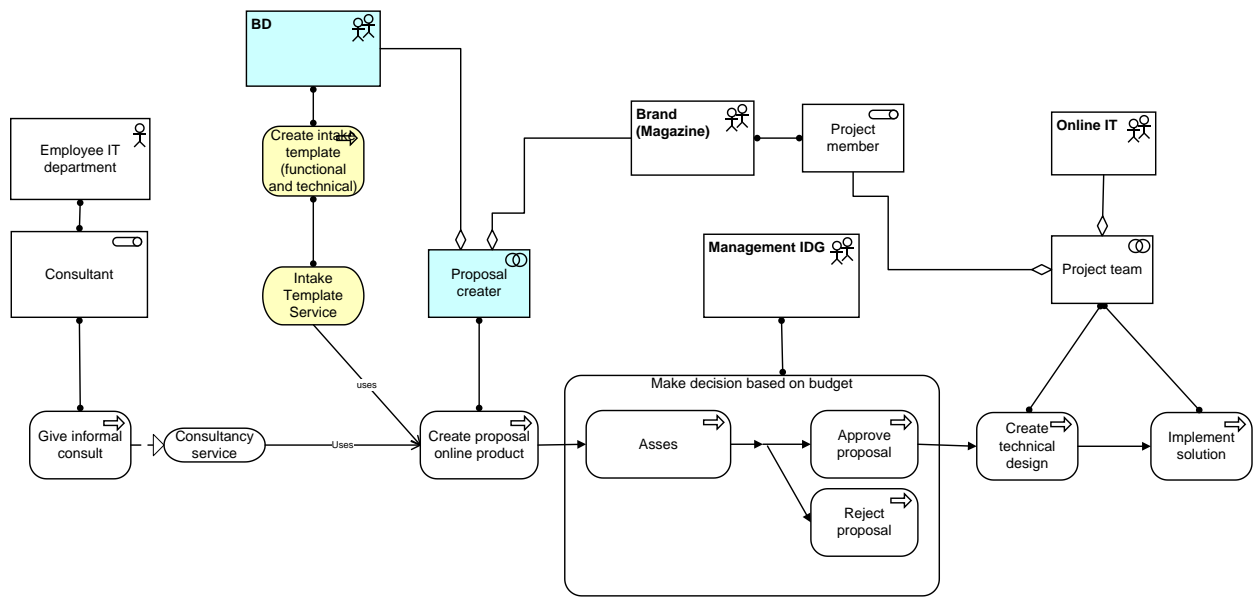
Figure 4-13. Online product development process in 2005.

 In addition in 2005, besides the normal MT meetings, four times a year a MT+ meeting was held. In addition to the normal MT team, the head of system administration, business development and manager human resources were included in the meetings.

To be able to have some sort of IT strategy and translate the business goals into a higher IT plan at the end of 2004 and beginning of 2005, an external party created an architectural design based on the business processes and current bottlenecks together with the marketing manager (D2005-01). The MT had a consulting function. See below for an overview:
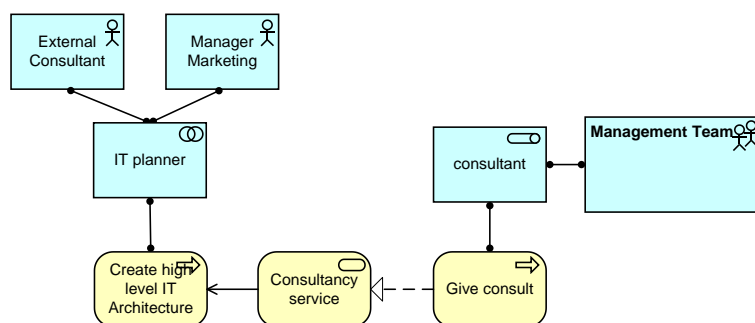
Figure 4-14. The IT architecture planning process in 2005.

4.3   2006

Although more customer data is available provided by ZENO and the single CMS to analyse, no formal processes and procedures are implemented. In addition, in 2006 online IT was removed from the MT (I005-RK, I002-JK). This was done because no qualified manager was available for the department.

4.4   2007

In 2007, the system administration and the online IT were merged[2]. In addition an IT Director was added to the organisation responsible for the new IT department. The IT Director was also member of the MT.

Another change made to the structure of IDG was the creation of a Chief Operations Officer (COO) who was responsible for sales, marketing and editors. This was the former marketing manager. The objective was to make marketing more leading in the organisation (I011-RG).
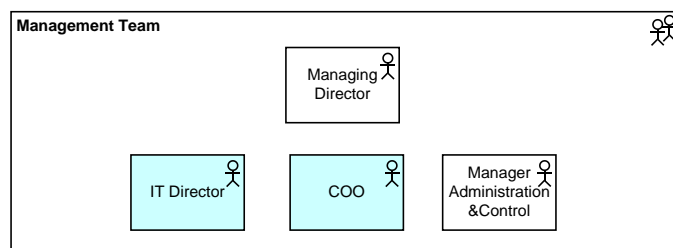
Figure 4-15. Management Team in 2007.

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[2] Although the case study was conducted in 2006, official publications and contact with IDG afterwards made it possible to make these observations.

4.5 Evaluation

In this paragraph it will be determined if the case study design is sufficient to analyse the Sdu case study and answer the research question: "*how business and IT could be aligned in a Dutch publishing house when implementing a Market Orientation*".

It can be concluded that the Archimate modelling technique enables clear snapshots to depict the changes over a period of time and thereby defining the transition of IDG Nederland. The detailed transition enables the analysis of the implementation of the changes and gives insight how the changes are made. However, it must be noted that the documentation gathered for this pilot case study was minimal and the interviews alone only give a certain level of detail. The main objective for this case study is to determine if the case design and the theoretical foundation are sufficient to perform an analysis.

The analysis would first focus on the implementation aspects of the transition. The transition of IDG showed clear decision roles in the management process. With the authority of the general director the management director (not yet in the MT) has been involved in creating HCC!Service. Also the marketing director had initiated the design of the new IT architecture because he was participating in the implementation of the MO. The business development which was installed in 2005, was given responsibility for participating in improving the strategic alignment of business and IT (e.g. introduce business proposal templates). However, it can be argued that to get the Editing Directors to shift away from the "old" way of doing things, the marketing manager needed to become COO. This implies a more *direction* style. It can be concluded that the case study design gives enough information to analysis the implementation.

The snapshots modelled with Archimate, not only show the incremental character of the implementation, but also the focus on the different domains of the SAM during the transition. This enables the analysis of the balance of attention given to the domains and the order in which the changes are made. Below a list is stated of the major changes:

Table 4-1. Changes made to IDG during transition.

Nr.	Year	Description
1	2005	HCC!Service subscription registration implemented
2	2005	HCC!Service customer service process implemented
3	2005	ZENO information system implemented
4	2005	Single CMS was installed
5	2005	Make HCC!Service responsible for analysis customer data

The order in which changes are implemented to the domains is related to the management process which designs and implements these changes. The snapshots modelled by Archimate also made this process clear. This information can be used to help analyse the order in which the changes are made to the domains.

Finally, insight on the changes made to the management process can be gained from the snapshots modelled with Archimate. Besides the changes made to the business and IT, and the perspective of the organisation when implementing the changes, insight is needed in the changes made to the management process itself. These changes all were made to improve the process of planning and implementing a MO with the support of IT. In the snapshots of the transition the responsibilities and involvement of people has become clear. So when, for example, the marketing was added to the MT a non-IT executive who has initiated a new IT architecture supporting the MO, it is evident that this enables the alignment. Below an overview of the changes made to the management process:

Table 4-2. Changes made to the IDG management process.

Nr.	Year	Description
1	2005	Marketing Manager installed in MT
2	2005	Business department implemented
3	2005	MT+ meeting
4	2005	Business development created templates
5	2005	BD collaborate when creating proposals
6	2007	CTO in MT
7	2007	COO in MT
8	2007	One IT department

The evaluation has shown that the snapshots are very useful and deliver a significant insight in the implementation of a MO. Also the use of Archimate as modelling technique for the snapshots has proven valuable. Although this was a pilot case study, still a reasonable amount of insight was created. With more data the insight created, can be used to create a model that depicts the steps an organisation needs to take. In addition, in the main case study more focus will be on the problems that remain to be improved or become apparent after every step, to create a causal chain through time. With reference to the derived descriptive research question Firstly, "*what changes are implemented in the business and IT domains, as the explicit outcome of the alignment process during the transition?*" Secondly, "w*hat changes are made to the business IT alignment process responsible for the design and implementation of changes during the transition?*" it can be concluded that these questions can be answered with the current case study design.

Chapter 5   Case study of Sdu Uitgevers

This chapter describes the results of the conducted case study of Sdu Uitgevers. This case study focussed on the transition of Sdu Uitgevers. To understand the situation at the start of this transitional phase, first of all this situation is described. Next the results of the analysis of the transition towards a market orientation are described.

It is important to be aware of the fact this case study describes Sdu Uitgevers, and does not focus on the mother organisation Sdu N.V. This case study focuses on the publishing company and its publishing services only. Therefore Sdu Uitgevers is referred to as *Sdu* in this the case study.

5.1   Beginning of the transition

This paragraph describes the situation of Sdu in the year 2000, at the start of the transition. This year has been chosen as the start bases on the indications given in the interviews and based on the documentation. Already in 1998 a first conception of the market orientation was made when the market research and the value of the use of market was communicated within the marketing departments (D1998-001, D1998-002). Since 2000, the market strategy is conceived and seen as a capability (at least within the central marketing department and the management of the commercial department).

First of all, the organisation is described based on the relevant departments, which are involved in the different processes gathering and using information, managing information and designing and planning the business and IT organisation (i.e. aligning business and IT). Secondly, the processes are described gathering, using market information, and managing information. Thirdly, the plan and design processes are described. All the descriptions are describing the situation in 2000. This is

described in past sentence, however it could very well be that no changes are made during the transition.

5.1.1 Organisation

The basic structure of Sdu, within the scope of this case study, consisted of several strategic business units (SBU), the commerce department and the IT department. In addition, the administration and control department (A&C) can be referenced to during the case study. However, this department is left out of the general description, because of its insignificance in the case study. Below the general structure of Sdu in 2000:
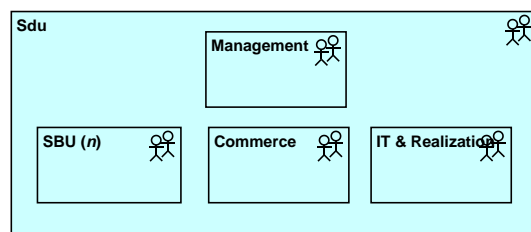
Figure 5-1. General organisational structure of Sdu in 2000.

Sdu management

The general top management of Sdu consisted of the Director, the commercial manager, the Information Technology and Realisation (IT&R) manager, and the publishing manager. Below a depiction of this structure:
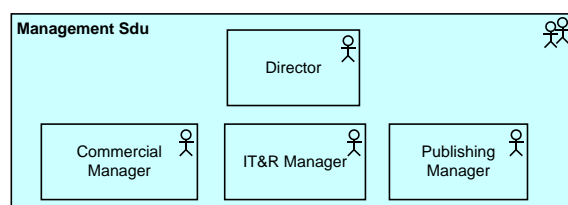
Figure 5-2 General Management Sdu at the start of the transition.

Strategic Business Units

The operational basis of Sdu was founded by the *Strategic Business Units* (SBU's). In general,

SBU's have a distinct external market for products and services (Johnson & Scholes, 1999). This is

also the case for Sdu. Examples of SBU's within Sdu are *Juridisch, Educatief, Bouwbreed, Vervoer*. A

generic SBU in Sdu consisted of a number of products with editors, a publisher, a marketing manager

with one or more direct marketers to send mailings and one or more sales promoters to organize

promotion projects. Below a generic SBU:
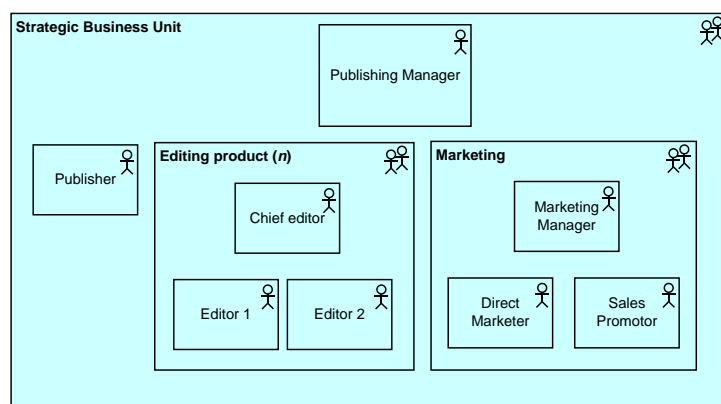
Figure 5-3. A Generic Strategic Business Unit (SBU) at Sdu.

Commerce Department

The Commerce Department consist of the Web Coordinator, which is dealing with the functional

development and management of the Sdu website, Communications which is focused on the

external communication of Sdu (I001-WW), the central marketing department (CMD) and the

Customer Service (CS). The CMD and CS are described in more detail.
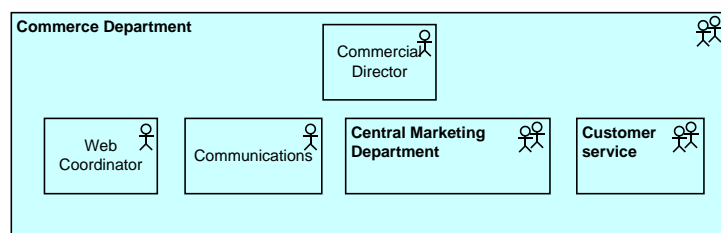
Figure 5-4. The commerce department

The CMD was organized as follows, the head of the central marketing department was responsible for the marketing departments of the SBU's. Therefore the CMD head was strategically and centrally responsible for the quality of the individual SBU strategic marketing plans. The Marketing Services Unit was involved with the management of information is described in more detail at the information management processes. See below for an overview:
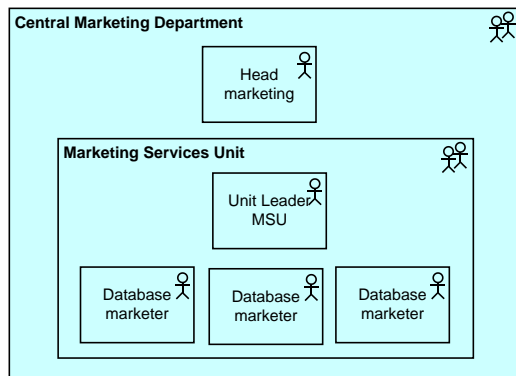
Figure 5-5. The Central Marketing Department (CMD).

Two departments made up the CS, namely the service desk & debtors and call centre & helpdesk. The Service Desk & Debtors was involved in the handling of orders and the handling of invoices. The Call Centre & Helpdesk was involved with the handling of questions and complaints, etc. See below for an overview:
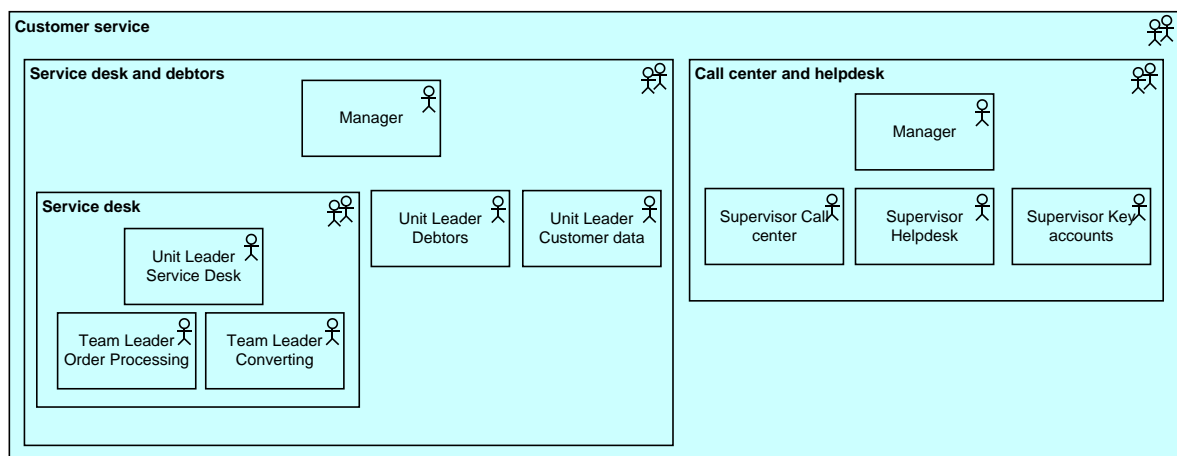
Figure 5-6. The Customer Service, consisting of service desk and call centre.

IT department

The IT department was led by the IT&R manager , the department consisted of Software

Engineering (SE), Technical Infrastructure (TI), and Application Maintenance (AM). SE, TI and AM all

have their own manager. Software Engineering was responsible for the product realization and for

consulting the business in a early stage (I010-RM). The competence of SE was not directly software

enginering in general. The CMS technology was intensively used, already for five years in 2000. To

develop other systems, external developers were often hired. Technical Infrastructure was divided in

system administration and the helpdesk. The responsibility of the System Administration is to

maintain a technical infrastructure that supports all applications needed to support the business

processes and provide electronic services. Application Maintenance (AM) was responsible for the

functional requirements of the application. However, AM did mostly focus on the technical aspects.

See below for an overview:
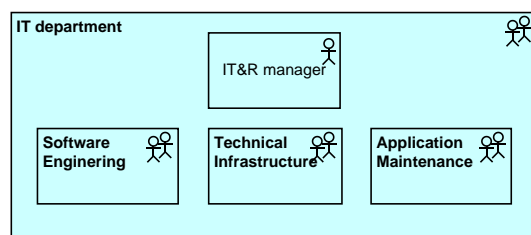
Table 5-1. Overview of the IT department in 2000.

5.1.2 Collecting and managing market intelligence

The SBU's conducted a minimal level of market research to be used in the marketing plans and

sales actions (I001-WW). However, the level of customer knowledge was too low and often only the

data already available within the SBU was used. The results of the marketing research and other

data gathered (e.g. marketing actions results) are stored locally and were not centrally coordinated

or distributed. Below the process of conducting market research:
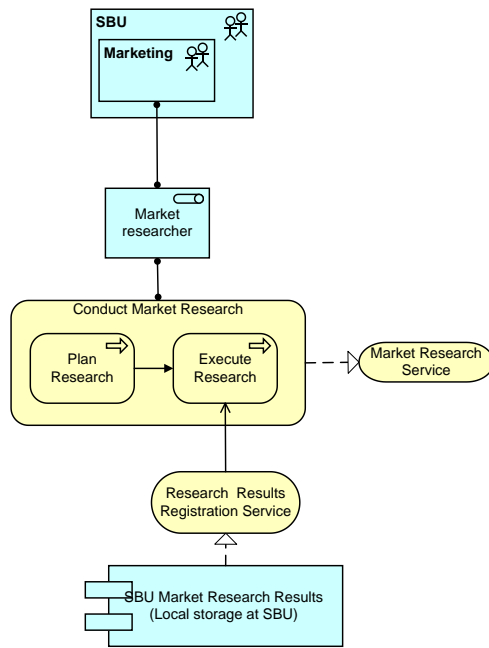
Figure 5-7. The market research conducting process in 2000.

In addition, already in 1998 the concept of database marketing and the first attempt to disclose information from the database was made (D1998-001, D1998-002). In 2000 the Marketing Service Unit (MSU) provided the SBU's and management with market information extracted from the VISTA ERP system databases and other databases. With the use of various tools, they extracted data from databases and sometimes used other databases to process data. This data was then delivered in various forms to the SBU or management.
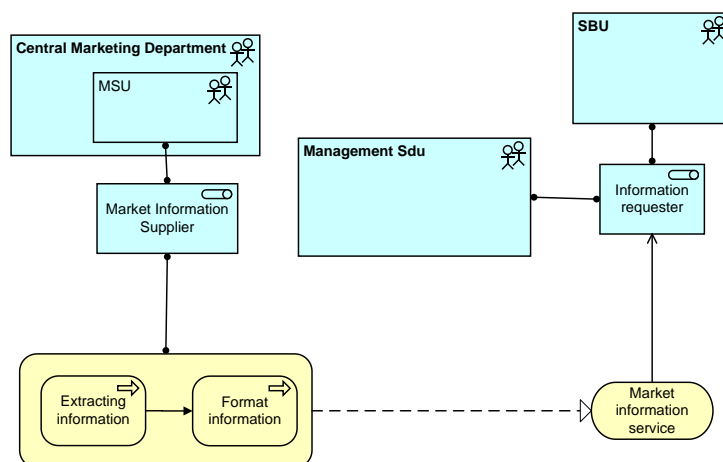
Figure 5-8. MSU as market information supplier, in 2000.

The transactional information is stored in the Enterprise Resource Planning (ERP) application: VISTA. VISTA uses several data sources to generate the market information, namely customers, products, sales details and contact details (D2002-003). This information is loaded into a several combined oracle databases and a mailing module (D1998-002). A variety of tools is used to extract the data from these databases (e.g. Report2web, and Webtrends). In addition, not all information can be retrieved from these database, for example budget and revenue figures combined are delivered separately in for example access database (D2002-002). See below for an overview:
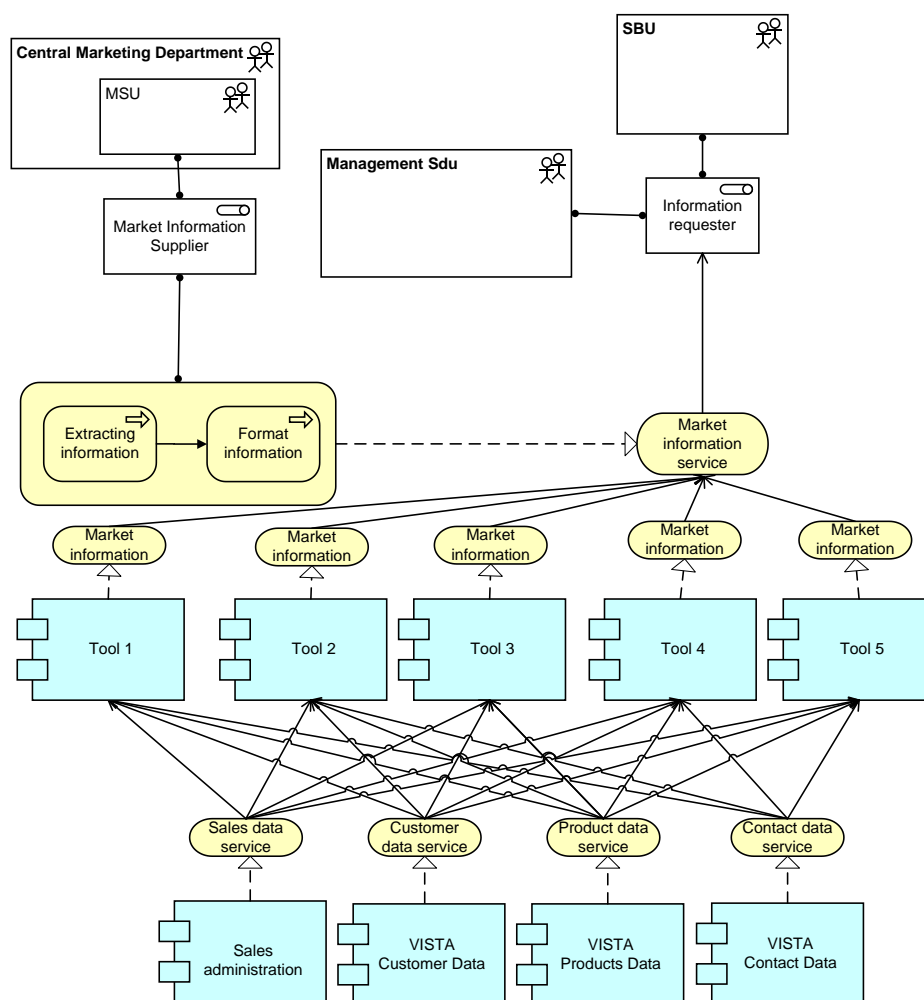
Figure 5-9. MSU as market information supplier including the IT layer, in 2000.

However, the data supplied was often locally stored by the strategic business unit and used for an long period of time. This caused the usage of outdated information. In addition, the quality of the

information was insufficient. *First of all,* the information provided by the MSU was often not the same as calculated by the accountancy and control department (A&C). *Secondly*, different sets of data provided by the MSU were not the same because of inconsistencies in the database. *Thirdly*, the information could only be retrieved by SBU's via the MSU and not by themselves. *Finally*, the SBU's often didn't know what information was available and where it was generated (D2001-001, 2002-002, D2006-09).

5.1.3 Value conception

A process involved in the usage of market information was the strategic planning process. The use of market information (i.e. the results of the conducted market research) to create a strategic plan was in the first place a responsibility for the management of a SBU. The SBU management consisted of the SBU publishing manager, publishers, and the marketing manager. The SBU's determined the marketing and sales strategy of a domain for a 2-3 or 5-year period. Domains can be a whole SBU, a part of a SBU with the same distinctive part of the market or similar focus on products. The process of market selection and value conception was perceived as not sufficiently market oriented (I001-WW, I002-WW). In addition to the market information based on the market research conducted, the SBU's were using information provided by the Marketing Services Unit (MSU), which is part of the Central Marketing Department (CMD). This will be described in more detail later in this paragraph. Below the process of SBU strategic planning:
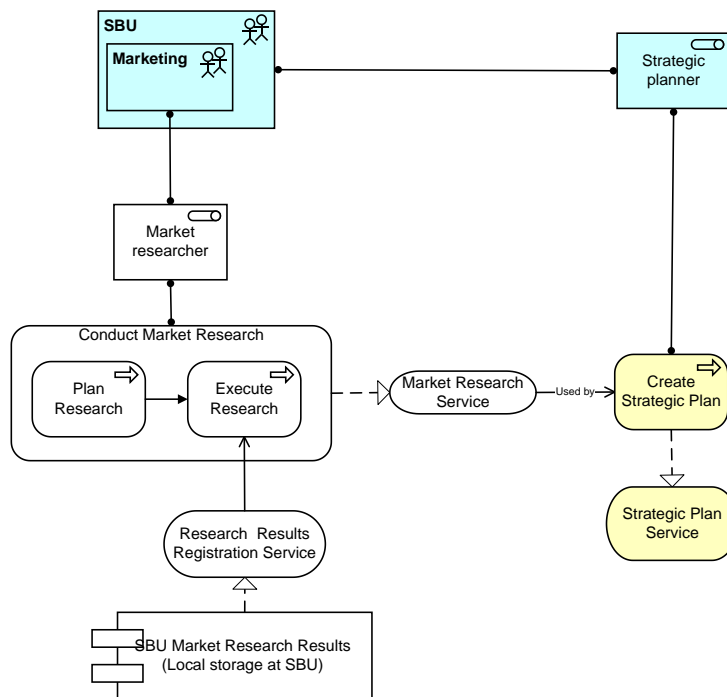
Figure 5-10. The SBU strategic planning process in 2000.

An additional process was the creation of the overall Strategic Action Plan. The head of the CMD together with the Sdu Management is involved in the writing of the strategic action plan (SAP), which is based on the individual marketing plans of the different SBU's. The SAP is used to help determining the budgets for the SBU's. The management and head of the CMD are responsible for the formulation of the SAP. See below for an overview:
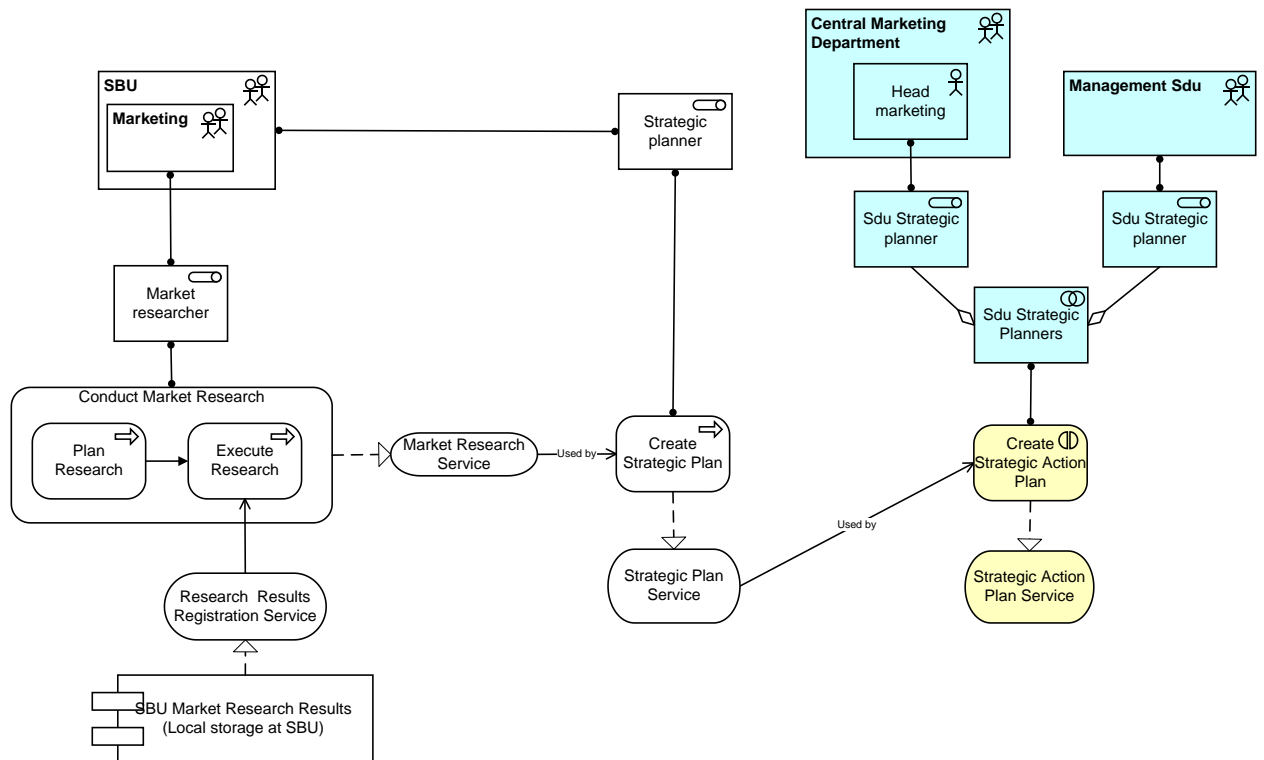
Figure 5-11. The creation of the Strategic Action Plan in 2000.

Looking at these process several problem areas can be identified. The market research conducted was often focusing on the results of marketing projects and less on the development in the market. This had its reflection on the strategic plan which had a static profile, less focusing on development of new services based on market information. Finally, the lack of coordination and local storage of market research results made the research less valuable for the strategic planning. Below an overview of the problem areas:
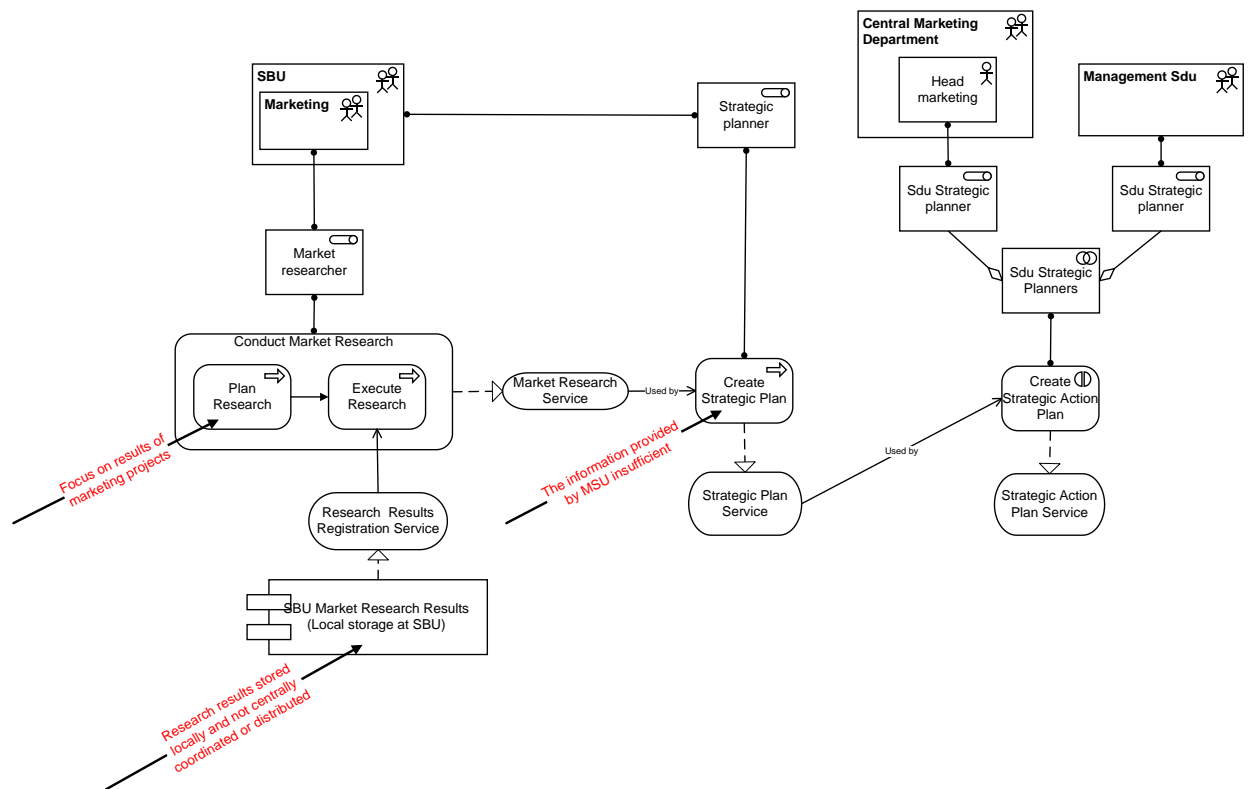
Figure 5-12. Problems in market information gathering and usage, involving the SBU's in 2000.

5.1.4 Value generation

In addition to the processes that involve the responsibilities of the SBU, a different department with a direct interface to customers and the potential to gather and use market (customer) information was the customer service. Two customer service processes involved activities that interacted with customers.

First of all, the order handling process, which was a responsibility of the service desk, interacted with customers. Customers would telephone the customer service to order a product, for example a book. This order was then processed and finally registered in VISTA, the Enterprise Resource Planning (ERP) system. Customers were also able to order via the Sdu website. The website would provide an list of products. This was mainly a static list of products with a product code. The Sdu did not provide easy to use workflows and only an e-mail was sent that needed to be processed. The

order was then printed and re-entered into VISTA. No use was made of customer profiles or other

market information. The VISTA system (as transactional ERP system) did not contain the

functionality to provide customer profiles or the available products that then could be suggested.

Therefore the customer service was depending highly on the experience of the employees. All

products and customer knowledge was in their heads. This also reduces the possibilities to quickly

train employees (I006-AE). In addition, because the VISTA system did not provide the products to the

Sdu website automatically and real time (i.e. dynamically), the list of products needs to be updated

manually. See below for an overview:
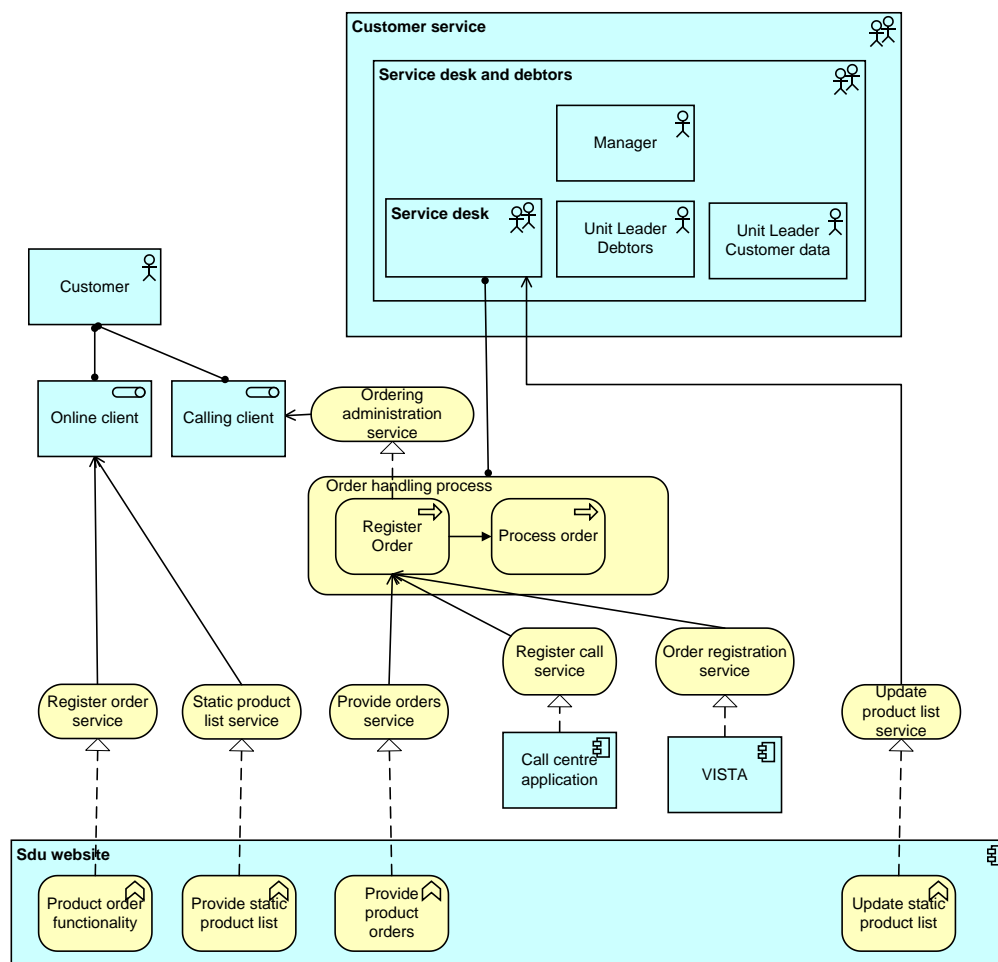
Figure 5-13. The customer service, ordering process in 2000.

A second process was the request handling process. Through the call centre application and the

e-mail registration system, requests from customers were processed. This is basically the after sales

services. VISTA was used to register complaints. There had been some attempts to distribute reports based on the feedback from customers. These reports (extracted from VISTA) were not used by the SBU's (I006-AE). See below for an overview:
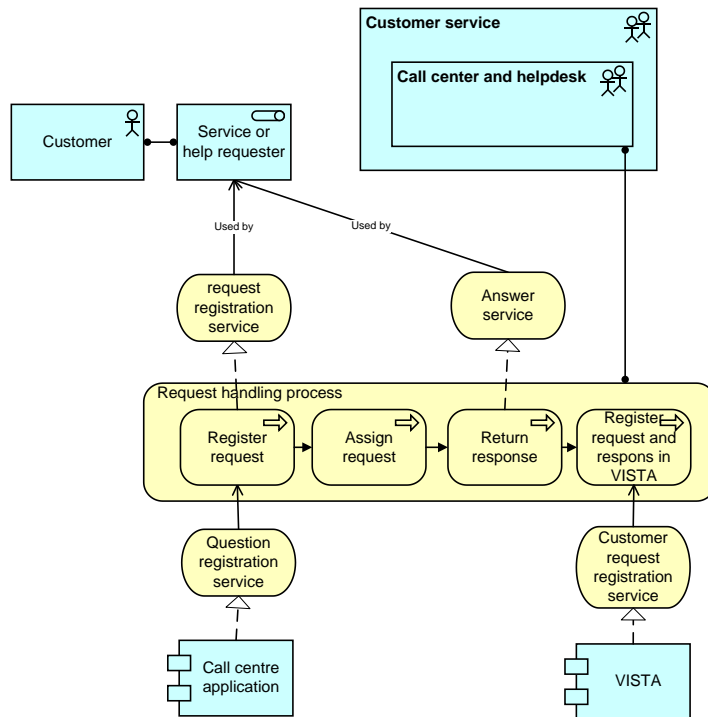

Figure 5-14. The customer request service in 2000.

5.1.5 Planning and design processes

At the start of the transition, the project management for both IT and more business related IT projects was placed under the responsibility of the IT department. Pilots were created and communicated by informal relations between business and IT before formal projects were started. There were two types of IT related projects (prioritizing and development processes).

Firstly, the projects for value creating online IT products, used as service or product to the customer. The process describing this project process, could also be placed under the paragraph of usage market information activities. This process however was seen as a design and planning process as it changed the business and IT infrastructure. For an online product project to start, an

intake needed to be created by the SBU. This intake was approved by the top management who

assessed the business case. After approval a project manager was appointed to the project. Project

managers were placed under project management team of IT (I009-PH). Finally, a cross functional

project team was assigned to the project. This team consisted of the system owner or delegated

person (in case of an internal system), key user, delegate from TI (not always present), and several

software engineers (depending on the project if CMS or ERP developers) (I005-MT). Below an

overview of the process:
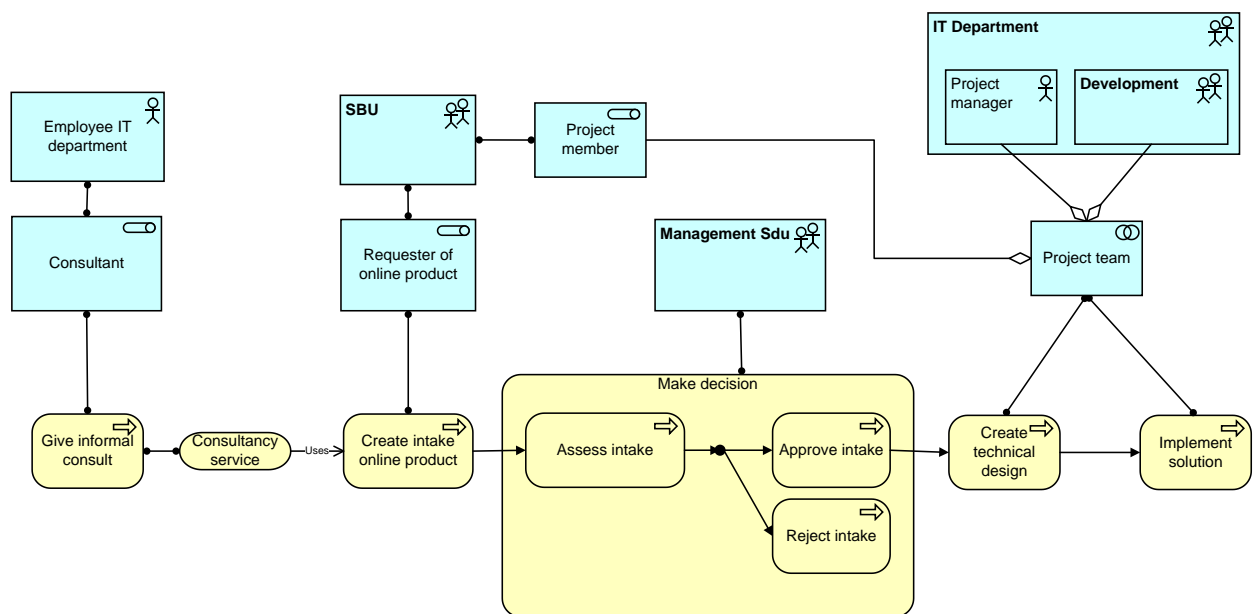
Figure 5-15. The process describing an project for an online product in 2000.

Secondly, projects to develop and implement information systems supporting the supporting

departments of Sdu. Projects for internal information systems supporting departments, Sdu had a

similar process to go through. However, the initiation of a projects was done by having a proposal

approved by the manager of the department. This approval was mainly based on the budget

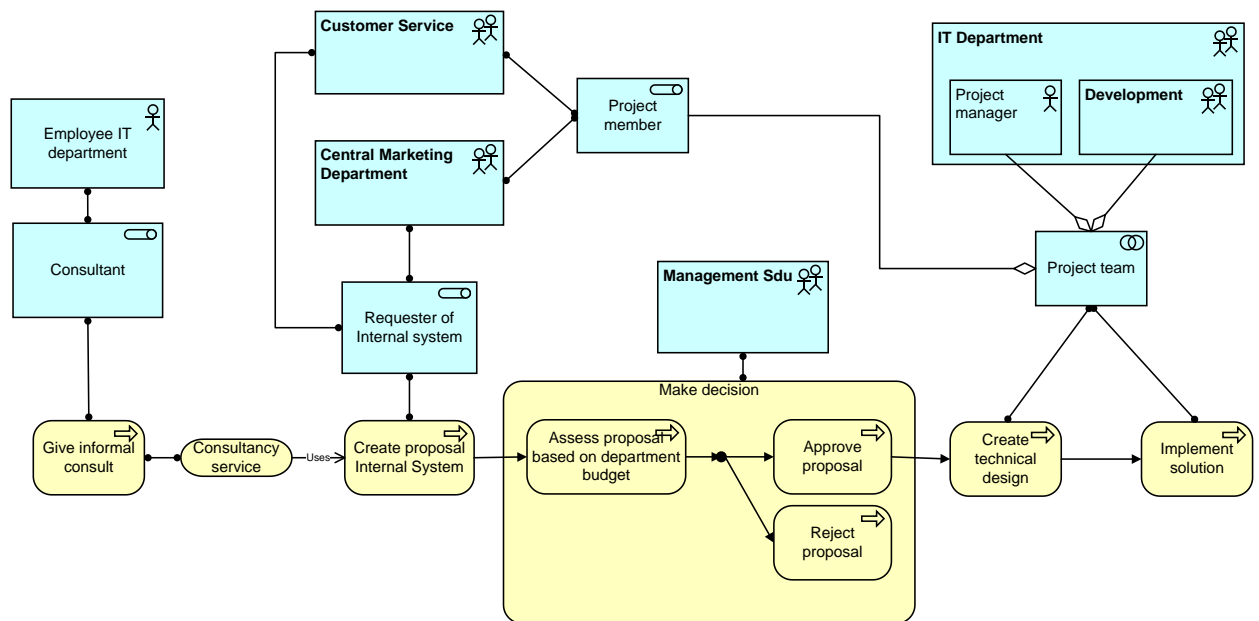available. Below an overview of this process:

Figure 5-16. The process describing an project for an internal system in 2000.

Several problems were occurring. Firstly, because the project management was placed under the IT department, it was perceived that the technical perspective was too strong. Intakes for online products and proposals for internal systems supporting departments were often seen as the final functional design and a minimum of functional research and development was done. One of the reasons is that the system owners and key users should form the functional administration and report on user experience. However this task was made a responsibility of SE and application administration and as result not done sufficient (I009-PH, I010-PH). In addition, users did not understand the communication and afterwards complain about the result, because the process was too technical (I009-PH, I010-RM). Finally, the intake, and the proposal, were not explicitly concerned with a business case and market research was not enforced when an intake for online product was created. Also the information provided by the MSU needed to be improved. See below for an overview:
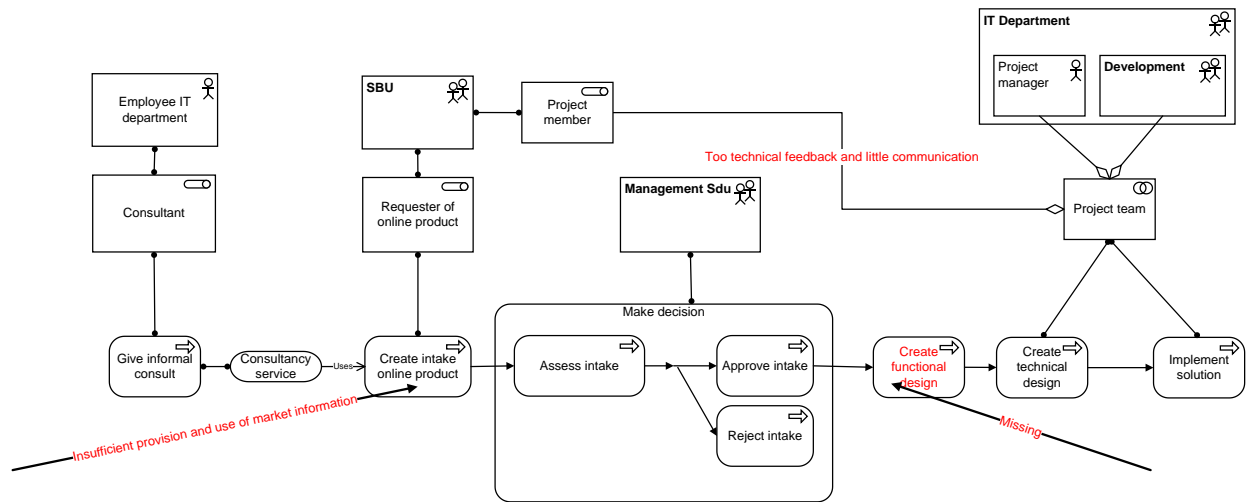
Figure 5-17. Problems occurring in planning and design processes in 2000.

Finally, besides the planning and design focusing on the prioritizing and investment of IT, the IT strategic planning processes had its problems at the start of the transition. The IT strategic planning process in 2000 was described by the manager TI (I009-PH). It was learned from the interview that only informal attempts were made to create a company width IT strategy. No further evidence was found of any process describing the governance of the IT principles within the scope of changes to increase the market orientation. From the interview it became clear that only the manager TI and SE were involved in formulating the strategic IT objectives.
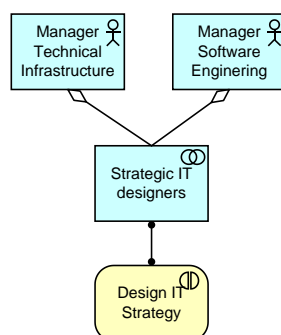
Figure 5-18. Formulating the strategic IT objectives in 2000.

These strategic objectives were mainly focusing on the development of online databases and other electronic customer services. Although, mostly in relation with the online and electronic

customer services and in relation with VISTA as the critical ERP system, there was limited focus on the IT infrastructure strategy. However, the system owners and the IT managers did plan one year in advance, creating some sort of long term plan.

In addition to the process of creating the IT strategy, the process of designing the IT architecture was not highly developed (I009-PH). Although the architectures for individual online products were highly developed and detailed, the overall architecture also described the supporting business departments , their processes and their IT systems were underdeveloped. No conditions, constrains or long term objectives for the overall architecture were formulated. The individual IT teams responsible for the respective system also were responsible for their architecture.

From 2000 on, Sdu perceived the strategic marketing concept as a way to increase performance and was communicated and presented to its managers in presentations trough out the years of the transition (I001-WW). As a result managers were more aware of the adoption of this concept and thus the increased focus on the internal capability of using customer intelligence and the measurement of the business performance to reach the strategic objectives of Sdu. A significant example was the presentation given later in 2004 to all managers on the strategic marketing concept (D*2004-010*). The next paragraph describes all years of the transition. Within every year all processes and organisational changes and problems are described. These changes are accompanied with the alignment/design processes leading to those changes. For some years more focus is on the design processes.

5.2   2001

5.2.1   Collecting and manage market intelligence

In addition to the CMS supporting the Sdu website since 2001 (see value generation), there was analysis functionality integrated to measure the use of the website and specific parts. These statistics can be requested at the MSU. See below for the information management process of the MSU:
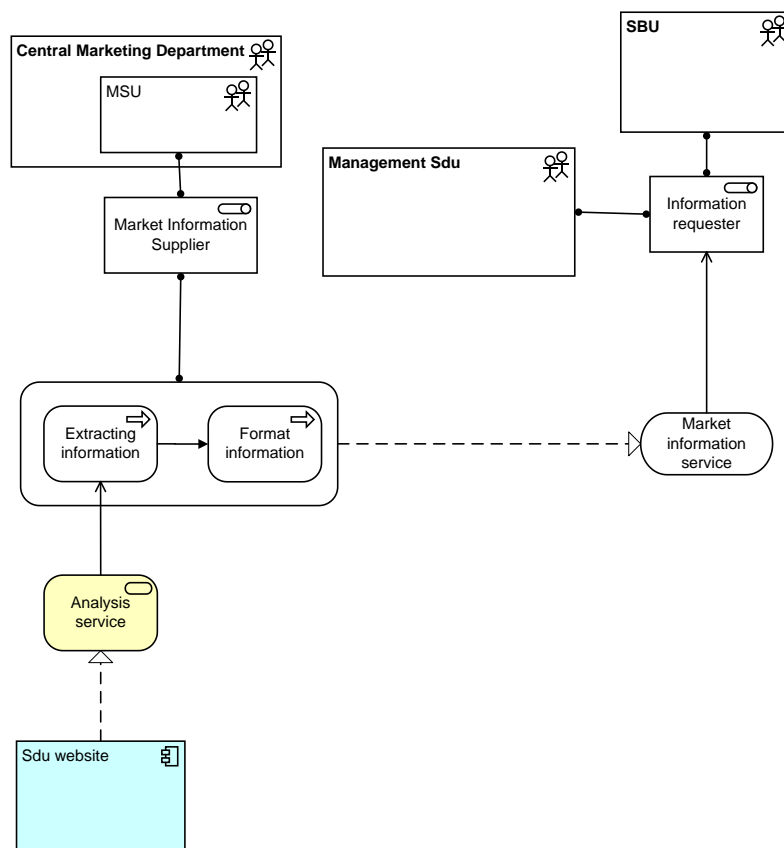

Figure 5-19. Sdu website supporting the MSU information management process in 2001.

5.2.2   Value generation

In addition to development of internal systems, in the beginning of 2001 the development of a new Sdu publishing website was initiated by the commercial manager. The start of the project was comparable with the internal systems, as this system was not an online product supporting a title or

other product. All functional and technical requests to IT were coming from commerce. No

fundamental architecture conditions or designs were initiated by IT management. For the Sdu

website a dedicated web manager was assigned in the commerce department (D2000-001, D2002-

003). This coordinator was assigned to project team management.

The objective was to create a customer focused website based on the business strategy. This

website was to be a customer focused website. However, it was planned that before the

personalization of the website could be implemented, firstly a basic publishing site should be

implemented (D2000-1, D2000-2). Although no customer profiles were used, the workflow of the

new website was based on Tridion supplying workflows to have a better flow for selling products.

Also metadata was added to the generated pages. Below the process:
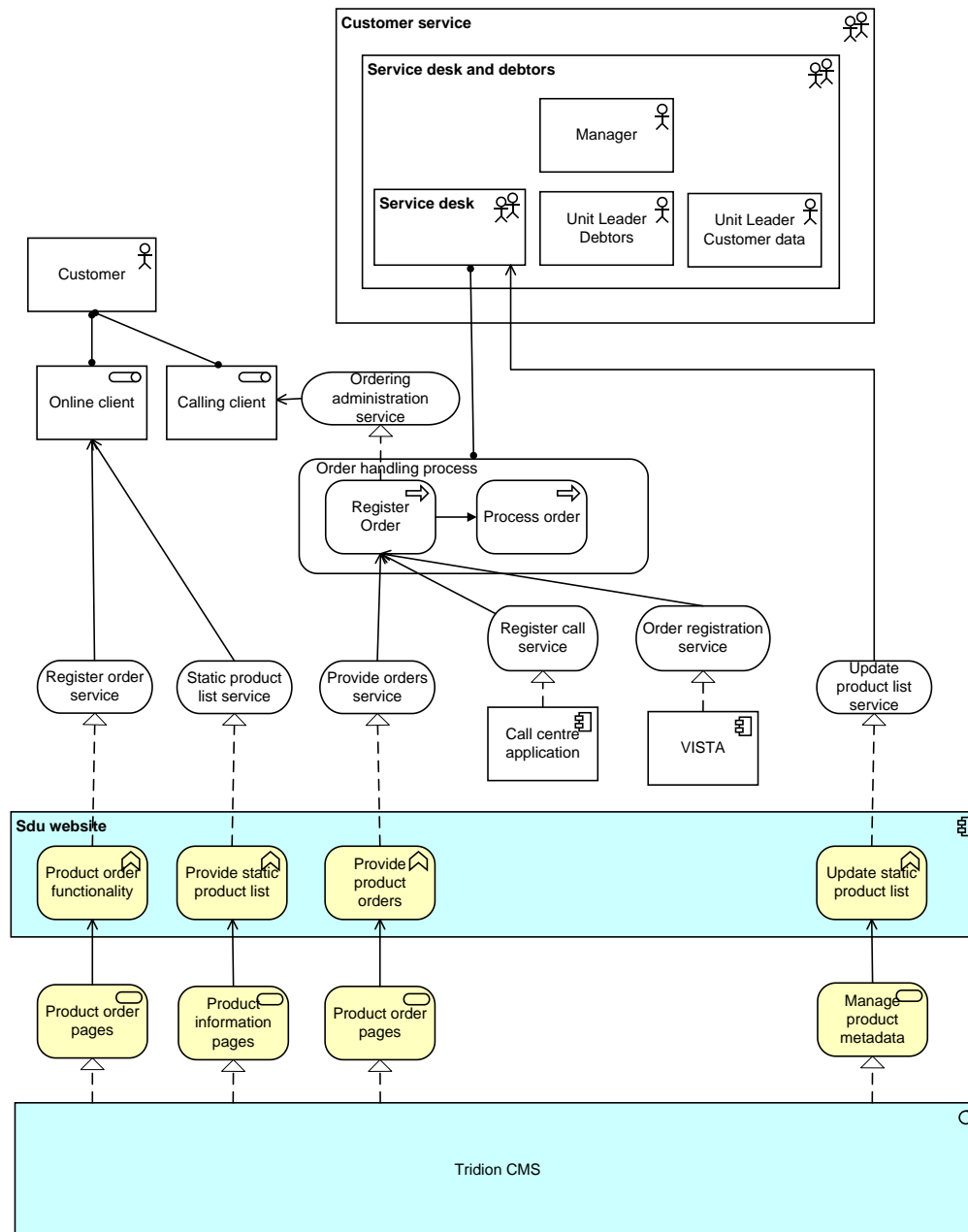
Figure 5-20. Changes made to Sdu website supporting the customer service in 2001.

5.2.3 Planning and design processes

During 2001, the head of Central Marketing Department (CMD)and the Marketing Services Unit

(MSU) worked on a design with the database administrator to have an initial idea on Data

Warehouse (DWH) possibilities and information architecture. This was initiated by the head of the

CMD to build the capability of the strategic marketing concept (I001-WW). This project mainly resulted in a list of technical possibilities. Below an overview of the process:
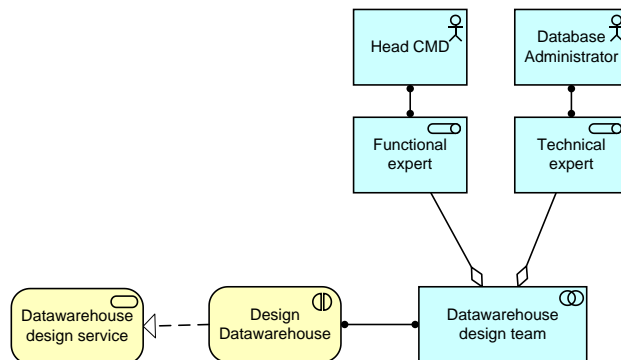
Figure 5-21. Planning and design processes for the proof of concept of the DWH in 2001.

5.3 2002

5.3.1 Collecting and manage market intelligence

In 2002, the information processes, concerning data analysis, were summarized by "the possibility to summarize, cross-relate all variables from the customer-, product-, sales-, and connect information tables" (D2002-001 p4). In the description of the pilots for a DWH, the information architecture and information processes were outlined. Information that was to be collected and managed was about customers, products, sales details, and standing orders. In addition, all transaction data and contact data, and all invoice data had to be be collected. Defined was also, that information about all financial and general ledgers, including account payable and royalties needed to be included (D2001-001, D2002-001, D2002-004). Finally, business needed the budget information and information on the visits from sales. In addition, the budget information had to be linked with other financial information. This data should be consistent, flexible data access had to be possible, and had to be able to create possibilities for tracking and tracing and audit trails.

In addition, it was recognized that not all information could automatically be created, and processed from existing data, sometimes more elaborate steps by analysts were needed (D2002-

002). It was determined that the MSU department was necessary and responsible to do some elaborate analysis (D*2002-001*). The MSU extract, adapt, analyze, and return data. The access to the information by publishers and marketers should be direct instead of everything through MSU if possible.

However, in 2002 only these pilots were performed and planning was done. No actual implementations were performed. Also no significant changes in the planning and design process were perceived. The actual changes to the DWH are described in the next years.

5.4 2003

5.4.1 Collecting and manage market intelligence

In 2003 the DWH project was started with al documentation and pilot knowledge of the last year used (D2002-01, D2002-002, D2003-001). This resulted in the IT infrastructural being changed and the DWH being implemented. This project was led by the manager A&C as owner of the project and as most prominent members the database administrator, the head CMD and technical it administrator. See below for an overview:
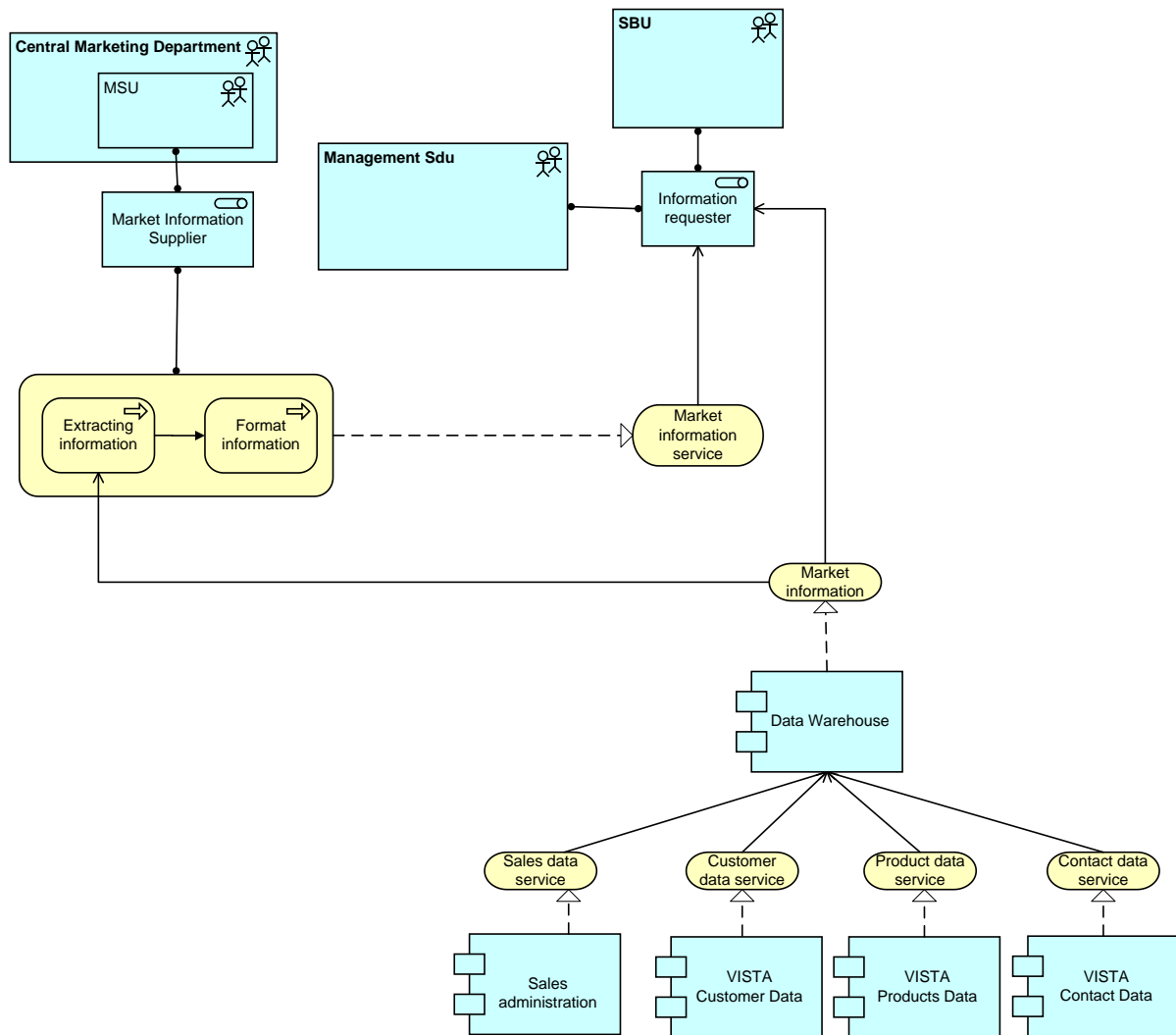
Figure 5-22. Implementation of the DWH 2003.

In November 2003, during the DWH project (D019), also the process of development of new information analysis and processing queries were designed. This process was designed by a collaboration of CMD and IT. The MSU and A&C were responsible for the creation and changes of queries for the different reports. The process was designed as follows (D2004-004, D2004-005). The calls were handled through the helpdesk, software and authorization was done through the helpdesk, new queries were logged as change under the system owners. Functional management contacted a key user and IT so a new query could be made. If it takes a considerable amount of time, a proposal for the MT needed to be written. A new query had to be be tested by functional management, the system owner and the user.

5.4.2 *Value conception*

Since 2003, yearly an increasing number of SBU's did a "Kansen in Kaart" (KIK) analysis. The goal of the analysis was to create a quick and dirty analysis of the market opportunities of domains within SBUs and use them as basis to create a strategy for Sdu. The SBUs made the analysis and choices for the KIK input themselves (D2006-006). After the BSU created the KIK analyses, the KIK team, consisting members of the management, the newly installed manager business development (still in an interim phase) and head marketing as project leader, head sales and customer service and financial manager made some final decisions. See below for an overview:
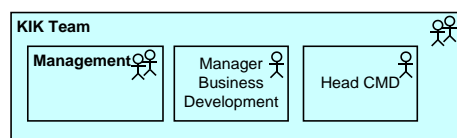
Figure 5-23. The KIK Team in 2003.

Objective of this involvement was firstly to analyze the market opportunities, increase the view on the market and portfolio, systematically create the view on the portfolio of Sdu and competitors, suggest ways to strengthen the product portfolio systematically, identify chances and propose goals and prioritize these goals. Secondly, they could adjust the strategy and create conditions for the SBUs to ensure the overall business strategy of Sdu. Because the focus was on product innovation, product strengthening, and disposing products, it was suggested to be partly based on the product life cycle and to some extent compatible with the McKinsey Matrix. This process was adjusted every year to increase the value conception. See below for an overview:
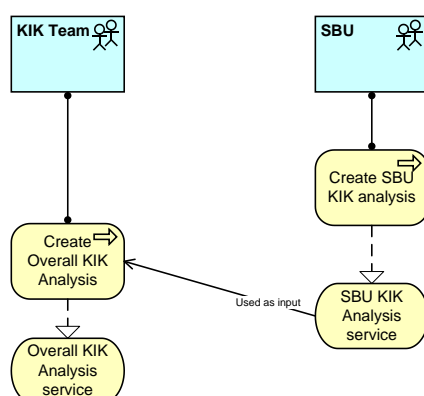
Figure 5-24. The KIK processes

The marketing managers were trained to use the KIK template and their skill level was monitored by the outcome of their KIK analysis. Focus was on the use of market information to increase the collection of market information. The head of CMD and the management were involved in the structural adjustments of the KIK analysis (i.e. training, template and process). These adjustments were based on the results of the outcome of the former KIK analyses. See below for an overview:
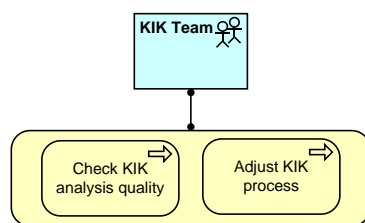
Figure 5-25. Analysis of KIK process/organisation and adjusting process.

5.4.3 Value generation

To support the customer service processes, in October 2003, the web coordinator under the responsibility of the commercial manager, focused on the improving the customer orientation of the general Sdu website. The primary focus was on the use of customer information for personalizing the corporate site. To be able to use customer information an IT architecture was designed with a VISTA CRM module for the customer information needed on the website. No evidence was found of an explicit study on the customer or market information structure (D2004-07). In December 2003, the IT architecture for the publishing websites was chosen. Focus of this architecture was on the publishing of information (D2003-02). This project was only partly successful and the CRM module of VISTA was only able to export the product information so it could be imported in the Tridion CMS. This reduced the need for the customer service to maintain the CMS by itself. See below for the customer service process:
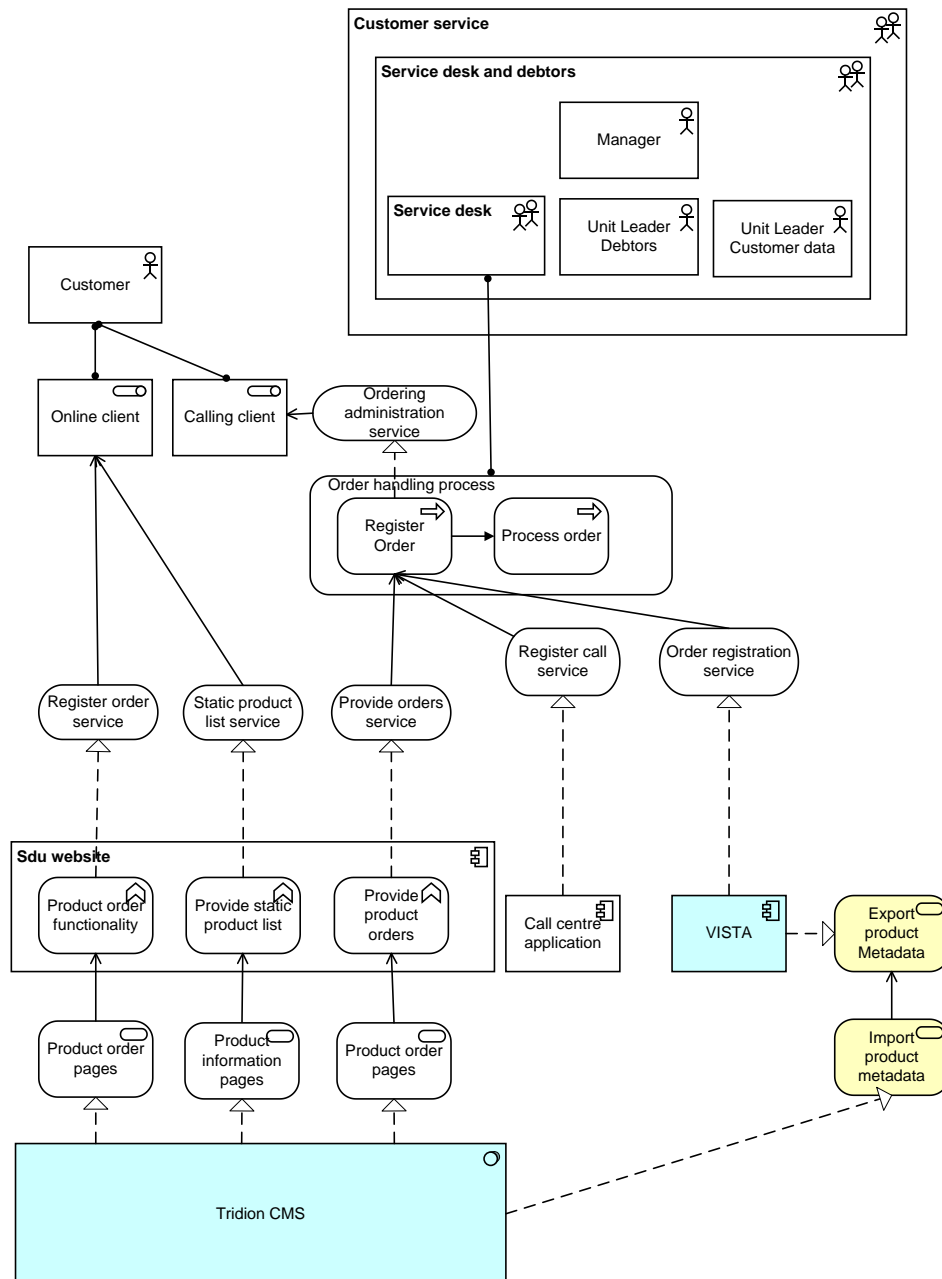
Figure 5-26. The export / import of product metadata to the Sdu website in 2003.

For the implementation of the website a project team was created. The project team consisted of the commercial manager as system owner, the web coordinator as key user, and several IT related functions. In addition, a steering committee consisting of the manager IT, manager commerce (also system owner), and an employee from content operations were responsible for giving a go and no go at every phase. This project structure and process can be considered the same as already

described for the start of the transition. No evidence was found for any architectural or strategic IT input.

5.4.4 Planning and design processes

With the introduction of the KIK, also two different types of IT initiatives and following projects were distinguished. If the costs of a project was higher than 20000 euro and the project had an external focus and was directly value creating, the project required an intake. An intake is a formal document describing the business case of a new or adapted product (very often with the use of IT). The business case describes the costs, what and why customers want it. Emphasis is laid on the definition of customer group and their needs to improve the customer focus. The pre-assessment of the intake is done by the newly created innovation board (IB). The newly created manager business development (BD), head of CMD and manager software engineering (SE) were present in the IB. See below for an overview:
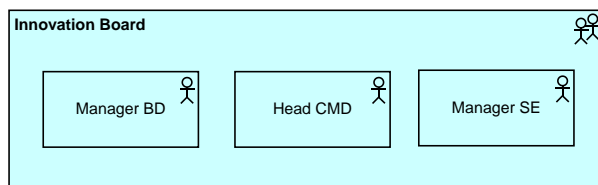

Figure 5-27. The innovation board in 2003.

This board evaluated intakes but the MT finally approved or disapproved the intake. In addition, the IB required a complete filled intake requiring SBUs to collect qualitative data on its audience (customers). According to the central marketing department this caused an ongoing increase in customer research conducted, however the results of the researches could still be improved and results were still stored within the SBU and were not coordinated. The KIK analysis were used to prioritize intakes, as it provided the current opportunities for new services or products. In addition, the SAP system was used to align the priorities with the strategy laid out. Below the changes to the process of creating an intake for an online product when projects cost more than 20.000 euro.
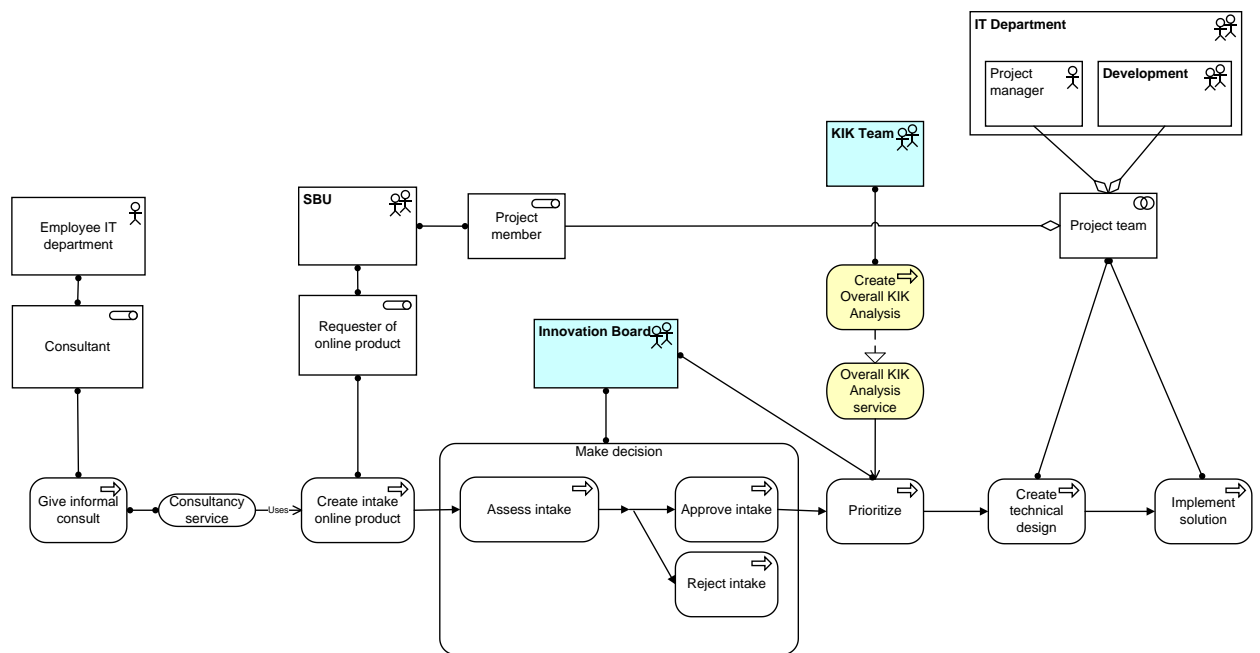
Figure 5-28. The changed process of a project for an online product in 2003.

Projects with costs estimated lower than 20.000 euro or that were not externally focused did not require a formal intake and needed to have a proposal as is described in the beginning of the transition. This implies that the business case was not explicitly needed to be described. This remained a problem.

5.5 2004

5.5.1 Collecting and manage market intelligence

In 2004, the Market Intelligence Unit (MIU) was implemented under the CMD's direct responsibility. At that time, the MIU consisted of one person, namely an employee of the marketing services unit (MSU) which also fell under the responsibility of the CMD. The goal of separating the responsibility for market intelligence from the MSU was to be able to create a mature unit (D2006-001 p2, I002-WW).
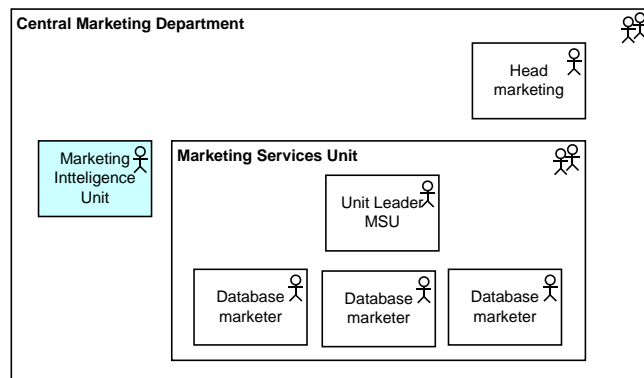
Figure 5-29. CMD with newly implemented Marketing Intelligence Unit (MIU).

It's objective was to help interpreting strategic information to support publishing and marketing processes and the strategy of Sdu (D2004-001). This strategic information was not only provided by information processes supported by the DWH, but also market research data, etc. Analysis was done on request to provide information for the strategic marketing plans, intakes and KIK analyses. This was a service delivered to the SBU's. See below for an overview:
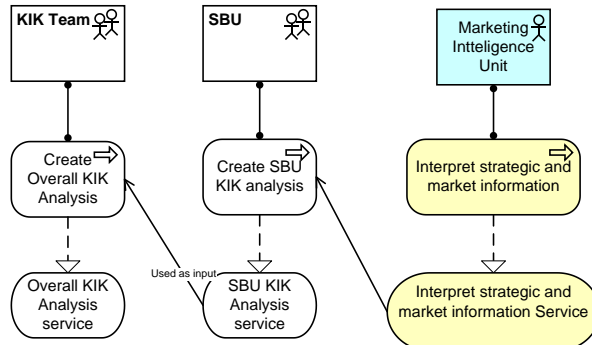

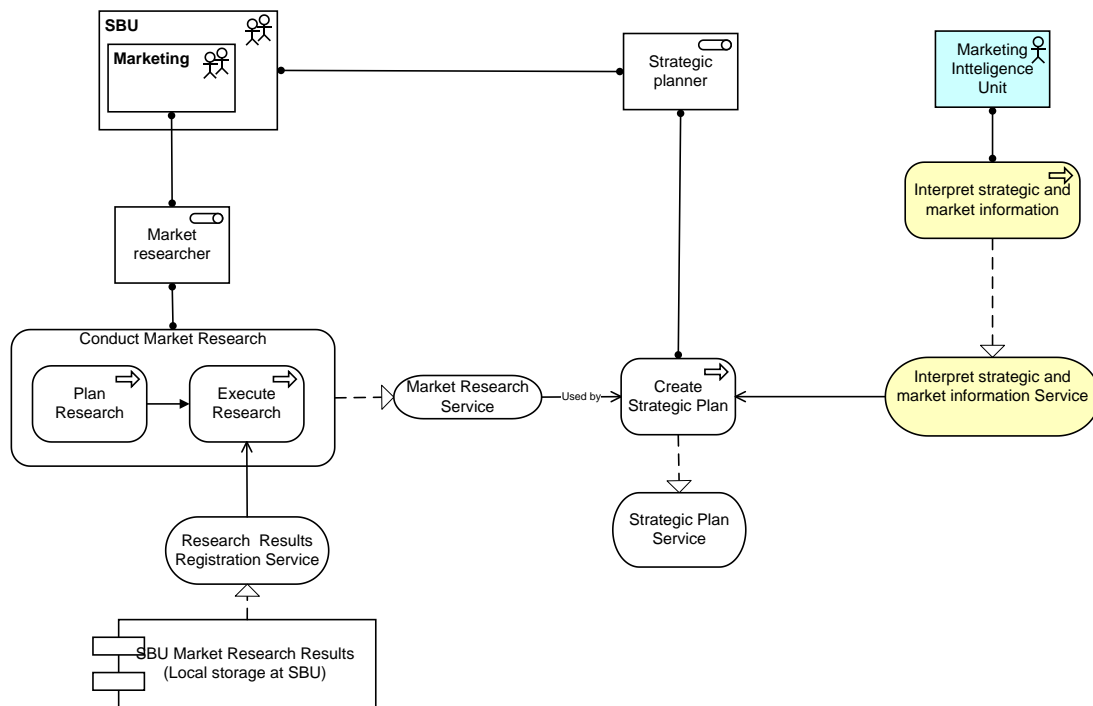**Figure 5-30. KIK process with support of the MUI in 2004.**

Figure 5-31. Strategic planning process supported by the MUI in 2004.

One of the other responsibilities of the MUI was collecting marketing ratios from SBU's. These were often provided by the different SBUs on request of the MIU (D2004-001). Below a small overview of this process:
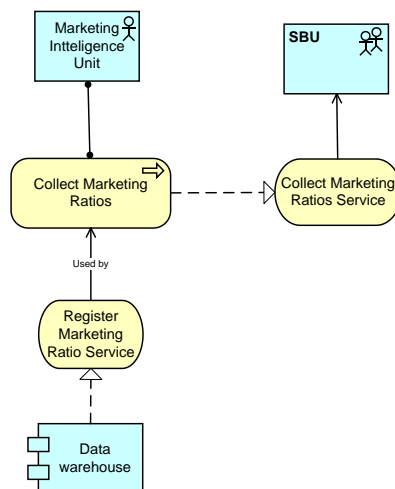

Figure 5-32. Collecting market ratios by the MUI in 2004.

5.5.2 Value conception

In addition, the MT and CMD analyzed the yearly SAP to estimate the conceptual contribution in the context of the market orientation to the strategic planning of the marketing managers and marketers and the level of uniform definitions of the marketing functions in the SBUs. As a result they made the necessary changes to the business. The marketing managers and marketers had insufficient conceptual contribution to the strategic planning. The focus was too much on the operational activities. A first change to improve this, was to have the MT communicate the strategic direction more explicitly to the SBU's in the hope to improve the overall coordination of developments. In addition, the functions within the SBU marketing departments were analyzed. The function of marketing manager appeared not uniform for every SBU. Also, the difference between marketer and sales promoter was unclear. To increase the conceptual contribution to the strategic planning of marketers and to make the function of the marketers uniform they were redesigned. The redesigned role for the marketing manager and marketer was focused on the planning of marketing and the sales operators were doing the operational communicative marketing actions (D). See below for an overview:
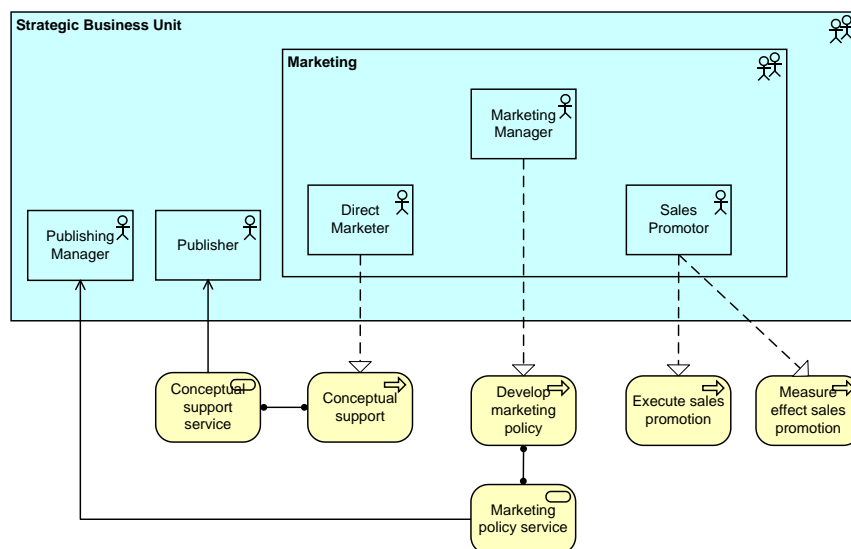

Figure 5-33. Explicit roles for the employees in the SBU marketing departments in 2004.

5.5.3 Planning and design processes

In addition, another responsibility of the MIU was to control the information management of

Sdu. It would mainly be involved in the measuring of market intelligence usage, and sharing

throughout Sdu In 2004 for example, the MIU initiated a training for publishers and marketers in the

different information sources available in Sdu, maintaining a standardized list of market and

marketing information, and specifically in the use of the DWH. This was done twice and is given

periodically for new employees (D2004-001). Finally, targets for the usage of the management

information were determined. Seventy-five percent of the publishers and marketers should consult

minimal twice a month the management information system (i.e. DWH). The evaluation team

consisted of the head of CMD, MIU, and IT and had planned the next measuring for the beginning of

December 2004. In addition, it was determined that at least four hundred queries a month should be

executed.

In addition, formal system owners were installed and they have their own system owner board.

This board has its own budget which can be used for internal projects. The board can give a go or no

go. Besides the system owners there were process owners installed, whom had an advising role

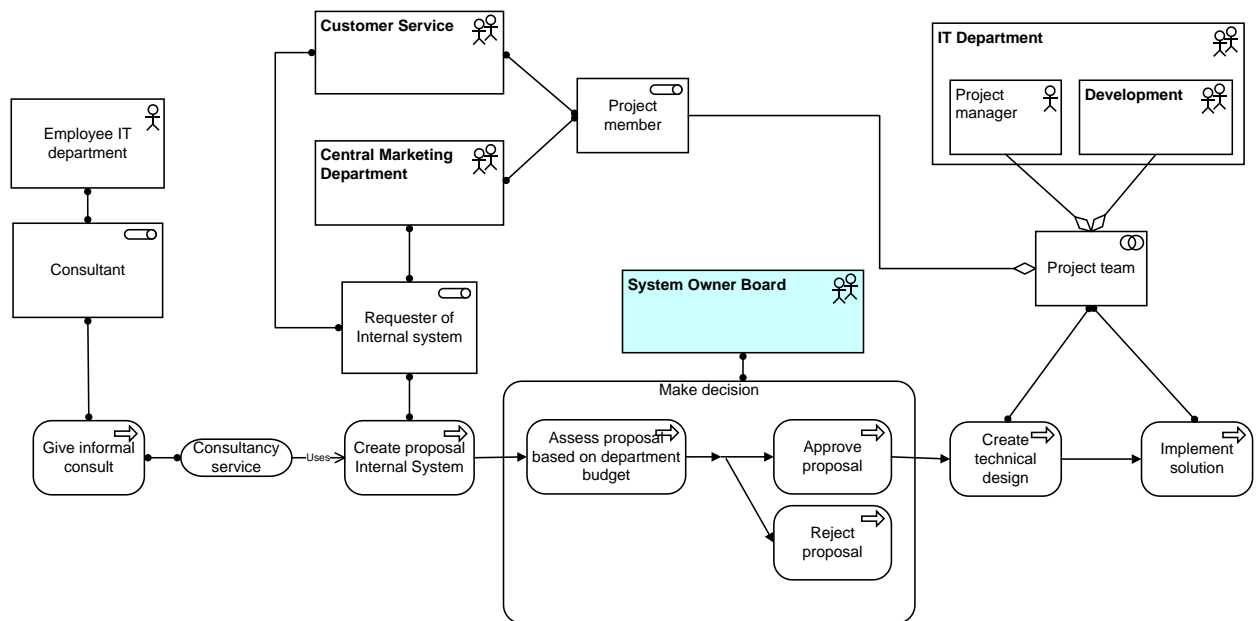(I007-SK). See below for an overview:

Figure 5-34. System owner board implemented for internal systems in 2004.

Finally, the manager Business Development (BD) formally installed and the interim manager was replaced for a fulltime manager BD. BD now had a central steering role in Sdu. Its main objective was innovation through the following focus points: standardizing, monitor strategic Position, measure success and revenues, and develop a generic format for online products (I007-SK, I008-EE, I002-WW).

Also the project managers were now divided between BD and IT. The project managers that fell under BD were the business project leaders which would be involved in IT projects with a high business profile. At the start of a value conceiving IT project, the functional description of BD states it should coordinate with IT, selecting a project manager or consultant and contact the marketing coordinator from the SBU to create formal information flows between business and IT. This communication was among others, intended to make clear what the possibilities (customer value) IT could offer. However, from interviews with among others a project manager, marketer and the manager of SE, it became clear that often marketers from a SBU, in an orienting phase would speak with a friendly IT employee to ask for ideas and of what is possible and then approached BD with an

idea. It is argued that this was more efficient than getting a random IT employee assigned after a

formal procedure. In addition, the business process managers were responsible for the online

projects as they had a significant impact on the business process. Thus these business process

managers were also responsible for the impacted back office processes. The technical project

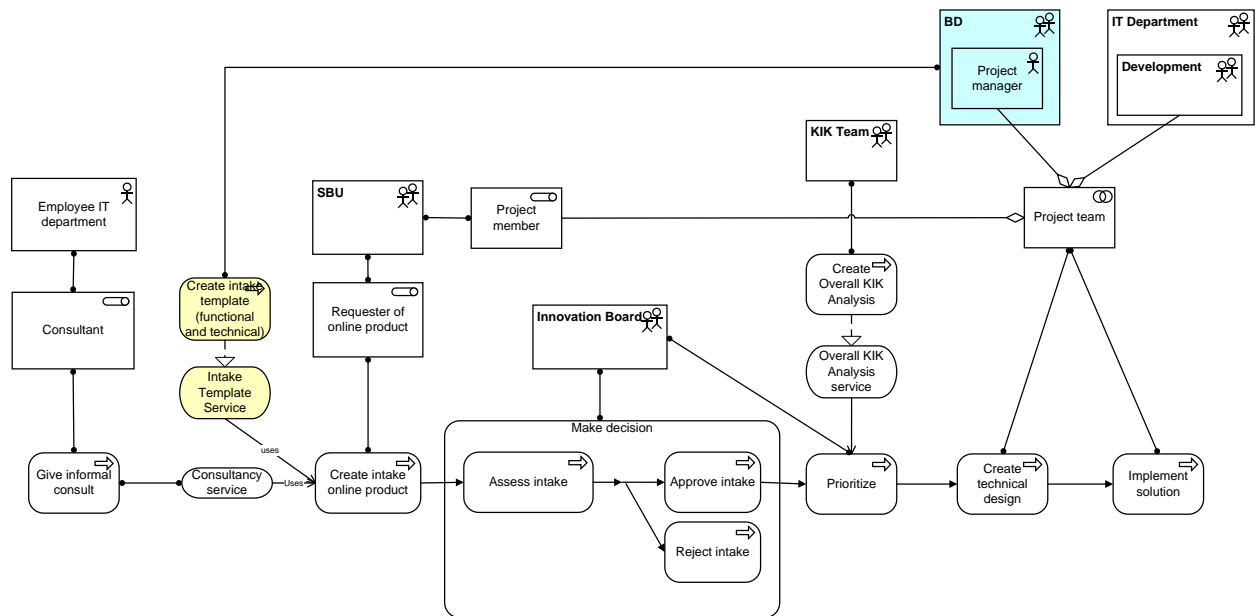managers were only responsible for the technical front. See below for an overview:

Figure 5-35. BD involvement in the project process for online products in 2004.

A precondition stated by BD was that the business strategy had to be communicated to the SBU

before an *intake* could be made.

5.6 2005

5.6.1 Collecting and manage market intelligence

Since 2005, the MIU was involved in collecting competitor intelligence since 2005. The CMD and

MIU argued that there was a lack of knowledge about competition in the SBU's (D2005-004). This

was based on the results of the provided SBU KIK analyses. The actualization of the competitive

intelligence was initiated by the MIU, and held that the MIU surveys for all subscription related

products in the markets of Sdu and made estimates of number of copies, price, turnover for readers, turnover for advertisement and target group description. SBU marketing managers and sales managers determined the level of competition of the products. The MIU in turn determined per domain the total turnover, the market share of Sdu and the largest competitors and its strength. The information was serviced by the MIU. This was serviced through the intranet which was used by MIU to serve qualitative information. The intranet functionality was the result of the corporation of the head CMD and manager TI. The development was initiated by CMD as no architecture existed to disclose information through the intranet. Below an overview of the competitor research process:
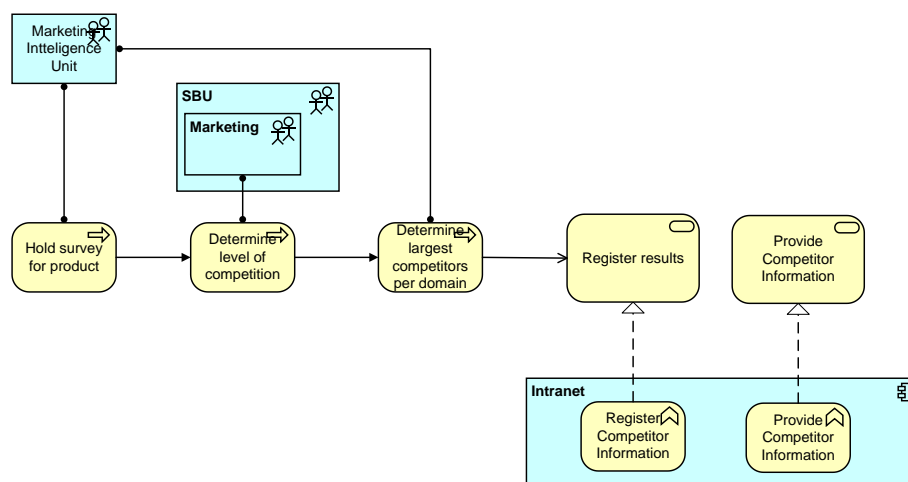

Figure 5-36. Process of researching competitors in 2005.

Because of a change in the management structure (described in the planning and design processes), since the end of 2005, the communication department shifted from the responsibility of the commercial director to the CMD. With this shift, the focus of the department shifted towards the improvement of the internal communication. Information from different departments was gathered and enclosed trough the intranet. The current internal information was mostly relevant news and information on organisation, and other knowledge. However, the process of enclosing information was being changed as the need for different and more dynamic information was growing. The MIU is focusing on a process to provide information sharing. The input of the system was information of

market information. It should contain information on what do customers want, how the market is changing and other macro economical variables.

In addition, the functionality of a wiki was planned. With an information system or new intranet the process of communication would change towards the situation in which the intranet becomes a platform and the process of communication focuses on all relevant organisational width information. The communications department with the MIU were responsible for the use of the information and the design of the information architecture.

5.6.2 Value conception

In addition to help collecting competitor intelligence, an added responsibility of the MIU was to formulate a strategic market analysis in collaboration with a senior marketer (D2005-001). The objective was to increase the level of customer focus of the strategic market analysis. Below an overview:
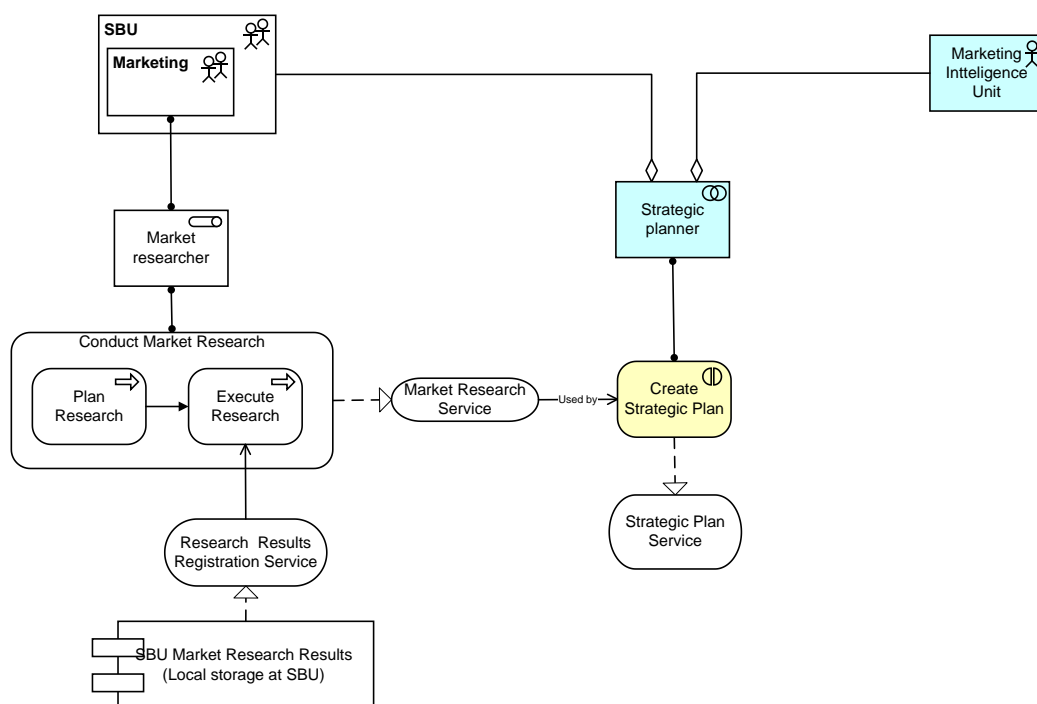

Figure 5-37. The strategic planning process in 2005.

5.6.3 Planning and design processes

In 2005, the management layer of Sdu changed. The director made place for three directors with

the objective to make Sdu more customer focused and increase the autonomous growth. The board

of directors (BOD) consisted of three directors with their own portfolio. The first portfolio was

publishing policy and publishing portfolio development. The second portfolio was marketing, sales,

advertisement acquisition, customer service, and human resources. The third portfolio was

operations inclusive business project management and IT. The current directors were the former

heads of publishing, manager of commerce, and manager technical infrastructure. The BOD was part

of the Management Team (MT). The MT consisted of the BOD, the manager BD, the manager of

finance, and the manager human resources (HR). Although this was not a direct change in the

planning processes the impact was significant because of their involvement. Below the new
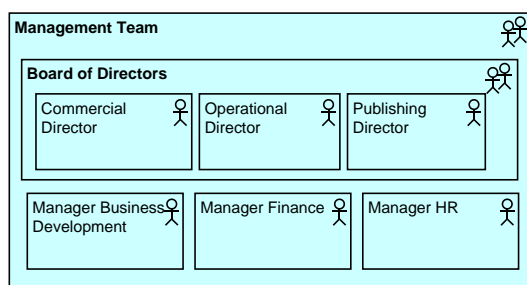
structure:

Figure 5-38. Changed management team formation in 2005.

Because among others the costs for the different types of project managers were not clear and

all project managers were back under the responsibility of the IT department. Because BD was now

not direct responsible for the projects some changes have been made to keep control of the quality

of the projects (I007-SK). This was done by checking the functional specifications which were made

after the intake was approved. To create the functional design UML and prototyping, etc. was used,

which dramatically improved the communication (I009-PH). The BD would give a go or no go, based

on the functional specifications. Also, the plan of approach needed to be OK. All aspects that were in

the intake needed to be in the plan of approach. Finally, BD checked the marketing plan to see if it

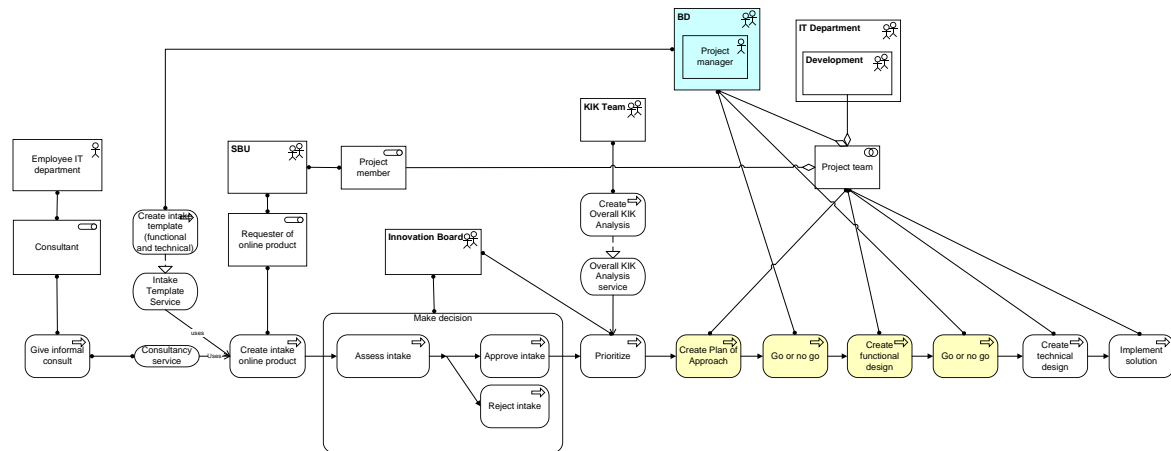fits in the overall strategic plan. See below for an overview:

Figure 5-39. Process for a online product project in 2005.

5.7 2006

In 2006, it was argued that market intelligence was misused or not used when SBUs created the

KIK or other analysis. Firstly, a comment was the limited knowledge of market, customers and

competitors. Secondly, the lack of a fresh perspective on the market and portfolio and elaborating

on the same themes was commented. *Thirdly*, the difference in the quality of the analyses of the

SBUs was commented on. *Fourthly*, the generation of new ideas for product development was

limited. Fifthly, the focus is on the development of products and less on the increase of turnover or

increase of market share. Several changes in 2006 in the business domain have been found during

the case study that could improve the situation

5.7.1 Collecting and manage market intelligence

Already in 2004 the marketing balanced scorecard (MBS) was suggested as information to be

collected and as functionality of the second phase of the DWH (D2004-008). At the start of 2006 it

was implemented. The objective was to support the assessment activities. In addition extra

information to be structured was the turnover and subscription data, in and out flow of customers

and customer value based on the turnover and costs. Every SBU was responsible for sharing

information about their performance by filling in a marketing balanced scorecard (D2006-015). The

MBS's made it possible to have insight in what the achievements of the marketing departments in

relation to the marketing targets were. Sdu derived these quantifiable targets from the marketing

and sales plan and budgets. The marketing manager of the SBU was responsible for the monthly

reporting of the ratios (D2006-014). This was a transition from the reporting of the ratios without

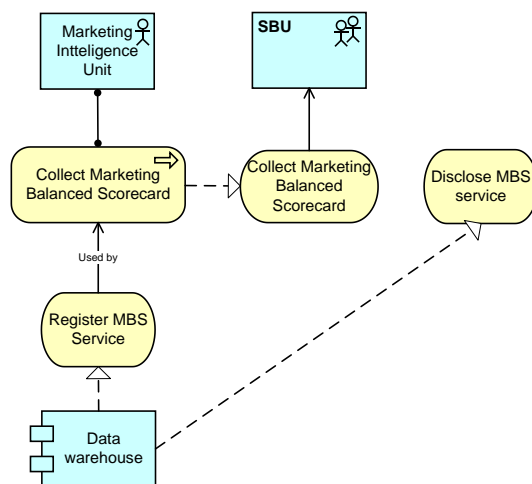the MBS context which started in 2004. See below for an overview:

Figure 5-40. Collecting Marketing Balanced Scorecards (MBS) in 2006.

This shift and other changes described below in responsibilities made it possible, at the end of

2006, to reintegrate the MIU into the MSU. Also two senior marketers were added to the MSU,

which made the MSU (MIU) fully responsible for the execution of the *strategic* marketing research.

(D2006-001, D2006-010). In addition, the communications department was placed under the CMD.

The attention of the communications was shifted from external communication to internal
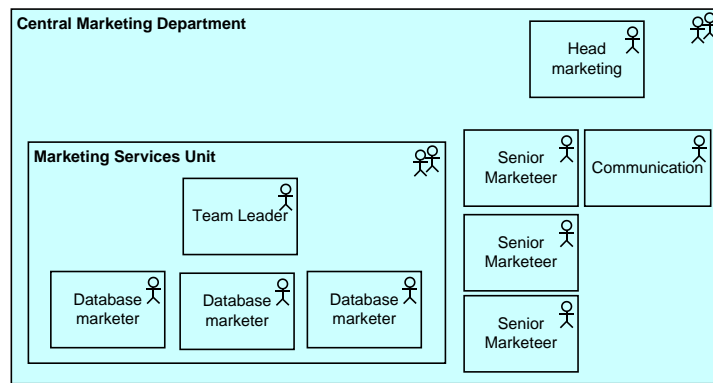
communication.

Figure 5-41. Changed CMD structure in 2006.

This shift enabled the CMD to coordinate the research actions better and the CMD would focus

better on the strategic importance of the research proposals of the SBUs. The strategic research

activities were of strategic importance and laid on top of the SBU research activities. The senior

marketers responsible for strategic marketing direction, had a mandate to put pressure on the

marketing managers. The SBU initiated the start of a market research by creating research proposal,

using a template provided by the CMD (*D009*).The SBU's could call in the help of the CMD during the

creation of the research proposal so the CMD can reference to available information or help to

collect it. In addition the CMD and manager TIS have initiated extra functionality for the intranet to

disclose the research results centrally. They also started a more structural discussion what content

management system to use internally as a standard platform to disclose information. See below for
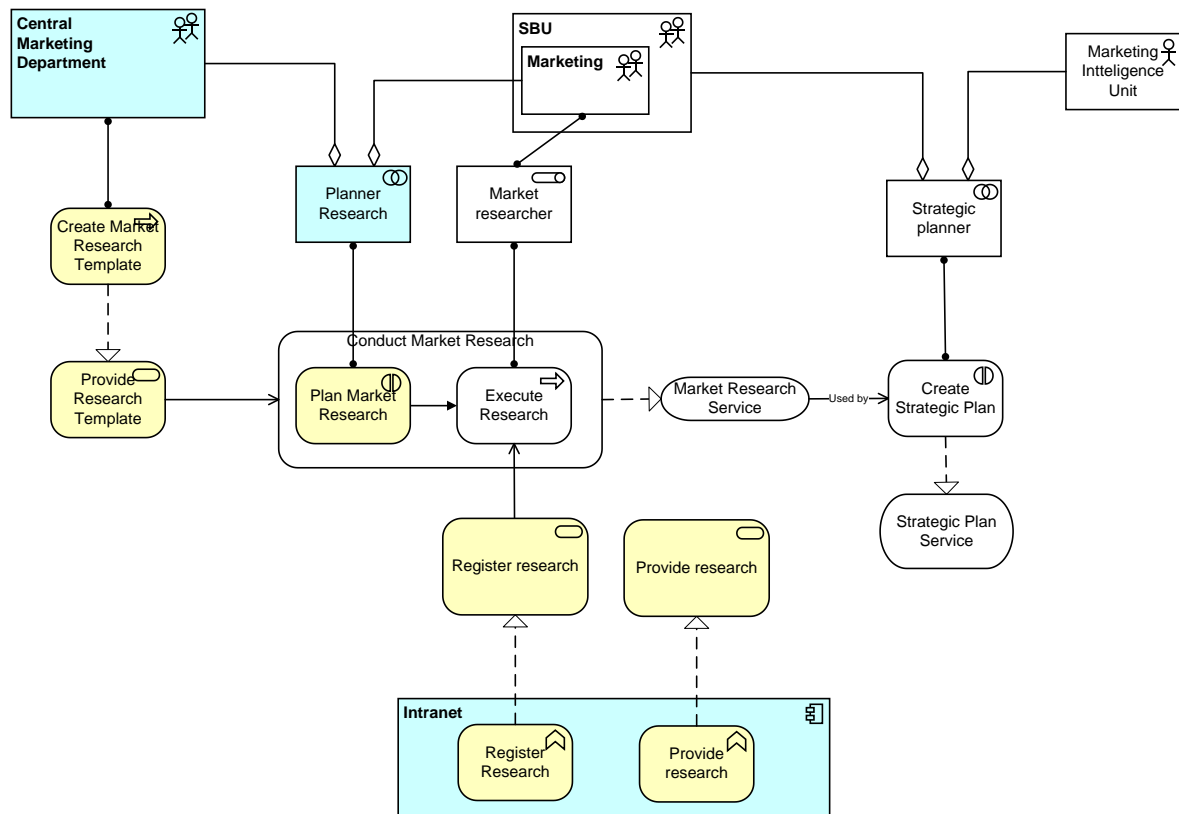
an overview:

Figure 5-42. Strategic planning process in 2006.

5.7.2 Value conception

In addition, the CMD shifted the responsibilities of the MIU further towards the provision of strategic advice in a consulting form (*D2006-002* p2). The MUI was giving advice less in figures and numbers and more expressed in words. These words would be the interpretation of those numbers (*D2006-002 p4*). In 2006 the objective of marketing intelligence was "*to support formulating the opportunities for the SBU strategy (e.g. in the KIK document) and evaluate the implementation and the results*". This was a transition from the consult that MIU already gave to SBU's. See below for an overview:
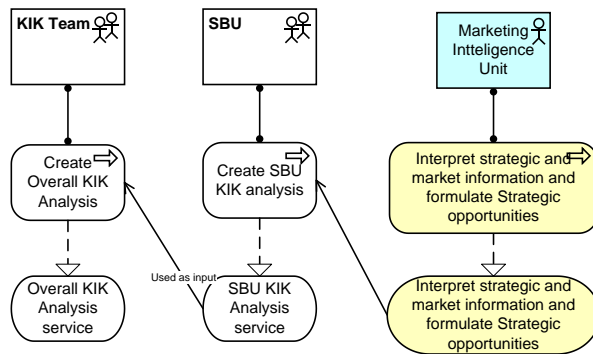
Figure 5-43. The MIU interpreting strategic information and formulating strategic advice.

5.7.3 Value generation

Until 2006, many SBU's had their e-mail newsletters and mailings done via external parties. Those parties stored the e-mail addresses with a certain amount of discrepancy with the correct data. Because of the recently installed policy to have this activity done internally, and a new e-mail system needed to be used. This was not yet a full campaign management system but a more mature e-mailing system. However, the e-mail addresses have now had to be stored in the VISTA database in Sdu. However, the difference between the ERP system and the CMS was that the ERP system focused on the internal processes and the quality and compliance of the business processes. The content systems focused on the products and value creation for customers. The discrepancy appears often in the fact ERP allows one user, while in the CMS one customer can have several users to login. VISTA must have the address and name to store an e-mail address. To resolve this problem the plan was to develop a database to store e-mail addresses connected with products. To be able to advance towards a full campaign management tool more customer data had to be stored properly, for example the analysis of search trends of a customer on a site or large market research results.

5.7.4 Planning and design processes

To be able to play the coordinating role a monthly meeting with BD and SBU's was held to
discuss developments, idea's and improve standardization and the top down coordination. (I002-
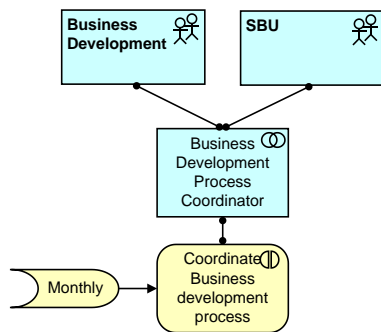WW). See below for an overview:

Figure 5-44. Monthly meeting BD and SBU's

In 2006 the Sdu IT policy 2006-2010 was created. Because the IT policy 2006-2010 described the
general IT policy for all IT, supporting information collection and dissemination was not the only
focus of the document (D2006-016). The current IT policy 2006-2010 was created by an external
consultant hired by IT. The policy was based on several meetings with manager TIS, one round of
conversations with MT members, a meeting with the director responsible for operations including
business project management and IT, and manager system administration. See below for an
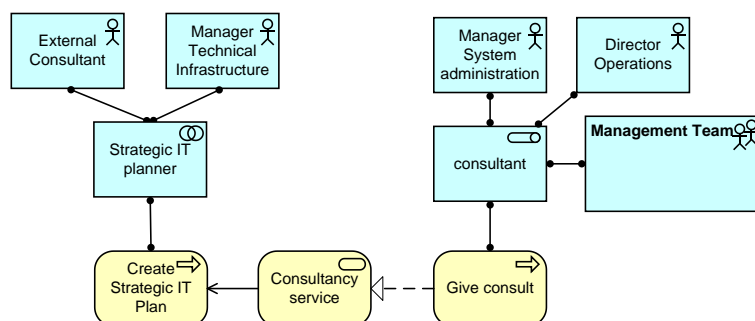overview:

Figure 5-45. Process of creating the Sdu IT strategy.

The policy distinguished two tracks, namely the internally focused business and the publishing infrastructure processes, structure and organisation (referenced as publishing systems). Only the IT policy affecting the IT for supporting or related to a market orientation is described. Thus, left out of the case study is for example the strategic objective of becoming the leading e-government supplier for Dutch and German market. The first track is used as a lead for filtering. First of all, no explicit goals are defined in relation with the use of IT for a market orientation or building any strategic capability. The policy chapter only describes several internal policies determining rules for the operational IT processes mixed with some architectural conditions (e.g. central data storage of customer data, ITIL for IT processes). The policy chapter also describes some alignment process aspects as the system owner who must be involved in both the IT architecture and the IT processes. On a shorter term the objectives are an improvement of the services delivered and improvement of system administration and software engineering. Those are both internal operational, non strategic goals. On a long term, the objectives are to have the delivery of services that support business processes and make use of modern techniques. Secondly, transforming from traditional publisher to electronic publisher. The second track of the strategic plan does contain several external strategic objectives and policies, but is only focussed on the new digital service of Sdu and larger online publishing like the Staatscourant.

5.8 2007

5.8.1 Collecting and manage market intelligence

Since 2007, management actions were focusing on enabling market-oriented behaviour in the collecting of qualitative market information. The objectives and responsibilities of the MIU for 2007 stated that more qualitative secondary sources had to be collected. This enabled the MIU to focus on the collecting of market intelligence in a qualitative form (*D2006-001*). The changes in the process of product innovation and product requirements requested by the innovation board, have led to the

increase of profile requests at the marketing services. Servicing in the last 4 to 5 years, the requests have changed from customer lists etc. to profile outlines. This implies delivering relevant quantitative analysis and market figures for the advertising and reader market to the SBU's about customers, sales and the market by MSU.

This responsibility has also led to a knowledge base. This knowledgebase provided static information and articles about e-commerce, innovation, marketing, target groups, competition, advertising and figures and numbers. In addition it disclosed internal information about the statistics of the websites, the overview of available management info, research done in Sdu and links to the DWH. Finally external links were given to information sources relevant for marketing and business processes. See below for an overview:
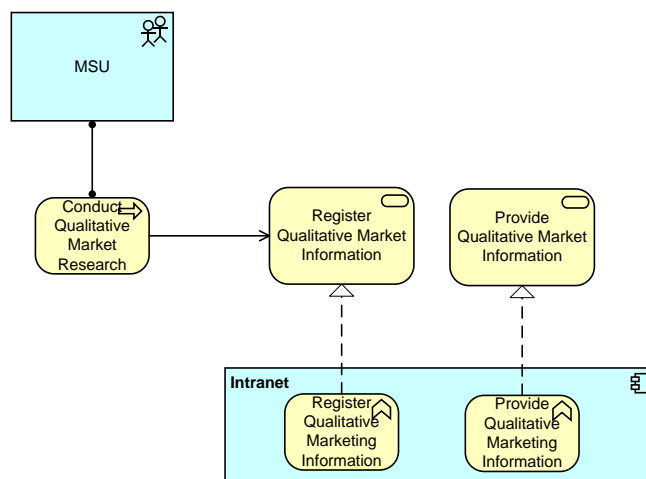

Figure 5-46. Disclosing qualitative market information trough the intranet in 2007.

5.8.2   *Value conception*

At the beginning of 2007, the MUI was increasing the focus on the initiation by itself of trend research to be used in Sdu broadly. This research was focused on the use of content and information in the primary processes of companies per strategic cluster and research focused on the trend for the support of product development for the SBUs. Although no concrete problems were defined, several points of improvement were defined in 2006 by the head of the CMD (*D2006-003*). *Firstly*,

the responsibility of MIU for supporting the creation of the research questions needed more attention and emphasis. *Secondly*, the relationship with the SBU marketing departments needed to be improved, particularly during the phase of determining the proposal.

In addition, in 2007, the objective of the MSU was not only to have the management information being used on a daily basis, but to have the marketing balanced scorecard to be used as a steering tool for the marketing operation (*D2006-003*). The MSU therefore needed to create incentives for the SBU to use this information.

5.8.3 Value generation

In addition, the CMD perceived that the measurement of the effect of the individual marketing actions was not increasing the quality of the marketing actions any further. This was based on figures stating the marketing performance of the SBUs measures by themselves. This information was provided by the SBUs to the CMD for collecting the information and storing it in the DWH. As a result, the CMD has cancelled the measurement of the effect of the individual marketing actions by the SBU's (*D2006-014*).

5.9 Future

Some of the marketing services processes have become ineffective after the changes the organisation over the last years. As the organisation sets new strategic marketing goals, the focus is shifting towards the increase of the *effectiveness* of the processes. IT is seen as a utility to realize this increase in effectiveness. In addition the usage of qualitative information will grow in the next years.

Chapter 6   Analysis of Sdu

6.1 Incremental implementation

To implement a strategy, according to the formal model, three steps are needed, namely determining the action plan based on a strategic concept, allocating resources, and implementing the changes (Johnson & Scholes, 1999). However, besides this strict sequence, a incremental and emergent implementation is possible (Johnson & Scholes, 1999; Mintzberg, 1987). With the incremental perspective, changes are made in steps or stages and the process is iterative. The emergent strategy however, is not made by the strategic planner, but originates from the interaction with the environment. It is evident that this case study at least shows an incremental approach for managing the strategic changes because there was no evidence of a single planning phase. Over a period of four years changes were made that fitted within the current organisational routines and the nature of the overall change is therefore not transformational (i.e. significant change the way of doing things).

In addition to the implementation perspective, the snapshots created with Archimate deliver sufficient information to analyse the responsibilities during the implementation of the strategy. The planning or developing of the strategic plan and leading the actual change are two separate tasks (Johnson & Scholes, 1999). The change agent, who is responsible for the implementation, can be an individual or group of people that affect the strategic change. In the Sdu case it is evident that first of all the head of marketing (supported by the commercial director) plays a key role in both the planning and the implementation.

To be able to have a more detailed analysis of how the change is made to the organisation, a more elaborate list of styles for managing strategic change (i.e. implementation) is defined. In addition to the overall way of managing the change, Johnson & Scholes (1999, p. 511) list five

different styles of managing strategic change based on literature. See below for the implementation styles:

Table 6-1. Styles of managing strategic change (Johnson & Scholes, 1999, p. 511)

Style	Context	Benefits	Problems	Circumstances of effectiveness
Educational and communication	Group briefings assume internalisation of strategic logic and trust of top management	Overcome lack of (or mis)information	Time consuming Direction or progress may be unclear	Incremental change
Collaboration / participation	Involvement in setting the strategy agenda and/or resolving strategic issues by taskforces or groups	Increasing ownership of a decision or process May improve quality of decisions	Time consuming Solutions / outcome within existing paradigm	Incremental change
Intervention	Change agent retains co-ordination / control: delegates elements of change	Process is guided / controlled but involvement takes place	Risk of perceived manipulation	Incremental change
Direction	Use of authority to set direction and means of change	Clarity and speed	Risk of lack of acceptance and ill-conceived strategy	Transformational change
Coercion/edict	Explicit use of power trough edict	May be successful in crises or state of confusion	Least successful unless crisis	Crisis, rapid transformational change or change in established autocratic cultures

The *collaborative* implementation (ideal) style resembles most of the style as perceived in the Sdu case. Within this incremental based implementation style, people are involved in the change. This case describes the involvement of the board of directors, business development, head marketing, marketing intelligence unit, and customer service. However, it must be noted that the head of marketing plays a important role in communicating the direction and change to the organisation and the actual mandate sits with the board. It can therefore also be argued that a mix of education and collaboration is the implementation style of Sdu.

In addition, it can be argued that some of the changes were not designed and planned before implemented, and were implemented within the organisation and formed the strategy afterwards. Some of the changes observed, which were perfectly fitting the MO concept, were not planned and designed in a strategic planning phase. This is in line with the strategy as pattern definition argued

by Mintzberg (1987). This definition assumes that part of the implemented strategy is intended, and a part is emergent, see figure below:
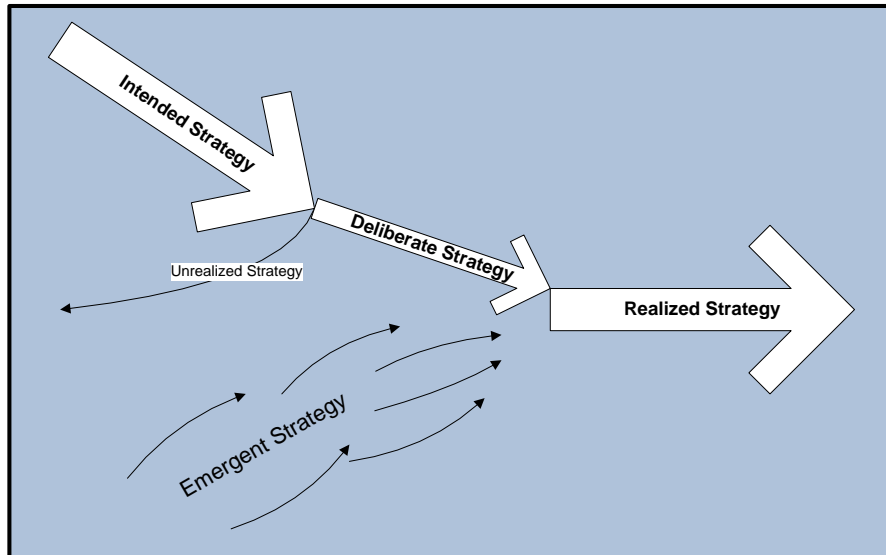

Figure 6-1. Strategy as pattern (Mintzberg, 1987, p. 14).

The combination of an incremental implementation and emergent strategy leading to a realized strategy seems to fit best with how Sdu implements a MO. It is therefore important to note that the planning phase does necessarily need to be explicitly present.

6.2 Alignment perspective

Therefore the framework needs to be extended with an approach that outlines over time how business and IT could be aligned. Luftman argues that "no *single approach exists to create an IT strategy or an IT plan, or to identify opportunities for business transformation. Establishing the linkage between business strategies, IT strategies, and infrastructure and processes should be included as a major part of any method used. The focus must continue to emphasize the value of information technology activities* " (Luftman et al., 1993, p. 10). Therefore there are different perspectives on how to approach information technology. To describe how organisations can transform, Luftman, Lewis, & Oldach (1993) proposed strategic alignment perspectives. They can be

used to discuss the perspective an organisation needs to adopt or has adopted on the changes needed. These perspectives can therefore be used to describe the combined perspective of the business and IT on how to implement a MO. With reference to the SAM, Luftman, Lewis, & Oldach (1993) proposed several perspectives. These perspectives are based on three domains of the four domains. *Firstly*, the domain is identified with the greatest strength. This is the area that drives the changes, for example the business strategy. *Secondly*, the domain is identified that is impacted by the strongest domain, for example the business infrastructure with the business processes. *Thirdly*, the domain is identified that is impacted by the changes in the weak domain, for example the IT infrastructure supporting the business processes. The following basic perspectives are defined:

- *Strategic execution*. The business strategy is leading and determines the core competences in the governance rules. Also it determines how these are implemented. IT is supporting these business processes and structure.

- *Technology transformation*. The business strategy is leading, and supported by an IT strategy. The IT strategy is then translated to an implementation. IT is not used to support the processes but to enable new opportunities for the organization based on the business strategy.

- *Competitive enabler*. IT in this perspective is leading and seen as an enabler for change. New developments are translated to new products and services, which are implemented in the organization.

- *Service level*. The IT organization is focused on service delivery. The influence of the business strategy is indirect. The IT strategy and implementation are focused on giving the service needed by the business, which is perceived as a customer.

Both the internal and online product development process are initiated by business (department or SBU), the business case is created based on market information, the business does the prioritizing, while IT only serves as a supplier to develop. No direct evidence exists of IT projects

initiated from IT (IT strategy) to create an information system to increase the market orientation or to define an architecture. In appendix D, the governance archetypes are analysed and the federal and feudal archetypes (Weill & Ross, 2005) are prominent.

In addition to the governance archetypes, the IT strategic planning process helps to determine the involvement and focus of IT. The decision is made by the Sdu IT to have two *tracks* and approaches, namely the whole business and the publishing infrastructure processes, structure and organisation (referenced to as publishing systems). The type of approach for the organisation as a whole, the focus is mainly on the conventional approach. It is stated they want to support the business processes with modern techniques, but no clear approach. The analysis of the external developments and the current internal situation is done to a certain extend for general external developments impacting IT, the external IT developments and internal situation. Next, no explicit business corporate strategy (i.e. *scope, competences and governance*) is stated. Only the strategic business decision to use IT more intensive to deliver information to the customer and deliver information processing services and products for at the customers side. Although, the long term IT corporate strategic goals for the publishing track are externally focused (corporate) goals, other long term business and publishing *track* strategic goals are **not**:

- Improvement of system administration and software engineering.
- Increase of policy based decisions.
- Delivering service at the front-office side (publishing *track*).

Next, the externally focused IT corporate strategy is translated into two designs, namely the IT policy and the IT architecture. *Firstly*, the policy is described in detail and is focusing on the authority structure (structure, roles and responsibilities) and the procedures, processes and the outcomes (products or services) of the different processes for the business track and publishing track. *Secondly*, the detailed architecture is described. however it is not described what the technical

resources are available and how they should be used to achieve the strategic IT goals. It can be concluded that the following perspective aspects are applicable within the scope of supporting the implementation of a MO:

Table 6-2. Perspective aspects

Aspect	Organisational strategy
Dominant factor	Business strategy
Role top business management	Define the business strategy and implement it the business
Role IT management	Implementing changes needed by the business
Performance criteria	Cost saving

Finally, Avison, Jones, Powell, & Wilson (2004) suggest the usage of projects and changes over time to determine the alignment perspective. By analysing the changes from the snapshots, it can be determined per change, what the effected domain is. Next, combined with the planning (design) process and the chain of effects can be determined. Below a table with the changes and their respective domain and the other domains that could be impacting this domain.

Table 6-3. Changes made to strategic alignment domains during transition.

Nr.	Year	Change	Anchor	Pivot	Impact
1	2000	Sdu perceives the strategic marketing concept	**Bu Str**		
2	2001	Integrate website statistics	Bu Str	Bu Infr	**IT Infr**
3	2001	Apply CMS to website, integrating workflows and metadata	Bu Str	Bu Infr	**IT Infr**
4	2002	Design of the information architecture and the management process	Bu Str	**Bu Infr**	
5	2003	KIK process and organisation to increase customer focus	Bu Str	**Bu Infr**	
6	2003	Implementation of the automatic export and import of product metadata in the Sdu website	Bu Str	Bu Infr	**IT Infr**
7	2003	Implementation of the data warehouse	Bu Str	Bu Infr	**IT Infr**
8	2003	Implementation of application maintenance process	Bu Str	Bu Infr	**IT Infr**
9	2004	Implementation of the Marketing Intelligence Unit to support KIK and strategic planning process	Bu Str	**Bu Infr**	

10	2004	Changes made to the functions of the SBU marketing departments	**Bu Str**		
11	2004	Collecting and distributing marketing ratios by the MUI	Bu Str	**Bu Infr**	
12	2005	Changed strategic planning process	Bu Str	**Bu Infr**	
14	2005	Implemented process to research competitors	Bu Str	**Bu Infr**	
15	2005	Use intranet to distribute the competitor information	Bu Str	Bu Infr	**IT Infr**
16	2005	New intranet with wiki to distribute internally all market information	Bu Str	Bu Infr	**IT Infr**
17	2006	Introduction of the MBS	Bu Str	**Bu Infr**	
18	2006	Strategic consult in words for SBU from MIU	Bu Str	**Bu Infr**	
19	2006	Changed structure of CMD	Bu Str	**Bu Infr**	
20	2006	Coordination of market research by CMD	Bu Str	**Bu Infr**	
21	2006	Distribution of the results by the intranet	Bu Str	Bu Infr	**IT Infr**
22	2006	The policies for IT infrastructure, described in the IT strategy	Bu Str	IT Str	**IT Infr**
23	2007	Additions to responsibilities of the MIU	Bu Str	**Bu Infr**	
24	2007	Collecting qualitative market information	Bu Str	**Bu Infr**	
25	2007	An intranet to distribute the qualitative market information	Bu Str	Bu Infr	**IT Infr**

It can be concluded that the *Strategy Execution Perspective* is the perspective followed for the last years by Sdu to increase the market orientation. See figure below:
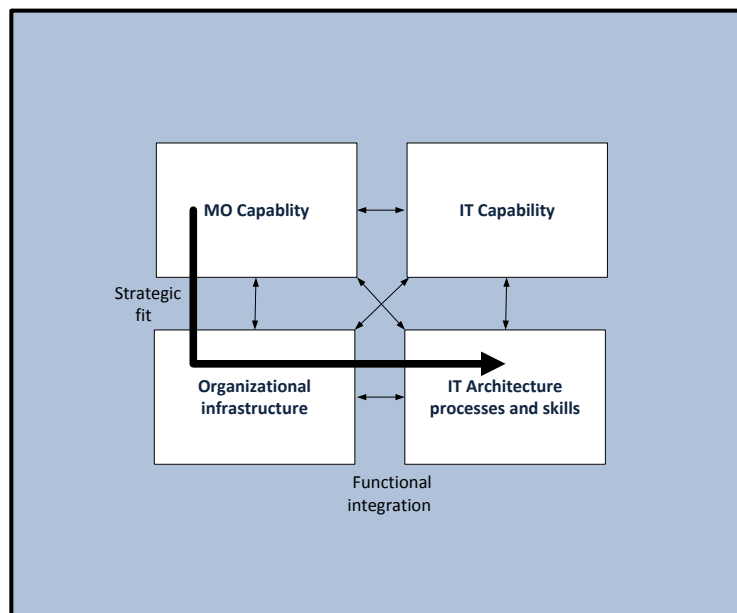

Figure 6-2. Strategy Execution Perspective

6.3   Alignment and MO Enablers

Finally, insight on the changes made to the management process can be gained from the snapshots. Besides the changes made to the business and IT, and the perspective of the organisation when implementing the changes, insight is needed in the changes made to the management process itself. These changes all were made to improve the process of planning and implementing a MO with the support of IT.

First of all, they can be related to enablers of the business IT alignment and do give an insight in how to align business and IT when implementing a MO. Luftman (2003) defined several enabler and inhibitors of business IT alignment. An example is the support of non-IT executives who recognize the value of IT. With the changes made to the planning and design process it is possible to relate these to the enablers. In the snapshots of the transition the responsibilities and involvement of people involved has become clear. Below the changes related to the enablers:

Table 6-4. Business IT alignment enablers in management process Sdu.

Nr.	Year	Description	Enabler
1	2003	Installation of the Innovation Board	IT understands business IT, non-IT have close relationship
2	2003	KIK team involved in prioritization online products	IT efforts are well prioritized
3	2004	Installation system owners and board	IT understands business
4	2004	Business development installed	IT understands business IT efforts are well prioritized
5	2004	Project managers at business side.	IT understands business
6	2005	BD responsible for go no go in projects and quality of functional specifications.	IT efforts are well prioritized IT, non-IT have close relationship
7	2006	Monthly coordination between BD and SBU's	IT, non-IT have close relationship
8	2006	Creation process of IT strategy plan	IT involved in strategy development

It should not be concluded these enablers are critical and must be implemented. But it can be argued that an organisation should look at the management process, determine a wanted alignment perspective and see where the inhibitors are.

Secondly, there are some changes made to the management process that are mainly enablers for the MO:

Table 6-5. MO enablers Sdu.

Nr.	Year	Description	Enabler
1	2004	MUI involved in management of the business processes using market intelligence	Management behaviour Develop and communicate desired processes and procedures
2	2005	Installation of thee headed board of directors	Management behaviour

6.4 Implementation framework

During the case study the problems (e.g. insufficient use of market intelligence), caused a continuous circle of improvement. This improvement or quality cycle has impact on both the MO activities in the business domain and the supporting IT with its maintenance processes. In addition, the alignment process itself was undergoing changes to be able to better design and implement changes. Therefore two quality cycles are observed. Because of the incremental approach and the observed improvement cycles, the comparison with the *Deming Cycle* can be easily made (Deming, 1994). See figure below:
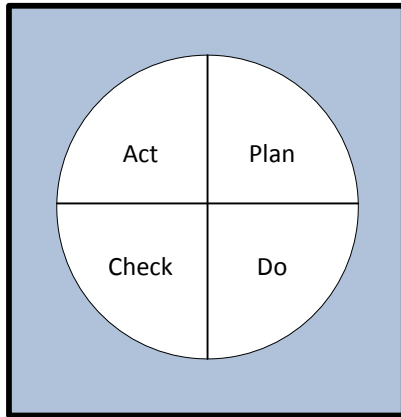
Figure 6-3. The Deming Cycle (Deming, 1994).

These improvement cycles need to be incorporated in the final implementation framework. To build a MO implementation framework with focus on keeping business and IT aligned, it is important to incorporate the alignment perspective. The main perspective of the Sdu case is the business strategy execution perspective. Because it is also important to have a (secondary) IT capability to support the MO capability this also is included. Below the final implementation framework:
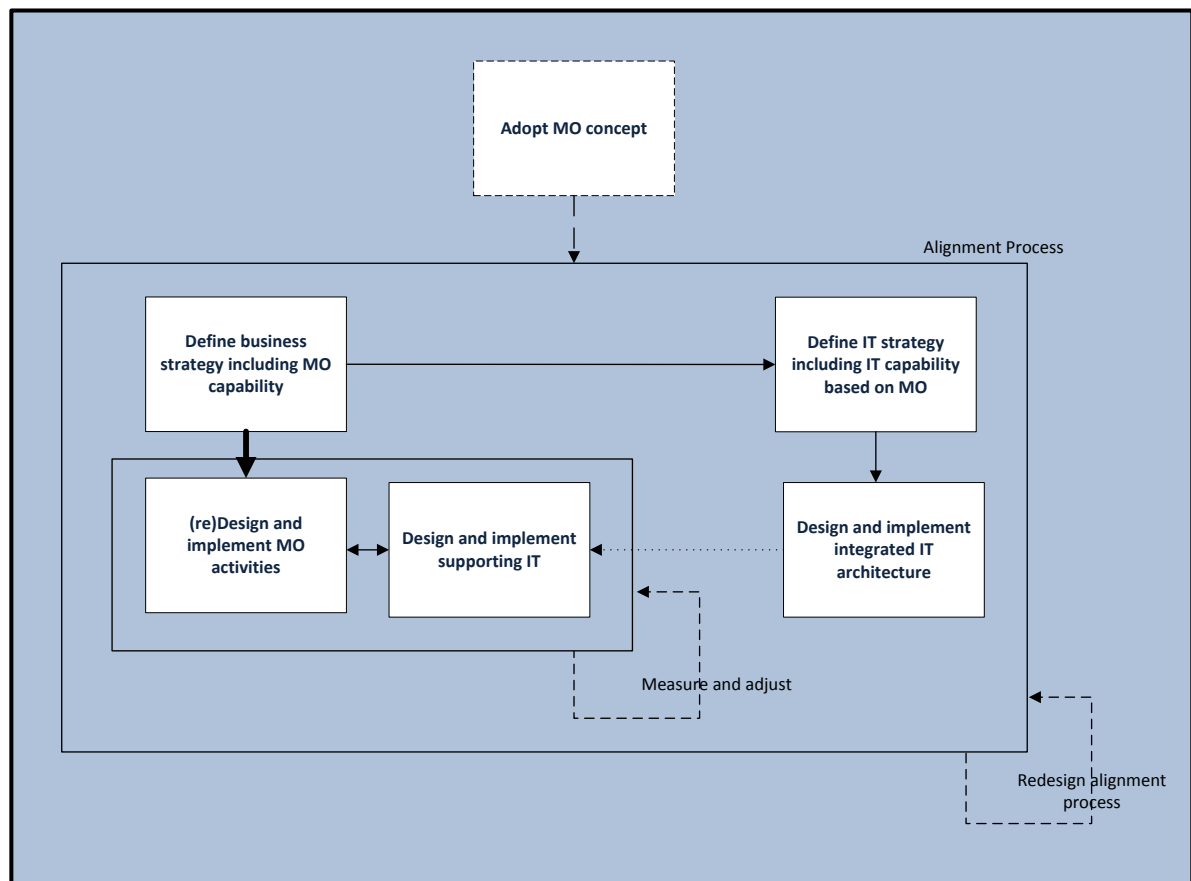
Figure 6-4. The MO implementation framework.

This framework allows an organisation to approach the MO implementation from a practical

view point and focus on both the improvement cycles while using IT in a balanced manner as

facilitator and enabler.

Chapter 7 Discussion

In this chapter the thesis will be discussed. *Firstly*, based on the success criteria, a conclusion will be drawn to see if the thesis is successful. *Secondly*, some recommendations based on the case study and the analysis are made. *Finally*, suggestions for further research are given.

7.1 Conclusion

The main research question of this thesis is "*how could a Publishing house align business and IT when implementing a MO*". Two descriptive questions are derived from the main question: Firstly, "*what changes are implemented in the business and IT domains, as the explicit outcome of the alignment process during the transition?*" Secondly, "*what changes are made to the business IT alignment process responsible for the design and implementation of changes during the transition?*" From these two descriptive questions criteria were derived . Below it will be determined if the success criteria are met.

1) *Insight is gained on the implementation of enablers for market intelligence collecting and management processes, value conception, and value generation:*

It can be concluded that the snapshots giving an overview of the transition clearly depict the changes made to the processes and activities that are MO related as described in chapter two. These changes are not explicitly stated again in the analysis, because they were the basis for the case study in chapter five. Therefore the case description on itself is already an analysis and not only descriptive of nature. Because of the chronological order in which the changes are described, the incremental nature and the type of strategy implementation became clear.

2) Insight is gained on the IT architecture supporting the MO activities.

With the MO activities as basis for the case description, it can be concluded that the supporting

IT has been clearly identified and described. Insight was also gained in the (absence) of an overall

architecture. By using Archimate, the relation between the activities and the IT and the changes

during the transition became very clear. It can therefore be concluded, the overall insight in the

changes made to the business and IT is sufficient.

3) Insight is gained on the alignment process activities responsible for the changes to the business

and the IT domain.

With the alignment perspective, insight was gained in the order and balance between the

changes made to the business and IT. Although this is not directly an aspect of the alignment

process, it is directly related to its outcome and the direction the alignment process is steering

during the transition. In addition, the governance archetypes, IT strategic planning process, and the

MO and alignment enablers complemented the insight.

It can be concluded, that with the final implementation framework for implementing a MO and

keeping business and IT aligned, *a deeper understanding of the business IT alignment process of*

Dutch publishing houses when implementing a Market Orientation is gained.

7.2 Recommendations

Below are some recommendations that can be suggested based on the case study. Although

they are based on one case study, some generalisation is done to make the recommendations

general applicable. Of course it can be argued that more research is needed, however many

situations that occurred in this case are normal business (publishing house) situations.

7.2.1 Incremental implementation

The case study in my opinion showed that implementing a strategy in a incremental and emerged way is very effective. Some of the bottlenecks only became apparent after a few other changes had been implemented. Also, it is very difficult to design and oversee all processes and structures and implement this. This would require a high maturity of the organisation. In addition, most publishers like Sdu are still shifting and finding a new identity. This takes time and a incremental implementation is much more suitable. Therefore it can be concluded that the incremental approach is effective.

7.2.2 Alignment perspective

In addition to the incremental implementation, the strategic execution as alignment perspective seems to be correct with respect to the anchor domain (the starting domain), as the MO is a business strategy (capability). The current perspective found, only focuses on implementing the business changes with IT in a supporting role.

However, when Sdu wrote its IT strategy in 2006 it defined two tracks: one focussing on the internal systems and one focussing on the publishing online systems. Only the publishing track is translated into externally focussed objectives. All non core business processes are perceived non strategic and are treated as such. This is a missed opportunity because the MO as capability (i.e. externally focused) could be supported by the IT strategy (also externally focussed) and provide the organisation with an IT infrastructure that can give an advantage to the organisation.

This results in a situation where MO activities are only supported by IT initiated by the business and only focussed on specific business problems and the risk emerges of separate solutions. It is not argued that IT should be used extremely innovative, but the MO as capability is a strategic concept and deserves more attention than a basic administrative process needing a basic administrative system. A certain level of IT planning and designing could enable the implementation of a MO by

possibly having an organisational wide integrated information system to collect and distribute market information.

It is recommended that next time the IT corporate strategy is formulated, effort is made to align IT strategy with the business corporate strategy. The strategic marketing philosophy of Sdu, as described in the business strategy, can be translated to the IT strategy and embrace the, **by Sdu adopted**, aspects of the strategic marketing concept: "*that achieving organisational goals depends on determining the needs and wants of target markets and delivering the desired satisfactions more effectively and efficiently than do competitors*".

7.2.3 Business development

The implementation of the business development (as also can be seen in the pilot case study) is a effective way of improving the quality of the business proposals and linking the business and IT at design level. BD is a good partner in incrementally implementing a MO. The BD is independently capable of implementing changes to the planning process. Examples are:

- Give go no go on functional requirements and project initiation document
- Measure success and watch over acceptation phase
- The fitting of the fund's marketing and sales plan, in the strategic direction of the fund coordinating plan

7.2.4 Marketing manager

Finally, something partly out of the scope of this research, but nonetheless important, was the role of the marketing manager. One of the first things that got my attention during the case studies (both pilot and main case) was the key role of the marketing manager in the organisation supported by the general director (at Sdu by the commercial director). In both cases these persons were very capable of translating a strategy into practical changes in the organisation and their authority within

the organisation grew over time. It can be concluded that to start a transition to implement a MO such a key person is a significant enabler of success.

7.3 Further research

First of all, this research only focussed on a pilot case study and a main case study. This implies that further research needs to be done, in the same industry or in any other industry facing the same background and challenges, to have a more significant analysis and conclusion. The perception of the level MO within the case is not measured and this would also be a valuable addition to the case design.

In addition, this study did focus less on the IT domain and its processes. This was caused by the fact that the contact persons for both the IDG and Sdu cases were the marketing managers. They were directly responsible for all the access to research material. Therefore the research was conducted from a "business" side. Therefore it was hard to have real insight in the IT domain of the organisation. It would be a great addition to this thesis if the study could be done at an organisation were the IT department is initiating the research. With more insight in the IT domain, it would also be nice to have a detailed project described. In this study the projects are described from a high view and little detail is described. To further understand the use if IT and the alignment process more details on the projects should be collected. This detail can then be described by Archimate, which is very suitable for modelling such details.

Finally, the use of Archimate and describing the snapshots could also be subject of investigation. It was only suggested as a way of making analysis possible of the descriptive case studies. Further research into what techniques are best for modelling snapshots of incremental implementations could help future scholars with analysing their findings.

Appendix A: Case study protocol

Purpose

The purpose of this case study is to gain insight in the business IT alignment process when implementing a Marketing Orientation (MO). The main question is how could a publishing house alignment business and IT when implementing a MO. The flowing questions are derived:

- What changes are implemented in the business and IT domains, as the explicit outcome of the alignment process during the transition?

- What changes are made to the business IT alignment process responsible for the design and implementation of changes during the transition?

Procedures

Several publishing houses were approached by phone with the request to help with a case study. IDG Nederland and Sdu Uitgevers were able to reserve some resources to support the case study. At IDG Nederland Rob Koghee, marketing manager, is the contact person. Marcel Verhaar, head marketing, is the contact person for Sdu Uitgevers.

IDG Nederland is selected as pilot case study because of the relative short time since the implementation of a MO is started and because of the low complexity of the case. This makes it best suitable for a pilot. The case study at IDG Nederland is planned for a period of three weeks starting 24-06-2006. During that period, for four days a week (Monday to Thursday), a desk in the room of the business development manager is reserved. This makes it possible to be present at IDG for most days of the week and informally talk with employees. The formal interviews are 1 hour long.

The Sdu Uitgevers case study is planned for a month starting 06-11-2006. During that period, for five days a week, a desk in the room of communications department (at the marketing department)

is reserved. This enables informal contact with the marketing department. The formal interviews are one hour long.

To be able to ask specific questions before the actual interviews are started, one or more meetings are held with the contact persons. These meetings take place when the actual case study is started on a Monday. The formal interviews will start on Wednesday or Thursday in the starting week.

Case study report outline

The case study report will have the following outline:

- The organisation , MO related processes and activities (market intelligence collection, value conception and value generation), the IT supporting the activities, and the management processes at the start of the transition.

- Per year, the changes made to the business processes and structure to enable a MO (market intelligence collection, value conception and value generation) and the planning and implementing process involved. In addition changes to the supporting IT are described.

- Per year the changes made to the management process.

Interview questions

The case study questions describe "a set of substantive questions reflecting the actual inquiry" (Yin, 1994, p. 69). Yin (1994) distinguishes 5 levels of questions that can be asked in a research, namely actual questions asked in an interview, questions asked about the individual case, questions asked about the findings across multiple case studies, questions asked about the entire study and normative questions asked about the policy recommendations and conclusions. To be able to create insight in the processes leading from research questions to answers the questions are described in this paragraph. The questions described are questions asked in an individual case. The questions are

not posed to the respondent, but are used as a guide for collecting the information. Therefore "*form the structure of the inquiry and are not intended as the literal questions to be asked of the interviewee*" (Yin, 1994, p. 70). In addition it is important to be aware that the MARKOR scale was used besides the questions below to introduce MO and refer to if necessary (see Appendix C). Below the questions asked in the case studies:

1. What is your function, responsibility and responsibility of your department at Sdu?
2. What transition is Sdu gone through in the context of strategic marketing and when is it started?
3. Which departments collect market information and possibly share this?
4. What IT systems are there to support the dissemination of market intelligence?
5. Are there IT systems collecting customer profiles?
6. How is market intelligence collected in for example departments or the online publications?
7. How is functional integration (i.e. organisation wide integration) supported by IT, think about CRM or knowledge management systems?
8. How is the project management done and what is the relation between business and IT during the project?
9. How are (IT) projects initiated and managed?
10. How are the costs of the IT projects calculated and how does the prioritization process work?
11. How is the organisational structure of the commercial activities of Sdu?
12. Marketing
13. Is there information of competitors included in the strategic process?
14. What does the marketing structure look like?
15. How is the marketing strategy created?
16. What changes are made to the marketing strategy process ?
17. What changes are made to increase the use of market information for the marketing strategy?
18. Do you think all departments think from a customer perspective and share market intelligence?
19. How is the business strategy and IT strategy aligned?

Customer service
20. How is the gathering of customer feedback changed over time?
21. Is market intelligence used during contact with customers?
22. What other information is stored and shared?
23. Do you think this shared information is used (for example customer complaints)?

IT

24. How is the IT department structured?

25. Is there an IT strategy defined and how it is created?

26. Is IT or business leading?

27. How is the business strategy and IT strategy aligned?

28. What is the structure of the functional, and application maintenance processes and organisation?

29. Is there an IT architecture designed for the internal and external IT infrastructure?

30. How is this architecture designed and on what levels does it describe the IT and the business processes?

Appendix B: Interviews and relevant documents

Persons interviewed and other sources of information at IDG Nederland

Nr	Date	Name	Function
1	2006-06-26	Jeroen Jonkers Roelants	Business Development manager
2	2006-06-27	Jochem Kossen	Webmaster
3	2006-07-03	Annemare Lootsma	HR manager
4	2006-07-03	Gonny Tholen	Head marketing (Reader market)
5	2006-07-04	Rob Koghee	Manager Marketing
6	2006-07-04	Robertjan Uijl	HCC!Service manager
7	2006-07-04	Wim Gijsen	Head system administrator
8	2006-07-17	Eric Verweij	Editor director consumer media
9	2006-07-18	Bram Tullemans	Producer video assets
10	2006-07-18	Gonny Tholen	Head marketing (Reader market)
11	2006-07-19	Raymon Gort	General director

Title	Type	Year	Nr
Blauwdruk architecture IDG	Presentation/architecture	2005	1
Van Octopus naar Roofvogel	Presentation	2005	2
Customer Internet Service	Plan of approach	2005	3

Persons interviewed and other sources of information at Sdu Uitgevers

Title	Type	Year	Nr
Presentation Database marketing	Presentation	1998	1
Project: implementation Unitrac	Project planning	1998	2
Een meer klant gerichte website	Plan of Approach	2000	1
Plan of approach: implementation Sdu Uitgevers	Plan of Approach	2000	2
Evaluation PI project	Report	2001	1
Towards an Sdu DATA warehouse	Intake	2002	1
Intake Sdu Data warehouse	Memo	2002	2
System architecture 2002	Architecture	2002	3
Presentation customer care	Presentation	2002	4

Plan van Aanpak data warehouse	Plan of Approach	2003	1
A more customer oriented website	Plan of Approach	2003	2
Commerce organisation	Presentation	2003	3
Marketing intelligence plan 2004	Report	2004	1
BI-MI Data warehouse 3.0	Report	2004	2
Memo data warehouse: how further?	Report	2004	3
Functional management data warehouse	Report	2004	4
Data warehouse organisation and management	Report	2004	5
Year plan website 2004	Report	2004	6
Functional requirements ecommerce, web services and CRM	Report	2004	7
Memo: wishes DWH phase II	Memo	2004	8
Presentatie afdeling Marketing Intelligence	Presentation	2004	9
Presentation Workshop Strategic Marketing Management	Presentation	2004	10
Marketing intelligence plan 2005	Report	2005	1
Sdu management information 2005	Report	2005	2
Memo data warehouse release werkwijze	Memo	2005	3
Memo on competition intelligence	Memo	2005	4
Marketing intelligence plan 2006	Report	2006	1
Marketing service & communication Action plan 2006	Report	2006	2
Central marketing service & communication 2007	Report	2006	3
Marketing for president 2007	Report	2006	4
Memo KIK 2007	Memo	2006	5
Manual KIK 2007	Memo	2006	6
Format market research proposal	Template	2006	7
Format promotion plan	Template	2006	8
Sdu management information 2006	Report	2006	9
Memo Platform management information	Memo	2006	10
IT policy period 2006-2010	Strategic Plan	2006	11
Escalation procedure Data warehouse	Report	2006	12
Further development Sdu.nl	Report	2006	13
Memo: marketing balanced scorecard 2007	Memo	2006	14
Marketing balanced scorecard procedure	Report	2006	15

Nr	Date	Name	Function
1	2006-11-09	Wouter Weddepohl	Manager MSU
2	2006-11-15	Wouter Weddepohl	Manager MSU
3	2006-11-17	Annemarijne Moreu	Senior Marketer
4	2006-11-20	Marlies Smeenk	Marketer at a SBU (IT)
5	2006-11-21	Marlon Theunissen	Project manager / IT consultant
6	2006-11-22	Amber Eelkema	Manager Customer Services
7	2007-11-22	Sandra Kroon	Manager Business Development
8	2007-11-24	Ellen van Egmond	Senior Marketer

9	2006-11-27	Peter van den Heuvel	Manager Technical Infrastructure
10	2006-11-29	Roland Meijs	Manager Software engineering
11	2006-12-04	Hilke Starreveld	Marketing Manager SBU (Transportation)

Appendix C: MARKOR scale

Below the MARKOR scale (Kohli et al., 1993, p. 476).

Intelligence generation

1. In our business unit, we meet with customers at least once a year to find out what products or services they will need in the future.
2. Individuals from our service department interact directly with customers to learn how to serve their needs better.
3. In our business unit, we do a lot of in-house market research.
4. We are slow to detect changes in our customers' product/service preferences (R).
5. We survey end-users at least once a year to assess the quality of our product and service offerings.
6. We often share our survey results with those who can influence our end-users' purchase such as retailers and distributors.
7. We collect industry information by informal means (e.g., lunch with industry friends, talk with trade partners).
8. In our business unit, market intelligence on our competitors is generated independently by several departments of our firm.
9. We are slow to detect fundamental shifts and trends in our industry such as competition, technology, and regulation (R).
10. We periodically review the likely effect of changes in our business environment such as regulations and technology on customers.

Intelligence dissemination

11. A lot of informal talks in this business unit concerning our competitors' tactics or strategies.
12. We have interdepartmental meetings at least once a quarter to discuss market trends and developments.
13. Marketing personnel in our business unit spend time discussing customers' future needs with other functional departments.
14. Our business unit periodically circulates documents (e.g., reports, and newsletters) that provide information on our customers.
15. When something important happens to our major customer of market, the whole business unit knows about it within a short period.
16. Data on customer satisfaction are disseminated at all levels in this business unit on a regular basis.
17. There is minimal communication between marketing and manufacturing departments concerning market developments (R).
18. When one department finds out something important about competitors, it is slow to alert other departments (R).

Responsiveness

19. It takes us forever to decide how to respond to our competitor's price changes (R).
20. In our business unit, principles of market segmentation drive new product development efforts.
21. For one reason or another we tend to ignore changes in our customer's product/service needs (R).
22. We periodically review our product development efforts to endure that they are in line with what customers want.
23. Our business plans are driven more by technological advances than by market research (R).
24. Several departments get together periodically to plan a response to changes taking place in our business environment.
25. The product/service lines we market depend more on internal politics than real market needs (R).
26. If a major competitor were to lunch an intensive campaign targeted at our customers, we would implement a response immediately.
27. The activities of the different departments in this business unit are well coordinated.
28. Customer complaints fall on deaf ears in this business unit (R).
29. Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion (R).
30. We are quick to respond to significant changes in our competitors' pricing structures.
31. When we find out that customers are unhappy with quality of our service, we take corrective action immediately.

Appendix D: Transition of governance archetypes

The possible governance archetypes (Weill & Ross, 2005):

Governance archetype	Who has decision or input rights?
Business monarchy	A group of business executives or individual executives (CxOs). Includes committees of senior business executives (may include CIO). Excludes IT executives acting independently.
IT monarchy	Individuals or groups of IT executives
Federal	C level executives (CxOs) and business groups (e.g. business unit leaders or key process owners); may also include IT executives as additional participants. Equivalent of the central and state governments working together
IT duopoly	IT executives and one other group (e.g. CxO or BU leader)
Feudal	Business unit leaders, key process owners or their delegates make separate decisions for their respective units.
Anarchy	Each individual user makes separate decision; no group decision.

Below, per governance domain, the governance archetype over the years is described:

IT principles

Year	People involved	Archetype
2000	Manager IT&R, Manager TI, and Manager SE	IT Monopoly
2006	Manager TI (decision making), Manager SE, Director IT&R, and Management team *	IT Duopoly

*No focus on internal systems.

IT infrastructure strategies

Year	People involved	Archetype
2000	Manager IT&R, Manager TI, and Manager SE	IT Monopoly
2006	Manager TI (decision making), Manager SE, Director IT&R, and Management team*	IT Duopoly

*No focus on internal systems.

IT architecture

Year	People involved	Archetype
2000	Individual IT teams responsible for the respective system.	IT Monarchy
2004	The BU (as representative of both business and IT) took responsibility to create a template and conditions for the architecture of the online products. The rest remained the same.	Federal/IT Monarchy
2006	Manager TI (decision making), Manager SE, Director IT&R, and Management team, and in addition the initiative of BD. *	IT Duopoly/ Federal

*No focus on internal systems.

Application needs

Year	People involved	Archetype
2000	Individual SBU's with very informal consult IT	Feudal
2006	SBU's and BD	Feudal -

IT investment and prioritization

There are two processes involved with the investment and prioritization. Those are the processes for development of online and internal systems. Below the analysis of the two development processes for internal and online systems:

Internal

Year	People involved	Archetype
2000	IT and CMD or CS (informal), MT gives approval	Federal
2004	Owner board give approval	Feudal

Online

Year	People involved	Archetype
2000	SBU creates proposal and MT approves	Federal
2003	IB now prioritises	Federal+
2005	BD responsible for go no go (e.g. plan of approach)	Federal++

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