E-BUSINESS
- A SHARING INFORMATION SYSTEM

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Abstract
Today many companies show a highly interest in adopting the e-business. However, companies need different information system strategy in the adoption of e-business in order to support information sharing. Information system strategy is concerned with aligning of information system with business needs. Beside this, companies need to search after strategic advantage from information technology, since information system strategy explains what to do with IT. The earlier experiences point to the fact that companies failed to develop their businesses through Internet mainly because they did not developed an appropriate strategy.

This study investigates how to implement information system strategy to support information sharing in the context of e-business. Thus, the purpose of this study is to highlight different perspectives in adaptation of information system strategy within e-business companies. The empirical study is based on a qualitative method of data collection by using three interrelated case studies. The study conducted a number of interviews with three e-business companies named Hööks, NetOnNet and Kwintet.

The theoretical framework provided knowledge about e-business, information sharing, and information system strategies. The findings - by means of interview questions - were analyzed by theoretical ideas. The authors came to a number of conclusions:

1. Perspectives in information system strategy are divided into different parts consist of ERP system, supporting system, and manual approach, depending on how the e-business companies uses the information system strategies.
2. Information system strategies are embedded with ERP system and are interconnectively used companies that use the e-business as their core business system.
3. The e-business provides information workflow to support information sharing.
4. The final conclusion is that there are remaining perspectives, which are not connected to ERP system, but they are vital for the implementation of information system strategies for information sharing.

Keywords: E-business, Information Sharing, Information System Strategy
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1 INTRODUCTION

This chapter is an outline for the rest of the study. First, it provides a background for the study and it motivates the need for studying the subject under investigation. Second, it introduces the research area. In the final sections of this chapter the problem, research questions and purpose of the study will be presented.

1.1 Background

The background of the study is divided into three sections. The first section provides a general view about e-business. The second section discusses information sharing and the relationship between information sharing and e-business on the one hand and information system strategy on the other hand. The third section is about information system strategy and explains why it is vital for e-business to consider information sharing. These three sections are the main focus of this study.

1.1.1 E-business

In the recent years, advancement and innovation in information and communication technology (ICT) have increased rapidly, which led to the creation of new business opportunities (Cao et al. 2012). The advancement and innovation provided new business prospects in the global economy and initiated the era of e-business (Chaffey, 2011). The e-business key processes are the organization processes including research and development, marketing, manufacturing, inbound and outbound logistics. As stated by Chaffey (2011), the benefits of e-business are to increase larger customer, encourage loyalty and support the repeat of purchase with existing customer. E-business has also the benefit of helping cost reduction by delivering services electronically, which reduces the staff cost and transport cost.

There is a strong belief about ICT playing an important role in influencing enterprise’s decision making (Solaymani et al. 2012). Enterprises such as small- and medium-sized (SMEs), highly supports the adoption of e-commerce, which is a subset of e-business. E-commerce refers to buying and selling by using Internet. E-commerce also refers to all electronically mediated transaction dealing between organization and any third party (Chaffey, 2011). The main objective of e-commerce is information sharing, which indicates security as one important factor. Gregg and Walczak (2010) believe that motivation to increase customer’s online shopping helps with high security for both customers and e-businesses. It results improving customers trust towards the online shopping. The United States (U.S) increased its online shopping from $40 billion to over $130 billion from year 2002 to 2008 (Smith et al. 2011).
1.1.2 Information Sharing

The importance of information sharing is growing as people in organizations realize that information is a critical business resource (Kankanhalli et al. 2003). Today, many organizations are implementing information technology (IT) to support information sharing and integration. IT can mediate and support information sharing in an organization in two ways: designed systems to capture and deliver information based on rules; and interactive IT applications to support information sharing between individuals and groups. These two approaches complement each other (Hendriks, 1999; Davison et al. 2012).

Yang and Wu (2008) insist that the main goal of sharing information is to improve and enable organizations for understanding of a competitive advantage and the significance of strategic resource. To manage the information in e-business, information sharing is a vital factor (Qian et al. 2011). Information sharing is proved to be an effective strategy enhancing the information flow along the supply chain and bring more flexibility to the organizations. Dell Company and Cisco are such companies that share information with the supplier and customer to adjust variations in strategies in regards with the choice of market and demand. Shih et al. (2012) state it is necessary for organizations to share information both internally and externally for example share by suppliers and customers. Since information sharing is seen as a competitive advantage, and meanwhile as a vital strategic resource for organizations, therefore the issue of sharing information should be considered in terms of its social dimension. In certain occasions, it should be considered as a “social dilemma” when individuals in organizations refuse to share information (Yang and Wu, 2008). In addition to this, the complexity of information sharing needs to be related to the variety of available IT solutions on the market makes it challenging for organizations to adapt the support of information sharing (Kankanhalli et al. 2003).

1.1.3 Information System Strategy

Strategy means to lead an organization, set goals for the business and explain business objectives. Strategy is also defined as the art to utilize an organization’s resource to achieve business goals. This means, an organization uses strategy as a planning and basis for decisions to help business achieve its objectives. The information system (IS) strategy is concerned with aligning IS development with business needs and seeking strategic advantage from IT. Earl (1989) argues the main idea of IS strategy is to explain what to do with IT, whilst IT strategy is to explain how to use or implement IT. IT strategy is developed after IS strategy in order for a better understanding of operational activities, taking the visions, goals and plans for the business. It even helps making judgment as to whether an organization should continue to use a system or whether they should dismantle current system. Management and operation managers are active for participation in the planning process by identifying strategic visions, goals, needs and plans leading to the need of the IS in the business. IT strategy is concerned with technology policies and tackles questions such as risk assessment, vendors’ policies and technical standards. IT strategy provides a framework of application for users and is influenced by IT professionals and with top management to ensure the technology supply is in line with the organizations needs, style and structure (Earl, 1989).

IS was originally limited to the computerization of purposes and viewed as providing infrastructural support to the value chain. Organizations were able to reduce cost through information systems and enhance the capability to cope with sophisticated needs of customers and meet product quality standard (Narasimhan and Wook, 2001). Chaffey (2011) stated, IS
strategy has several perspectives for e-business to implement in order to support and achieve business goals.

1.2 Problem Discussion
As described in the previous section, e-business technologies support information sharing in e-business. These technologies such as IS strategies are required to achieve e-business goals and enable information sharing. IS strategy is seen as a useful tool in organizing communication in organizations. However, implementing and using IS strategies can be difficult because it views in different perspectives causing many failed e-business by developing business on Internet (Borges et al. 2009). For instance, a problem with fulfillment of goods ordered online, customer orders go missing or delayed, email customer service enquiries from the website don not reach the right person and are ignored (Chaffey, 2011).

The relation between IS strategies and information sharing is important for an e-business company to identify which IS strategies are useful to support information sharing. However, there are three problems to emphasize:

1. The main problem is that sharing essential information has the limitations due to time, distance and risks. Therefore, information sharing needs an effective strategy of e-business in order to enhance the communication flow and brings more flexibility to exchange of information. Problems of time, distance, and risks are related to the basis of information sharing and are therefore highly important for the support of e-business strategically.
2. Another problem is related to the basis of strategic adoption of e-business. In strategic adoption the social aspect of information sharing should be considered. Individuals in organizations may refuse to share information.
3. Finally, the problem of choice among the variety of the available IT solutions on the market should be mentioned. To make choice among variety of IT solution is a challenge for strategic decision.

1.3 Purpose of the Study
The overall purpose of the study is to investigate the implementation of different perspectives in IS strategy within e-business companies. One purpose is to examine why a company needs to implement e-business to support its business activities. Another purpose is to identify the features of the diverse strategic perspective involved for the design of sharing information.

1.4 Research Question
Achieving the purpose as presented in 1.3, the study addresses two questions:

1. Why does a company use e-business?
By means of this question the purpose is to find out the advantages of using an e-business in the conduction of operational activities of the companies. In addition to this, we will highlight the different perspectives the company applies in the implementation of the e-business.

2. How to implement IS strategy to support information sharing in e-business?
A company apply different perspectives in IS strategy to support e-business. However, applying inappropriate or incorrect IS strategy in a company may cause problems in sharing information with customers and suppliers. Based on this, the second research question is designed to explain the issue of sharing information.
1.5 Expected Outcome
The expected outcome is to explain the possible advantages of using e-business in the company. Further the expected outcome is to increase knowledge of how IS strategy is implemented in e-business companies to support information sharing.

1.6 Target Group
This study is useful for medium sized e-business companies, since medium sized companies believe to implement IS strategies to manage and support e-business. The study is also useful for researchers within the same field, whereas the result from this study may inspire and support for further research. Another target group is e-business managers because the result might help them to understand which IS strategies support information sharing in e-business. This study will also help IT managers to have knowledge about the implications of implementing IS strategies in regards with information sharing.

1.7 Delimitation
This study aims on examining IS strategies for information sharing in e-business companies and not IS strategies in general. The limitation will be based on structured interviews instead of surveys and experimental validation. Due to time constraints, the authors will only conduct interviews with relevant respondents in three different e-business companies and not follow a product in an e-business chain or interview the whole e-business chain i.e. retailer, distributor, manufacturer, supplier and customer.

1.8 Structure of the Thesis

Chapter 1: Introduction
This chapter presents the background and the motivation of the topic. It will present the research questions of this study and discuss the purpose of the study, expected outcome, target group and delimitations.

Chapter 2: Research Design
This chapter describes the methods and perspectives, which will be applied in the study. It also describes the data collection procedures, data analysis procedures, strategies for validating findings and presentation method.

Chapter 3: Theoretical Framework
This chapter outlines the theoretical framework to gain understanding and support the problems in research area in the study. It begins with a detailed description of e-business, information sharing and IS strategies. A summary will be present at the end of the chapter to show the important aspects in order to answer the research questions.

Chapter 4: Empirical Study
This chapter presents the results of the empirical study, based on case studies with three different e-business companies. At the end of this chapter, a summary will be present to show the important aspects from the empirical study.
Chapter 5: Analysis
This chapter analyzes and answers the research questions of this study in detail, with the support from Chapter 3 and Chapter 4. This chapter ends by presenting the results from the analysis.

Chapter 6: Conclusion, Evaluation and Future Research
This chapter concludes the study and presents the validating findings and results will be evaluated. It also presents the contribution to the field of Informatics, possibilities to generalize and recommendation for future studies within the field.

Figure 1 is summarized as follows. Chapter 1 introduces the research area and background; it latter presents the research questions and purpose of the study. Chapter 2 presents the research design of this study. Chapter 3 provides a theoretical framework of the three main key concept of this study; e-business, information sharing and IS strategies. Chapter 4 presents the empirical study based on case studies with three e-business companies. Chapter 5 presents the comparative analysis based on the empirical study and theoretical framework and answers the research questions of this study. Chapter 6 concludes this study based from the analysis. This chapter also presents the conclusion contribution to the field of Informatics, evaluation, possibilities to generalize and ideas for future research.
2 Research Design

This chapter describes the research methods and research perspectives applied in the study. This chapter also describes the data collection procedures, data analysis procedures, strategies for validating findings and presentation method.

2.1 Research Perspective

The two major traditional scientific research perspectives are hermeneutics and positivism. Hermeneutics emphasizes the understanding or interpretation of human action and is an influential of interpretivism from epistemology (Bryman and Bell, 2011). A hermeneutic approach is often associated with qualitative research which emphasis the researchers point of view and sensitivity to the context. The usage of hermeneutics is especially useful in the field of social research with human action studied by subjective approaches, which means the researcher have to understand the results. This study has the purpose to create an understanding of how IS strategies can support information sharing in e-business companies. With this said, a hermeneutic approach is suitable for this study because it facilitate the understanding of social behavior and human interaction. Especially when performing the interviews, the researchers have to interpret and understand the received information but also the overall data collected for the research.

Silverman (1993) argues that positivism emphasizes more on objective approaches borrowed from the studies of natural and mathematical science. Positivism is often associated with quantitative research. When using this approach, the collected data are based on facts and is assumed being independent of the researcher. This study does not strive to reach the ideal of positivism requirement.

2.2 Research Strategy

Research strategy is classified in three approaches: quantitative strategy, qualitative strategy and mixed method strategy approach (Creswell, 2003). A quantitative research strategy involves deductive approach to the relationship between theory and research, which the accent is placed, on the testing of theories (Bryman and Bell, 2011). Following the arguments put forward by Oates (2006), quantitative data based on numbers and the main type of data is generated by experiments and surveys. A qualitative research strategy involves inductive approach, which is placed on the generation of theories (Bryman and Bell, 2011). In qualitative data, it includes all non-numeric data such as words and company documents. The main type of data is generated by case study, action research and ethnography (Oates, 2006). Mixed method strategy approach is defined as it includes at least one quantitative research strategy such as numbers and one qualitative research such as words (Caracelli and Greene, 1993).

In this study, the authors used a qualitative strategy with three case studies as empirical setting, to emphasize the overall picture of the main problem. Oates (2006) emphasizes case study as one instance is being studied in depth by using different data generation methods such as interviews, observations and questionnaires. The aim is to acquire a detailed understanding of the case and its relation and processes. The three case studies will be conduct by interviewing the respondents. After conducting the interviews and if there is still
some insufficient answers, follow up questions will be sent to the respondent by email. By conducting case studies it indicates of multiple cases. According to Oates (2006), when adopting multiple case study approach, each case is studied individually. The aim for using this approach is to find similarities and differences between different cases. The initial goal for this study from the beginning was to conduct one case study by following a product through an e-business chain, i.e. from supplier to customer. The interviews will be conducted by interviewing one e-business company, one supplier and one customer in the same chain. But due to terms of conditions and policies between the e-business company and the suppliers, the e-business company does not want to name the suppliers. The authors have then to modify the aim of this study to conduct three case studies and to investigate which IS strategies supports information sharing in e-business companies.

The idea by using qualitative strategy is the results of the theoretical framework is verified empirically, whilst the empirical study will generate new knowledge and understanding. Hoepfl (1997) argues qualitative research is “working with data, organizing it, breaking it into manageable units, synthesizing it, searching for patterns, discovering what is important and what is to be learned, and deciding what you will tell to others”.

2.3 Research Process
This study begins with identifying research questions as the starting point for the planning report. The research questions are the basis for searching and identifying key concepts with help from the library. The key concept is the basis for selecting relevant theories based from literatures, scientific articles and master’s thesis. The literatures and the scientific articles will be the priority for selection of the theoretical framework; the previous master’s thesis will be a guideline to maintain the structure of the study. The selected theories will generate a theoretical framework, as the purpose of the study will be defined. The theoretical framework is the basis for formulating interview questions and selecting the respondents. A pilot study will be performed to assure the quality of the interview questions before conducting the interviews. The transcription process will begin after conducting the interviews and compiled into an empirical study. The empirical analysis is performed by selected analysis method to analyze data. An evaluation of tentative conclusions will be performed based whether research questions are answered or not. If the research questions are answered, a conclusion of the study will be reached, but if the research questions are not answered, interviews will again be conducted to find relevant information to answer the research questions.
Figure 2: Research process graph 1
Figure 3: Research process graph 2
2.4 Data Collection Procedure

2.4.1 Theoretical Data Collection

Collection of theoretical data for this study focuses on the literature review to provide an understanding and knowledge of the chosen research area. According to Bryman and Bell (2011), literature review is the process of identifying relevant information on a subject that helps to find out a topic, support methodology and provide a context. Data will be collected from relevant literatures and scientific articles. The selection of literatures was carried out in various ways. A search at the library’s database was performed to find relevant scientific articles, with keywords such as e-business, information sharing and IS strategy. The literatures were chosen based on the writers and suggestions from supervisor and professors.

2.4.2 Empirical Data Collection

Collection of empirical data for this study was conducted through structured interviews with medium sized e-business companies. The purpose-driven selection was made in choosing respondents by sending email to different e-business companies based in Borås and Gothenburg. Due to time constraint, this study will interview respondents who are relevant and interested in participate the interviews. The purpose of conducting structured interviews is to gain a deep knowledge and greater understanding of the existing problem (Oates, 2006).

In the context of data collection, Oates (2006) discusses three types of case studies: exploratory, descriptive and explanatory. The exploratory study defines questions or hypotheses used in a subsequent study to help the researcher understand the problem. The descriptive study provides a detailed analysis of a particular trend and its context, including discussions of occurred situations. The explanatory study seeks to explain why situations occurred or particular outcomes. Also, it compares outcomes from cases to theories from the literature to observe which theory is relevant to the case.

For this study, an exploratory study has been used to define research questions and also to gain deeper knowledge about the chosen research area and its existing problems. An empirical study was conducted by three case studies and interviews with three different e-business companies. The first e-business company is Hööks and specializes in horse and dog equipments. The second e-business company is NetOnNet and specializes in home electronics. The third e-business company is Kwintet and specializes in workwear, uniforms and promotional clothes.

The interviews will be carried out in parallel order. This means, the interviews can be conducted and transcribed after each other. By conducting the interviews in a parallel order, the authors will not be affected by the result, but will understand each company individually, to be more flexible when performing the interviews. Before conducting the interviews, a pilot study was applied to assure the quality of interview questions and to increase the virtues of conducting qualitative interviews (Bryman and Bell, 2011). The pilot study was performed by interviewing a small e-business company to ensure the quality of the interview questions are based on the theoretical framework and its relevance for the research area (See Chapter 4).

The result from the pilot study showed some revision the authors needed to do before conducting the main interviews. This included revising the interview questions in order for the respondents to understand and for the authors to receive relevant information. The interviews were recorded using an audio tape recorder, to receive precise answer recorded and
be able to listen to the recorded data afterwards. According to Bryman and Bell (2011), audio tape recording during interview makes it possible to record the interviews in a diligent manner.

2.5 Data Analysis Procedure

2.5.1 Theoretical Analysis
The theoretical analysis summarizes the theoretical findings through identifying and analyzing information from different sources such as literatures and scientific articles. The theoretical findings described primary aspects of IS strategies used in e-business and implications of information sharing in e-business companies. A summary was made based on the theoretical framework related to the research questions in order to answer the research question.

2.5.2 Empirical Analysis
The empirical analysis was conducted through examining three different e-business companies considering IS strategies for information sharing. A qualitative comparative analysis of the empirical data was performed in relation to theoretical framework to find similarities and differences. A summary of empirical study was made in relation to the research questions.

2.6 Strategies for Validating Findings
It have been suggested from researchers, qualitative studies should be evaluated from different criteria used by quantitative researchers (Bryman and Bell, 2011). Trustworthiness was proposed as an alternative to reliability and validity assessing the quality of a qualitative research (Guba and Lincoln, 1994). Bryman and Bell (2011) argues trustworthiness is a criterion that should be followed for a research to be of high quality. The criterion chosen for this research is trustworthiness and consists of four criteria: credibility, transferability, dependability and confirmability.

Credibility helps to form a clear relation between the sources and the methods for data collection. The research setting should be adequate of recurrent patterns in data can be identified and verified (LaBanca, 2011). This criterion is useful during the selection of theories to ensure its relevance. A clear line throughout the study is also important to understand the overall cohesive between research questions, methodology, theoretical framework, empirical study, analysis and conclusions of this study.

Transferability, the final conclusion should be applicable to similar research questions. Strauss and Corbin (1998) argue the ability to replicate research findings gives the original findings credibility. This criterion enables other researchers to replicate the study with similar methods and research area, but are conducted in different situation would enable different findings since trends are changing.

Dependability, with a qualitative research it is common the result can change depending on environment. However, the dependability will assure how well the research has been conducted and to test if data collection is reliable. Dependability can be evaluated by the overall research design and the appropriateness and methodological considerations to what extend the researcher’s bias have influenced the findings (Cao, 2007). This criterion is useful during the empirical analysis to assure data is reliable.
Confirmability, this criterion ensures the result of the findings can be verified and are based on researcher’s perspective. However, confirmability can be evaluated in several steps (Cao, 2007):

- The first step is to evaluate if the findings are grounded in data.
- The second step is to determine the conclusion using relevant analytic techniques.
- The third step is to evaluate the category structure used.
- The last step is to evaluate if the findings are reflective of the investigation.

This criterion will be used during description of theories from scientific articles and literatures.

2.7 Presentation Method

This study is presented by different parts, such as theoretical framework and analysis of empirical study in order to create an understanding for the readers. Textual presentation method is useful to describe facts achieved from previous and current researches. Tables and figures are also useful to present the findings from theoretical framework and empirical study in order to express information more effective. The authors included some figures to help the readers to understand the context. This implies a clear structure throughout the study, where the different sections in a comprehensible way based on each other. Additionally, all various steps are clearly specified and the choices carried out in the study are motivated.
3 Theoretical Framework

This chapter outlines the theories to gain understanding and support the problem area in the study. A summary will be present at the end of the chapter to show the important aspects of this chapter in order to answer the research questions.

3.1 Relevant Subject Areas for the Research

E-business
E-business refers to all electronically mediated information exchanges, both within an organization and with external stakeholders supporting the range of business processes (Chaffey, 2011). E-business is also the application of ICT to business processes in all sectors of the economy. The main purpose of e-business is to reduce cost, improve customer value and to find new market for products and services (Ebusiness Strategy, 2004).

Information Sharing
Information sharing is an activity that exchanges information (i.e. information, skills, or expertise) among members in an organization (Cabrera and Cabrera, 2002). The main goal of information sharing is to improve and enable the information sharing in organizations for a more competitive advantage and strategic resource (Yang and Wu, 2008).

Information System Strategy
IS strategy refers to the explanation of what to do with IT and represents as the portfolio of applications that is adopted by the company (Earl, 1989; Qrunfleh et al. 2012). IS strategy is concerned with aligning IS development with business needs and seeking strategic advantage from IT (Chaffey, 2011).

The Figure 4 below shows the connected between the relevant subject areas and the research questions in this study. E-business supports research question one. E-business, information sharing, and different perspectives in IS strategy supports research question two.
Figure 4: Relevant subject areas for the research.
3.2 E-business

E-business is defined as the transformation of key business processes throughout the use of Internet technologies (Chaffey, 2011). The e-business key processes are the organizational processes including research and development, marketing, manufacturing, inbound and outbound logistics. Department of Trade and Industry (DTI) (2000) mention that e-business is applied when a business is fully integrated with ICT into its operations when redesigning its business processes or reinventing its business model. E-business is understood to be the integration with the internal processes of a business through ICT.

According to Chaffey (2011), e-commerce is considered as a subset of e-business. E-commerce refers to buying and selling by using Internet and is also considered as all electronically mediated transactions dealing between an organization and any third party (Chaffey, 2011). As depicted in Figure 5, it is useful to identify the opportunities for buy-side and sell-side e-commerce transactions when evaluating the impact of e-commerce in the organization, since systems with different functionalities that an organization needs to accommodate transactions with buyers and suppliers. The buy-side e-commerce is the transactions with the suppliers, whilst the sell-side e-commerce is the transactions with the customers.

E-business gives small and large organizations opportunity to compete in the global marketplace (Chaffey, 2011). Evans and Wurster (1997) mention one of the biggest changes by electronic communication is how approaches can transmit and transform information used for a competitive advantage. There are three characteristics of information. The first characteristic is reach and refers to the potential number of customers in business to interact with. The Internet facilitates reach, to increase nationally and internationally by making content available through search engine at lower cost. The second characteristic is richness and refers to the information itself. The Internet facilitates more detailed information about products, prices and availability of products. Richness facilitates interactivity and customization, to engage customers and to provide more up-to-date information. The third characteristic is affiliation and refers to the effectiveness of links with partners. Affiliation facilitates an organization the most and richest links with other compatible organizations, to gain larger reach and influence.

Chaffey (2011) mention benefits of implementing e-business are the potential for increasing larger customer, encouraging loyalty, and repeat purchases with existing customers. Moreover, e-business can reduce cost of the organization through delivering services electronically that includes staff costs, transport costs, and material cost such as paper.
3.2.1 IT Role in E-business

IT plays a vital role in e-business because it support layer within the overall strategy of the organization by taking significant roles in business processes such as creating new needs, and creates new product development and procedures (Chan, 2000). Yeh et al. (2012) denotes IT and fast development of information systems can facilitate an organization to emphasize the development of e-business strategies and introduces relevant strategic planning methods. Many organizations introduced innovative IT strategies and e-business applications, to improve competitiveness for the organization. Therefore, the development and implementation of IT strategy has become a focus for information management in many organizations.

3.3 Information Sharing and IT

Information sharing, as mentioned in section 1.1.2, is realized by many organizations as a critical business resource. Nowadays, many organizations implement IT systems to support information sharing and integration, who also provide a link between employees, where information inherent, and in organizations, where information conquer its value (Kankanhalli et al. 2003; Hendriks, 1999). IT can support information in two ways, either systems to capture and deliver information, or IT applications to share information between individuals and groups (Davison et al. 2012). Interactive IT applications, such as email can support information sharing in many ways, but most importantly is supporting interactivity. Individuals can use IT applications to share and explain information that encourage development of information sharing further (Desouza, 2003). By using IT applications, it assures right information being shared and available to the right people at the right time.
However, it can be difficult for organizations to know which IT systems to be deployed to support information sharing, since there is a variety of an IT system available on the market.

3.4 Information System Strategy
As stated earlier in section 1.1.3, the main idea of information system strategy is to explain what to do with IT and concerned primarily with IS development. IS strategy consists of several perspectives.

3.4.1 Business Perspective
The business perspective compromises a great resource for information, links and reviews for tools to facilitate business. The success of e-business operates how to manage information systems and distinguish the contribution of information and technology. Thus, the competitive advantage comes not from technology but from how information is collected, stored, analyzed and applied (Chaffey, 2011). The business perspective focuses on business impact approach and business alignment approach. Business alignment approach reviews how information systems use to support a defined business strategy. Business alignment approach focuses on information system and priorities as well as business goals. Linking information system to objectives and critical factors are important for using business alignment approach due to needs of business planning methodology to analyze existing business processes. Business impacting approach determines new opportunities from deploying information system that may impact on a business strategy. Furthermore, the business impact approach involves redesigning business processes to integrate with business partners. Business impact approach focuses on the potential information technology on organizational tasks and processes as a basis to identify opportunities for deploying information systems. Both business impact approach and business alignment approach is useful in business. Business alignment approach is useful during initial development of an e-business strategy to ensure IS strategy supports e-business strategy. Business impact approach is useful to observe new opportunities information system produces (Chaffey, 2011).

3.4.2 Information Management Perspective
The information management perspective refers to the economic, efficient and effective coordination of the production, control, storage, retrieval and dissemination of information from external and internal sources, to improve the performance of an organization (Best, 2010). The goal of information management is to help people and organizations to use information efficiently and effectively, by operating more competitively and strategically. Information management in organization deals also with the management of all information processes involved in the information lifecycle. These include transactional information stored in databases, summarized information content found in documents and reports. According to Detlor (2010), information management is more about placing greater focus on managing activities to make changes in patterns of behavior of customers, people, and organizations, and information that leads to changes in the way people use information. IT is a tool to assist information management and speed up the information flow (Pereira, 2009). Information management plays a fundamental role in e-business since information is intensive activity and a substance from which the managerial decisions are made and supports a solid e-business.
3.4.3 Application Perspective

In the context of e-business, investment evaluation in application perspective is needed because it refers to overall level of information system to support e-business and decide which business application to invest in, and to assess the cost for applications for the organization. In application perspective, a portfolio analysis can be useful to decide priorities by selecting the strategic and categories for further investment. These include operational value investment, strategic value investment, threshold investment, and infrastructure investment (Chaffey, 2011). *Operational value investment* is the investment of such as transaction processing system for processing order received by phone. Transaction processing system is valuable for increasing the efficiency and reducing cost in business. *Strategic value investment* is the investment that enhances the performance in business to increase customer loyalty. *Threshold investment* is the investment an organization makes to operate in business. Threshold investment may have a negative return but are needed for competitive survival in business. *Infrastructure investment* is the investment including internal networks, electronic links with suppliers, customers and partners.

3.4.4 Process Perspective

Process perspective is defined as the main activity in business and has a purpose and input as well as output. Business processes are significant element of the value chain including inbound logistics (manufacture), outbound logistics (distributor), customer relationship management, and marketing activities. According to Chaffey (2011), workflow management is the automation of a business process during document, information or task passed from one participant to another for action in order to set procedural rules. Workflow management is a key to manage time based on information flows. Workflow system automates business process by providing a structured framework to support a process. Application of workflow system in e-business includes actionable queries from external customer or internal support. These queries may arrive by email, phone or letter. An email query is analyzed and routed to the right person. Letters needs to be scanned before added to the workflow queue. Workflow system facilitates business processes and to ensure tasks are prioritized as soon as possible, by the right people, and in the right order. The advantages of workflow system is to provide functions to assign tasks to people, remind people about the task, allow collaboration between people sharing task, retrieve important information such as customers’ personal information, and provide an overview for managers of the status of each task and the team performance.
Figure 6: Process workflow (Chaffey, 2011).

3.4.5 Department Perspective

In department perspective, Chaffey (2011) stated the main parts of an organization are:

- **Senior management** is the organization that manages the team and interfaces an issue for less-evolved adopters for e-commerce. It leads adopters to mention the business problem and discuss the strategic importance of online channels to achieve alignment between business objectives and e-commerce advantages.

- **Marketing, different brands, business or countries** is the organization that interface issue for the less-evolved organizations. It creates processes for collaboration between e-commerce and marketing teams, and defines the responsibilities for e-commerce in marketing teams.

- **Information Technology (IT)** is the organization that interfaces issue of IT problems and develops applications of e-commerce in order to deliver value to customer and organization.
### 3.4.6 Infrastructure Perspective

The infrastructure perspective refers to the combination of hardware; such as servers and client PCs in an organization network links of hardware and software applications to deliver services to business partners. Infrastructure is considered the methods for publishing data and documents through e-business applications. It is crucial for e-business infrastructure and the process of reviewing new technology investment is flexible in order to support changes by the business to compete effectively. Figure 7, summarizes how the different components of e-business architecture needs to be managed and relate to each other. The different components can be conceived as different layers defines interfaces between each layer and can be understood in relation to a typical task performed by an e-business system. For instance, an employee who needs to book a holiday will access a specific human resource application to enable the holiday to be booked (Level 1). This application will enable a holiday request to be entered and will forward the application to the manager and human resource department for approval. To access the application, the employee uses a web browser and operating system (Level 2). This software system will request a transfer of the information about the holiday request across a network (Level 3). The information will be stored in the computer memory on a web server (Level 4). The information itself makes up the web page viewed by the employee and data about the holiday request are shown as a separate layer (Level 5).

![Diagram](image)

**Figure 7**: The five levels of e-business infrastructure components (Chaffey, 2011).
3.4.7 Communication Perspective

E-commerce managers strive to deliver the most effective communication to e-commerce sites. Communication is an important aspect of the business, because it is a guarantee of success, but there are many different channels of communication such as TV and Internet that are useful for convincing customer and improve the company’s brand image. Thus, effective communication enhanced in the market successfully (Dad, 2012). Chaffey (2012) stated two techniques in marketing communication. The first technique is offline marketing communication, which is the traditional technique such as print and TV advertising. The second technique is online marketing communication, which is Internet based techniques such as search engine marketing, online PR, online partnership, and email marketing.

- **Search engine marketing.** Search engines are the primary methods of finding information about a company and its products. Search engine follows if an organization is not well-known; many potential sales could be lost since a company is dependent on the strength of its brand and offline communication to take visitors to the website.

- **Online public relation (PR).** PR is the management of reputation that planned and sustained effort to establish and maintain goodwill, and mutual understanding between an organization and its public. The main element of online PR is to maximize favorable mentions of an organization, its brands, products or websites.

- **Online partnership.** Partnership is an important part of marketing including link building; affiliate marketing, and online sponsorship.

- **Interactive advertising.** Advertising provides media multiple help to increase the response rates from online media.

- **Email marketing.** Marketer needs to plan for outbound and inbound email marketing. Outbound email marketing is email campaigns used as form as direct marketing to encourage trial and purchases. Inbound email marketing are email from customers such as support enquiries.

3.4.8 User Service Perspective

User (customer) service is important for companies (Wang et al. 2011); since it provides quality service to customer as an organization expects to stay in business. Levenburg and Klein (2006) stated a customer does not just expect high level of service, but also expect to be able to find product related information regarding the availability of products, how to order, and payment, tracking number, delivery and customer complaint of the product. Customer service on Internet is to deliver enhanced customer value including the service that facilitate sales and provide post-purchase support. However, it is generally poor due to lack of standardized methods of evaluation, misuse of technology tools including information overload, spam, inappropriate design and links, and lack of maintaining website updates (Levenburg and Klein, 2006). A customer contact with customer service through a helpdesk function is critical to every enterprise IT service delivery. Since descriptions of a problem and recommended solutions are stored in databases (Biddle and Tyler, 1988).
3.4.9 Customer and Partner Relationship Management Perspective

Customer relationship management (CRM) perspective is a key element of e-business, since it builds long-term relationship with customers for a sustainable business. The objective of CRM is to increase customer loyalty and profitability in business. Chaffey (2011) mentioned four marketing activities to comprise CRM. The first activity is customer selection that defines types of customer a company will advertise to. The second activity is customer acquisition and refers to form relationship with new customers, minimizing acquisition costs, and targeting high value customers. Service quality and selecting the right channel for different customers are important in customer acquisition. The third activity is customer retention that keeps existing customers; identify relevant offering based on individual needs and detailed position in customer life cycle. The fourth activity is customer extension and refers to increase the depth of products a customer purchases from a company.

Chaffey (2011) argued some benefits of CRM on Internet.

- **Targeting more cost effectively.** Targeting for direct mail based on mailing lists compiled according to criteria that not everyone contacted is in the target market, but only who aim to build relationship with those who have visited a web site and expressed an interest in its products by registering name and address.

- **Achieve mass customization of the market messages or product.** The technology makes it possible to send tailored emails at much lower cost and provide tailored web pages to smaller groups of customer.

- **Increase depth, breadth and nature of relationship.** The nature of the Internet enables information to be supplied to customers. The frequency of contact can be determined by customer where they need to visit personalized pages or contacted by email by the company according the communication preferences.

- **A learning relationship achieved using different tools throughout the customer lifecycle.** Tools can summarize the purchased products on-site, online feedback forms about the products are completed when customer request free information, questions asked by emails to the online customer service, new products development evaluation by commenting on prototypes of new products.

- **Lower cost.** Contacting customers by email cost less than physical mail. Information needs to be sending to customers who have expressed a preference for email.
Figure 8: Components of CRM technologies (Chaffey, 2011).

### 3.4.10 Resourcing Perspective

Once e-business strategy decisions have been described, reviewed and selected, the organization needs to know how to achieve priorities for e-business through integration approach. The integration approach is the use of existing brands, information sharing, and achieving economies of scale (purchasing and distribution efficiencies). In addition, organizational capability should review and improve the ability to deliver e-business strategies. Chaffey (2011) argues resourcing perspective contains strategy process, structure, marketing integration, and online marketing.

- **Strategy process** is the process for selecting, implementing and reviewing e-business.
- **Structure** is the location of e-commerce, technological capabilities and staff skills.
- **Marketing integration** is the staff members and marketing members.
- **Online marketing** is the focus on the core activity of customer acquisition by attracting site visitors, conversion by generating leads and sales, and retention by encourage use of digital channels.
3.4.11 Change Management Perspective

Change management perspective is managing process structural, technical, employee and culture change in an organization. It conducts by change agents and responsible managers for controlling changes. The change agent could be the project manager for implementing new information systems. The responsible manager could be the e-business manager for increasing adoption of e-business by an organization to increase adoption of e-channels. Figure 9, shows the major changes required for an organization to marketplace changes and deliver competitive customer service. To achieve these changes, it requires a series of success factors such as leadership commitment and project management.

![Change Management Diagram](image)

**Figure 9:** Key actors in achieving change (Chaffey, 2011).

Change management has several stages applied in e-business (Chaffey, 2011).
- **Identify the process for innovation.** In this stage, major business processes from the organization adds most value for the customer to achieve the largest efficiency benefits for the company.
- **Identify the change levers.** This stage is the innovative technology and organization culture and structure to achieve changes.
- **Develop the process vision.** This stage involves the communication for changes to achieve buy-in throughout the organization.
- **Understand the existing process.** This stage allows the performance of existing business processes to be benchmarked and provide re-engineered process that improves business performance.
- **Design and prototype the new process.** This stage operates simulation and modeling tools to form the logical operation and implementation of new processes.
3.4.12 Internal Integration Perspective

Internal integration refers to the structure its organizational procedures, behavior into collaborative, manageable processes and information sharing between internal functions and strategic cross-functional collaboration (Zhao et al. 2011). Internal integration involves data and information system by using enterprise resource planning, real time searching of inventory and operating data. According to Zhao et al. (2011), mostly companies rely on internal integration in order to gain competitive advantage and company performance. The intranet is an example of internal integration, in which the information is restricted to employees within an organization. The benefits of Intranet as Chaffey (2011) emphasizes is to improve information sharing, enhanced communication, and easier organizational publishing. Through intranet, a direct cost reduction will be achieved by reducing cost of printing and indirectly reduced staff time needed to access information (Chaffey, 2011).

3.4.13 External Integration Perspective

External integration refers to collaborations in business to fulfill customer requirements (Zhao et al. 2011). External integration includes strategic alliance with supplier and customer that the organization builds strategic partnership to face market opportunities. Information sharing, synchronized planning and collaboration with supplier and customer to jointly resolve problem and facilitate operations are crucial. External integration allows organizations to form collaborative relationship with partners and influence core competency whilst reducing transaction cost (Zhao et al. 2011). Extranet is a service used in external integration, which provided through Internet and web technology delivered to customers and suppliers (Chaffey, 2011). Extranet is a network connected to another network for the purpose of sharing information and is created when two businesses connect for business communications and transactions. For instance, Dell Company encourages customers to make suggestion about new products, where customers have to register to add comments in Dell Company’s extranet. The benefits of using extranet in an organization are that the business collaboration can share important information in secure environment and operation process can be more efficient (Chaffey, 2011).

3.4.14 Legal Constraint Perspective

Legal constraint perspective determines which products can be promoted and sold online. Ethical issues and associated law constitute a crucial of Internet business environment for Internet marketer. Government is responsible for seeking safeguard privacy to individual rights. Privacy of consumers is a key ethical issue that affects all types of organization if having a transactional e-commerce service. Privacy of personal data such as identities is the major concern to consumers, because of the dramatic increase of identity theft. Chaffey (2011) suggests an organization should use the latest data protection and privacy law to prevent problems. The main information types used by Internet marketer that governed by ethics and legislated are:

- Contact information includes name, postal address, website address, and business-to-business (B2B) companies.
- Profile information includes sex, age, and social group for consumers.
- Platform usage to collect information on type of computer, browser and screen resolution used by site users.
- Behavioral information on a single site includes the whole buying process and the purchase history.
- Behavioral information across multiple sites that shows a user access multiple sites and responds to ads across sites.
3.5 Summary of the Theoretical Framework

From the theoretical framework it highlighted important aspects in e-business, as it defines as the transformation of business processes during the use of Internet technologies. E-business is applied when a business integrates with ICT into its operations, redesigning its business processes, and reinventing its business models. By implementing e-business gives an increase larger customer, encourage loyalty with customer and supplier, and repeat purchases with existing customers. At the same time, it enables cost reduction in the organization by using delivering services electronically and with the use of electronic communication with customer and supplier to share information.

Information sharing support e-business by ensures having access to require data as well as information being stored and updated. Interactive IT applications, such as email can facilitate information sharing in many ways and support interactivity among individuals and groups in an organization. With the help of IT applications, it assures right information being shared and available to the right people at the right time.

The different perspectives in IS strategy support information sharing within e-business. According to the theoretical framework, IS strategies applied in e-business are:

1. Business perspective
2. Information management perspective
3. Application perspective
4. Department perspective
5. Process perspective
6. Infrastructure perspective
7. Communication perspective
8. User service perspective
9. Customer and partner relationship management perspective
10. Resourcing perspective
11. Change management perspective
12. Internal integration perspective
13. External integration perspective
14. Legal constraint perspective
3.6 A Tentative Model Takes Place

![Diagram of IS strategies in e-business]

**Figure 10**: A tentative model of IS strategies in e-business.

With this theoretical framework as a starting point, a model can be build to visualize the relation between each concept. The motivations for Figure 10 are as follows. E-business refers to electronically information exchanges in a company to support business processes. An e-business company interacts with IS strategies depending on what purpose they have to use the IS strategies, such as send email to supplier or customer, read, update or save information, customer and product information. The interaction between the e-business company and the IS strategies will result in new IS strategies, as constant changes within IS strategies occur. The new e-business strategies give feedback to e-business company about information of which IS strategy needs to be implement in order to support in e-business and information sharing that occurs during collaboration with supplier and customer.
3.8 Arguments and Bases for the Empirical Study
The empirical study is necessary to verify the theoretical findings and to observe and find further knowledge. By conducting an empirical study, it collects information to answer the research questions in Chapter 1. Through an empirical study, a deeper understanding will be created of how the research field is perceived in reality. Furthermore, a comparison between the theoretical framework and the empirical study will create a deeper understanding of similarities and differences from the conducted case studies. The theoretical framework is useful as a guide in the study and empirical data as a tool to answer the research questions, but the empirical study will also generate new knowledge about IS strategies for information sharing in e-business companies.
4 Empirical Study

This chapter presents the results of the empirical study, which consist of two phases; one explorative pilot study and one main study with the ambition to further explore the findings from the pilot study. A summary will be present at the end of the chapter to show the important aspect of the empirical study in order to answer the research questions.

4.1 An Explorative Pilot Study: iMöbler

Chapter 2, section 2.4.2, mentions a pilot study was applied to assure the quality of interview questions and to investigate whether the interview turned out as planned. The pilot study was conducted by interviewing a small e-business company called iMöbler, which was founded in 2010 by Tomasz Wos. iMöbler is a small family business and specializes in furniture’s imported especially from Poland, delivered directly to customer. The main concept of iMöbler is to offer high-quality furniture’s to a lower cost. iMöbler’s main platform is the web shop where about 80 per cent stands for all sales from customer orders. Since the business is small, Tomasz manages all the tasks by himself. Occasionally, Tomasz coworker will assist to manage the administrative work in the company.

According to Tomasz, implementing e-business in the company has made it possible for the company to grow in the market. The idea behind implementing e-business at iMöbler was to be more accessible for customers all over Sweden. Also, there is no need to invest much in order to sell online. Tomasz considers the major advantage about e-business is the possibility to reach out for customers around Sweden and be able to expand target group. To reach out for more customers makes it also possible for the company to expand the product range without having an actual inventory. Another advantage about e-business is that the company does not have to invest all product samples to demonstrate, which is not necessary for an e-business. However, Tomasz also emphasizes the disadvantage about having an e-business; the company cannot compete with furniture businesses in Sweden than price iMöbler has to offer, because the customers cannot observe whether the quality of the furniture is fine or poor.

Tomasz believes e-business has given people possibilities to choose, since customer nowadays is more aware of needs and what alternatives market has to offer. Also, e-business has made it possible for customer to compare different price range on the market. Tomasz adds further, e-business is believed to be the future for shopping. More stores will somehow in the future implement e-business to reach out for customers, but this does not mean the stores will depart. Instead, this will give companies the ability to be both locally and online. Tomasz insists that it is wise for beginners to establish as an e-business company, considering the possibilities it gives. In the future, Tomasz wishes to open a store to complement the assortment in the web shop, but also for the customers to be able to visit and observe the furniture in person.

Regarding information sharing, iMöbler uses email as IT application to share information with supplier and customer. The advantage of sharing information with IT application is easy accessible and easy to use. The disadvantage with IT applications is technical problems occurring that can affect the business. Tomasz expresses the safeness about sharing information by email and is not worried about that aspect.
Given iMöbler is a small family company; Tomasz manages all tasks in the company. Incoming orders from customers will directly be stored in an order inbox, provided by the e-business platform iMöbler is using. This means, iMöbler do not use IS strategies or ERP system to manage and support e-business, important information such as orders, product information, customer and supplier information is stored in a database connected to the web shop. Depending on what product the customer wishes to purchase, Tomasz will send the order to respective supplier. Therefore, most working process at iMöbler is done manually.

4.1.1 Implications of the Pilot Study
The initial purpose of this study was to investigate how IS strategies can support information sharing in an e-business chain. IS strategies is therefore an important aspect to observe, in order to answer the research questions of this study. Since iMöbler is still a small company with most tasks handled manually, most interview questions about IS strategies could not be answered. Presuming, out of 17 questions about IS strategies iMöbler answered only five questions. However, interview questions about e-business and information sharing was successfully answered. With this outcome iMöbler provided, the authors felt some reconsideration needed to be made in order to achieve this study’s purpose and to answer the research questions.

Due to terms of condition and policies, iMöbler did not want to reveal the supplier’s name, this resulted in authors could not interview the supplier. The reason for wanting to interview a supplier is because; the supplier is a part of an e-business chain, and in order to investigate how IS strategies can support information sharing in an e-business chain; the supplier is vital to observe. The authors had to rethink about the supplier; if a small e-business company, due to terms of condition and policies, do not or cannot reveal the supplier, how the possibility is medium sized or large e-business will name the supplier. With this said, revision needed to be made concerning this study’s purpose. The authors cannot follow a product from supplier to customer after an order being placed, and its information sharing in between. The adjustment will be the following; instead of just focusing on one e-business company, three e-business companies will be focused to investigate how IS strategies are being implemented in respective company to support information sharing. Hence, the authors decided to modify the target group regarding e-business companies. Initially, small e-business company needed to be revising to medium sized companies, because medium sized companies believe to implement information systems to support e-business and to facilitate administrative work.

Considering the interview questions, all questions went well with iMöbler regarding e-business and information sharing, but questions about IS strategies was broad and too difficult to understand. The authors had to revise and narrow down the questions about IS strategies in order for the main respondents to understand.

With these adjustments made, the authors decided to exclude iMöbler from the main study. The reason is the authors felt iMöbler could not provide relevant information regarding IS strategies, and the empirical findings based on iMöbler is weak to be considered as a study to achieve its purpose and to answer the research questions.
4.2 Case Study 1: Hööks

Hööks is a horse equipment company founded in Borås, 1931 by Oscar Waern. The company’s business concept was to produce harnesses and saddles sewn by hand. In 1999, Hööks introduced e-business with the goal of expanding the business in Sweden, Norway, Denmark and Finland, which became a huge success for the company. Hööks website is one of the most visited within the horse industry in the Nordic countries. Today, Hööks has approximately 250 employees. The company’s groundbreaking aim is to provide customer good quality with reasonable prices.

Hööks is the largest horse equipment company in the Nordic countries and has a heritage of knowledge that is to produce product and service culture whose origins lies 80 years ago. Hööks is available to the customers 24 hours a day and seven days a week in order to satisfy customer demands. Hööks competitive advantage is to be service-oriented, quality conscious, affordable, dedicated and responsive to the customers.

Mikael Johansson
Mikael is the purchasing manager at Hööks. He started at Hööks in 2012, and has a very wide background in purchasing based on previous experience. Hööks has different purchaser because they want every purchaser to be responsible for respective product range. As a purchasing manager, Mikael is responsible for the total management in purchasing equipments at Hööks.

Patrik Back
Patrik’s role in the company is to work as a business support manager that includes IT, finance, customer service and administration. He is responsible for general IT issues at Hööks. Patrik started to work at Hööks in 2003 and had since then various roles in the company until he became business support manager.

4.2.1 E-business

According to Mikael Johansson, e-business is important for Hööks because it helps the company to be successful and to reach more customers through Internet. By having an e-business, it gave possibilities for the company to grow in the market. Currently, Hööks is in progress of changing the e-business platform to a more effective one, since the old platform is quite difficult to manage. Patrik Back argues IT is important to support and operate e-business, which aim is to do business. IT systems make supplement and adding opportunities for e-business in order to be successful.

When asked what the idea behind implementing e-business at Hööks was. Mikael answers Hööks from the beginning was a postal order company, with e-business implemented during 1999, because of the opportunity to grow in the market. The e-business concept became a success for the company and further expands their business in Denmark, Norway and Finland. Mikael explains further the idea behind was also to present the products through Internet to reach out for more customer. Mikael underlines customer can read the product information and compare different products before purchasing. Mikael mention implementing e-business in the company made it possible to reduce cost, because the process of creating catalogs can be very expensive. With a web shop, Hööks does not need to print out catalogs every season and send it out to customers.
Mikael points out e-business today, not only is it important for Hööks, but also important for everyone, it makes it easier for the customer to purchase products. In view of the fact many customers shop online at home during free time. This is the reason why Hööks is more updated with important products information and explains accurately to the customer why they should purchase at Hööks instead. The company also sends out detailed information of how to use the products and what the advantages are with the products. The employees at Hööks are knowledgeable and skilled about horses and horse equipment’s, which Mikael believes is a strong advantage for the company.

4.2.2 Information Sharing
Mikael thinks the communication between Hööks and the suppliers is good. The company mostly uses email to communicate and send order information with the supplier, because most of them are based from China and India. Therefore, Mikael thinks email is the easiest way to communicate. Mikael argues further, another reason to communicate through email is that email can be printed out and further discussions can be made if misunderstandings occur. Furthermore, Mikael says if it is possible, Hööks will arrange face-to-face discussion with the supplier, because the company wants to see whether the supplier is serious with the negotiations. In some cases, phone calls will also be used to communicate with the supplier. Mikael mention the suppliers would visit Sweden once or twice a year, to attend events and do presentations of their products. However, Hööks also visits international suppliers to see their working process.

Mikael explains Hööks uses email as IT application to share information with the supplier and customer, because it is fast and easy to use. Mikael mention the advantage with email is the customer can open and read it through mobile phone, which mostly has with an Internet connection. The customer can reply directly and receive updated information about the order. It is also an advantage for the supplier to communicate through email and reply directly to Hööks and send questions or information. Mikael also mention by using email, it gives the advantage to print out important information as evidence rather calling the supplier or customer. Mikael consider there is no disadvantage of using email to communicate because it has facilitated much both for his work and for Hööks.

When asked if Mikael feel safe about sharing information through IT applications, Mikael answers Hööks feel safe in sharing information by sending email with the supplier and customer, because only relevant information is being shared. Hööks receives queries from new suppliers almost every day and Hööks will ask the new supplier for samples to see if the supplier provides good quality products. Mikael adds further some purchasers from Hööks will visit the new supplier to observe if everything is clear before writing a contract. With this working procedure, Mikael believes this will help to maintain a good partnership with the supplier.

4.2.3 IS Strategies
Business Perspective
According to Patrik, the executive committee and the management team at Hööks manage the business perspective. Executive Committee decides the final decisions about strategies the company should implement in order to reach business goals. Management team is planning for improvements in the company and meets formally once a week; to discuss which improvements should be implementing and information systems the company should use.
Information Management Perspective
When asked how information management perspective is implemented at Hööks, Mikael answers the company uses an ERP system called Hammony and a purchasing system as a core system. When developing the products, Microsoft Excel is useful to summarize the product information such as fabrics, colors and patterns, and drawing tools to draw sketches of products. Hööks store all data in different databases that is connected to the ERP system, where the company stores all information. Regarding sending information to the supplier, Mikael explains there are two ways doing this. The first is to send essential information through email. The second is to compile documents with fabrics, colors and patterns described in detailed, and thereafter send it to the supplier. Mikael mention many times it is easier to draw patterns on paper; in this way the supplier can see exactly what Hööks requires and to avoid misunderstandings. Hööks employs DHL if the supplier requires important product information’s such as physical products. Patrik explains further, Hööks also uses a product information management (PIM) system that provides all information about price, product description, characteristics and pictures. Some information is owned by the PIM system and some information is owned by the ERP system, but both ERP and PIM system cooperates with each other to gather and store information.

Application Perspective
Regarding about application perspective implemented at Hööks, Patrik answers the company uses ERP system built for e-business and has all the functionality of old postal orders into a more point of sales and currency application. In which Patrik believes gives a good benefit to have an ERP system supporting e-business.

Process Perspective
When asked how Hööks is managing process perspective, Patrik answers the process is managed in both manual and automatic. The manual process implies if an employee receives information or message from a customer, the employee can answer directly. This can be made through customer service, email or a contact form. The automatic process implies if a customer places an order from Hööks web shop, the customer will receive information about order status and delivery status. The order transfers to order process with priorities which products will be delivered first. The customer also receives information of the order through email with article number stored in the ERP system. Hööks has also a “pick process” and a “stock process”. Pick process is a process; the company can view customer’s order history. Stock process is a process where the company can see the availability of products. These processes takes place automatic from the ERP system. Regard process perspective with the supplier, Patrik says the purchasing managers are always searching for a good supplier or receiving queries from various suppliers worldwide through email. When asked about Figure 6, Patrik answered: “We do not work formally with Figure 6, but we use a little bit of it and it works well for the company” (Patrik Back, 2013-05-07).

Department Perspective
When asked how Hööks manage the department perspective, Patrik answers: “The CEO manage the final decision about what should be implemented in the company. IT department manage IT and technical problems such as Internet connection and server problems. Purchasing department manage the collaboration with suppliers. Other than that, we have financial and administration department” (Patrik Back, 2013-05-07).
Infrastructure Perspective
Regarding infrastructure perspective implemented at Hööks, Patrik answers it is his responsible to have a good infrastructure in the company. Patrik mention Hööks outsource much of the ERP system; buy operations and productions from IT companies. Hööks also consults IT companies to monitor the systems, 365 days a year.

Communication Perspective
When asked how Hööks manages the communication perspective, Mikael discusses eight different methods Hööks uses to manage the communication. The first method is to send out catalogs of Hööks assortment to potential customers. The second method is through the web shop, where the customer can view and read detailed product information’s. Customers can write comments and give ratings about products bought at Hööks. This method is helpful for new customers to know if the product is good or not. The third method is sending newsletter to customers once or twice every week, depending on offerings the company provides. The fourth method is advertisement of their products in different newspapers. The fifth method is the activities Hööks organizes to meet and greet with the customers and demonstrate how to use the products. Besides from horse equipment’s, Hööks also provide dog equipment’s. Hence, the company arranges meetings and workshops to customers who own dogs. The sixth method is to organize events in collaboration with Borås Riding School. The seventh method is using Facebook to communicate regularly with the customers. Today, the company has approximately 19 000 likes on their Facebook profile, which Mikael believes has made a huge advantage for Hööks. The eighth method is international experience exchanges between the supplier and the employees at Hööks.

User Service Perspective
According to Patrik, user service perspective is implemented by computerizing all business processes through ERP system. He considers ERP system is an ongoing system that always needs to be further developed and updated.

Customer and Partner Relationship Management Perspective
Regarding implementing customer and partner relationship management (CRM) perspective at Hööks, Patrik answers the CRM system is embedded in the ERP system. Hööks is currently on planning to connect a third party product with CRM and ERP system to make the system perform better.

Resourcing Perspective
Hööks manage resourcing perspective by attending conferences and meetings with e-business people to exchange experiences, which Patrik believes provides a huge benefit.

Change Management Perspective
Regarding about change management perspective at Hööks, Patrik explains everyone in the company are welcomed to give suggestions about changes and improvements. Once receiving the suggestion, it will be sent to relevant team for further discussions and decision-making. Mikael underlines, Hööks inform the supplier directly through email or phone calls once change occurs in the company. Usually, Hööks do not inform the customer about internal changes, but if there are changes regarding order process or payment then the customer will be notified.
Internal Integration Perspective and External Integration Perspective

When asked about implementing internal integration perspective, Patrik answers Hööks use intranet and digital suggestions activity where all employees can give suggestions for improvement and new ideas of how things can be better in the company. These suggestions will be discussed in management meetings. Changes made regarding ERP system will be released typically three to four times a year. Before each release, Hööks works together with the ERP system provider to observe the functionality of the new ERP system. A week before each release, Hööks receives a documentation of changes being made and how these changes will affect the company. Hööks has currently upgraded the intranet to gather information in a better way. As for the external integration perspective, Patrik mention it manage through dialogue with customers, through web shop contact form and dialogues with supplier, face-to-face discussions, phone calls and email.

Legal Constraint Perspective

Regarding about implementing legal constraint perspective at Hööks, both Patrik and Mikael argues it is very important to monitor all authorizations required for a product to be sold online. Hööks use PUL to assure the privacy of the customer and supplier’s personal data.

4.3 Case Study 2: NetOnNet

NetOnNet was founded in 1999, with the idea of providing home electronics to a lower price range than in stores. At the beginning, the company only provided online shopping, but later due to high demand from the customers, NetOnNet finally opened the first outlet in 2001, to supplement the online sales (NetOnNet, 2013). At present, there are a total amount of 14 NetOnNet outlets opened all around Sweden, with approximately 350 employees. The company has now since the beginning extended the assortment further, not only do they sell home electronics but also household products, computers, mobile phones, and stationeries. Recently, NetOnNet released a home electronics label called Andersson.

Markus Andersson

Markus role in the company is to work as a project and development manager for IT department, but his daily tasks includes system development, leading projects, test analyst and user experience design. Markus started to work at NetOnNet as a system developer in December 2008.

4.3.1 E-business

For Markus Andersson, e-business is a concept to provide goods and service through Internet. This does not have to be through traditional websites, but it could be through social media, auction websites or via mobile phones. The idea behind implementing an e-business at NetOnNet was based on providing home electronics online, because of the opportunity to start a business in a new way and potential to grow in the market. Therefore, e-business is the base of the relationship with the supplier and customer. With the customer, NetOnNet are always trying to be accessible anywhere at any time, which Markus believe enhances a good relationship. With the supplier, NetOnNet are always trying to reduce the administration work for the supplier, this has been carried out by implement electronic data interchange system (EDI) in the company. This system allows NetOnNet to place orders directly to the supplier, which Markus believes make NetOnNet more attractive for the supplier due to less administrative work. When asked what advantages Markus assume about e-business, Markus answers the advantages about e-business are cost effective to sell products online and no inventory is needed. Using e-business can reach out to more people outside the target group, because it makes the company more visible on the market. Another advantage is the
customers can decide for themselves what product and how much to purchase without further recommendation from the salesperson. Regarding disadvantages about e-business, Markus says especially in home electronic branch, customers want to observe the product and try it before purchasing. Markus adds further before, there was a barrier people did not trusted in payment through Internet, but once people endure the barrier, people realized how convenient it is to shop online. NetOnNet provides the customer home delivering, which is convenient if buying large goods. Markus believes e-business is here to stay and will be further developed and take other forms in the future.

4.3.2 Information Sharing
When asked how Markus felt about sharing information through IT applications, Markus answers it is very effective to communicate through IT applications such as email. Using IT applications will reach out for more people geographically and it is also easy to use. There are two things Markus is concern about sharing information through IT applications. The first thing is the security aspect. In some case, an unauthorized person might get access to important information. Another concern, according to Markus, is knowledge can be difficult to share. Knowledge that can be learned by reading documents or books is easy to share, but knowledge that requires learning experience can be difficult to share. Most of the time, it is easier to talk, draw and do gestures to explain things than explain it by writing it down, especially regarding IT solutions. Except from these concerns, Markus do feel safe about sharing information through IT applications. Since the employees at NetOnNet communicate and share information daily with each other and to supplier and customer, it is important to trust the IT applications that the company uses. When considering if NetOnNet might sharing too much information with supplier and customer, Markus explains NetOnNet and the suppliers are eager about business ethics. NetOnNet itself knows what information should be shared or not, and sometimes there is no need to share detailed information for a collaboration to go well, only necessary information is enough.

4.3.3 IS Strategies

Business Perspective
IS strategies are important according to Markus. IS strategies support the business and make it flexible. When asked how business perspective is managed at NetOnNet, Markus answers the management in the company is led by the executive committee, which consists of all high positioned managers, who plans and decides what strategies the company should use to reach business goals. When it comes to IS strategies, the CEO is involved in the team and decides what IS strategies to implement. For each financial year, a business plan will be documented with business goals the company wants to achieve for the upcoming year.

Information Management Perspective
Regarding implementing information management perspective at NetOnNet, Markus mention all the information processes is stored in different databases and all business data is stored in a data warehouse. It is also here protocols are being analyzed and summarized and is handled by the IT department. All databases are connected to the ERP system, which makes it easier for the employees to access data when serving supplier and customer. All the employees have access to the protocols, but only the IT department has access to the databases. “Our goal is to store all business data in the same place to be able to do small adjustments and analysts if needed” (Markus Andersson, 2013-04-29).
Application Perspective
When asked how NetOnNet implements application perspective. Markus answers the most important for the company is the ERP system, since the company is based on an e-business approach. This means, NetOnNet develop most of the business systems by themselves and maintain it in house. Beside this, NetOnNet is always trying to have both external and internal systems that IT consultants help to maintain. All these systems together will form a core system to support e-business.

Process Perspective
The process perspective of business processes is an aspect NetOnNet only identifies when implementing new systems to see how each process works. When identifying the processes, a mapping performs over the workflows of the processes. By mapping the workflow, Markus says the actions of the processes perform and actors will be shown to give a clear view of who is responsible for the processes and if changes need to be made. Markus adds further a few years ago, when NetOnNet implemented the ERP system, mapping workflow were used to reduce all paperwork; this made the new ERP system more effective than the old one. The mapping workflow is mostly useful for mapping costumer complaint and customer service.

Department Perspective
When asked how NetOnNet is managing the department perspective and information workflow in the company. Markus emphasizes, the CEO is managing the business process management in e-business, while IT department is managing all the information workflow in the company and provide the departments daily information needed.

Infrastructure Perspective
Regarding implementing infrastructure perspective at NetOnNet, Markus argue the infrastructure strategy is generally in house. “Our web shop has it most traffic during holidays, especially during Christmas; therefore our in house team is always trying to build reliable operational systems” (Markus Andersson, 2013-04-29). The person who is responsible for the operational system is the operation manager and decides how the operational system should be built, in which the decision-making is included with the CEO and with Markus.

Communication Perspective
According to Markus, marketing and sales department manage the communication perspective at NetOnNet. In additional to the new ERP system, a customer relation management system will be implemented to be able to offer customers relevant offerings. Currently, NetOnNet is communicating with the customer mostly through the website and newsletters. “We also have a mobile application available for iPhone and androids, in which so far is not a communication method yet. But there are thoughts about further developing the mobile application to make it as a platform to communicate with customers” (Markus Andersson, 2013-04-29). When it comes to marketing, NetOnNet advertises on television and in newspapers. The main advertising is online marketing by search engine such as Google. Markus underlines, NetOnNet always try to find new ways to advertise and communicate with the customers.
User Service Perspective
When asked how user service perspective is implemented at NetOnNet, Markus answers the company is always trying to computerize the processes as possible with the ERP system. “The customer can through the web shop see the availability of products in stock, both for online shopping and to shop in our outlets” (Markus Andersson, 2013-04-29). When it comes to the ordering process and payment, NetOnNet is focusing much on user experience design and interaction design. The reason is to investigate the users and customers, to observe needs or if something is unclear for them. This is important for the ordering process to be as flexible as possible. As soon as the customer places an order, an email will be sent to him or her as a confirmation of the purchase. Another confirmation email will be sent again when the goods have been shipped. Finally, a notification will be sent to the customer when the goods have arrived to the post office to collect. If the customer wishes to refund or resend the goods, a customer complaint can be filled and sent to the company along with the goods. By always informing the customer about the purchase and delivering, Markus believes it will make the customers feel safe and at ease when shop at NetOnNet.

Customer and Partner Relationship Management Perspective
As Markus explained earlier, in additional to the new ERP system, a customer and partner relationship management perspective (CRM system) will be implemented. “We have not been actively focusing on the CRM aspect much, but we did customer surveys before to get a detailed understanding of our customers. As the new ERP system implements, the CRM aspect will be more focused, as the segmentation of the customers will be made.” (Markus Andersson, 2013-04-29).

Resourcing Perspective
When asked how resourcing perspective is managed at NetOnNet, Markus mention CRM is a part of resourcing perspective as NetOnNet hires media agencies to conduct customer surveys to understand customer better. The customer survey helps the company to form relevant campaigns and offers.

Change Management Perspective
Regarding managing change management perspective at NetOnNet, Markus explains everyone in the company can give suggestions about changes and improvements. NetOnNet have a system for this called the “issue system”, which all suggestions are stored. Occasionally, IT department will review these suggestions to see whether they are relevant or how long it would take to implement the change. After the review, the suggestions will be documented and sent to respective team who is suitable for the suggestions; the teams consist of online (e-business), technical service/customer service/logistics and sales/purchase. When receiving the document, the team will discuss and prioritizing the suggestion based on its relevance and importance. The discussion and prioritize will be summarized into a document and stored in a final backlog system. Once a month, the team leaders will have a final meeting with discussions regarding the changes and improvements. After the meeting, the team leaders will have a final decision-making and send it to IT department to implement. How NetOnNet manage change management can be summarized in the Figure 11, down below:
This approach is useful for small changes and improvements. For larger changes such as changes in ERP system, the approach will be carried out through projects with a more detailed working process and documentation. Markus explains further, if the change is related to the supplier then the company has to inform months before implement the change. NetOnNet usually do not inform the customer about internal changes. If the company does changes in web shop regarding order process or payment, the customers will find it out sooner or later.

Internal Integration Perspective and External Integration Perspective
When asked how internal integration perspective is implemented at NetOnNet, Markus answers IT department manage the internal integration in the company. The company’s strategy regarding internal integration is to have the ERP system in the middle surrounding by the cooperating systems. With the ERP system in the middle, it will be easier to manage the systems and information between each system. As for implementing external integration perspective, Markus argues external integration with the supplier is managed by EDI, which allows NetOnNet to place orders to the supplier. When the company places an order from the ERP system, it will automatically be sent to the EDI system. After receiving the order, the EDI system will send a confirmation to NetOnNet to confirm the order. By using the EDI system there is no paperwork needed between NetOnNet and the supplier.

Legal Constraint Perspective
Considering about legal constraint perspective at NetOnNet, Markus implies every department in the company is managing own aspect of legal constraint. Marketing department is managing legal constraint of sales, IT department is managing legal constraint of e-business and finance department manages legal constraint of financials. NetOnNet is also using personal data act, which refers to the Swedish “personuppgiftslagen” (PUL). This legal constraint is important; because this assures NetOnNet do not use customers or suppliers personal data for other purposes. Markus argues NetOnNet sees legal constraint as important and focuses on having a high security, especially for the internal systems and web shop. All personal data must be secured including encrypted passwords and adequately protected for external threats.
Beside from the IS strategies Markus discussed earlier; NetOnNet focuses on maintaining a high level of competence among the employees and to be working Agile. These are the two most important IS strategies for success.

4.4 Case Study 3: Kwintet

Kwintet was founded in 1995, and is European’s leader in workwear. Kwintet group includes Fristads Kansas, Acode, Wenaas, Indiform, Hejco, Clinic Dress, Bragard and Martinsson (Kwintet, 2013). Kwintet is represented in 24 countries, whereas three of its own manufacturing components. Kwintet’s mission is to offer total workwear solutions with high quality. Kwintet heritage is a story of innovative entrepreneurs who established companies and created legendary brands within workwear targeting professions all over Europe (Kwintet, 2013). Kwintet also provides a comprehensive and supreme range of brands and solutions that brings the best products and services to meet the customer’s needs.

Eva Johansson
Eva’s role in the company is to work as a marketing communication coordinator manager for the marketing department and she started to work at Kwintet in 2008. Eva’s daily tasks are to advertise the brands in different media such as in catalogs, through e-commerce and advertising.

4.4.1 E-business
Eva emphasizes e-business is important, because it makes the shopping for people easier. E-business is useful and helpful for Kwintet, because it gives the possibility to grow in the market. Currently, Kwintet is in progress of changing new e-commerce and e-business platform to a more effective one, since the company is using an old platform. The idea behind implementing an e-business at Kwintet was to sell the products through Internet, since Kwintet do not sell products to regular customers but to business customers, in which the receiving orders are usually in amounts. With an e-business, the customers can shop online anytime and they do not need to call customer service or send queries about the products, instead go directly to the web shop and purchase. Eva believes the customers enhance the company’s growth in market. At the same time, the relationship with the supplier gives Kwintet the opportunity to provide customer request.

When asked about advantages e-business has, Eva answers it is simple and customizable. It is simple because the customers can purchase online at anytime and customizable because the customer can see the whole product range, prices, delivery and products in stock. Eva believes e-business is here to stay but is not sure whether e-business will look such as today in the future and there will be certainly other forms on how to shop online in the future.

4.4.2 Information Sharing
Eva explains Kwintet uses various IT applications to share information with supplier and customer, such as email and newsletters, since it is easy, simple and fast to use. Eva argues the disadvantage with IT applications is when a system is not working, as it should. Eva does feel safe about sharing information through IT applications because Kwintet communicate and share information daily with each other and to supplier and customer. Eva states, a good information sharing maintains with the supplier and customer through daily communication such as sending out newsletters with up-to-date information.
4.4.3 IS Strategies

Business Perspective
When asked how business perspective is managed, Eva answers the management assures business goals are achieved in the company. Kwintet’s business goal to the employees is to achieve meaningful work, career and personal development, with the suppliers is to achieve fair and complete working conditions, and to customers is to achieve functionality, comfort and appearance.

Information Management Perspective
Regarding implementing the information management perspective at Kwintet, Eva mention all customer information is stored in the ERP system called Microsoft Dynamics NAV. Kwintet’s supplier and customer information is connected to the ERP system and PIM system that provides information about the products, appearance, colors, sizes, quality and fabrics. Kwintet has all product information stored in PIM system, while information about the customers, prices and agreements are stored in the ERP system.

Application Perspective
The application perspective of processing order by phone at Kwintet is through customer service, where customers can call and ask for product informations. The application perspective is useful to increase customer loyalty, Kwintet enables customer to receive email confirmations after speaking to customer service. Email and phone calls are the most common using methods when Kwintet communicate with the supplier.

Process Perspective
Kwintet is implementing and managing the process perspective similar to Figure 6, in Chapter 3. For instance, when a customer purchases a product at Kwintet, the order will be stored in the order process in the ERP system and the customer will receive a confirmation of the order. The order is stored in order process in the ERP system that checks the availability of products. If the product is available in stock, it will be sent to the customer, but if the product is out of stock, the customer will receive information when the order will be sent. Afterwards, Kwintet will place an order by email to the supplier.

Department Perspective
When asked which department manage the information workflow at Kwintet, Eva answers purchasing department manage the purchasing sourcing with the supplier while marketing department manage the marketing activity of the products to the customer. Eva mention, Kwintet brands has different product development center. For instance, Fristads Kansas product development center is located in Borås, Clinic Dress product development center is located in Germany and Bragard product development center is located in France.

Infrastructure Perspective
According to Eva, the infrastructure perspective at Kwintet is implemented through ERP system Microsoft Dynamics NAV and PIM system for storing data and documents in e-business.

Communication Perspective
When asked how Kwintet is managing the communication perspective. Eva emphasizes the communication is in vary ways. For instance, Fristads Kansas and Hejco have own platforms that are open for everyone. Thus, the customers cannot purchase directly to website, but can call customer service for assistance. Clinic Dress and Bragard have a common platform,
where customer can shop online. Regarding the customers, Kwintet sends out newsletter to all customers in Sweden.

**User Service Perspective**
Regarding implementing the user service perspective at Kwintet, Eva answers the customers place orders through web shop and can see the availability of products, payment and delivering. Since the company is on progress with a new e-business platform, the customers cannot yet track their orders.

**Customer and Partner Relationship Management Perspective**
When asked how Kwintet is implementing customer and partner relationship management perspective. Eva answers that all-important information is stored in the ERP system and emphasizes Kwintet do not use CRM system. Since the company is satisfied with the ERP system they use and what it provides the company.

**Resourcing Perspective**
Regarding managing the resourcing perspective at Kwintet, Eva mention the employees at Kwintet have good experience and are knowledgeable with workwear clothing. Kwintet has product development in Germany and France, with the employees from the company is responsible for the development in each country.

**Change Management Perspective**
When asked how change management perspective is implemented at Kwintet, Eva explains everyone in the company can give suggestions about changes and improvements. Kwintet will prioritize useful and “nice to have” changes, based on its relevance. Later the changes should be discussed together with managers for a decision-making and conclusion. Currently, it occur changes with the company’s ERP system, which Kwintet inform the supplier and customer of how long these changes will take, and what the consequence are with the new ERP system.

**Internal Integration Perspective and External Integration Perspective**
When asked how internal integration perspective is managed at Kwintet, Eva answers it is implemented through intranet, in which employees have access to read and update the information in the company. As for external integration perspective, Kwintet implemented it by sending email, making phone calls and arrange meetings with the supplier while the integration with the customer is through email.

**Legal Constraint Perspective**
Regarding legal constraint perspective, Kwintet assures the privacy of personal data of the supplier and customer with the Swedish “personuppgiftslagen” (PUL) in order to secure high security. Both supplier and customer have the right to say what kind of information they wish to receive from Kwintet.
4.5 Summary of the Empirical Study

From the empirical study it highlighted aspects of e-business, as it helps a company to be successful and to reach more customers throughout Internet. By having an e-business, it gives possibilities for the company to grow in the market. The advantage by using e-business made it possible to reduce cost such as less administrative work. Also, it is cost effective to sell products online and no inventory is needed. Customers can read product information properly at anytime and anywhere and compare different products and prices before purchasing, since e-business makes the shopping easier.

E-business companies use IT application such as email to share information within the company and to supplier and customer, since email is easy and effective to use and helps the company to reach out for more people. On the other hand, two aspects considers as a downfall for using email for important information. Another is that information can be difficult to share through email and require face-to-face discussion instead.

According from the empirical study, there are perspectives in IS strategy that is implemented in order to support information sharing in e-business companies. These are:

1. Business perspective
2. Information management perspective
3. Application perspective
4. Process perspective
5. Department perspective
6. Infrastructure perspective
7. Communication perspective
8. User service perspective
9. Customer and partner relationship management perspective
10. Resourcing Perspective
11. Change management perspective
12. Internal integration perspective
13. External integration perspective
14. Legal constraint perspective
5 Analysis

This chapter analyzes the findings from the three case studies in relation to the research questions with the support from Chapter 3 and Chapter 4. This chapter begins with an analysis method applied and ends with the results from the analysis.

5.1 Analysis Method Applied

In Chapter 2, section 2.5.2, it stated this study will conduct case studies by investigate three different e-business companies. The case studies were conducted by interviewing four participants, whereas each interview was transcribed into a text document. The text document was read through again while listening to the recorded interview to assure important information was being included in the transcription. When all interviews have being transcribed, the text documents were printed out for a clearer view and to make it easier to perform a comparative analysis. In order to perform comparative analysis, important aspects in the text document related to the research questions were highlighted with different colors; yellow color for research question one and blue color for research question two. Thereafter, the same procedure was performing on the theoretical framework to observe relevant aspects related to the research questions. The highlights with different colors made it clear of what aspects from the empirical study was related to theoretical framework that underlined similarities and differences within the problem area and generated the results for answering the research questions. This empirical analysis method is summarized in the Figure 12 below.

![Figure 12: Analysis method.](image-url)
5.2 Why Does a Company Use E-business?

Based from the case studies, all the respondents had quite similar thoughts about e-business and its use. The respondents agreed on that e-business have made the shopping easier for people and gives the company the opportunity to be successful and to grow in the market, which is arguable in Chapter 3, that e-business gives organizations opportunity to compete in the marketplace (Chaffey, 2011). Both Hööks and Kwintet are in progress of implementing new e-business platform, in hope of gaining more success. According to Hööks, IT is important to support and operate e-business, which aim is to do business. IT systems make supplement and adding opportunities for e-business in order to be successful. In chapter 3, Chan (2000) points that IT plays a vital role in e-business because it support the strategy of an organization by taking significant roles in business processes such as creating new needs, and creates new product development and procedures. Furthermore, Yeh et al. (2012) explains IT facilitates an organization by emphasizing the development of e-business strategies and introduces relevant strategic planning methods.

Companies introduces IT strategies and e-business applications to improve competitiveness. The respondents explain the reason for implementing and using e-business is to present the product assortment on Internet to be able to reach out for more people. Since implementing e-business, it has given advantages to the companies. Hööks explains that with an e-business, it helped them to reduce cost because they do not need to print out catalogs every season to send it out to customers, since the process of creating catalogs can be very expensive. Section 3.3 in Chapter 3, explains e-business can reduce cost of the organization through delivering services electronically. The cost reduction includes staff costs, transport costs, and material cost such as paper. According to NetOnNet, e-business makes the company more visible on the market and customers can decide how much they want to purchase. Kwintet argues the advantage of using e-business is the simplicity and customizable. It is simple because the customers can purchase online at anytime and customizable because the customer can see the product range, prices, delivery and available of products. As explained in Chapter 3: benefits of implementing e-business are the potential for increasing larger customer, encouraging loyalty, and repeat purchases with existing customers (Chaffey, 2011). All the respondents mention e-business is flexible for both the company and customers, because all product information is available online at respective web shop, as Evans and Wurster (1997) stated in Chapter 3, the second characteristic in information is richness and refers to the information itself. The Internet facilitates detailed information about products, prices and availability of products. Richness facilitates interactivity and customization, to engage customers and to provide more up-to-date information. The respondents also agrees that e-business is here to stay, but will be further developed and take other forms in the future.
5.3 How to Implement IS Strategies to Support Information Sharing In E-business?

Table 1. IS strategies in e-business

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<tr>
<th>Perspective</th>
<th>Hööks</th>
<th>NetOnNet</th>
<th>Kwintet</th>
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<td>Business perspective</td>
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<td>Legal constraint perspective</td>
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</tbody>
</table>

- ✔ Implemented through a system
- - Not implemented in any system

Business Perspective
By examining the three case studies, various differences and similarities have been identified in the Table 2. An e-business company manage IS strategies due to diverse needs in respective company. As explained in Chapter 3: business perspective utilizes how to manage information systems and distinguish the contribution of IT in order to reach business goals (Chaffey, 2011). Based on the case studies, it is arguable that the respondents manage business perspective in order to reach business goals. CEO and management team decides which strategies and information systems should be implemented, to reach business goals and to support information sharing.

Information Management Perspective
All respondents’ are implementing information management perspective to support e-business through ERP system, because it is vital to save relevant business information. Besides from having an ERP system, the respondents mention other systems also used to support e-business. Hööks uses ERP system Harmoney, a purchasing system and a PIM system. Important information and logistics information is stored in the ERP system, while Microsoft Excel is included in the purchasing system to summarize product information's. The PIM system provides product information in detailed. NetOnNet uses their own developed ERP system to store business information processes, analyzed and summarized protocols, while business data is stored in a data warehouse for summarizing annual reports. Kwintet uses an ERP system called Microsoft Dynamics NAV and PIM system. Information about customers, prices and agreements are stored in the ERP system, while all product information is stored in the PIM system. This is based on the fact that information management perspective facilitates
people and organizations access, process and use of information in efficiently and effectively way. It includes transactional information stored in databases and summarizes the information content in documents and reports (Chaffey, 2011).

**Application Perspective**

As Table 2 shows, application perspective is implemented in respective e-business company. The respondents only implement useful and relevant applications for e-business, to support information sharing. As application perspective refers to overall level of spending on information system to support e-business, to decide which business application to invest in and to assess the cost for individual applications needed for the company (Chaffey, 2011). Hööks mention the company uses an ERP system built for e-business and has all functionality of old postal order into a more point of sales and currency application for retailer. NetOnNet develop most of their business systems by themselves and maintain it in house. Besides this, NetOnNet is always trying to have both external and internal systems that IT consultants help to maintain. All these systems together will form a core system to support e-business. On the other hand, Kwintet mention customer service for managing application perspective, because it enables customers to communicate with the company by asking questions regarding product information. The customers can choose to communicate by email or through phone calls.

**Process Perspective**

The respondents only implement useful process perspective in e-business. As stated in Chapter 3, Figure 7: process workflow system facilitate business processes and to ensure tasks are prioritized as soon as possible by the right people and in the right order (Chaffey, 2011). This process workflow system is therefore implemented, according to the respondents. Based on Hööks, processes are managed in both manual process and automatic process. The manual process is useful for customers when they want answers regarding questions or order process. The automatic process is both useful for the customers and for the company. This process informs the customer about their purchase, while it reduces the administration work for the employees. In addition to these processes, Hööks also has “pick process” and “stock process” that are connected to the ERP system. The pick process shows the customer’s order history, and the stock process shows the availability of products. These processes support information sharing between the company and the customers. According to NetOnNet, the process perspective is not current, because the business processes only identifies and mapping the workflow when new systems implements to observe how each workflow works. However, NetOnNet considers mapping the workflow is useful for customer complaint and customer service. Kwintet mention process perspective is implemented through ERP system, where all information regarding order process, products and customers are stored. As Chaffey (2011), stated in Chapter 3: process perspective facilitates business processes during documentation and information to set the procedural rules in the company. This is based on the fact that e-business companies from the case studies enhance e-business processes to assign tasks, remind employees about the task, to allow collaboration between employees, and to retrieve important information.

**Department Perspective**

From the case studies, department perspective is managed by manual approach in e-business. Hööks and NetOnNet explain, the CEO and management team decide what information systems should be implemented in the company, IT department manage information workflow and technical issues and the purchasing department is managing purchased goods and collaboration with suppliers. As explained in Chapter 3: department perspective allocates various departments with responsibilities in the company (Chaffey, 2011). Senior management
manages the team and interfaces for less-evolved adopters for e-commerce. Senior management decides the strategic importance of online channels to achieve alignment between business objectives and e-commerce advantages. Marketing creates processes for collaboration between e-commerce and marketing team. IT develops application of e-commerce to deliver value to customer and organization (Chaffey, 2011). Based on the case studies, this perspective differs from what theory states. The theory discuss about this perspective to be implement through a system to facilitate administrative work, whilst the respondents implement this perspective manually to support information sharing. However, the respondents believe it is important to allocate the responsibilities in every department and give the right and relevant information need in every department.

**Infrastructure Perspective**

Based on the case studies, infrastructure perspective is implemented in e-business and is connected to the ERP system. Hööks mention, the company outsource ERP system from an IT company to monitor the system. NetOnNet explains infrastructure is generally maintained in house to build reliable operational system. Kwintet implements ERP system to store data and documents. Chaffey (2011) emphasize infrastructure perspective refers to the combination of hardware and software application used to deliver services to the supplier and customer. Based on the case studies, this perspective is similar to the theory and supports information sharing in e-business.

**Communication Perspective**

As shown in Table 2, communication perspective is implemented in e-business according to respondents. All respondents use different communication methods to share information in e-business. Hööks uses eight different methods to communicate with the supplier and customer. The methods are all from sending out catalogs, to communicate through IT applications, to arrange meetings with suppliers and customers. The most successful communication methods are through their web shop and Facebook page. The customers can through the web shop give comments and ratings, and through Facebook, customers can send and receive questions directly. NetOnNet uses five different methods to communicate with the supplier and customer. The main method is the web shop, mobile application and online marketing. The mobile application is not yet a platform for communication, but discussions are being made about further developing the application. Online marketing is referred to search engine such as Google. Kwintet communicate mostly through the website, since the company has many brands, therefore Kwintet merge the brands and promote them all together. Whether to create a platform such as a showroom in which customer can view the products, or a web shop that the customer can both view and purchase. Chaffey (2011) emphasize the communication is important in business, since it is a guarantee of success to reach more customer and growth in the market. Also, there are many different communication channels used for convincing the customer and to improve the company’s image. Based on the case studies, it is arguable the respondents use different communication channels, to support information sharing for e-business to grow in the market.

**User Service Perspective**

User service perspective is implemented in e-business according to respondents, because it helps the customer to receive and share important information, which is arguable in Chapter 3, it is important for companies to provide quality service to a customer (Chaffey, 2011). A customer should find related information regarding the availability of products, how to order, payment, tracking number, and return the product (Levenburg and Klein, 2006). Based on the case studies, Hööks and NetOnNet computerize all order processes for customer through ERP
system. Hööks consider ERP system is an ongoing system that needs to be further developed and updated all the time. NetOnNet investigate the users to observe their needs or if something is unclear, as this is important for the ordering process to be as flexible as possible. NetOnNet believes it will make the customer feel safe when shopping online. Kwintet assure the customer by calling customer service to provide right information, such as product availability and delivery status. All respondents consider ERP system to facilitate customer to be able to view and purchase products online.

Customer and Partner Relationship Management Perspective
Based on case studies, CRM perspective is implemented in e-business, since CRM system is provided by the ERP system. Both Hööks and NetOnNet argue they have not been actively working with CRM before but with the new ERP system being implemented, the CRM system believes will help give customers more relevant offers and better information sharing. Kwintet emphasizes CRM system is not current, since ERP system is working well. The objective of CRM is to increase customer loyalty and profitability in business (Chaffey, 2011). CRM needs four activities to support e-business. The first activity is customer selection to define the type of customers that the company will advertise to. The second activity is customer acquisition to form relationship with new customers, minimize acquisition cost, and target high value customers. The third activity is customer retention to keep existing customers, identify relevant offering based on individual needs and position. The fourth activity is customer extension to increase the depth of products a customer purchases from a company. However, CRM perspective differs from the case studies according to respondents. According to the theory, CRM is important for increasing customer loyalty and profitability in business, but from the empirical findings, CRM is something Hööks and NetOnNet will begin to emphasize, whilst Kwintet is not considered about.

Resourcing Perspective
Resourcing perspective is implemented, according to NetOnNet, which explains resourcing perspective as a part of the CRM system to conduct customer surveys, to support information sharing with the customer. Hööks manage the resourcing perspective by exchange experience with supplier to support information sharing. Kwintet manage resourcing perspective by educate their employees to be more experienced and knowledgeable about the providing products. In that way, Kwintet consider to share relevant information in e-business. As stated in Chapter 3: resourcing perspective includes strategy process and performance improvement in order to select and review e-business; marketing integration staff need in order to work closely to achieve marketing integration; online marketing needs to focus on core activities of customer acquisition by attracting site visitors, generating leads and sales, and encouraging use of digital channels (Chaffey, 2011). This perspective according to the empirical findings differs from theory, because Hööks and Kwintet manage it in a manual approach and not through any system.

Change Management Perspective
Change management perspective is implemented in e-business, according to respondents. Everyone in the company could give suggestions about changes and improvements. Depending on what the changes or improvements concerns, it will be handled in different ways. Hööks explains the suggestions about changes and improvements will be sent to a suitable team for decision-making, which includes respective managers for the team. NetOnNet have a system in the company called the “issue system” where all suggestions are stored. The IT department will review, document and send to responsible team depending on changes manages this system. Involved team managers will discuss the decision-making
regarding these changes. After conclusions have been reached, IT department will implement the changes. Kwintet explains, changes and improvements from employees are prioritized as useful and “nice to have”, based on its relevance. Usually, “nice to have” suggestions are discussed after the useful changes. Depending on what the changes concerns, the changes will be discussed with the involved managers for a final decision-making and conclusion. All the respondents’ mention notification to the supplier if the change could affect them; otherwise the respondents do not have to make notifications. Regarding customers, the respondents do not have to notify about internal changes, if it is not concerned about order process or payment. Based on Chapter 3, change management manages process structural, technical, staff and culture change within an organization (Chaffey, 2011). To achieve these changes it needs a series of success factors such as leadership commitment and project management. Based on the case studies, change management perspective is implemented and important within e-business companies, in order to improve the business and to support information sharing in e-business.

Internal Integration Perspective
According to respondents, internal integration perspective is implemented in e-business. Hööks is managing internal integration by using intranet and digital suggestions activity, which means all employees, can give suggestions about changes and improvements. This digital suggestions activity is connected to the change management. NetOnNet implements internal integration by having the ERP system in the middle surrounding by supporting systems, which believes makes information sharing between each system easier. Kwintet manages internal integration through intranet, which employees have access to read and update the information. The employee can communicate better and flexible process to fulfill customer demand. Chaffey (2011) emphasize internal integration refers to sharing information between internal functions and strategic cross-functional collaboration. Mostly companies relied to internal integration to gain competitive advantage (Zhao et al. 2011). This perspective enables information sharing within the company.

External Integration Perspective
Based on case studies, external integration perspective is implemented within e-business. Hööks manages it through dialogues, web shop, and face-to-face discussion, phone calls and through email with the supplier and customer. Kwintet manages by sending email, phone calls and meetings to the supplier while the integration with the customer is through email. NetOnNet argues, it is important to implement external integration with supplier as using EDI system to integrate with the suppliers, as orders place in the ERP system is sent to the EDI system. As stated in Chapter 3: external integration allows companies to form collaborative relationships, and leverage core competency to reduce transaction cost (Zhao et al. 2011). This is similarly to NetOnNet. External integration perspective enables information sharing with supplier and with customer.

Legal Constraint Perspective
Legal constraint perspective is important and implements in e-business based on the case studies. All respondents argue using PUL to assure supplier and customer personal data, this to gain trust towards e-business and to enhance information sharing. Hööks explains it is important to monitor required authorizations for products to be sold online. NetOnNet discusses about always focusing on having a high security regarding e-business. Kwintet mentions it is important to understand its supplier and customer, such as what kind of advertisement to receive. Chaffey (2011) emphasize legal constraint is important because it determine which product can be promoted and sold online. At the same time, it is also
important to use latest data protection and privacy laws to prevent upcoming problems (Chaffey, 2011).

5.4 Result of the Analysis

Based on the analysis of the empirical data, the study showed different perspectives in order to implement IS strategies to support information sharing in e-business. These perspectives are divided into different parts consist of ERP system, supporting system and manual approach, to support e-business.

The starting point of the Figure 13 illustrates an e-business company interacting with IS strategies [1]. The reason why a company interacts with IS strategies is because of the needs and several other reasons, such as seeking strategic advantage from IT and to form better communication methods. From the case studies, the e-business companies use IS strategies because of its possibilities to grow in the market and to reach for more customer.

For e-business companies, ERP system is a core system, which support e-business and provide information workflow to support information sharing in e-business [2]. This is based on the fact that ERP system provides information to customer, such as availability of products in stock. Furthermore, ERP system can facilitate supplier by providing information through EDI system, such as when an e-business company place an order to supplier via ERP system. However, from the analysis is summarized IS strategies implemented within e-business:

Figure 13: Results of the analysis.
- Information management perspective regarding information about customers, products and agreements are stored in ERP system to facilitate administrative work for employees.
- E-business companies use ERP system as application perspective to support e-business and have all functionality for order applications.
- Process perspective, such as pick process and stock process implemented in various processes are connected to the ERP system. Pick process and stock process are vital within e-business, because it ease e-business companies to structure and reduce administrative work.
- E-business companies implement infrastructure perspective by outsourcing or develop own ERP system to build reliable operational system.
- E-business companies provide user service perspective to the customer such as order process procedure, which the customer can see, availability of products, payment and delivery. The e-business companies try to computerize all process as possible through the ERP system.
- CRM system is not common among e-business companies, but slowly are being considered as more and more e-business companies become aware of CRM system, because it provide more customer offerings.
- E-business companies implement internal integration perspective by using intranet to ease the communication within the company. In certain cases, digital suggestion activity is used for employees to give suggestions about changes and improvements.
- By implementing external integration perspective, it supports information sharing by using dialogues and through email.

Besides from the perspectives discussed above, there are further perspectives which are not embedded with the ERP system, but are vital in order to implement IS strategies for sharing information in e-business. These perspectives are implemented by supporting systems [3]:
- Communication perspective manages by e-business companies by using email, social network, through mobile application and online marketing. These communication methods are useful and most common in e-business.
- Regarding change management, e-business companies use a system to store all suggestions about changes and improvements.
- In legal constraint perspective, e-business companies implement PUL to assure supplier and customer personal data would not be used for other purposes. Another is to always assuring having high security in e-business in order for personal data not being leaked.

Throughout the analysis, some perspectives in IS strategies were done manually, but still are important to support information sharing in e-business [4]:
- In business perspective, CEO and executive committee decides and plan what strategies should implements in e-business companies to reach business goals.
- Department perspective facilitates administrative work in order to allocate important responsibilities and information in every department.
- The resourcing perspective is managed by conducting customer surveys, by exchanging between the company and supplier, and by educating the employees to be more experienced and knowledgeable.
Interacting with IS strategies results in new IS strategies depending on constant changes that occur during the interaction [5]. The e-business company receives feedback about the new IS strategies that are essential and adapted for the company. The feedback helps the company to improve the communication with supplier and customer and to support the development of IS strategies used by the company.
6 Conclusion, Evaluation and Future Research

This chapter concludes the study from the analysis, contribution to the field of Informatics, an evaluation of results and methods will be made. At the end of this chapter it presents the possibilities to generalize and recommendations for future research.

6.1 Conclusions

The authors found that e-business is highly popular among companies and people, because it makes the business more flexible and easier for people to shop online. E-business demands high security in order to provide services online and manage different communication methods. Face-to-face discussion is a common communication method for negotiating with supplier; whilst email was shown to be a very effective method for sharing information with supplier and customer. E-business companies only adapt suitable IS strategy to manage and support e-business.

Findings from the empirical study showed that adapting IS strategy can be done differently, such as dividing perspectives in IS strategies into different parts consist of ERP system, supporting system, and manual approach. The IS strategies is used depending on what the e-business companies requires. The ERP system is a core system that used in e-business companies with IS strategies embedded. Supporting systems consist of IS strategies that are not connected to the ERP system. The remaining perspectives in IS strategy is managed through manual approach. The final conclusion is that there are remaining perspectives, which are not connected to ERP system, but they are vital for the implementation of IS strategies for information sharing. ERP system is crucial for e-business companies, therefore investing and developing ERP system is the first priority.

6.2 Contribution to the Field of Informatics

The research phenomenon investigated within the study as related to e-business, information sharing and IS strategy are relevant to the field of informatics. The research area is about the implementation of information systems for information sharing in e-business. The results of the study come to be in informatics used to further develop IT managers, in order to support e-business companies with a deeper understanding and knowledge of the theoretical and practical use. The study’s result can also be used to receive a more comprehensive picture of perspectives that can be taken into consideration when implementing IS strategies for sharing information in e-business companies.

- The empirical study showed that e-business companies made use of these perspectives, but that not all perspectives are being implemented, as considered being quite costly and not convenient.

- E-business companies consult IT companies or self-develop business systems such as ERP system, to assure the high quality and support of e-business.

- IT applications such as email showed to be commonly used in e-business companies. However, there is no consideration of using other types of IT applications or platforms to communicate, since email is effective and easy to use.
- During information sharing, learning experience is essential to enhance good partnership within e-business.

6.3 Method Evaluation

This study’s research design proposed a qualitative strategy approach, in which have facilitate the authors to gain deeper knowledge about the research area. The qualitative strategy approach has been useful in selecting relevant literatures and scientific articles to compile the theoretical framework that explained e-business, information sharing and IS strategies role in information technology and its relation to Informatics. Since, e-business and information sharing is seen more related to a management perspective, it was quite difficult to find relevant scientific articles with respective area related to information technology. The summary of the theoretical framework was relevant to answer the research questions and to formulate interview questions.

The theoretical framework has also been useful for preparing the empirical data collection. A pilot study was performed to help testing the interview questions, before conducting the case studies with three different e-business companies. The result from the pilot study showed target group regarding case studies needed to be revised in order to answer the interview questions about IS strategies. The pilot study also showed due to terms of conditions and policies, companies could not reveal certain information, which might affect the study’s purpose or research questions. Finally, the pilot study showed interview questions needed to be revised and narrowed down, because it was too broad and difficult to understand. The adjustments were made regarding the interview questions, the interview with the three case studies proved to be better. By conducting case studies, it made it possible to investigate e-business companies in detail, which allow the authors to gain relevant information. The interviews with the participants were instructive, since every participant is knowledgeable about their own field. Furthermore, interviews with IT managers would have been more useful, since they are more knowledgeable about what IS strategies the company uses to support e-business, but due to time constraints this was not possible. However, the interviews gave a deeper understanding of participant’s point of view about each research topic, interviews is therefore proved to be a good method for generating data. After conducting the case studies, the interviews were transcribed into an empirical study with a summary to observe relevant aspects to answer the research questions partially. The analysis of the empirical findings and the theoretical findings were analyzed by a comparative analysis, which proved to be a good analysis method to emphasize similarities and differences.

6.4 Result Evaluation

The strategy for evaluating the result of this study is trustworthiness, which consists of credibility, transferability, dependability and confirmability, as previously described in Chapter 2.

Credibility

Credibility measures the quality of trustworthiness. The link with the purpose of the study creates an overall cohesive between research question, methodology, theoretical framework, empirical study and conclusion, to ensure the credibility in this study. The data techniques used for gathering qualitative research are case study, interviews and comparative analysis. In the theoretical framework, the authors used text and figures were relevant to the research area. The chosen case studies with three different companies were all related to e-business, which gives this study credibility. The respondents’ chosen for the interview has the required knowledge.
Transferability
The final conclusion of a research should be applicable to similar research questions; with the ability to replicate a research gives the original findings credibility. The authors selected the case studies based on research topic and source of interest. The case studies focus on three different companies dealing with e-business. Regarding the respondents, the focus was on knowledgeable managers about e-business and IS strategies.

Dependability
The common issue with qualitative research is the result can be change depending on environment. Therefore the authors recorded the interviews with an audio tape recorder with good sound quality, resulting in the conveyed information was assured in a reliable manner. The information conveyed has been quite sufficient to achieve the study’s purpose and to answer the research questions. All the recorded interviews in the empirical study where transcribed into text documents. The comparison of empirical study with theoretical framework helped the authors analyzing the data comparatively.

Confirmability
During theoretical description from scientific articles and literatures, the findings were compiled and evaluated to assure the confirmability of the study. By select relevant scientific articles and literatures related to research topic. The result from the confirmability has been created trustworthiness and consistency of the research such as theoretical framework with different scientific articles and literatures from the same area. Unfortunately, there were not many scientific articles related to the relationship of e-business and IS strategies. However, the authors’ focused on the main source of information from reliable scientific articles and literatures.

6.5 Possibilities to Generalize
In the qualitative research, it attempts to achieve deeper understanding and knowledge. The interviews with the three case studies belong to the same industry, but with different specialization. Case study one works with horse and dog equipments, case study two works with home electronics and case study three works with workwear. The respondents are therefore good representatives in e-business and the results are considered to be generalizable to all.

6.6 Ideas for Future Research
During the research process of this study, the authors came across an interesting idea for future research. This idea is not conducted in this study due to time constraint, cancellations of interview and terms of condition and policies with the supplier.

The idea for future research is to follow one product throughout the e-business chain to support information sharing by using IS strategies. In order to investigate this, interviews should be conducted with business partners, i.e. one e-business company, one supplier, one manufacturer, one distributor, one retailer and one customer. By investigate an e-business chain, it allows the researcher to gain more detail about the interaction and communication between each business partner. Also, to gain a better understanding of how IS strategies can support the whole e-business chain.
7 References

7.1 Written References


Christopher Roethlein & Sara Ackerson 2004, "Quality communication within a connected manufacturing supply chain", *Supply Chain Management: An International Journal*, vol. 9, no. 4, pp. 323-330.


7.2 Electronic References


7.3 Verbal References

Respondent 1: Mikael Johansson, Hööks, 22/4/2013
Respondent 2: Patrick Back, Hööks, 7/5/2013
Respondent 4: Eva Johansson, Kwintet, 3/5/2013
8 Appendix

8.1 Interview Questions

Name: 
Company: 
Date: 

Background

1. Tell us about the company.
2. What are your tasks in the company?
3. How long have you worked for the company?

E-business

1. What does e-business mean for you?
2. What was the idea behind implementing an e-business in the company?
3. What do you think are the advantages about e-business?
4. What do you think are the disadvantages about e-business?
5. How do you think e-business have influenced people’s view about online shopping?
6. Do you think e-business is here to stay?
   o If no, why?
   o If yes, why?

Perspectives in IS strategies

1. How do you manage IS strategy in business perspective?
2. How do you implement IS strategy in information management perspective?
3. How is application perspective implemented in your company?
4. How do you implement IS strategy in process perspectives?
5. Which departments manage information workflow in the company?
6. How do you implement IS strategy in infrastructure perspective?
7. Which communication methods are applied in the company?
8. How do you implement IS strategy in user service perspective?
9. How do you implement IS strategy in customer and partner relationship management perspective?

10. How do you manage IS strategy in resourcing perspective?

11. How do you manage IS strategy in change management perspective?

11.1 When a change occurs, how does the company inform your customer and supplier?

12. How do you implement IS strategy in internal integration perspective?

13. How do you implement IS strategy in external integration perspective?

14. How do you manage IS strategy in legal constraint perspective?

14.1 How does the company assure the privacy of personal data with supplier and customer?

**Information Sharing**

1. What do you think are the advantages about sharing information through IT applications?

2. What do you think are the disadvantages about sharing information through IT applications?

3. Do you feel safe about sharing information through IT applications?
   - If no, why?
   - If yes, why?

4. How do you maintain good information sharing with supplier and customer?
University of Borås is a modern university in the city center. We give courses in business administration and informatics, library and information science, fashion and textiles, behavioral sciences and teacher education, engineering and health sciences.

In the School of Business and IT (HIT), we have focused on the students' future needs. Therefore we have created programs in which employability is a key word. Subject integration and contextualization are other important concepts. The department has a closeness, both between students and teachers as well as between industry and education.

Our courses in business administration give students the opportunity to learn more about different businesses and governments and how governance and organization of these activities take place. They may also learn about society development and organizations' adaptation to the outside world. They have the opportunity to improve their ability to analyze, develop and control activities, whether they want to engage in auditing, management or marketing.

Among our IT courses, there's always something for those who want to design the future of IT-based communications, analyze the needs and demands on organizations' information to design their content structures, integrating IT and business development, developing their ability to analyze and design business processes or focus on programming and development of good use of IT in enterprises and organizations.

The research in the school is well recognized and oriented towards professionalism as well as design and development. The overall research profile is Business-IT-Services which combine knowledge and skills in informatics as well as in business administration. The research is profession-oriented, which is reflected in the research, in many cases conducted on action research-based grounds, with businesses and government organizations at local, national and international arenas. The research design and professional orientation is manifested also in InnovationLab, which is the department's and university's unit for research-supporting system development.