The important role of the consultant

- A case study of a consultancy driven ERP implementation process

Supervisors:
Per-Magnus Andersson
Gert Paulsson

Examinator:
Johan Dergård

Authors:
Johan Henriksson
Alexander Kjäll

Abstract

Title:	The important role of the consultant
Authors:	Johan Henriksson and Alexander Kjäll
Supervisors:	Per-Magnus Andersson and Gert Paulsson
Problematization:	In today's competitive markets it is important to maintain a competitive advantage. One opportunity to do this is by implementing an ERP system to the organization. Many organisations have implemented an ERP system, but a lot have been unsuccessful. Studies have been done to identify the main success factors connected with the implementation such as top management support, effective communication and education. However the roles of the consultant in the process carries a lot of responsibilities but are still not mentioned as a main success factor. The question is if the role of consultant is an important factor to consider when implementing an ERP system.
Purpose:	The purpose of this thesis is to describe and analyse the role of the consultant in an ERP implementation.
Methodology:	This master thesis is a qualitative case study done at one particular company. The case study is executed by several meticulously done interviews with personnel at the case company. This is complemented by interviews with several experts in the field and additional data and litterateur.
Conclusions:	The analysis of the case study shows that the consultants are one of the main success factors in this particular ERP implementation. Traditional success factors were met but still the implementation was unsuccessful. This thesis shows that the consultants followed the implementation plan but the roles of the consultant were not handled sufficient in the implementation process. Consultants need to have sufficient knowledge and experience to be able to handle the implementation successfully. They also have to lead the process and distribute this knowledge to their client company in a efficient manner.
Keywords:	◆Role of the consultant ◆Enterprise Resource Planning System ◆ Implementation processes ◆Case study ◆ Success factors

Preface

For a couple of months we have studied and explored the role of the consultant in this particular setting and it resulted in the academic report that you see before you. It has been an enlighten experience for us and we have learned so much about our topic as well as the organizations and systems that we have encountered during the process.

First of all we would like to acknowledge the top management from our case company for granting us access to their organization and the chance to investigate our topic.

We also would like to thank Håkan Nordahl at Trivctor for his help in our expert interview.

During de development of this thesis we have had a lot of help from our supervisors and we would like to acknowledge them; Per-Magnus Andersson, Gert Paulsson and Johan Dergård at Lund University School of Economics and Management.

Lund, 2012-06-24

Johan Henriksson   Alexander Kjäll

Definitions

ERP system: Enterprise Resource Planning system, a system that provides both internal as well as external management information to an organization. The system can incorporate all divisions within the company such as sales, finance, accounting, production etcetera. The main purpose of the system is to provide information flows to all departments in an organization.

Microsoft Navision NAV: Microsoft Navision NAV, an ERP system that is developed and manufactured by Microsoft. Microsoft do not implement their own system to an organization, independent consultancy firms do this.

Implementation process: The process of implementing an ERP system to an organization. The process incorporates several stages and is often very time-consuming.

SME: Small and Medium Enterprises, organizations that either have a staff body or a turnover that falls under a certain limit to be called a large organization.

Table of content

1. Introduction

1.1 Background & Problematization

In order to survive on the market, it exist a continuously struggle among corporations for gaining and maintaining competitive advantage. One opportunity for corporations to gain competitive advantage is to implement an enterprise resource planning (ERP) system. (Dezdar & Ainin, 2011) Organizations of any kind and any sizes are realizing ERP implementations in order to avoid that the obsolescent of technology damages the sustainable competitive advantage (Metrejean & Stocks, 2011). An ERP system archives an integration of both external and internal information. The system provides increasing productivity, working quality, standardization, efficiency of doing business as well as simplifications for the organization and its business transactions. (Maditinos, Chatzoudes, & Tsairidis, 2012)

Corporations need information to be easily transferred, shared and exchanged between different departments within a particular organization. However, due the lack of knowledgeable information technology (IT) personnel within the organization, the time-consuming process of an ERP implementation as well as the complexity of the process – corporations seek external consultants to assist throughout the entire implementation process. (Metrejean & Stocks, 2011; Metrejean & Stocks, 2011) The importance of ERP systems has increased among corporations. Substantial amounts are invested and complex implementation processes drives organizations to request assistance from external consultants. Successful implementations do not emerge easily. Many different contexts need to be considered as well as managed in order to achieve a desirable and profitable outcome. (Lapiedra, Alegre, & Chiva, 2011) Within a consultancy driven ERP implementation, many problems can emerge and many different variables need to be simultaneously succeeded in order to achieve a successful ERP implementation. (Umble, 2002) The entire procedure includes three major influences that affect the outcome; the ERP system, the implementation process as well as the involvement of a consultancy firm. Each part, individually as well as combined, will influences the desirable outcome of the ERP implementation. (Umble & Umble, 2002)(Ptak & Schragenheim, 2003)(Metrejean & Stocks, 2011)

1.1.2 The ERP system

ERP systems can be customized to meet particular unique demands from a specific client and customizations can be made down to a single employee's demands on the individual work

process. Moreover, an ERP system can achieve integration between departments within the organization as well as subsidiaries within a corporate group – i.e. the possibilities are many with modern ERP systems. (Microsoft, 2011) However, the development from a former computer systems to more sophisticated ERP systems has emerged over a relatively short period of time. The development from the usage of a simpler computer system, or no usage of computers at all within the business process, to the usage of a system that assists the daily operation in a sophisticated manner - has emerged relative rapidly. The organization can be in a need to implement large changes, within the heart of the organization, in order to gain advantage on the market by a new ERP system. (Ptak & Schragenheim, 2003)

1.1.3 The implementation process

An ERP implementation process is often a substantial procedure. The average project exceeds the time limit, budget and has initially a higher estimation of benefits as a result from the implementation. (Dezdar & Ainin, 2011) One fifth of those organizations that implement an ERP system cannot be completed and the organizational goals often fail to be met soon after their implementation (Maditinos et al, 2010). However, critical success factors regarding a successful implementation has been investigated as well as described in recent studies. In order to achieve an successful ERP implementation, the process need to be viewed as an ongoing procedure and with the vision of an output that improves the business per se, not only installing software. The implementation needs to be driven by the organization needs and not by the technology availability. (Dantes & Hasibuan, 2011)(Umble & Umble, 2002) Furthermore, critical factors for a successful implementation are partial strong management support and leadership, realistic expectations, training and clear communication of strategic goals towards an organizational that have a strong commitment to the particular change. (Umble & Umble, 2002) Within an ERP implementation, it is of importance to take into consideration that the individual fear of organizational change can be an obstacle for the implementation to be successful. (Rothenberger & Srite, 2009) Members within the organization will interpret the organizational change differently, due their various interests, backgrounds and work tasks. Which in turn will result in different levels of resistance for specific changes. Due to the human interaction within an organizational change, it will be some risk-taking to use comprehensive change models, which argues to be able to be applied at any organization, in any industry and any size. (Alvesson & Sveningsson, 2008).

1.1.4 The role of the consultant

Implementations of new ERP systems are often slightly customized towards the organization, despite the heuristics of generally accepted practice (Rothenberger & Srite, 2009). However, how intelligent an ERP system is - due to the contribution from individuals, such as top management users and external consultants, adjustments within the system are needed to the particular business environment. To be able to adjust the system and achieve a successful outcome, it is important to get assistance from qualified external consultants during the implementation process as well as get access to their knowledge of expertise. (Maditinos et al, 2012) The assistance from external consultants is argued to be more essential than the assistance provided by the top managers within an implementation process. Furthermore, in order to be able to accomplish a successful implementation procedure as well as to achieve a desirable outcome - the consultants need to achieve acceptance from the members within the organization. Different individuals that are involved within the process may identify a successful implementation differently. Consultant's core vision of an implementation is to finish in time and within the budget. Users of the new system demand an output that has a smooth operation and the top managers identifies a successful implementation with achieving business improvement. (Dezdar & Ainin, 2011)

Consultants have a great technical expertise of the particular system and it is important that they transfer this knowledge to users within the organization. It requires collaboration between the technical aspect and the more soft cultural change aspect that an ERP implementation carries (Maditinos et al, 2012) (Rothenberger & Srite, 2009). Furthermore, within the consultant-client relationship the consultant performs different roles towards the client, such as expert, coach/facilitator, friend, drones and political agents. How a client engages the consultants are continually changing during the entire process as well (O'Mahoney, 2010). A consultancy driven ERP implementation are a complex process, with many variables that need to be taken into consideration in order to achieve an successful ERP implementation – variables that both the organization as well as the consultants need to understand. Many obstacles need to be tackled during the process and organizations are often in critical need for the process to be successful. Unsuccessful implementations are often much more expansive than the initial estimation as well as the time frame often becomes longer – time and money that many organizations often cannot spare. It is expected that consultants have great knowledge as well as experience of existed success factors and clients are often seeking external consultants to reduce the possibility for failure regarding the ERP implementation. Hence, the consultant becomes a necessary part

within the ERP implementation and is of interest to research the their involvement within this particular area.

1.1.5 Previous studies

Several articles has recently analyzed as well as described the area around ERP implementations and majority of the articles uses questionnaires as primary data – with a relative wide sample group. Dezdar & Ainin (2011) examines organizational factors, e.g. top management support as well as education and training, which can influences the success of an ERP implementation. Maditinos et al (2012) investigates the effects of human inputs – e.g. top management, users and external consultants –on an ERP implementation. Moreover, Metrejean & Stocks (2011) examines the role of the consultants within an ERP implementation. Focus upon the different phases within the implementation process and examines which phases consultants are perceived to be more effective as well as necessary. Thus, within this particular area previous studies have shown; crucial success factors, overall influences of human interaction and which phase a consultant is most necessary. Furthermore, this particular subject is a relative new as well as a large area - there the view on the subject is mostly from consultancy firms and not researchers. Success factors regarding a successful implementation process have been researched before. However, the influences of the role of the consultant within an ERP implementation, is an area that might be in need to enhance by researchers. Therefore, it is of interest to research this area and to research consultant's different roles within each phase of an ERP implementation. Metrejean & Stocks (2011) investigated in which phase a consultant is most important. However, within this thesis focus is instead upon why the role of the consultant is necessary, what the role of the consultant is within an ERP implementation and how the role affects the outcome of an ERP implementation.

1.2 The Purpose of the thesis

The purpose of this thesis is to describe and analyze the role of the consultant in an ERP implementation.

1.3 Research contribution

This thesis contributes to research done within the area of the role of the consultant within an ERP implementation. This master thesis gives an alternative view on how a consultant affects an implementation process as well as the consultant's role throughout an ERP implementation. What makes this study special is that this thesis looks at a particular case, at a particular company

as well as describes and analyzes the role of the consultant throughout an entire implementation process.

2. Research Methodology

In this chapter the research methodology is presented as well as the choices that was made in this thesis. The outline of the gathered data as well as the overall structure is also presented.

2.1 Research approach

This thesis will be a qualitative case study; a company that recently has gone through an implementation process of a new ERP system will be analyzed. This research approach has been used in several studies with different settings such as organizations, industry, social and political (Yin, 2003)(Littlefield, Ulmer, Seeger, & Littlefield, 2009). The information basis within this thesis includes three sources; a litterateur section, a section that covers parties with expertise knowledge over the subject and a case study of a specific company. Moreover, in order to fully understand a consultancy driven ERP implementation there are the three sub-areas; ERP systems, implementation processes and the role of the consultant, presented within the litterateur section. Success factors will be presented within the litterateur study, due to the fact that several articles shows the importance for the consultants to possess the knowledge regarding success factors.

2.1.1 Choice of subject

When starting out with the thesis the complex topic of ERP implementations was chosen. However, in order to narrow the subject to a concrete purpose – focus upon external consultants within the ERP implementation was chosen. Focus upon the role of the consultant emerged when reading relevant articles within the area of ERP implementation. The majority of studied articles described success factors as well as why failure arose within an implementation. However, within these particular articles - none of the factors was depended on the consultancy firm per se. Therefore, interest of the role of the consultant emerged and to investigating the role of the consultant was chosen as subject to this particular master thesis.

2.1.2 Choice of company

In order to achieve a description that is thorough, particular one case study were prioritized. It was of importance that the studied company was within the group of small and medium sized enterprise (SME). Larger companies ERP system is perceived to be too complex for the authors to understand within the time frame of writing this thesis. The case company should operated within a manufacturing industry, because of predicted complex work processes within a

producing industry – from raw material to several products. The ERP system are believed to include many different sub-systems and are therefore of interest to observe. Furthermore, an opportunity to investigate a company that recently had implemented a new ERP system emerged and was within the manufacturing industry as well as an SME company. Great access to employees within the organization and access to documentation regarding the implementation was granted. External consultancy firm was used during the entire implementation process, which were a necessary factor for this thesis. The possibility to get full access to a company was a major reason of the decision to only investigate one company. Great access is believed to be a major factor that enables the possibility to achieve a true and fair view on the phenomenon. Thus, the particular company was chosen due to the industry, size, access granted and that they recently went through an ERP implementation.

2.1.3 Choice of single case study

Only investigate one case company was chosen due to the desire to investigate the role of the consultant in a depth as well as in order to achieve an thorough understanding of the phenomenon. In this thesis one thorough case study was prioritised which to be able to fit the time frame and as a supplement several experts within the particular area was included. Due to that the particular company have recently gone through an implementation, access has been granted to several documentations regarding the implementation and great access to members within the organization - a thorough single corporation case study is prioritized over the ability of comparison to other implementation cases. Furthermore, implementations are in detail significant different and therefore difficult to compare at this thorough level that are desirable within this particular case study.

2.1.4 Choice of complementary sources

In order to achieve a fair view of the role of the consultant, several sources are of importance. Therefore, there are additional views from experts within the area given - due to the desire to achieve a wider point of view on the subject, achieve evidence of similarities as well as differences regarding the role of the consultant. Consultants may have a glorified view of their own role as a consultant and therefore it is their view a supplement to the clients view within this thesis. Moreover, in the initial phase there was a minimum two experts view decided to be included within this particular thesis.

Moreover, the external consultancy firm that had the responsibility of this particular case study are not included within the expert study - due to that the relationship that exists between the consultancy firm and the case company are at the moment sensitive. If interviews with the responsible consultancy firm would be performed, the answers will probably not be bias free and focus would most likely lie upon excuses instead of relevant information regarding the role of the consultant. Furthermore, the authors of this thesis also understood that difficulties would arise to reach the responsible consultancy firm in order to achieve an interview and this due to that the case company explains that problems exist for the company to reach the particular consultancy firm at the moment. Thus, decision to compare the case study to general information from independent consultants was chosen. Personal interviews were chosen in order to be able to achieve a deep and thorough understanding about the particular subject. Moreover, additional point of views was chosen to be included within this thesis – due to the desire to achieve a deeper knowledge regarding the particular ERP system as well as understand the complexity around the system, the Microsoft Navision convention in Copenhagen was attended. The convention was also included due to the desire to understand and acquire knowledge about how consultants work with implementations as well as how they act within each part of the implementation process. Thus, a deeper understanding about the particular ERP system and an additional different view of the role of the consultant was desirable by the participation at the convention.

2.2 Qualitative Case Study

When a research question cannot be answered by only using surveys, experiments or history there is a need for a case study (Yin, 2003). When it comes to studies where communications is a critical part, it is appropriate to use one research method. The case study method is an excellent way to present real life events without losing the meaning and relevance of the study. (Littlefield, Ulmer, Seeger, & Littlefield, 2009) (Yin, 2003) When studying a complex issue in a reality, it is important to make sure that the study can go in depth and get an understanding from several points of view, the case study approach makes this possible (Crowe, Cresswell, Robertson, Huby, Avery, & Sheikh, 2011).

The purpose cannot be completely answered by only looking at previous studies or by doing surveys. To be able to get a clear and true view on the role of the consultant within an ERP implementation – a thorough case study is needed. With a qualitative case study as an approach, it is desirable to achieve a description to which roles consultants have within an implementation

procedure. Thus, describe the role of the consultant in practice with a suitable approach; a qualitative cases study. Moreover, according to Yin (2003) it is important to design your research in a way that you make sure that it can produce vital evidence. There are different components that are of important for the design, such as research question, relevant data, what data that you should collect and an analysis of the data. (Yin, 2003) In the qualitative case study approach of this thesis, three main sources of data will be presented in different chapters. In the sections below, the data gathering of each of the three sources will be specified and presented.

2.2.1 Litterateur Study

In order to achieve a broad and knowledgeable basis regarding this particular subject, a solid and thorough literature review are presented in an introductory phase. To be able to locate articles and other literature on the subject, Lund university library search function Summon was used. Key words such as ERP, implementation, consultants and the role of the consultant were used when searching for relevant articles. Recently written articles as well as relevant articles for the subject were located and related reference-lists were reviewed in order to locate further relevant articles. Moreover, relevant courses within the subject - at Lund University - was located and related literature lists was reviewed for relevant references.

2.2.2 Expert Study

To be able to be as close as possible to a true and fair description over the role of the consultant within an ERP implementation, complementary interviews of two independent consultants will be carried out parallel to the case study. To reduce the possibilities for bias; two external consultants from different corporations with no connection to the particular organization in question were chosen to be interviewed. First a consultant with long experience within this particular area was interviewed – Håkan Nordahl (HN) at Trivector. Secondly a consultant with two-year experience within the particular subject interviewed. However, the consultant required to be anonymous and is therefore referred to as the anonymous consultant (AC). Furthermore, in order to achieve a fair illustration of this particular subject it is of importance to acquire a thorough understanding regarding the consultant's own view on the role of a consultant. Hence, external consultants were interviewed in person by the authors.

Furthermore, in order to achieve a greater knowledge about the system capabilities and an overall knowledge over an implementation process; a convention held by the particular ERP system creator Microsoft was attended. By participate on a convention that focus upon obstacles and guidelines related to implementation of the same ERP system as in the case study – are evidence

provided that the litterateur section is in line or not with the current practical prosecution of implementation regarding ERP systems. Furthermore, six different consultants at the Microsoft Navision convention in Copenhagen performed three presentations with this particular subject. One of the presentations was attended due the desire to acquirer deeper understanding about the particular ERP system. The other two presentations are included within the expert study and are a supplement view on the topic. Two independent consultancy firms presented their own view of how consultants work with ERP implementation processes.

2.2.3 Case Study

In order to get an overview on the case company, learn how the ERP system is operating and to be able to achieve a good collaboration in further meetings - an initial meeting with the case company and the authors was performed. Thereafter are data collected through several interviews with managers and employees of the particular company. Access was granted to interview different employees at different levels within the organization. Four key personnel within the implementation project were interviewed in person at the case company. The chief executive officer (CEO) of the case company was chosen due to the overall view of the implementation as well as the organization per se as well as that the CEO took the final decision to implementing the particular ERP system. The chief financial officer (CFO) of the case company was chosen to be interviewed due to the responsibility of the economical part of the system and that the CFO were in contact with the consultants several times - but not included within the project group. Moreover, the person within the case company that had the responsibility of the ERP system as well as most contact with the consultancy firm, were the Purchasing Manager (PM) and was therefore chosen to be interviewed. In order to achieve a wider view on the subject, the Production Coordinator (PC) of the case company was chosen. The PC was included within the project group as well as had an overall view on the project.

Furthermore, the authors of this thesis have been granted access to pre-implementation studies done by an independent consultancy firm. Additional process information documents about the implementation as well as the homepage of the case company has been used as complemented data. Thus, with this kind of primary data from several sources - a true and fair illustration of the case can be achieved.

2.2.4 The Case Company

The case company is a manufacturing company that operates within the thesis press industry. From raw material there are many different articles produced with the help from 58 employees.

The company has a strong tradition within the industry and was established in the beginning of the 20th century. Three main departments exist within the company; administration, production and a pre-press department. (Case Company, 2012)

The company decided in the beginning of 2007 to invest in an ERP system – Navision, now called the Microsoft Dynamics NAV. This particular ERP system is an ERP system that can be customized to a particular industry as well as to an organization. The system can meet unique demands, can be customizes to specific business process and be customized down to single employees individual work tasks and offers a comprehensive solution towards a particular organizations daily operations. (Microsoft, 2011) Moreover, the former system were a simpler accounting system with some functions that are equal to an ERP system and the economic department were the primarily users of the former system. Furthermore, the production as well as the pre-press department based their report on writing freely within the former system and several employees did not have any contact with the former system – or even a computer at the time. Hence, no direct connection between the economic department and the production within the former system. (Case company documents, 2012)

2.2.5 Analysis

An important part of a case study approach is the analysis section (Yin, 2003). After the empirical data is gathered and the litterateur is reviewed, an analysis will be presented in chapter six. By studying the litterateur, interviewing experts, participating in a convention and interviewing people at the case company - sufficient data are perceived to be able to make a substantial analysis of the role of the consultant. The analysis will compare all included sources and identify results both from the empirical as well as from the litterateur study.

2.3 Validity and Reliability

According to Yin (2003) there is four different tests that should be considered in order to establish the quality of a case study; construct validity, internal validity, external validity and reliability.

It can be problematic to construct the validity in a case study; since it refers to the validity of the collected data. However, it are several ways to make sure that the data are valid, one is to use multiple sources of information - creates a chain of evidence and makes sure that several key informants review the case study draft continuously. (Yin, 2003) In this particular thesis, data from different research articles as well as studies within different contexts has been gathered.

Furthermore, the usage of two different independent consultants as a complement to the case company assists the validity to increase – i.e. using several additional sources. Information emerged from interviewed members within the case company as well as several pre- and post-study documentations will be included within this thesis. However, to assure that the data will be valid each part will get the opportunity to revise the data presented in this thesis – this in order to secure that the correct data is presented in the thesis. Moreover, in order to further ensure the validity of the collected data, professors of the management control department at Lunds University School of Economics and Management will revise the presented data during the process of writing this thesis. It is of importance to state that the involved consultancy firms within the particular project were not interviewed regarding their view on the subject. However, the case company's perception regarding the project is verified by several documents that were exercised by the particular consultancy firm. The perception of the role of the consultant from the case company are compared to what actual were performed by the consultancy firm (according to internal documents), compared to experts view on the subject as well as to litterateur. Thus, in order to strengthen the validity of the case company's perception of the role of the consultant their view is compared to several different sources.

Internal validity is mainly concern by causal case studies that tries to explain relationships between different events by an experimental research. This test is not suitable for deceptive or explanatory studies that are not focusing on making causal claims. (Yin, 2003) Therefore, this kind of test is not suitable for this study. External validity concerns if the results of the case study can be generalized for other similar studies. A great deal of critics exists regarding that one case study should be a base for generalized in similar fields. (Yin, 2003) However, the authors of this thesis are convinced that the implementation process of an ERP system is individual and differs from case to case due to factors such as size, industry, the extent of implementation etcetera. This thesis describes and analyzes the role of the consultant, how consultants were acting within their role and which complications emerged during the ERP implementation. Some results might be applicable for generalization, however it need to be distressed that these results are primary indicators related to this particular case study. However, reliability refers to that other researches could copy the case process of this particular thesis and end up with the same findings. There is a need to emphasize that using a different company for the case study might result in different results. The goal of this test is to make sure to reduce errors and bias. To make sure that the reliability can be fulfilled, an overall plan of how the case study was carried out will be presented below. (Yin, 2003)

2.4 Research Execution

In order to be able to follow the data gathering clearly, details of the case study process are presented. Firstly, data have been gathered from secondary sources and studies of pre-implementation documents from the actual implementation. Secondly, in order to gather sufficient information regarding the topic a convention at Microsoft in Copenhagen was attended. When the secondary data were collected the interviews with the case company as well as the experts were – as seen in table 2.1. After the interviews, all gathered data were compared and analyzed with included sources within this thesis. Thereafter, the result that emerged from the analysis was discussed and further research within the area was presented.

Table 2.1

Source:	Company:	Abbrev:	Type:	Date:
Microsoft Convention	Microsoft		Conference	2012-04-11
Purchase Manager	Case Company	PM	Personal interview	2012-04-16
Purchase Manager	Case Company	PM	Personal interview	2012-04-20
Anonymous consultant	Anonymous	AC	Personal interview	2012-04-28
Chief Financial Officer	Case Company	CFO	Personal interview	2012-05-03
Chief Executive Officer	Case Company	CEO	Personal interview	2012-05-03
Production Coordinator	Case Company	PC	Personal interview	2012-05-04
Håkan Nordahl	Trivecor	HN	Personal interview	2012-05-07

3. Litterateur study

As mentioned in the initial chapter, the desirable outcome from a consultancy driven ERP implementation are influenced by its three main areas; ERP system, implementation process as well as involvement from a consultancy firm (Umble, 2002) (Ptak, 2003)(Metrejean & Stocks, 2011) In order to be able to achieve a thorough understanding of the role of the consultant, it is of importance to review all areas individually from litterateur.

3.1 The ERP system

In the last decade, there has been a market trend to use IT in order to cut costs as well as to create efficiency - and this trend has kept on growing. One way of achieving competitive advantage is to implement an ERP system that enables efficiency for organizations. Consultancy firms have seized this opportunity to sell and implement several different ERP systems, which in turn have lead to that this sector has become a large industry in recent years. (O'Mahoney, 2010) An ERP system is a product that is made by vendor organizations and is intended to be used by customer organizations, which has no prior relationship and is independent of each other (Soh & Sia, 2004). The intuitional environment and the people involved in the technology development are different from those who are the technology users. As a consequence of this the ERP system incorporates institutional conditions from the vendor company, which can be of different culture, norms, power or meaning or the clients organization. This can create misfits when a company should implement an ERP system, however the company can demand customization to fit their working environment. (Kholeif, Abdel-Kader, & Sherer, 2007) However, organizations are often required to adapt to the ERP System rather that the system adapts to the organizations well-established schemes.(Granlund & Malmi, 2002)

Recently has the ERP has become a relative standardized product, which is often sold by implementation consultants that assists their clients during the entire implementation. Often non-core services, such as coding and designing the ERP system, are outsourced to BRIC countries (Brazil, Russia, India, China) in attempt for the consultancy firms to increase their margins. A client can easily compare different system and consultancy offerings, as the ERP system today are mostly standardized and a co modified form of organizational change. (O'Mahoney, 2010)

Several organizations have gone from a simpler computer system to more advanced ERP system rather rapidly. This can make the organization in need to make large changes to be able to implement a more advanced system.(Ptak & Schragenheim, 2003) In order to maximize company's benefits, it is popular among organizations to implement an ERP system that

supports the operational within the organization (Dantes & Hasibuan, 2011). Maximize the organizational benefits, improve the process flow, achieve better customer service, link internal operations with external supply chains and by this gain competitive advantage - is few examples on advantages an ERP system implementation can achieve. However, in order for organizations to be able to utilise these benefits, the implementation need to be successful and the outcome need to be beneficial for the company. (Dezdar & Ainin, 2011)

3.2 The Implementation process

The entire implementation procedure is substantial as well as complex and is influenced by many factors and conditions. Several articles have from different point of views investigated and discussed critical success factors for a successful ERP implementation. (Dezdar & Ainin, 2011) The most discussed success factors among articles during the beginning of the 21st century are threefold; Top management support, education and training as well as effective communication (Dezdar & Ainin, 2011);(Umble & Umble, 2002);(Al-Mashari, Al-Mudimigh, & Zairi, 2002);(Bingi, Sharma, & Godla, 1999);(Nah, Lau, & Kuang, 2001);(Somers & Nelson, 2001).

Several articles discuss a number of other critical factors for a successful implementation. For instance, the structure of the ERP system needs to be driven by the business need and not by the technology itself (Umble & Umble, 2002). Corporations cannot merely view an ERP implementation as IT project and have unrealistic expectations on the implementation. They need to achieve an view of the implementation as an ongoing process, with the goal to improve the business (Umble & Umble, 2002). To be able to achieve a desirable outcome and navigate the project in the right direction, a clear business plan as well as a clear vision for the implementation needs to be established (Nah, Lau, & Kuang, 2001). Moreover, organizations need to understand the influence human interaction has on an organizational change and know that the human strive towards individual well-being will affect the implementation differently in different organizations (Jensen, Kjaergaard, & Svejvig, 2009);(Rothenberger & Srite, 2009). Different interests, backgrounds and work tasks among organizational members will result in differences when members are interpreting an organizational change. It is important to understand that human interaction will influence the implementation in a great manner and human interaction cause implementation processes to differ between organizations (Alvesson & Sveningsson, 2008). The possibility of internal resistance towards organizational change, and acceptance among members towards the change is important in order to achieve a successful implementation. To be able to achieve an acceptance among members, the entire organization needs to believe that the

organizational change will benefit them. Decisions need to be carried by the organization and not only by a top-down management decision of adoption – otherwise it will result in low project acceptance from members within the organization. (Rothenberger & Srite, 2009) An ERP implementation requires a substantial organizational change; it will change the way members within the organization work and interact. Therefore it is of importance for the corporation to go through a carefully planed transformation and take into consideration that an ERP implementation is a cultural as well as a structural change – not simply installing software (Al-Mashari, Al-Mudimigh, & Zairi, 2002)

3.3 The consultant's different roles

O´Mahoney (2010) presents several different roles that the consultant can have when working in projects with clients. The roles are a product of the variables concerning the project and are divided into; Expert, Coach/Facilitator, Friend, Drones and Political Agents. The Expert role refers to clients need to perform tasks that they do not have the ability to do themselves. The consultant ends up in an expert role where his knowledge makes him indispensible to the project. The role of the Coach/Facilitator refers to that the consultant should help the client to understand the organization better and enables the client to eliminate problems by them self further on in the process. This type of role seeks to enrich the organization by coaching the people inside the organization, how to be analytic and better understand their organization. The consultants move towards becoming more of a process consultant that focus on the better understanding of the process as well as eliminating problems on the way.

The friend role refers to the relationship between the consultant and for example the CEO of an organization. Over several years as well as over several projects these two actors become friends and establish an off-work relationship, e.g. play sports together while discussing new ideas and problems. The consultant becomes a friend to the CEO, helps out with problems on the way and this without charging for the service. However, the CEO usually makes sure that they are paying assignments for the consultant at a regular basis, in order to keep the friendship going. Moreover, the role of Drones refers to that the consultants are not hired for their expertise on the subject but instead as recourse for a particular organization to handle a certain process and this because the organization is understaffed. The particular knowledge is often found within the organizations, however there are no resources to carry out a project. This leads to hiring consultants as an internal worker. The last of the different roles is the political agent role, which refers to how the consultants deploy themselves and are presented as a source of knowledge,

power and excellence. This makes them legitimises of power and their claims will overwrite other groups' demands. The consultants are seen as elite agents and managers tend to align themselves with them to gain power in organizational struggles as well as to justify decisions. This role indicates that the consultants are not hired for their expertise in management, but rather for their ability to associate themselves with power and prestige. (O'Mahoney, 2010)

3.4 The role of the consultant within an ERP implementation

Due to the large extent of an ERP implementation – it is argued to be most necessary to acquire external assistance from consultants during the implementation process (Maditinos, Chatzoudes, & Tsairidis, 2012);(Bingi, Sharma, & Godla, 1999). Besides the advantage of technical expertise that accompanies from external consultant assistances, it can as well provide an independent point of view that can be essential for the organizational change (Spacek, 2000) However, the fast growing market for ERP systems resulted in shortage of competent consultants in the beginning of the 21st century, which cannot be restored immediately. Difficulties will arise for organizations to find quality consultants and match these with internal employees with the right skills.(Bingi, Sharma, & Godla, 1999) Innovation in companies has become more systematically open on the market and a increasing collaborations can be seen as well as outsourcing between firms on the market. This has lead to an increase in actors that can be referred to as "intermediaries". These actors are described as consultants that perform services in an innovation process as an ERP implementation. These actors can have different roles depending on what their function is in the innovation process. (Howells, 2006)

It is necessary to realize that in order to be able to achieve a successful implementation, it is of importance that the relationship between the client and the consultant is successful. In order for the relationship to generate a desirable outcome from the implementation, it needs to exist a shared understanding within; work values, norms and problem-solving approaches. (King, 2005) Cross-functional teams need to arise with both consultants and internal employees. It is of importance to have both a business and technical knowledge in order to achieve a desirable outcome. (Nah, Lau, & Kuang, 2001) Beside the necessity of possessing technical skills, it is necessary for consultants to have great human interaction skills, business context skills as well as consulting framework skills (Arnoudse, Ouellette, & Whalen, 1989). The consultants' skills can be divided into two categories; socio political skills and their technical skills (Bloomfield & Danieli, 1995). The socio political skills refers to their ability to pitch, ability to persuade, communicate, negotiate etc. The other variable technical skills refer to their ability to advise on

hardware, software or other technical analysis. Bloomfield and Danieli (1995) state that these skills cannot be separated, as they are heavily intertwined. The consultant must use both of these skills to be able to be effective. The consultant's role can be understood and explained by a number of stratagems. At first, the consultants will make themselves indispensable to their clients. Secondly, making sure the role of being an indispensable actor is kept throughout the consultancy engagement. If these stratagems compromised during the engagement to the role, especially when the consultant sells a system, it can imperil the consultant's indispensability towards the customer. (Bloomfield & Danieli, 1995)

When investigating small- and medium sized organizations, it is argued that consultants are most crucial during the early phases within an ERP implementation. (Loh & Koh, 2004) Within an implementation procedure, the consultants are most efficient as well as most necessary in the early stages – stages when the new system are integrated to other applications, such as existing systems, and when configurations of the system is performed to match the organizational processes. (Metrejean & Stocks, 2011) Furthermore, an exchange of knowledge between the consultant and the organization needs to arise. For instance, transfer knowledge of technical expertise to the users within the organization from the consultants. (Maditinos et al, 2012) It is of importance to create an environment that enforces a regularly flow of knowledge between consultants and organizational members, an environment that enhance freely interactions between the two parties. (Ko, Kirsch, & King, 2005)

O'Mahoney (2010) states that the relationship between the client and the consultant is of great importance not only for the outcome of a project but also for the development of involved individuals within the process. It is important for the consultant to understand and value their client's perspective. In the relationship it is important that there exist honesty and fairness to be able to establish trust as well as good communication – in order to be able to communicate risks, requirements and concerns. This cannot only be done be one part of the relationship, both parts must be fully engaged for the different roles to work. There are several theories on who is the dominant in the relationship; some say that the consultant's uses clever rhetoric's to almost put a "spell" on the client to be able to convince them to accept their solutions. Others find that it is the clients that have the power over the consultants because they can choose between different projects as well as choosing when to end a specific project. Recent studies gives another view on the relationship, they say that the relationship is not predetermined and are affected by different

variables such as; market conditions, type of consultancy, the individual characteristics of the consultant and the process of the project. (O'Mahoney, 2010)

4. Expert Study

In this section the author's present information gathered through three different sources are presented. Firstly from a convention at Microsoft's Headquarter in Copenhagen, secondly are separate interviews with consultants working with ERP implementation. The information below is based on the expert knowledge of the professionals selected for this thesis.

4.1 Microsoft Convention

Microsoft invited different consultants to lecture about implementation processes and about the importance of consultants within this procedure. Below the information lectured by the consultants are presented in two sections, each representing a different firm. Information is based on their lectures, their power point and additional handouts during the convention.

4.1.1 Microsoft Convention - A independent consultancy support firm

The independent firm assists the client, within a client-consultant relationship, e.g. with developing a relevant and achievable requirement specification for the desirable ERP system towards a consultancy firm. To be able to secure the quality of the purchasing process and that the process are executed in a professional manner, the firm uses a model that contains five areas; administrative efficiency, pre-study, system requirements analysis, purchasing and finally the implementation. The performed presentation focused on factors of failure as well as guidelines to achieve a successful ERP implementation.

The fundamental idea of an ERP system is to get access to relevant data and financial ratio quickly. A distinct change has emerged toward corporations demanding an ERP system that increases the automation within the organization. In a highly competitive market, corporations are improving the operation in order to increase the financial margin. To be able to achieve a desirable outcome from the implementation, it is necessary to separate the business need and the technical availability, there has to be focus on the business usefulness of the system. Top management support, training and education, as well as efficient communication was those success factors that were emphasized during the presentation. Moreover, different explanations for implementation failure were discussed and can be seen in figure 4.1. The main cause of project failure was explained to be that the pre-study was not sufficient and bad estimations. Involved consultant needs to have a fundamental preparatory work, which achieves a common view on the main goal of the implementation between the involved parts. Roughly 80 percent of failed implementations is due an inadequate preparatory work or that the client did not know

what they wanted the new system to perform. However, solely 2,4 percent of realized implementations achieves hundred percent of the expected outcome. Project failure can be explained through environmental change as well, such as regulation changes that affect the implementation process negative by changing the desirable outcome. However, it was emphasized that consultancy firms strive to achieve the agreed budget as well as the time frame; it is of importance for consultant firms to maintain a good reputation.

Reasons for project failure

Figure. 4. 1   Source: PwC
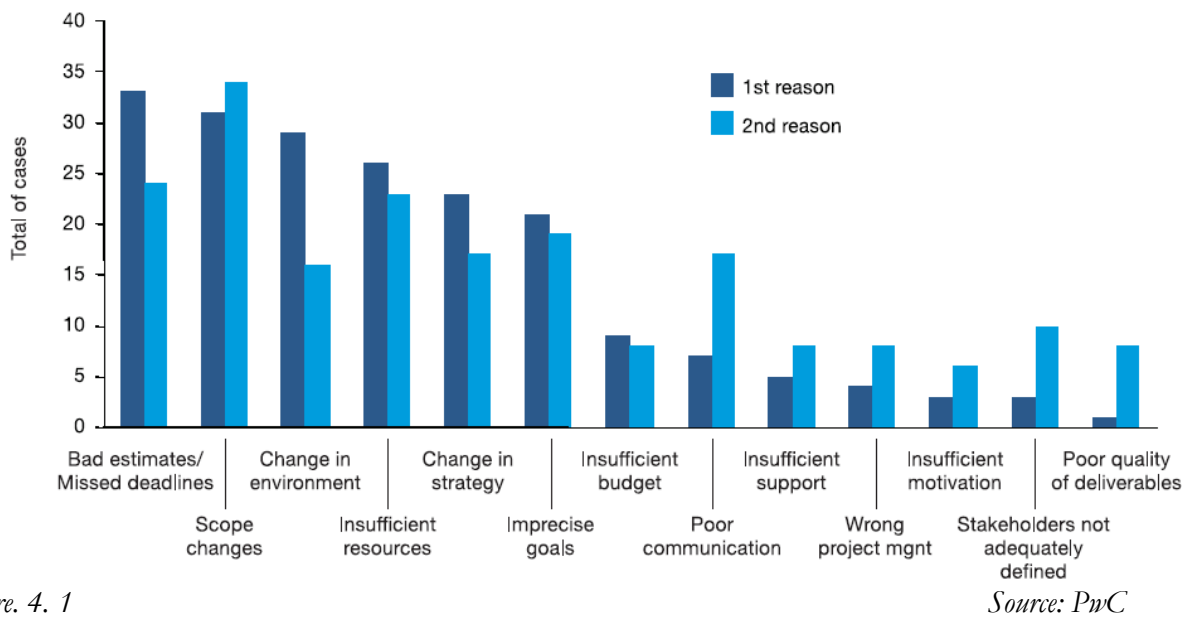
Moreover, the substantial process to implement a new ERP system will require companies to spend much time on the project. In order to achieve a desirable outcome, approximately three times more than the consultancy firm spend on the project is needed to be spent by the corporation it self. There is a need for collaboration between the involved parts of an ERP implementation and most firms cannot use a standard product that the system supplier offers. In order for the system to suit the particular organization are customizations in some extent needed. Furthermore, a necessary skill that a consultant needs to possess is competence about the particular industry that the particular corporation operates within. Moreover, it needs to arise a straightforward and clear communication between the involved parts and the relationship need to be strictly formal in order for the implementation to succeed. It is of importance that involved parts sign each meeting protocol within the process, sign completed stages, e.g. the design stage, and have a well-organized documentation routine. Moreover, in order for corporations to receive relevant answers from consulting firms in the initial negotiation phase, corporation needs to ask

how a certain problem should be solved and not if the problem can be solved. Problem is always solvable for a consultant firm – only a question of time and budget. Furthermore, it is of importance to have a thorough test phase of the system and the education phase cannot be reduced. Thus, emphasises the importance of a thorough and substantial preparatory work, efficient communication, devotion to the project and consultants with the right knowledge for the particular organization.

4.1.2 Microsoft Convention – An ERP implementation consultant firm

This particular consulting firm supplies several ERP system towards the market, a supply that includes the ERP system that is observed within this thesis. Guidelines for a successful implementation were focus upon in the presentation and an ERP implementation was explained as; like changing a heart on a patient while he was still running.

The importance to take the initial phase in the implementation process for getting to know each other is emphasized. The client and the consulting firm needs to understand each other for the collaboration to be successful. However, it is of importance that the relationship is not becoming too informal. Formal structure is needed during the entire implementation procedure. Many variables make an implementation unique. However, similar landmarks along the implementation process exist - such as a design phase, the implementation phase or a test phase. When each of the landmarks is reached, it is of importance that each part signs a document that accepts the outcome from the particular phase and then moves forward within the process. In order for corporations to decrease the aggregated budget, several clients are demanding a large part of the ERP system to be standardized. The budget decreases by chosen standard. However, an organization often realizes that the aggregated ERP system cannot assist the daily operation in a desirable manner when the system is up and running - due that several standard choices was made. Moreover, the consulting firm emphasises the difficulty to achieve a successful implementation as well as a desirable outcome – when the client do not know what they want. To be able to achieve en successful implementation it is important that the client has a clear requirement of a desirable ERP system. In order to accomplish a successful implementation, organizations cannot continuously change their view on the desirable outcome during the implementation process.

All the requirements from the clients cannot be solved as once - need to focus upon those requirements that are most important for the organization in order to succeed. However, these

requirements combined with requirements that have emerged during the implementation can be attended to when the initial implementation is completed. Thus, prioritizing a functioning ERP system with the most necessary functions is up and running as rapidly as possible. Thereafter, in a last phase complete the ERP system with new ideas that emerged during the implementation procedure. Thus, the complexity of an ERP implementation can be solved. However, many variables need to be succeeded simultaneously. Organizations need to have a clear request of a desirable ERP system towards a consultancy firm and customizations are needed towards the particular organization. A professional and formal relationship needs to arise - involved parts need to understand each other. Prioritize that the most necessary functions are up and running rapidly. Thereafter, is less prioritized as well as new possibilities that emerged during the ERP implementation attend to.

4.2 Håkan Nordahl at Trivector

Nordahl (HN) works as a consultant in the area business development at Trivctor. HN is an expert in logistic and business processes. Before joining Trivctor HN has worked as a senior consultant at an ERP implementation firm. There HN acquired great experience of implementing system and also of how the consultants roles affects the process. Sections below are base on the personal interview of HN as well as on models that was used in order to explain the subject.

4.2.1 Pre-study phase

Within the initial phase of the implementation process, the consultancy firm will act differently compared from the time before and after that the contract are signed. An organization that needs to invest in a new ERP system, do not often have the knowledge over the system per se – thus requires external assistants from consultants. Within the phase of the pre-signing, there exists a clash between the departments of selling and the technical department within a consultancy firm. A consultant that have great experience as well as knowledge over this particular subject – will often estimate a time frame as well as budget that are closer to the outcome. Perhaps the estimation of the time frame are longer, but realistic, than non-experienced would estimate and a customer that have no knowledge over this particular subject will therefore often chose the best sell-person as well as the one with the lowest time frame. Thus, the clash between selling and experienced consultants need to be balanced between achieving a good reputation as well as acquire customers. Furthermore, within this particular market – when a project is started, it will take several major failures before the company decides to change consultancy firm and start over with the project. Hence, a critical stage for the consultancy firm is the signing of the contract.

In the pre-study phase, the first overall version of the desirable outcome of the ERP system is established. The role of the consultant within this initial phase is to achieve an understanding about the particular company. This is important in order to achieve a successful outcome and the consultants need to continuously have the systems usefulness towards the clients business in mind. Within this phase, it is of importance for the consultants to determine what and why the particular company wants to accomplish with the implementation. Within this stage, focus must be upon the advantage for the business and not the ERP system per se. It is important for a consultant to see the implementation process from an overview perspective, where knowledge from the consultancy firm as well as from the client company are taken into consideration. When a new project starts, there are two gaps that can create problems. HN presents this through a model that is called the "double-knowledge gap" (figure 4.2), which reflects the gap in knowledge from the consultants and their clients. In the beginning of the collaboration, the clients knows a lot about their own business but the consultants know very little. The consultants know very much about the ERP system but the client knows very little. During the implementation process, knowledge will increase as the different parts learn more about the system as well as about the organization. Hence, figure 4.2 shows that the client's knowledge about the ERP system increases during the process as they get more and more familiar with its operations and at the end of the implementation they know a lot. Thus, it exists a gap of knowledge from both parts.
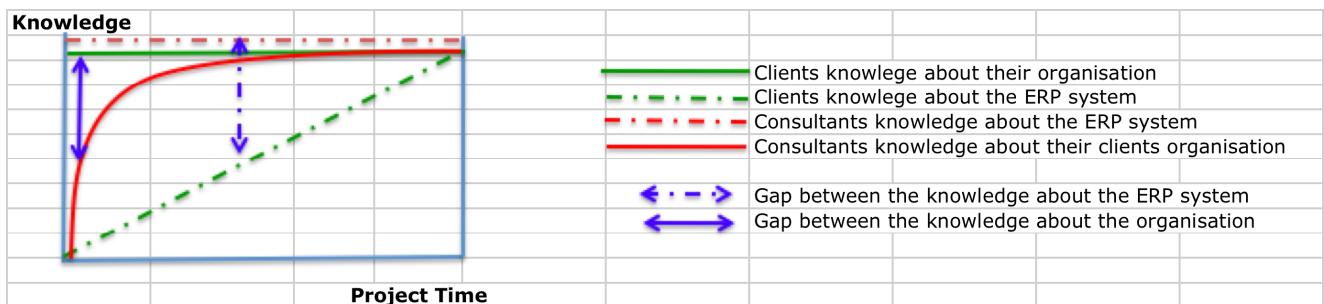
Figure 4.2. "Double-knowledge gap".

Consultants have the responsibility to learn to understand the client's organizations in an initial stage. Due it is significant simpler for the consultant to gain sufficient knowledge over the particular client organization, than the client to gain sufficient knowledge over the particular system. It will take several years before a consultant has a sufficient experience as well as knowledge over the particular system – which is hard to transmit to the client rapidly. Hence, involved consultants that work with the particular ERP implementations need to be experts in understanding how organizations work and identifying their core business rapidly. Moreover, the

consultancy firm do not deliver a system – they deliver a business advantage and needs therefore to learn the core business of the organization. Thus, in order to achieve a desirable outcome that creates competitive advantage, the role of the consultant is to understand the essential competitive advantage that makes the particular organization survive on the market and create an ERP system that can assist this advantage in the best way possible. The consultant must understand the organization and deliver a system that creates competitive advantage. In order to achieve competitive advantage, involved parts within the collaboration need to understand each other and speak the same language of expressions. Within this phase the role of the consultants are most necessary and the role of the client are relative minor compare to the role of the consultant.

When working with the implementation it is also important that the consultants have a team leader that is responsible to make sure that all individually made customizations of the ERP system comes together at the end as a entire operational system. During an implementation process, there can be several consultants working simultaneously with different areas and this is why it is important to have a person that has an overview over the process. Furthermore, the team leader has different rolls depending on the size of the implementation process; in smaller implementations the team leader might have a more process-oriented position. But in larger projects the team leader concentrates on stakeholder management and have a person that are responsible for that the overall solution of the project are in line with customers demands. Moreover, the team leaders roll is essential to be able to implement an ERP system. In all project it is important that the team leader keeps a close communication with the client to guide them in the process as well as keeping their trust during this unfamiliar phase.

In an external consultancy driven ERP implementation, it is of importance to take into consideration three aspects in order to perform a desirable implementation as well as accomplish a useful outcome. Also one has to take into consideration the processes, people (users of the system and their competence) as the supporting tool, in this case the ERP system. If the consultancy firm does not fully manage all of the three aspects, the implementation project will probably be a failure. It is emphasized that the human interaction from the consultancy firm is important to consider as well – consultants' personalities will have an impact on the collaboration. Moreover, the overall success factor regarding an ERP implementation are; commitment from the client in all levels within the organization, the level of desire to change as well as the quality of the consultant. To decrease the knowledge gap between the client and the

consultancy firm the consultant needs to possess both a general understanding of the business as well as understand the ERP system. The consultants must make sure that the client realizes within the initial phase that they need to prioritize the project and put in sufficient commitment as well as time into the project. Thus, due to the consultants experience and knowledge – the role of the consultants within this phase is to take the leading role in the project.

4.2.2 Implementation Phase

In this phase, the consultants are at the client company – working closely with the intended users of the system. Many consultants are working simultaneously with the project and are therefore crucial to have a team leader from the consultancy firm, which has an overall view over the project. A team leader that makes sure that the entire project goes in the same direction and that customized solutions will be integrated to the entire ERP system. Therefore, it is important that the team leader has a long experience regarding this particular subject and has a deep understanding about the particular system. Thus, lead the customer and have focus upon what the most important are for the particular client.

When the stage of what and why are accomplished regarding the particular system – the next phase is to accomplish the question; how should we make this a reality. Within this phase, demands from the organization regarding the structure of the system will occur. Therefore, it is of importance that the consultant realizes that it is the "what" and "why" that sells the system. How the structure of the system is composed is important in order to achieve a successful outcome. Moreover, the organization often requires that the structure of the system is similar to the former system and needs to take into consideration that a single customization will affect the entire system, since a ERP system is build on integrating a entire organization. Thus, the more customizations the more complexities the system will be and more problems regarding the system will probable occur. Therefore, the role of the consultant within this implementing phase is to maintain the leading role of the project. The focus for the consultant changes slightly from a customer focus, to focus upon different solutions regarding the system within the implementation phase. Therefore, it is of importance that the consultants have explained that new solutions and new demands need to be solved in a stage after the system is launched.

Moreover, before the system is launched, it is of importance that involved parts works hard towards the goal of achieving solutions to the most important problems that are related to the core business process of the client company. Before the launch, the system needs to go through a

substantial test phase and the extent of the test phase differs between industries as well as between companies. In the test phase, the human interaction will be substantial – different extent of struggling will occur. The former focus upon opportunities an ERP system can accomplish towards the particular organization needs to shift to a focus on learning as well as on adapting to the new launched system for the company. The system is designed to create competitive advantage for the particular organization and it will take time before the organization can trust the new ERP system. It is relative easily for the consultants to use the low knowledge level that a client has regarding the system in their advantage. However, in final stage of the implementation phase will organizations knowledge regarding the system be sufficient to understand that the system will work or not in their particular organization. Moreover, it was emphasized that within this phase the education phase will be proven to be sufficient or not.

Furthermore, the decision to "go live" with a system can be made despite that the system are not fully complete. It is important that the major problems are solved, smaller problems will always occur in an initial phase after launching the system. Need to take into consideration that if the system goes live in an early stage, the organization will learn during the customization of the system. However, launching an system that are fully completed – the time spent to customize the system up to the launch date will be lost in an educational point of view. In the final stage of the implementation phase, the organization as well as the consultancy firm strives towards a launch of the system.

4.2.3 Follow-up Phase

After launching the ERP system, the clients are the owner over the system and need to take over the leading role in the implementation process. Furthermore, the consultancy firm profits on existing clients and are therefore important for the consultancy firm to take care of their current customers – focus upon the reference list of clients. Thus, the consultants are back in a selling point of view towards the client. Moreover, in this phase is it common that people within the project group have started to have a more friend likely relationship – the consultancy firm will not charge for all solved problems that are performed.

4.2.4 Overall view on the role of the consultant

The role of the consultant is multiple within a consultancy driven ERP implementation. The role of the consultant can both be an expert role on the particular system as well as a strictly business consultant. The collaboration often starts with the role of the consultant to be the business

consultant and further on within the project moves towards the expert on the system. Furthermore, it is of importance to realize that the consultant needs to achieve trust from the clients to be able to produce a successful collaboration. Hence, the personalities of the consultants are in many ways important for the collaboration. In order to achieve sufficient knowledge as well as experience within the area of ERP implementations, the overall education a consultant go through is threefold. Ten percent consists of a formal education, twenty percent exists of internal education within the consultancy firm and the last seventy percentages consists of learning by doing. The consultants need to understand that it is the business they going to direct in the right direction and therefore are learning by doing important in order to acquire experience.

Most of the larger companies have already implemented a substantial ERP system and gone through a complex implementation process. These systems starts to be out of dated and new ERP implementations will be needed in a near future. Thus, corporations that know the implementation process as well as the overall structure of the collaboration – will demand different assistance from the consultants and the role of the consultant can change. Due the corporations possess more knowledge as well as experience over the subject, compared to the first implementation process.

4.3 Anonymous Consultant

The interviewed consultant has worked at a consultancy firm for two years. The firm is one of the largest companies in the world focused on technology consulting. Given the company's size it works with standardized models and possesses a broad knowledge within a wide range of areas and system applications. The primary work task for the interviewed consultant is to be the person that has the overall responsibility for the functional usefulness of particular modules of an ERP system. Due to the responsibility over the functional aspect of the system, the consultant needs to have knowledge over the overall work processes within the client company, overall knowledge over the particular system and an overall knowledge regarding an implementation process. However, no deep understanding or technical programming skills regarding the particular system is a necessary trait. A consultant that focuses upon the functional aspect of the ERP implementation - makes sure that the desirable outcome from the client are achieved and that the system will function in the long run. During an ERP implementation, a functional consultant will be present at the case company most of the time and in a lot of cases during all phases within the implementation process. Moreover, in order to achieve knowledge over an implementation

process – an initial training of two weeks is mandatory at the firm the interviewed consultant works for. However, a consultant acquires most of the knowledge through learning by doing. Hence, after the two initial weeks, a consultant will assist more experienced consultant on the field and by this acquire knowledge as well as experience on the subject.

When implementing a new ERP system, the involved consultants will use a delivery model. However, several exist, which are customized towards different industries. Moreover, using standardized models when implementing a new ERP system is one way for the company to ensure the success of the implementation. Furthermore, contracts can differ between projects; restricted time frame and a fixed price model or estimations that can change during the project, which will influence the problem solving process of the project. When restricted time for the project is used, the deadline is prioritized over non-crucial problem solving. However, each possibility that arises and is not dealt with. Depending if the client and consultancy firm chooses to continue their cooperation the possibilities can be realized after a first version of the system is launched.

4.3.1 Initial phase

Within the initial phase, are estimations regarding the particular project are developed, which are the primary data in the proposal phase. Persons that are involved within this particular phase are mostly resources with selling-responsibility as well as managers from the consultancy firm. Resources and managers engaged in the selling activity usually possess a general knowledge over the ERP system as a whole, but no deep technical knowledge in different modules and sub-applications. Therefore, if the customer asks if something can be solved - the answer probably will be yes from the involved consultants, since customizations and solutions can be designed in later phases. Involved consultants within this phase possess an overall knowledge over the system, which is sufficient to understand that the particular system has the ability to adapt to a particular organization. Furthermore, after an initial phase, when an agreement is accomplished between involved parts, the senior consultants with selling-responsibility are in a large scale switched and the functional consultant becomes a necessary part within the implementation process. Moreover, it is emphasized that the role of the consultant within this phase is to contribute knowledge regarding the particular system as well as distribute knowledge to the organization regarding the overall view over an implementation process.

4.3.2 Analyze phase

The first step within the analysis phase is normally to visit the client company and review the architecture of the former system within the client company. In order for the consultant to achieve a successful outcome from the ERP implementation, an understanding of the former way of working with the former system as well as an overall understanding over the client business process - need to be acquired by involved consultants to generate the *As Is* processes. Furthermore, when an overall understanding of the corporation is acquired, the consultant sketches on how the processes of the client are *To Be* in the future. reviews the possibility of realizing all demands from the clients as well as analyzes the level of necessity of each demand. The aggregated analysis, are the base of the customization of the system towards the client company. The role of the consultant within this phase is described as an expert of the system, an educator of the system as well as the overview role to see possibilities with the particular ERP system towards the particular client. Clients that require assistants of external consultants, often do not have any pre-knowledge about the particular system that are decided to be implemented. Therefore, it is important that the consultant support and help the client company to gain knowledge of the ERP system. Furthermore, within this phase consultants involved are following a specific delivery model and its industry-standardised steps. Thus, in order to achieve a successful outcome from the implementation process - the consultants takes a leading role within this phase as well as taking advantage of the aggregated experience within the consultancy firm.

4.3.3 Designing the system

Within the next phase, the consultants are designing the system to suit the organization and its demands/requirements. Within this phase the functional consultants are in close collaboration with technical consultants, designing the system towards the functional needs. The objective is to achieve a functional design that makes it possible for the client company to be able to produce desirable reports and an overall system that assists the company to be able to achieve competitive advantage on the market. This is driven from the *To Be* processes that have been created and the requirements that the consultants have gathered from the client company. In this phase the designs are therefore created to meet the requirements and map towards the sketched processes. However, the functional design needs to be achievable for the technical programming of the system and a successful collaboration between the functional consultant and the technical consultant need to arise. Within this phase, the technical designer in some cases has no direct contact with the customer, instead are the technical designer customizing the system through directives from the functional consultant. AC emphasizes that requirements and *To Be* processes

drive the entire design phase, which adds up to the functionality of the system towards the particular client. Moreover, the designing phase is probably the most critical phase for the consultant to be involved in the implementation process. Designing the system towards the particular organization is a major phase within the implementation and problems that arise need to be efficiently solved. It is important to be able to make fast decision when obstacle arises within the customization of the system; because the process cannot end up in a stand of mode.

4.3.4 Test phase

Before going live with the entire system, a test phase is necessary in order to confirm that the standard applications as well as customizations work separately and together. Each unit within the aggregated ERP system is tested separately to make sure that every part works individually and thereafter the entire integrated system is tested as a whole. It is necessary to make sure that the design of the system works before going live and that requirements from the client are achieved. Within this phase, is the functional consultant often involved, but can be assisted by a consultant that is specialised on testing the system design. It is important that consultants assist the client company within this phase, assist with their knowledge and experience of the system when problems arise. Furthermore, consultants need to contribute with programming skills within this phase. The role of the consultant is to be the expert within the collaboration and contribute with clear structure. Need to systematically test the system in order to be certain that the system is useable for the client – cannot test the system at random. Often a testing phase is driven from testing each individual entity to testing the functionality of the system based on the processes that have been designed. As an example, if a *To Be* process for e-commerce has been designed that follows each step from the customer order on a website to the distribution – it's important to test the applications in the same way as the business process over this chain has been designed. A test phase normally ends with an end-user acceptance test, where the client company accepts the designed and built system.

4.3.5 Implementing and going live

Before going live with a system, employees of the client company have all ready gone through a system education - where consultants have stated how different member can work and benefit by the new system, normally called a Change Management process. When it is time to "go live" and it is necessary that the system is working as planned, the involved consultants are present at the case company. The role of the consultant within this phase is to guide members within the organization through the system and assist if questions or problems arise. During the actual implementation the consultants make sure that the system architecture works and that objects are

deployed correctly to the production environment, the actual implementation and deployment is normally tested and run through in other environments (that are not customer-facing) to ensure the quality of the implementation.

4.3.6 Follow-up phase

In average, the consultants are often involved to handle most urgent obstacles that arise up to six weeks after the system is up and running, but this differs based on size of project and contractual agreement with the client. Thereafter, is the extent of follow-ups dependent on what the client has requested from the consultancy firm within the contract and differ therefore between clients. Some clients negotiate that there should be several follow-ups during the first year where the consultants service the system to the client's demands. After the system has gone live it normally enters a maintenance phase, where the everyday operations and maintenance of the system is handled through either a service provider (which in cases is the same as the consultancy firm that drove the implementation) or by in-house competence of the client company.

4.3.7 Overall view on the role of the consultant

During the entire implementation process, the interviewed consultant feels that the role of the consultant differs. Initially, the case company sees the consultant as an expert and the reason that companies requires external assistance is for the possessed knowledge of the particular subject. However, at the end of the process the role of the consultant has changed - the relationship between the consultant and the company are more similar to a normal colleague relation. But the role of the consultant can also change during the process; the role of a tester, a designer, an educator or requirements gatherer/business analyst with focus towards the system. Moreover, it is of importance that the consultant support members within the client company during the entire implementation process as well as educate the client company regarding the ERP system in an early stage. Furthermore, the interviewed consultant emphasized several success factors that are necessary in order to achieve a successful outcome; high involvement as well as high commitment from the client company – need to have right key personnel that work with the project.

5. Case Study

In this chapter the case study will be presented. First a timeline of the actual implementation will be presented and secondly the interviews regarding the role of the consultants during this process. These sections are based on conducted interviews with the case company's employees and additional documents regarding the implementation process in the case company.

5.1 Structure and timeline of the implementation

In the fall of 2006 came the first draft of a proposal to invest in a new ERP system to the top management at the organization. Two members within the administration department of the case company recognized the need for an investment in a new and better system. The main incentive was the emerging possibilities to improve the daily operation with a new ERP system - achieve a linkage between each of the departments within the organization. Moreover, at the same time the head of the production was nearly retirement after 40 years within the organization. Hence, in order to substitute a key person within the organization an ERP system was perceived to be required. Moreover, the company saw the need to make an update from the former IT-system, which was build on individual free writing text. An update that achieves a fully integration between all departments within the organization as well as automation of existing work processes. An approval from the top management to invest in a new ERP system came during the last quarter of 2006 and short after was a project group of four members assembled within the case company.

In the initial phase, suppliers of ERP systems were located as well as analyzed by the project group. Several corporations that recently had implemented an ERP system was interviewed and asked for recommendations. However, within the thesis print industry there exists a variable that creates a complex problem for an ERP system - large amount of articles needs to be included within the system. Furthermore, a supplement system was required in order to meet the demands that the particular industry was in great need of. One supplier acknowledged that they couldn't meet those specific demands – and turned the offer down. Hence, after researched the supply market, only one system supplier confirmed that the specific demands could be accomplished towards this SME company. Thus, the corporation decided to invest in the ERP system Microsoft NAV with the supplement system PrintVis and the chosen consultancy firm estimated that the system could be finished after the summer of 2007 – eight month after the project started.

Moreover, the entire implementation process went through several phases; negotiation, pre-study, implementation, system launch and a follow-up phase. Within the initially pre-study phase, interviews were carried out with employees at the case company. Personnel within each department, as well as related sub-departments, were interviewed during two working days. Interviews were carried out; individuals within various departments' described existing need and the particular desire of future working process towards the consultants was described. Thus, by interviewing key individuals within the organization, the consultants acquired an overall view of the aggregated organizational need of a new system. Moreover, the consultancy firm compiled a pre-study, which was sent back and forth – due to misunderstandings about the organization business from the consultancy firm. Eventually, an agreement was meet and a pre-study was approved. The pre-study became the requirement specification and the process proceeded to a negotiation phase regarding an offer on the implementation. Within the offer of the particular system, hours of labour were estimated, with a fixed price of each license that was required. After some negotiations, an agreement was realized and the collaboration arose between the two parts.

When the implementation phase started – the consultants began to customize the system towards the organization. The consultants are present at the case company and works closely to the project group. In this phase was a business consultant as well as a consultant that was expert on the particular system the two main consultants from the consultancy firm. Moreover, during the implementation phase, continuous education was performed at first by the consultancy firm, but overtaken later on by the case company. Within the implementation phase, it soon became obvious that the first estimation of finalized the implementation phase at the end of the summer of 2007 was impossible to be meet. Instead, in the beginning of 2008 was the system launched – i.e. twice the estimated time. Several problems still existed within the system when the decision of going live was taken. However, the consultancy firm was eager to launch the system and emphasized the importance of going live.

The ERP system launched and consultants worked closely to the members within the organization during the first week of the system being up and running. The consultants where present at the company and assisted the company when problems arose. After a week of close assistance, the time that was spending at the case company decreased. Instead, communication between the two parts changed to be mostly through telephone and mail. Furthermore, according

to the case company is not the ERP system finished – many obstacles remains before a final approval can be made.

5.2 The role of the consultant

The authors have investigated the case company's ERP implementation process by conducting several interviews at the company. Four key persons within the company was interviewed; the Purchasing Manager (PM), the chief financial officer (CFO), the chief executive officer (CEO) and the Production Coordinator (PC). In the sections below the consultants role during the different stages will be described based on the interviews from the case company.

5.2.1 Initial phase

Within this phase, the consultants emphasized very apparent that all requirements was achievable. The consultant was perceived as strictly selling a product and a continuously attempt towards achieving trust from the client was noticeable. The engagement was high, with a high driving force and involved consultants were perceived as knowledgeable within the area. The consultant's availability towards the corporation was high and a general impression of professionalism existed as well. In a noticeable way was the CEO of the consultancy firm, who would also be the team leader of the project, striving towards an agreement on a future collaboration with the corporation as rapidly as possible. The team leader emphasized within this phase that the role of the team leader are necessary for the project; the necessity of an overall view on the project as well as the role of leading the project and its members in the same direction. The PC felt that the consultants understood how big this change was for the company and gained a lot of trust for the consultants. PM is convinced that it is small details that make a company unique and those small details that differ within an particular industry that are quite similar – these needs to be identified as well as the consultant need to understand this variation. The CEO perceived that the focus upon the case company and its business processes was insufficient by the consultancy firm – i.e. acquired insufficient understanding about the organization. However, all of the interviewed members of the case company strongly emphasizes that the company was in a great need of a new system and the consultants reinsured that they could meet all requirements.

5.2.2 Pre-study phase

Within the pre-study phase, the role of the consultant was very clear towards the organization. The consultancy firm took a leading role over the process, followed by clear and structured steps within the pre-study-phase. The consultancy firm presented a time frame as well as a clear planning regarding the pre-study, which happened rapidly. The consultants were perceived as

very competent, drifty, available and with a high knowledge about the particular industry as well as a professional problem solver. Regarding the particular ERP system, the consultancy firm were perceived as knowledgeable and experienced – trust emerged from the organization regarding the system per se. Moreover, within this phase the role of the consultant were to start the project. The consultants were necessary and expertise knowledge within the subject was required – the role of the consultant was crucial in order to achieve a successful beginning of the project. Furthermore, several misunderstandings emerged during the pre-study phase. However, misunderstandings were rapidly corrected and a complete pre-study was presented towards the organization.

When the pre-study are completed - the negotiation phase begins. The pre-study document becomes the specification of requirements and a time frame as well as a budget need to be confirmed. The aggregated consultancy fee is an estimation, due to that the time frame is estimated. For the first time during the collaboration, scepticism towards the consultancy firm emerged. The consultancy firm were convinced that the decided system will manage to be up and running within the estimated time frame. However, the organization doubts that the desirable ERP system will fully be implemented within the time frame as well as within the estimated budget. Hence, complete trust of the consultancy firm did not fully emerge. Nevertheless, a new ERP system were necessary in order to achieve a desirable reform of the organization and trust existed that the consultancy firm had expertise knowledge regarding an ERP implementation and an agreement was realized between the two parts.

5.2.3 Implementation phase

Initial phase

The initial phase of the implementation, system customizations towards the organization were performed. Within this stage, PM perceives the role of the consultant to be crucial in order to achieve a desirable outcome. The role of the consultant is to lead the customization procedure and to be the leading part in the problem solving process as well. PM emphasizes that the organization – within this initial phase - do not have sufficient knowledge about the system to know what the system can and cannot help the corporation with. Therefore are expert knowledge of the system and its technical solutions of possibilities, regarding to PM one of the most important role of the consultant within this initial phase. Due to the lack of knowledge over the system that the organization has within this initial phase – identifications of every function that the system requires to include in order to be able to meet the expected outcome are difficult to

understand for the company. The consultant needs to listen to the organizational needs, identify what need to be done and customize the system towards the organization.

Moreover, within this initial phase of the implementation – the consultants had a greater knowledge regarding the system as well as knowledge about implementation processes in general than the case company. However, one detail that are difficult to fully understand - are the people within the organization. PM explains that some extent of struggling will occur when a work process as well in some extent an identity of a person changes, the employees feels that their way of working works and it has been good so far so why change. The consultancy firm was convinced that the entire organization as well as the management of the company was more transformable towards their vision over the project than they were in reality. A vision that was perceived by the case company to be new technical possibilities that in some extent was not fully useful for the company. However, PM explains that the project group were convinced that those members within the organization that will struggle the most regarding the new system – is those who haven't worked with computers before the new implementation. This was not the case, those that struggled the most to adapt to the new system, had worked a lot within the former system. PM was surprised that the consultants did not predict this, due to their knowledge and experience in implementation processes.

Furthermore, limitations of the ERP system emerged during the construction of the customized system – desirable functions could not be achieved. However, the consultant transfers this limitation of the system to that the organization needs to change – i.e. transfer limitations of the system to the limitations of the organization. Moreover, within the initial phase, PM had still high confidence for the consultants and this due to the high knowledge of the system the consultants demonstrated within this phase. Regarding to PM, the strength of the role of the consultants are, within this initial phase of the implementation, their ability to look forward in the process and not focus upon what have been done so far in the process.

Development phase

Within the development phase, further customizations as well as integrating cost centre and article data to the new system were realized. Several customizations of the system occurs within this phase – due to that members within the organization achieves greater knowledge during the implementation and can therefore demand specific customizations of the system. Thus, the differences of knowledge of the system decreases and the collaboration heads towards a common

ground regarding possibilities of customizations of the system towards their particular company and their industry. Hence, PM emphasises that the pre-study are not a complete specification of the requirements – there is a need for minor modification during the implementation in order to achieve a desirable outcome. Thus, complex problems will arise that a pre-study cannot predict.

The consultancy firm emphasizes the importance for the organization to finalize several sections by themselves in order to achieve a successful implementation. However, the lack of communication as well as insufficient education of the particular area was noticeable regarding PM. Hence, one important role of the consultant is to be the educator. In order for the implementation to be successful, PM stress the importance of spending sufficient hours within the project and that sufficient education as well as communication are important for the success of the implementation. Furthermore, educations are one important factor to a successful implementation and were in the beginning lead by the consultancy firm. However, due to the lack of knowledge about the system towards their particular industry – the organization took over the education. It begins to be noticeable that the knowledge and competence is not sufficient at the consultancy firm. Moreover, the leading consultant within the education process did not possess an overall knowledge over the system – instead only focus upon one function within the system. However, one consultant had superficial knowledge over the entire system, but not the knowledge about specific functions. In this phase, PM begins to educate him selves - by Internet and books about the system - and became the one that educated the organization. Within this phase, were personalities influencing the collaboration in a noticeable manner and were one major factor of why the organization chose to take over the education process. Actual personalities started to emerge, leading to; traits that are not in line with the organizational acceptance created tension between involved parts. PM explains that in this phase the lack of humility combined with bossiness of consultants, created tension within the collaboration. The persons and their roles are of importance to take into consideration when trying to achieve a successful collaboration according to PM.

Furthermore, within the development phase the consultancy firm compared the case company to the overall industry of printing newspaper – which in many ways are different according to the company. The consultancy firm were perceived that they did not understand the complexity of the particular industry that the company operates within. Hence, the knowledge began to be noticeable inadequate regarding the system toward the particular company and the knowledge regarding the particular industry was perceived as insufficient. Within this phase, are the

consultancy firm sending recently hired consultants to the organization. Hence, the organization needs to educate the new consultant regarding the particular industry and its customizations in order to have the possibility to acquire the consultant's expertise knowledge on the system. Hence, the company had been compelled to learn the system in depth and the collaboration was now perceived to be on common ground regarding the knowledge about the system towards the particular company. Thus, the consultancy firm no longer solely solved problems that arose during this phase. Moreover, PM explains that within this phase the trust about the consultants' expert knowledge regarding the particular system did exist. However, the trust was reducing due the several misleading and wrong notifications regarding solving problems. PM emphasizes that the problems that were solved in a wrong way by the consultancy firm but was fully charged along the process. Hence, the case company was double charged for solving a problem that the consultancy firm created themselves.

The CEO of the case company explains that within this phase, the company realized that the team leader of the project – the CEO of the consultancy firm – did not manage the role of the team leader, which was emphasized as crucial in the initial phase by the same person. The CEO as well as the PM argues that the overall agreement of the project was not meet, due to that the consultants that worked closely to the company at this moment did not know what the other consultants had finished nor what different consultants was working on at the moment. PC perceived that different consultants created solutions on the same problem – due to the lack of communication and the overall view of the project. Furthermore, the case company contacted the consultancy firm with several problems during this phase. However, the problem-solving ratio started to decrease in a noticeable way. There was no clear functional view over the project – only several independent technical projects. Thus, the role of the team leader, which haven't been heard nor been seen since the contract was signed, was perceived as insufficient by the company. The PC of the case company emphasizes that the role of the team leader should be to monitor, lead the project as well as be the part that makes sure the communication within the process are sufficient between involved part. This was not done in a sufficient way from the team leader from the consultancy firm. In order to achieve a successful outcome the company decided that the project is in a crucial need for a new team leader - need an engaged team leader. A consultant that worked closely to the company and the particular project at the moment was chosen to be the new team leader. Moreover, within this phase – before the launch phase - when the need of knowledgeable expertise are both perceived as well as shown as important for a successful outcome of the project, the consultancy firm requited one of the key persons within

the project from the case company's side. Hence, the trust as well as the view of the consultancy firm as a professional company became even lower. Thus; the trust was low, the company perceived the consultants as possessing inadequate knowledge over the subject as well as perceived by the company as unprofessional. In this phase, the CEO of the case company emphasizes that the consultancy firm strongly strives towards a launch of the system.

Launch Phase

The implementation phase reached the double estimated time frame and regarding to PM was the consultancy firm a driving force towards launching the ERP system. Even though the system was not completely finished and temporary solutions were in use. The system was after the double estimated time launched and PM emphasizes that the consultants are within this phase still necessary – need their technical knowledge. Within the launch phase, the consultants were available and the problem solving process functioned well within the collaboration. Within this phase, was there a constantly struggling of balancing between what the system should be customizing towards the organization or on the contrary. The consultancy firm was perceived to pressure the organization towards the system in order to achieve a finished system.

5.2.4 Follow-up phase

After the one week of launching the system, the consultancy firm was in an obvious way reducing the leading role of the implementation. The case company did not, after the one week of launching the system, approve that the system was finalize – due to that the ERP system regarding to the case company's opinion, have large obstacles left that need to be solved in order for the system to be operational. Within this phase, the lack of present consultants was noticeable - the corporation perceived this phase, as they stood alone with the system that was launched although the system was not finalized. The case company takes over the leading role within this phase, problems are slowly solved within the collaboration and the budget increases. Therefore are the company compelled to prioritize the most necessary problems that need to be solved. The CFO of the case company emphasizes that the consultancy firm - in the initial phase of the implementation process – promised to deliver certain solutions. However, the consultancy firm did not accomplish any solutions on those particular problems, which was of importance for the overall usage of the system regarding to the CFO. Furthermore, in the initial phase the consultancy firm explained that in order to achieve an successful outcome, the company need to make sure that the company set side a project group that works continuously with the project. However, the CEO emphasizes that this what met by the case company, e.g. the CEO as well as

the PM estimates that the company laid the double amount of time on the project compared to the demanded time that the consultancy firm told them to put in. The CEO explains that the consultants can always blame the company for an unsuccessful implementation. However, both the CEO and PC emphasizes that all demands that the consultancy firm stressed in the pre-study were meet by the company.

Moreover, PM explains that in this phase, the case company have been working with the system some time and therefore acquired a deeper understanding about the system. Thus, more complex problems as well as desirable possibilities arose during this phase and demands towards the consultancy firm were more complex. However, the consultancy firm did not have this deep knowledge about the system and could not offer several solutions towards the organization, i.e. the problem-solving ratio decreased rapidly during this phase. Due to the lack of knowledge over the system in this depth, the organization is forced to acquire a deeper knowledge over the system from other sources. Hence, the PM begins to learn the system in depth – down to coding the system himself and understands the full potential of the system. The CFO of the case company explains that due to the low respond ratio from the consultancy firm, members within the organization instead seeks help from the PM – became the internal expert on the system.

Within this phase the consultant's availability decreases vastly as well as assignment that the case company requires assistants with was often forgotten and not performed by the consultancy firm. The PC of the case company experience within this phase a noticeable change of the consultants, their attitude as well as engagement towards the process became poor after the launch of the system. Moreover, the organization realizes that in order to achieve an operational routine, the organization need to adapt to the existing ERP system – i.e. utilise the existing system – and not rely on the consultancy firm. Thus, regarding to PM; within this phase the role of the consultant should be the driving force within the problem solving collaboration. The case company should not be the one with the deepest knowledge over the system within this phase and should not be the part that sees all possibilities that this particular system can achieve.

5.2.5 The overall view of the role of the consultant

The overall view of the role of the consultant is perceived by the case company to be the part that distributes knowledge as well as experience towards the organization. The most practical role of the consultant is perceived to be the one that customizes the system towards the organization and takes the leading role of the project. The role of the consultant differs between the different

phases, but is in general always essentially to be the knowledge distributer towards the organization and to be the leading part of the collaboration. One other role that the case company was expected the consultants to perform is to be the educator of the system towards the organization. The overall perception by the organization regarding the role of the consultant was the same role that was performed by the consultant. However, the level of sufficient was argued to differ.

Furthermore, the PC states that in the future when a new ERP implementation is needed for the organization, two different consultancy firms will be used. Hence, when using two firms – the risk might be lower and the company is not as vulnerable as in this particular implementation process. But also they have to make sure that the team leader is qualified and has a long experience within ERP implementations – the team leader are one of the most crucial factors in order to achieve an successful ERP implementation.

6 Analysis

In this chapter, the empirical results from the Microsoft convention, interviews with the different consultants and interviews with members within the case company will be compared as well as analyzed. Within the case study as well as within performed interviews in the expert study – different sources named various phases differently. Therefore, due to the structure of the analysis is through explaining the role of the consultant within each phase of the implementation process, it is of importance to clarify which phases that are similar to each other. Thus, the structure of this analysis is to analyze the role of the consultant within three main phases; initial phase, implementation phase and follow-up phase. Clarifications regarding which phases are included within each of the three main phases are presented beneath in table 6.1. Moreover, it is of importance to have in mind that the involved consultancy firm within the particular project in the case study - are not included within this thesis. The case study describes how the case company perceived the collaboration and the role of the consultant within the project. Within the case study, the perception of the role of the consultant is strengthening by internal documents; which the consultancy firm created several of. Internal documents were also used in order to be able to comprehend what the consultancy firm actually performed within the collaboration. The case study will be in this chapter compared to experts view on the subject as well as to relevant literature. Furthermore, if it is not emphasized that a certain person within the case company states a particular opinion, are same opinion emphasized by all interviewed persons within the case company.

Table 6.1. Clarifications of different phases.

Analysis	Case company	Trivector	Anonymous
Initial Phase	Initial Phase	Pre-study phase	Initial Phase
	Pre-study phase		
Implementaion Phase	Initial phase of the implementaion	Implementaion Phase	Analyse Phase
	Development phase		Designing of the system
	Luanch phase		Testing phase
			Implementing & going live
Follow-up phase	Follow-up phase	Follow-up phase	Follow-up phase

6.1 Empirical results

6.1.1 Initial Phase

The case company emphasizes that the organization was in great need for an new ERP system and assistance from external consultants were perceived as necessary in order to achieve a desirable outcome from the ERP implementation. The case company is in this stage were perceiving the role of the consultant; to be the leading role within the initiation of the implementation project as well as to be the part that structure the further collaboration. The case company requires in the initial phase knowledge as well as experience on the subject, which a consultancy firm were perceived to possess. However, in order to start the project an agreement needs to be accomplished and the case company perceived the involved consultant to be strictly selling a product before the contract of cooperation were signed. The involved consultancy firm were according to the case company strongly emphasizing within this phase the importance of a team leader during the entire project. The case study shows that there exists a necessity to have someone that have an overall view over the project, which make sure that the project outcome will be successful. When analysing the case study, it was explained that the consultancy firm was illustrating how the particular system could assist the company and its particular business processes as well as created a pre-study investigation report within this initial phase. Within the initial phase of the case study, it was showed that the involved consultants presented further structure on an ERP implementation process, took the leading role over the project, achieved an understanding over the organization as well as presented how the particular ERP system could manage to assist the corporation.

Both interviewed consultants within the expert study, emphasizes the role of the consultant as the expert - deep knowledge as well as experience of the particular subject. HN explains the role of the consultant through the double gap of knowledge – in an initial phase the consultancy firm has no deep understanding about the particular client company and the client has no deep understanding of the particular ERP system. Therefore, is the role of the consultant according to HN within this phase; to achieve an understanding of the client business processes and explain the overall usage of the particular system towards the client company. It is easier for the consultant to acquire knowledge of the particular business, instead of the opposite. The AC, emphasizes that the core reason for a company to require assistance from an consultant, is due to the knowledge as well as experience that a consultant possesses within the area. AC also states that the consultant needs to in an initial phase acquire knowledge of former work processes within the former system – understand how the organization worked before within the business

process. Furthermore, HN emphasizes the importance of a team leader, which makes sure that the overall project strives towards a common outcome – i.e. knowledge and experience within the subject is unnecessary if involved consultant strives towards different outcomes. Moreover, both presentations on the Microsoft convention explains the importance of having the usefulness of the system towards the client in focus from the beginning and the importance to get to know each other within the initial phase of the collaboration.

Thus, within this initial phase - the overall view of the role of the consultant is perceived similar accordingly to all sources and was carried out accordingly within the case study. The consultant is necessary within the initial phase, need to provide knowledge towards the organization, both regarding the particular system as well as an overall knowledge over an implementation process. It is showed within the expert study as well as within the case study that a client company do not often possess any greater knowledge about the particular ERP system and over the ERP implementation in general in the initial phase. Therefore is it of importance for the client company to acquire knowledge from the consultants within this phase.

6.1.2 Implementation Phase

The expert study and case study strongly emphasizes that an ERP implementation is a substantial project and that it requires engagement and a sufficient amount of time on the project. The PM of the case company perceived their commitment as well as time spent on the project to be sufficient and the case study shows that several other reasons are argued to be the causes of why the implementation did not fully became successful. The case company perceives the role of the consultant to be the leading role of the project, distribute knowledge towards the organization, listen to requirements of the organization, customize the system towards the organization, be the problem solver within the collaboration and to be the educator of the system. Thus, the consultant will perform different roles and these traits are all expected within this critical phase of the implementation procedure.

Within the case study, the consultant took the expected leading role of the project as well as the expert role within the initial stage of the implementation phase. At first, the consultants were perceived by the case company to be knowledgeable and with sufficient experience to carry out the particular implementation – but decreased rapidly during the implementation phase. However, due to several reasons, the case company questioned the leading role of the consultant; the consultancy firm hired a key person within the end of the implementation phase from the

client company, documents disappeared that the case company sent to the consultancy firm, several misleading solutions from the consultancy firm of problems that arose within the implementation project and inadequate knowledge of the particular system towards the particular industry was noticeable according to the case company. Thus, the leading role was questioned due to decreasing trust regarding perceived inadequate knowledge and experience within the subject. According to the case company, was it noticeable that the consultant did not possess sufficient knowledge over the particular system towards the particular company. The case company states that involved consultants did not achieve a sufficient pre-study and therefore did not acquire a sufficient understanding regarding the business processes within the organization. All sources within the expert study strongly emphasized the importance to have a sufficient preparatory work, which achieves a deep understanding regarding the particular industry, the company and its business processes. Thus, a important success factor was insufficient due to that members within the case company perceived the consultant to not prioritize the pre-study in an adequate manner. Moreover, the case company expected that consultants experience within the area should prevent several obstacle that emerged - such as; it was those members within the organization that had worked with the former system that was those that was struggling the most to adapt to the new system and not those that never had worked with a computer before. Furthermore, the case company argues that the consultancy firm had unrealistic goals regarding the ability for the case company to transform towards the particular ERP system and towards the vision of the desirable outcome from the consultancy firm. Hence, experience within these areas would save time as well as tension between the consultancy firm according to the case company.

Furthermore, it was perceived by the case company that the desirable outcome from the consultancy was driven by technical availability on the market and not focus to be useful towards the business processes. Thus, all included sources within the expert study emphasize the importance to have the client company in focus and functionality of the system in focus when customize the system towards the organization. Thus, AC emphasized the importance to understand the architecture of the former system and to understand the former way of working within the organization in order to design a functional system. HN emphasized that consultants need to understand the essential competitive advantage that makes the client company to survive on the market; due to consultants are delivering business advantage towards the organization. Hence, due inadequate preparatory work the customization will strongly be influenced negative and tension will arise.

Within the expert study and the case study, it is showed that a team leader is crucial within the collaboration. There is a need to have a person with an overall view of the project, make sure the entire project is striving in the same direction as well as make sure that the desirable functionality of the system is met in the end. It is of importance that the team leader has close communication with the client to guide them in the process as well as maintain or build up the trust during this unfamiliar phase. Moreover, in order to achieve a successful outcome it is important in the initial phase for the consultants to acquirer knowledge of the particular organization, possessing competence about the particular industry that the particular corporation operates within as well as possess sufficient knowledge regarding the particular system. These success factors were strongly emphasized within the expert study. Within this phase the focus from the consultants need to be transferred from focus upon the client to more focus upon different solutions regarding the particular system. It is emphasized in the expert study that consultants' experience of an implementation process as well as the knowledge of the particular system need to be in focus when structure the system within this phase, and not give in to customizations that creates complexity within the system and creates no substantial benefits for the organization. However, the case company emphasizes that due to increasing knowledge over the system by the company, understanding regarding several new possibilities emerged during this phase and new demands from the organization arose. Thus, tension arose due to different views on the subject and as the expert study shows – in this situation it is of importance that the consultancy firm takes a strong leading role.

Limitation emerged regarding the particular systems ability to customize towards the organization within this phase. The solution from the consultants was, according to the case company, to transfer the limitation towards the organizational limitations instead. Thus, functions that were promised to be accomplishable within the initial phase – are achievable in the implementation phase by adapting the organizational towards the particular system. Explanatory, HN states that there exist a clash between the selling personnel and the experts on the technical aspect of the system. Within the initial negotiation phase the customer often do not have sufficient knowledge of the particular system nor over an implementation process in general. Therefore, it is difficult for the customer to know when a promised possibility is realistic and estimations of a time frame to be close to the reality. Thus, the customer will probably choose the offer with lowest time frame, budget and personalities that fits the company best. HN states that when a project is initiated its hard for the customer to switch consultancy firm which is more costly then to start over. Hence, the consultancy firm with lowest estimation can be far from the reality and

customer will realize this to far into the project. Thus, within a consultancy firm - struggling between bringing in customers and correct estimations can occur. Consultancy firms need to achieve a balance between these two aspects; reputation and bringing in customers. As the case company, if balance does not emerge, large tension will probably arises due to several customization, which has not been realized as promised - but perhaps hard to achieve balance due to the market works as it does.

The case company explains that within this phase, actual personalities of the consultant were shown - in a negative manner were personalities of consultants affecting the collaboration. All of included supplement sources within the expert study, mentions the obstacle regarding human interaction within an implementation. HN even includes human interaction of one of three main influences of the success of performing a desirable outcome. AC explains; following delivery models throughout the implementation process reduces potential negative influences of consultants' personalities of the project. Thus, it is not only important to focus on human interaction within the client company – the possibility of a clash of personalities between consultants and members within the client company are a crucial factor to focus upon in order to achieve a successful implementation. Within the case study the personalities were a major reason of why the education became an internal process and not performed by the consultancy firm. HN explains that an educator needs to have an overall knowledge over the entire system – which the leading educator did not possess. A consultancy driven ERP implementation is often a substantial and a complex process. HN and AC both explain that it is common within this collaboration that the relationship between involved parts becomes more friends likely. However, experts from the Microsoft convention emphasized that too informal structure on the corporation can create unnecessary tension between involved parts during the project. Within to the case study, no friend likely relationship emerged and no structured as well as well-functioned documentation process did arise – which lead to further tension within the customization.

Thus, it is showed that within the implementation phase do several roles of the consultant exist; being the educator, the problem-solver and the one that customizes the particular system to the particular client company. However, in order to achieve a successful as well as functional customization – the consultant need to have sufficient knowledge as well as understanding both of the particular organization and its business processes as well as of the ERP system. Moreover, a team leader is crucial for the success of the implementation. The consultancy firm needs to have the leading role of the project within this phase and needs to take into consideration that

the client can lose the overall trust towards the consultancy firm. Furthermore, it was shown within the case study that human interaction and their personalities will affect the implementation process. The case company argues that the ERP implementation was not successful due to several reasons and those particular reasons are strongly established within the expert study as important success factors. Thus, the case study shows that the knowledge and experience within the subject was insufficient as well as the preparatory phase of the pre-study. The customization towards the company was not sufficient and was driven by technical availability on the market as well. The role of educator was insufficient and the case company questioned the consultants overall leading role of the project, which lead to decreasing trust towards the consultancy firm. Thus, several success factors, that was emphasized within the expert study as crucial, was insufficient within the case study and was showed to be a important part to be able to achieve a successful outcome.

6.1.3 Follow-up phase

When systems are launched, HN explains that the client company needs to take over the leading role over the project. However, it was emphasized that the system was not fully complete as well as perceived as not useable by the case company. HN states that within the end of the implementation phase, both the client and the consultancy firm often strive towards going live and that it is some times better to "go live" before the system is to one hundred percent finished. However, the launched system must be useful for the company and major as well as crucial obstacles during the implementation phase needs to be solved before the launch. Several small obstacles can be dealt with after the launch and small obstacles will always occur in the initial phase when the system is launched. The AC has a general problem solving of most urgent problems the first six weeks of being live with the system, thereafter decreases the involvement of that particular project. Thus, when a system is launched – the client company is the owner of the system and need to take over the leading role of the project. The role of the consultant will thereafter be minor within the collaboration and the consultant will go back to a selling point of view of maintain existing customers and creating good reputation that is important for consultant to be able survive on the market.

Within the follow-up phase, the case company felt, as they were standing alone with a unfinished system and more tension towards the consultants arose. The problem-solving ratio decreased rapidly and problems were solved slowly. The case company understood that it was not profitable anymore to require assistance from the consultancy firm. Instead, the role of the

consultant as an expert on the system was handled within the case company; the PM was continuously learning more about the system himself and became the internal expert on the system. According to HN it is of importance that the case company takes over the leading role of the project and the consultancy firm becomes a minor part of the collaboration. The case company perceived the involvement from consultants as inadequate and emphasized that the system is not fully complete as well as operational towards particular business processes. Large obstacles were still perceived to remain within the customization and not solely minor problems. Thus, if the role of the consultant has been sufficient within the initial and implementation phase, this would make the role of the consultant within the follow-up phase a minor role. However, within the case study it was perceived to be insufficient preparatory work with the customization and not possible for the case company to manage the system by them self in the follow-up phase.

The case study as well as AC emphasized that the consultant needs to be present at the initial weeks of the system being live, to assist with problem solving, which the particular consultancy firm were. In the first initial week, the case company perceived involved consultants as possessing sufficient technical knowledge regarding the subject of launching the particular system. However, the knowledge regarding the particular system towards the particular company became inadequate further on in the follow-up phase and the knowledge was not sufficient enough to be able to be of any assistance for the company. According to the case company were problems that arose complex and in order to achieve an operational routine - the company realized that they needed to adapt to the existing ERP system. Thus, the role of the consultant was perceived to be insufficient within the two first phases of the project, which in turn had lead to that the role of the consultant were still necessary for the case company within the follow-up phase. However, the consultancy firm pulled away and the case company needed do adapt towards the existing system in order to be able to get a daily routine that could be practical.

6.1.4 The overall view of the role of the consultant

After analysing the case study combined with the expert study, the overall view on the role of the consultant are perceived to be necessary in order to achieve a desirable outcome from an ERP implementation. The primary role of the consultant within an ERP implementation is to distribute knowledge as well as to distribute obtained experience regarding the particular ERP system as well as over an implementation process in general. The consultant is necessary for the client, due to the ability to structure and tackle obstacles along the way within the project. Moreover, the role of the consultant change during the implementation process, HN emphasizes

that the role change between an expert role of the system and the role to be a strictly business consultant. AC emphasized that the role of the consultant differs along the project and can differ between; designer, educator, leader, the expert of the particular system as well as expert on ERP implementation processes.

In order to achieve a successful ERP implementation, the empirical analysis shows that trust towards the consultant is of crucial importance and that a team leader with commitment towards the project is necessary for the success of the project as well. The importance to have fundamental preparatory work as well as sufficient education of the system was shown as a crucial factor within an ERP implementation. Moreover, due to the role of the consultant mostly means interacting with members within the organization such as distribute knowledge as well as take the leading part of the collaboration. Personalities are an important factor to take into consideration when analysing the role of the consultant. The case study showed that the personality of the consultant is an important success factor for the collaboration within the implementation project. The expert study also states that human interaction is something that needs to be considered as well as managed within the implementation process. HN is including human interaction as one of two crucial factors that need to be taken into consideration in order to achieve a successful ERP implementation and AC explains that one reason that delivery models are in use to reduce negative human interaction on the project. Thus, in order to achieve a successful ERP implementation - it needs to arise trust among members within the organization towards the consultancy firm and it is not enough for the consultant to solely perform expected roles. Consultants need to possess sufficient knowledge as well as experience of the particular system as well as over an ERP implementation in general and distribute this effectively towards the organization for the project to be successful.

6.2 Compare empirical analysis to literature

An empirical analyze of the role of the consultant are presented above and several success factors were found to influence the ERP implementation. Within this part of the thesis are results as well as the role of the consultant within the empirical analysis compared to the literature study.

The view of Metrejean & Stocks (2011) and Dezdar & Ainin (2011) are similar to the case study, regarding that most corporations invest in a new ERP system in order to gain or maintain competitive advantage on the market as well as ensure that an obsolescent ERP system cannot damage the sustainable competitive advantage of the company. Moreover, in order to achieve a

successful ERP implementation, several success factors needs to be managed. The literature study highlights three main areas that are important for the success of the project; top management support, education and training as well as effective communication (Dezdar & Ainin, 2011);(Umble & Umble, 2002; Al-Mashari, Al-Mudimigh, & Zairi, 2002); (Nah, Lau, & Kuang, 2001). The empirical analysis shows that education and training as well as effective communication between involved parts are crucial success factors and need to be succeeded. Furthermore, the case study shows that the top management support was sufficient and the expert study mentions the importance of sufficient top management commitment in order to achieve a successful ERP implementation. Thus, the three most emphasized success factors within the litterateur study was emphasized within the expert study as well as within the case study. However, the empirical analysis presents several other views on crucial success factors, which in order to achieve a successful ERP implementation need to be managed.

Granlund & Malmi (2002) established that organizations are often required to adapt towards the particular system, rather than the opposite. However, Umble & Umble (2002) emphasized the importance for the customization of the system to be driven by the usefulness towards the organization and not the current technological availability on the market as well as emphasized the importance to not have unrealistic expectations on the implementation process. The empirical analysis shows a similar view; it is important for the consultant to have the usefulness of the system towards the client company in focus and have realistic expectations. However, the views regarding the organization adapting towards the particular system differ within the empirical study. The case company requires customizations towards the organization to occur continuously throughout the entire process – even new possibilities that emerged during the process. The expert study has a different opinion; it is crucial form the desirable overall customization to be established within the initial phase and new possibilities need to be handle in a later stage.

Several articles within the literature study explains that human interaction will influence the ERP implementation and this in different extent as well as in different ways (Rothenberger & Srite, 2009);(Alvesson & Sveningsson, 2008);(Jensen, Kjaergaard, & Svejvig, 2009). It is of importance that the relationship between the organization and the consultants are successful (King, 2005). The human interaction is within the empirical analysis the primary reasons of why the implementation process within the case study failed. Moreover, the expert study emphasized the importance to take into consideration the human influence as well, and the expert study shares

the view regarding the importance for the relationship of involved members from the client company and involved consultants are needed to be successful. Furthermore, O´Mahoney (2010) states; regarding the relationship between the consultant and the client company – it is of importance that it arises trust as well as good communication. It is also discussed; which part of the relationship is the one with most power within the collaboration. The empirical analysis states that trust towards the consultant is crucial for the implementation processes to be successful and that it is important for the consultant to have the leading role during the process. Moreover, the empirical analysis discusses the importance to consider the influence of the consultant's personalities and the importance to correspond with personalities with members within the client company. Thus, the view from the empirical study of human interaction within a consultancy driven ERP implementation is overall in line with the literature study.

Articles within the literature study, strongly emphasized that it is most necessary in order to achieve a successful outcome to acquire external assistance from consultants during the implementation process (Maditinos et al, 2012);(Bingi et al, 1999) However, it is also emphasized that it will arise difficulties to find quality consultants for organizations – a shortage of competent consultant probably exists on the market (Bingi et al, 1999). Within the case study, several indications exist towards that the consultancy firm cannot be perceived as a quality consultancy firm and several success factors that was not sufficiently performed by involved consultants. Arnoudse et al (1989) emphasized; it is important for consultants to possess great human interaction skills, business context skills as well as consulting framework skills. The consultants cannot solely possess technical skills. Moreover, Bloomfield and Danieli (2995) state that in order to a consultant to be effective within the project, the consultant needs to possess both socio political skills as well as technical skills. Within the expert study, it was emphasized that the consultants need to possess more traits than technical skills, several skills is needed in order to be able to direct the project in the right direction as well as achieve a successful ERP implementation. However, it was shown in the case study that the involved consultants did not possess sufficient knowledge or experience regarding the subject.

Moreover, O´Mahoney (2010) divided the role of the consultant into five different roles; the expert, the coach/facilitator, friend, drones and political agents. Within the empirical analysis was the expert, coach and friend role emphasized and shown to be crucial roles for the implementation to be successful. Maditinos et al (2012) explains the importance of exchanging knowledge between involved parts of the implementation process – consultants need to

distribute knowledge and experience of the subject towards the client company. The role of the consultant to be the distributor of knowledge as well as experience within the area was shown within the empirical analysis and stated as the most crucial role of the consultant as well as the most expected role of the consultant within the case study. Furthermore, Loh & Koh (2004) as well as Metrejean & Stocks (2011) found that the consultant is most necessary within the earlier stages within the implementation process and it was emphasized within the empirical studies that the consultant are most important within the beginning of the collaboration. Within the earlier stage of the process the consultant need to; take the leading role in the project, achieving a understanding over the particular client company and its processes, structure the project, distribute knowledge towards the organization as well as be the problem-solver of the project. Thus, the role of the consultant is substantial in the beginning and decreases during the implementation process.

6.3 Major points of the analysis

First of all, it is of importance to take into consideration that the case study is build upon the perception from members within the case company as well as on internal documents and that interviews with involved consultants are not included within this thesis. However, the analysis is based on how the client perceives the role of the consultant demonstrated and compared to both experts view on the subject as well as to relevant literature within the area. Several researches has stated main factors that are crucial for the success of the implementation process; top management support, education and training as well as effective communication (Al-Mashari et al, 2002);(Denzar et al, 2011);(Nah et al, 2001);(Umble & Umble, 2002). However the empirical analysis of the case company shows that this important area was handled sufficiently except for the effective communication. The consultants are here a crucial factor that did not meet the requirements expected of them. As a result of this the communication between the company and the consultants was effected negatively. The analysis of the different stages in the process shows that in almost all phases there is a lack of sufficient knowledge, experience and also of trust in the consultants. Also the consultant's personality and overall attitude towards the process is an important factor. The consultants followed the implementation process by the book but the knowledge needed to execute each part sufficient was not adequate. For example HN describes the double knowledge gap where it is important for the consultants to really understand how the organization works before starting the implementation phase. If a sufficient preparatory work is done it will follow through the whole process and have a negative effect on the end result of the implementation. Loh & Koh (2004) and Metrejean & Stocks (2011) confirm that in order to

achieve a successful outcome from the ERP implementation, the initial part of the process is most crucial to succeed with. Another example of the insufficient knowledge and experience was the lack of the team leader in the process. The team leader was clearly stated by the consultants, both in documents and in their presentation, to be a necessary part of the implementation process but was never seen at the case company after the contact was signed. The lack of leadership of the different consultants and a clear contract for the case company did also affect the outcome of the implementation.

The analysis indicates that the consultancy firm did not possess the quality that the presented themselves with and what was stated in the case documents. Bingi et al (1995) states that it is hard to find quality consultants, as it is a shortage of them on the market. But the need for the consultants to possess the sufficient knowledge, personality and experience is crucial for the implementation process to be successful, this is stated in both the empirical and the litterateur analysis. (Arnoudse et al, 1989);(Bloomfield & Danieli, 1995)

7. Results & Result Discussion

In this chapter the results from this thesis research is presented and discussed. Furthermore there is a discussion conducted of the results as well as guidance for future research.

7.1 Results

The analysis of our case study shows that the consultants are one of the main success factors of ERP implementation processes. The authors have described the different roles of the consultants in this thesis based on the results from litterateur review, expert interviews and the interviews from the case company. The consultant is shown within this thesis to have several different roles within an ERP implementation. However, all roles essentially refer to that the role of the consultant are to be the one that distributes knowledge as well as obtained experience regarding the particular subject towards the client and to be the leading role of the project.

Within this thesis it is showed that it is crucial for the consultancy firm to acquire trust regarding the three main mentioned roles in order to be able to achieve a successful outcome from the project. Within the case study, the trust towards involved consultants decreased and tension arose due to that the consultant's knowledge regarding the ERP implementation was perceived to be inadequate by the company. The analysis emphasizes that human interaction and personalities is important to take into consideration when performing an ERP implementation and are established within the case study as crucial. O´Mahoney (2010) shows that people have expectation on the consultants when they are presented in different roles. For example if a consultant is perceived as an expert it is expected that he will act as a person that possesses a great knowledge and experience. If the expectations and the reality don't match there will be a large gap, which are also found within the case study.

Moreover, several success factors that was mentioned within the expert study as well as within the litterateur study was accomplished by the consultants within in case study - but still the implementation was unsuccessful. The analysis shows that involved consultants are one of the main success factors of this ERP implementation process. Within the analysis it is showed that the consultancy firm performed the expected role of the consultant. The consultancy firm took the leading role, customized the system towards the organization, defined a pre-study report; distribute knowledge towards the organization etcetera. The consultants followed all expected steps within the ERP implementation that were perceived by the case company (and established within the expert study) to be the role of the consultant. However, the consultants could not fully

meet the expectations of the rolls. The consultancy firm lacked sufficient experience as well as knowledge within the area as well as possessed insufficient ability to incorporate the ERP system to fit the particular organization. The case study shows that the lack of a team leader was an success factor. The team leader was not a part of the implementation process as the team leader should have been in regards to the contract and the own description of her role from the consultancy firm. This lead to in the end that the implementation did not meet the criteria set in the beginning and a unsatisfied client that still today have not approved the consultants implementation.

In this particular ERP implementation there is evidence that the consultant cannot solely perform the role of the consultant. Sufficient knowledge and sufficient experience within the area as well as sufficient preparatory work needs to be performed by the consultancy firm. This knowledge and experience needs to be efficient distributed to the clients in order to be able to achieve a successful outcome from an ERP implementation. This result is applicable to this particular process, however it shows that the role of the consultant can be an important factor to consider when implementing an ERP system.

7.2 Result Discussion

As mentioned in our method this thesis has taken measures to ensure that our results are valid in each section of the empirical data gathering. However there are always steps that could have done different. This thesis studied only one case company, with a different timeframe the study could have been broaden to several cases. Thus, the deepness needed in the interviews could not have been done with several case companies at the current timeframe. This is also the case of the expert interviews, the study could have been broaden to several more interviews, however this would have resulted in shorter more overall interviews. Both expert interviews in this thesis is done in a deeply manner to fully investigate the consultants role. Due to the fact that just one case company are studied, the possibility for different results if chosen a different company would be inherent. A different organization might have perceived the consultants roles differently depending on the consultant and the outcome of the implementation. However the ability for the authors to gain full access to an organization and investigate the role of consultants during this process is rare and makes this study unique. But this doesn't mean that our results can be generalized to fit other implementation process where consultants have been involved. This is not the authors purpose to base their results to fit all implementation processes. However this thesis identifies and contributes to research in the field that the role of the consultant can have an effect on the implementation process.

When looking at interviewed persons, there are both the persons interviewed in the case company and in the expert interviews. As mentioned in the methodology, were all interviewed persons in the case study hand picked. The authors believe that the results would not be different if interviews were carried out with any other persons in the company due to their similar answers. However, selecting other interview persons at the case company that did not met demanded criteria would make the interview person invalid to the study. Furthermore, performed interviews at the case company have a possibility of being bias; nobody at the case company was satisfied about the consultants work in the process. So there could be a little negative attitude towards the consultants work. However, the authors could by verifying documents by the consultancy firm validate the information gathered in the interviews.

The expert interviews where individuals with different experience. Our interview persons possessed key knowledge about how consultants work in these types of processes and where hand picked by us. What we learned when interviewing these consultants was that every firm have different stages that they enforce in an implementation. Different phases were named differently between sources, but in the end was the same process. If different consultants were interviewed it would likely gotten different ways of conducting an implementation however it is perceived by the authors that the describing of their own role in the process would be similar.

If an interview was carried out with the consultancy firm that in reality implemented the particular system in our case company, different view on the situation might have showed. However this role would be bias and due to the current standing between the case company and the consultancy firm so this was not an option. As mention, are consultancy firms documents regarding the project such as the pre-study and tender where they in writing confirm the important of the different roles in the process was included in this thesis to confirm the case company's statements. In the tender there was a whole section about the roles of the consultants in the implementation process where the significance of each role of the consultants team where presented.

So it is believed that the authors have incorporated some of their view in this thesis as well and referring to their own documents. Sufficient evidence are provided through an thorough analyze of a the case company, which includes related as well as relevant documents to the project. The found result is established with a sufficient expert study as well as literature study that are in line with found result.

7.3 Authors own synthesis

When working with this thesis the authors have gotten a deeper understanding of the ERP implementation processes. All the interviews as well as the convention in Copenhagen allowed for a deeper insight to the world of the consultants. The authors feel that there are several factors that can influence the outcome of an ERP implementation however the consultants are rarely presented as the main reason for the outcome of the implementation process. Furthermore the consultants that present the main success factors to potential customer don't present themselves and their role in the process as a factor that influences the outcome. There is a feeling that this factor is left out when discussing the success of the implementation process, mostly because it is the consultant themselves that are seen as experts in the area and are often leading the discussion.

But potential buyers of an ERP system do not get the information that the consultant's role is a critical factor when implementing a new system from the consultants. The consultants present several different factors that are important for the outcome but they will never present that how they do their role is of importance.

There is also an uncertainty about which consultancy firm to choose when needing to implement a new ERP system, there are no authorizations for consultancy firms. The potential buyers are unaware of the experience, quality and skills of the consultancy firm that the have chosen. The only thing they can go on is the recommendation from others that has used the consultants. However, this is also very tricky measure as it is depending on the characteristics of the organization such as size and industry. One organization can be a perfect match for the consultants as they have experience from implementing system in such a type of organization. This might lead to a successful implementation and recommendation of the consultancy firm. However, this doesn't mean that they will be as successful in other industry or organization.

So it would be hard for a potential buyer of an ERP system to see the significance of the role of the consultant in the process. Today the only way for an unexercised buyer is to hire an external process consultant to get a independent view on the process ahead and what need to be done to achieve success. The authors of this thesis feels that due to the current success rate of the implementations some action will be done to help buyers out with their investment. Perhaps a certificate will be demanded for the consultancy firms. However due to the large amount of time and capital used when implementing a ERP system this would probably not go unmentioned.

The role of the consultants can be viewed from many different angles, in this thesis we have looked at what roles there are during an ERP implementation process as well as how they execute these rolls. Our results points out that the main role of the consultant is to be the leading role of the project and to be the distributer of both knowledge and obtained experience towards the client. However, in order to achieve a successful implementation it is of importance that the consultant performs expected roles in a sufficient manner and that trust emerges from the client towards the consultant. If you have the role of a team leader, there are certain things that are expected with such a role. Especially when in a contract it is detailed what the team leaders assignment is and what role should do. A client expects that the team leader have the relevant experience, education and leadership to be able to live up to what is expected of the role. Therefore it is of importance that regardless of what the role of consultant are during the implementation process, the consultants have to fulfil in a sufficient manner what the role demands.

7.3 The thesis contribution

The role of the consultant is a well-studied topic over the years. There are several articles that have investigated the role in different situations. (Metrejean & Stocks, 2011) ERP implementation processes have also been studied in different studies where the most of them looks at success factors for the implementation. (Dezdar & Ainin, 2011)

This thesis tries to contribute an alternative view on how the consultants can affect the implementation of an ERP system. Previous studies such as Umble & Umble (2002) and consultancy firms present different success factors that must be fulfilled for the implementation process to be successful. These factors include several different aspects that are crucial for success, however the view that the consultant's role can affect the outcome is poorly represented. In this thesis a particular case study was analyzed and during this process the role of the consultant was analyzed to identify if the role can present an important factor for the outcome of an ERP project. Metrejean et al (2011) states that the consultants are most necessary within the earlier stages of an implementation and this thesis shares this opinion. However, this thesis had a different objective compared to Metrejean et al (2011). This thesis present throughout the study answers to the initial questions in the first chapter of; why the consultant is necessary, what the role of the consultant are and how the role of the consultant are affecting the outcome of an ERP implementation. This thesis contributes by looking deeply into to an organization that recently had implemented a new ERP system. Due to a recent implementation and full access was allowed, were an accurate and unique opportunity to study how the consultants worked

during the process presented. By presenting this thesis, the authors are trying to open up to the idea that the role of the consultant is an important factor to consider when looking to ERP implementation.

7.4 Future research

The topic of this thesis is a very interesting and relevant topic due to large expansion of the ERP system during the last decade. New experience arises from every new implementation so this topic keeps increasing as well as new crucial factors emerge. Due to the limited time frame of this thesis and the extended deep interviews needed for this case study, the study had to be limited to one case company. Future studies should try to capture several case companies that recently have implemented an ERP system. It would be interesting to establish if the role of the consultant has affected other processes as well. The authors feel that the results of this thesis are valid despite the use of one company because of the several expert studies as additional sources. However it would be interesting to see what the result would be from several case studies about this topic. It could be become difficult to find several companies that have recently implemented an ERP system and who will grant access to do deeper studies about the role of the consultants. But results from such a study will present a valid picture of how the consultants' role affects the ERP processes. Another aspect that would be of interest is to increase the number of expert studies and study if the expert has different opinions on how the consultants are perceived within an ERP process. Factors such as size, experiences and position would probably be of interest to look into in that type of study.

Additional studies done over the years could be of interest to include in a similar study done in this thesis. Studies about the role of the consultants have been done for a while and would be of interest to see how the consultant's role has been studied over the years and if the market trends have had an effect on the role.

When working with this thesis the authors have identified questions that still remain in this area. When talking to expert in the area and going through previous studies we can see that there have been a lot of ERP implementation projects that have not been successful as well as disputes between the client and the consultant. It is hard for the buyer of a new ERP system not only to choose the system but also to choose a consultancy firm that can implement it. Today the consultants are recommended for a job by previous jobs they have done but will this be enough? The question that still remains in this area is if a license for consultants that implement ERP system is needed or will become reality? This might make the quality of the consultants increase

and make the buyers of ERP system more sure of whom they are hiring. However there are a lot that needs to be solved for a licence to reality such as educational demands of the consultants, certifying authority etc. Still if the ERP project keeps resulting in various outcome and the consultants is perceived as a crucial factor the demand to licensed consultants in ERP implementations might be a reality.

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