

End user perception of managerial interventions in the later stages of assimilation

- a case study of a CRM system implementation process

Master thesis, 10 credits, INF 801, in Informatics.

Presented: January, 2007

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Master thesis presented January, 2007
Size: 50 pages
Supervisor: Hans Lundin

Abstract

Since CRM system research has currently overlooked the combination of end user and managerial intervention the aim of this study is to highlight how the managerial interventions are perceived by the end users in the later stages of assimilation in a CRM implementation process. Through a review of relevant literature and research articles a theoretical framework was created containing four themes: messages of top management support, training, resources, and technology champion. The thesis was conducted as a descriptive case study on one of Vattenfall AB's call centres. The data was collected through the use of semi structured interviews and resulted in a description of the end users perceptions of the managerial interventions which contributes to enrich the picture of the assimilation process of a CRM system.

Keywords: Managerial interventions, Assimilation, CRM

With enormous gratitude we salute you Lisen Selander for all the good advice!

and now..... champagne!

/Johan and Suzana

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1. Introduction

In this chapter, the background of the research area is presented, highlighting the focus of this thesis by stating the research question, purpose and delimitations.

1.1. Background

Over the recent years, billions of dollars have been invested in a number of customer relationship management (CRM) systems. According to research by The Aberdeen Group, investments are even predicted to exceed 17 billion US\$ within the year of 2006 (Barlas, 2003). The intention of CRM systems is to utilize and support the customer-centric philosophy of CRM where the development and management of the relationship between a company and its customers is in focus. Companies decide on this strategy to gain competitive advantage in the battle for customers and quest for higher revenues (Campbell, 2003). However, due to the complexity of the CRM system implementation projects they are naturally not free from friction. Goodhue et al. (2002) reports that about 40 per cent of the implementation projects of CRM systems fail and Rigby et al. (2002) (referred to in Campbell, 2003) convey an even higher rate of 55 per cent of all CRM project fail to produce results. It is clearly neither a coincidence nor a surprise that the research investigating the implementation of CRM systems is on the increase every day that goes by. Simple mathematics identifies apparent time and monetary savings if failures can be transformed into success stories.

Even though considering the increase in attention and research, CRM system implementations continue to fail. Numerous studies have been conducted to explain the attributes and determinants of implementation failures and target especially CRM implementation projects to determine what is called the Critical Success Factors (CSF) of CRM system implementation projects (Venkatesh, 2003; Freeman & Seddon, 2005). One success factor frequently, if not always, agreed upon amongst the researchers is adoption and the importance have been proven in research areas ranging from the wide area of technological innovation (Edmondson et al., 2001) to the more narrow information technology research (Venkatesh, 2003) and is also concluded in specific research targeting single CRM system implementations (Frygell, 2005). Edmondson et al. (2001) explains the adoption of technological innovation as;

Following an organizations decision to adopt a technology, users' perceptions & managers attitudes affect their willingness to use it, which affects implementation success. (Edmondson et al., 2001, p. 686)

To describe the adoption process within organizations and especially one mandated from higher authority, research, including Gallivan (2001) and Jaspersen (2005) refer to classical innovation adoption research by Zaltman, Duncan and Holbeck (1973). The adoption process is illustrated in two stages, primary (formal) and secondary (individual) adoption and has previously been labelled either two-step adoption process or two-step implementation process (Gallivan, 2001). However, in organizational level research models it is not user adoption per se that matters, but rather how extensively the innovation is used, namely organizational assimilation. Assimilation is defined to the process within organizations stretching from initial awareness of the innovation, to potentially, formal adoption and full-scale deployment (Fichman, 2000). The two concepts are actually interdependent in one process and full assimilation can only be achieved if both primary and secondary adoption has been reached beforehand (Gallivan, 2001). The first stage in the adoption process, primary adoption, is transferred to the early stages and the secondary adoption to the later stages of assimilation. The best-known model of technology implementation in IS literature, the six-stage implementation model by Zmud and fellow researchers (Kwon & Zmud, 1987; Cooper & Zmud, 1990) have been used to illustrate and explain both organizational adoption and assimilation (Gallivan, 2001). However, research about adoption and assimilation show so called assimilation gaps where a system is adopted but not assimilated (Gallivan 2001; Fichman, 2000; Fichman, 1992). Once again, the assumptions of individual autonomy in the traditional models propose more complex ones to reach accurate observations (Gallivan, 2001).

In the area of organizational adoption and assimilation, there continues to be far more research on the factors influencing technology adoption (the primary adoption) than on assimilation (Gallivan 2001). In other words, focus has been on the early stages of assimilation, which ends with the primary adoption decision, also called the formal adoption decision (Fichman, 2000).

Fichman (2000) emphasize that the;

...two part decision process mean that the latter stages of assimilation - from formal adoption to full institutionalization - become especially worthy of focused study. (Fichman, 2000, p. 22)

And is also precise in signifying a sought after focus, namely that the;

Two part decision process suggest ... focus attention on elements that have disproportionate influence on the latter stages of assimilation such as factors associated with the delivery system. (Fichman, 2000, p. 23)

The factors Fichman (2000) conclude as the delivery system, is nearly equivalent to the factors Gallivan (2001) enfold in what he names managerial interventions. The two constructs target almost the same phenomenon, where Fichman (2000) have a wider focus and in addition to the corresponding top management support, training and resources, he also add technology championship and links to propagating institutions.

Even though the assimilation is targeting the organizational level in the implementation process, the information is required to be collected from all levels of analysis or as Gallivan (2001) so eloquently puts it:

To create realistic models of actual innovation behaviour in organizations, we must take into account the implementation processes that follow adoption while capturing data from multiple perspectives – including the innovation's actual or intended users (secondary adopters). (Gallivan, 2001, p. 58)

The composition of the three quotes points to a target area currently overlooked in CRM system research. In order to fill this gap, and by doing so contributing to the actual and realistic model of the CRM system implementation process, the quest lies in capturing data empirically by investigating the actual and/or intended user, here on called the end users.

Theories on technological innovation adoption and assimilation as well as research illustrating the CRM system implementation process will be discussed and explained further in the following chapter together with the construct managerial interventions and found the theoretical framework for this research and thesis.

1.2. Research question

Against the background the research question is formulated as:
How are managerial interventions perceived by the end-users in the later stages of assimilation in a CRM system implementation?

1.3. Purpose

The purpose of this thesis is to contribute to the knowledge and understanding of the CRM system implementation process by highlighting and describing how the managerial interventions are perceived by the end users in the later stages of assimilation.

1.4. The empirical case

The empirical data collection of this thesis is performed as a case study at the call centre of the Swedish company Vattenfall AB, which has decided to implement a new CRM system as a part of a larger Enterprise Resource Planning (ERP) system.

1.5. Delimitations

This study is delimited to the later stages of the assimilation process and occurs after the implementation of the CRM system in a call centre context. The early stages in the assimilation process are not considered, nor are any other time aspect.

The research of Leonard-Barton and Deschamps (1988) is discussed and used in forming the theoretical framework of this thesis. However, their research revealed a connection between the two constructs managerial interventions and subjective norms, which put shortly, reason that the individual beliefs about peer expectations affect the perceptions of managerial actions. The connection is acknowledged as existent but disregarded in this research.

This study focuses on Vattenfall AB's call centre located in Nyköping. The call centre in Umeå is not regarded in the empirical research, nor is the current organizational structure or the implementation's impact on it. The organizational structure is so called black-boxed in this research.

2. Theoretical framework

This chapter present a theoretical background to our empirical study. Relevant theories within the research area are constituted into a theoretical framework used to answer the research question.

2.1. Customer Relationship Management System

With evolving and rapidly changing markets, many companies find themselves in a position where they need to make changes in their strategy to keep up in the battle for customers and quest for higher revenues. There are a number of ways a company can gain competitive advantage whereas developing and managing the relationship to ones customers is one of them, as Campbell (2003) explains:

Various researchers have extolled the potential of CRM as an opportunity for firms to achieve a competitive advantage by offering more value to customers. (Campbell, 2003, p. 375)

Then, what is CRM? CRM stands for Customer Relationship Management. According to Zablah et al, (2004) there is not always a consistent use of the term CRM and a large part of the CRM literature lacks a common conceptualization of what CRM is. In their research they try to reconcile the different perspectives that can be found in literature. Through a review of literature Zablah et al (2004) found 5 major perspectives on CRM. It has been conceptualized as a process, strategy, philosophy, capability and/or a technological tool.

The need to be customer focused has led to the use of information systems that support the company in the contact with the customer. Naturally, a company needs to know who their customers are and how to keep them. By using information about a customers' behaviour the company can gain an enhanced picture of the customers' need and therefore have the possibility to provide for that need. The customer get a positive experience from the company that treats him/her as an individual, which leads to the propensity of the customer staying loyal to the company (Avison et al., 2003). The investment of a CRM system is intended to return with the good use of the system and the benefits depend on how the system is used. Peppard (2000) argues that organizations have a narrow view of CRM and therefore actually not gain all the benefits from the system.

According to Freeman and Seddon (2004) CRM has a wider meaning than a technological tool, the software itself. There is more to it than implementing CRM software in an organization. In order to develop stronger relationship with customers in a company this kind of systems or processes are used to learn more about customers' needs and behaviours. They reason that it will not be reasonable knowledge for the benefits of implemented CRM software if the company doesn't have an understanding of business processes and customer strategy.

Thus CRM packaged software may be defined as packaged software that support an organisation's customer strategy and customer-focused business processes. (Freeman & Seddon, 2005, p. 3)

Well-analyzed customer data could provide good customer knowledge, which can be utilized for future marketing decisions. Knowing what service or product a company can sell to their customers is a way to increase the revenues. With high levels of customer satisfaction, research has found an associated level of loyal customers.

Many businesses today realize the importance of CRM and its potential to help them achieve and sustain a competitive edge. (Peppard, 2000, p.312)

The added value of improving customer relations rests at the core of CRM software solutions. Naturally, it is when being implemented and used that the possibility to gain advantage from the systems occurs. Freeman and Seddon's (2005) research identified benefits of CRM-systems. The study resulted in four categories of CRM-specific benefits from CRM-based work systems: improved customer-facing processes, improved management decisions, improved customer service and increased business growth.

Companies have turned to CRM systems in their willingness to manage their customer relationships and make profits. Billions of dollars have been spent on CRM systems that have been promoted as a profitable solution. Known manufacturing software companies like Siebel and SAP have increased their sales. There have been reported implementation project failures for these kinds of systems and therefore companies have not gained the promised benefits (Freeman & Seddon, 2005). The data available in the CRM system do not lead to customer knowledge if the users, the employees, do not know how to use it. (Campbell, 2003) Two of the biggest challenges implementing a CRM system are organizational issues and the ability to access all relevant information (Ernst & Young, 2001). Further on in this thesis the focus is on the technological tool namely the CRM software.

2.2. Theory on adoption and assimilation of IS

In information systems research, the different implementation project scenarios have been stated to depend on two variables; class of technology (complexity of the system) and locus of adoption (e.g. individual or organizational) (Fichman, 2000; Gallivan, 2001). Gallivan (2001) concludes that in previous adoption research, regardless what locus of adoption (in other words whether individual or organizational adoption) traditional and well-known user acceptance and adoption theories have been used to explain the adoption and acceptance of information systems. Furthermore, problems related to implementations of IT can in addition be studied according to a categorization in different levels of analysis that include e.g. the organization, work group and/or the individual (Martinko et al, 1996).

Within the IS field, Davis (1989) Technology Acceptance Model (TAM), which is one of the traditional models, seeks to explain the perceived usefulness and ease of use of information systems and in turn determine the attitude towards it. Consequently, the model explain the intention to use the IS and also predict the future actual usage.

TAM includes the very important assumption that the behaviour is volitional, which is to say voluntary or at the discretion of the user.
(Dishaw & Strong, 1999, p. 10)

Another traditional model in the IS field is Roger's (1983) Diffusion of Innovations (DOI), which is the study of how, why, and at what rate new innovations spread through society. An adopter's ability and willingness to adopt an innovation depend on their awareness, interest, evaluation, trial, and adoption. The innovation itself has certain characteristics; relative advantage, compatibility, complexity, trialability, and observability. Depending on how adopters perceive these characteristics, it determines the ultimate rate and pattern of adoption (Fichman, 2000). Fichman (2000) argues however that this classical diffusion model focuses primarily on simpler innovations being adopted by individuals autonomously.

The theories have proven their relevance and importance in numerous studies and are well-suited to a particular range of adoption scenarios and technology types. In no way is neither Gallivan (2001) nor this research trying to suppress the importance these models have had and still have in the field of IS research. Nonetheless, these traditional frameworks actually neglect the realities of technological innovation implementations within organizations (Gallivan, 2001). When applied to not suitable circumstances they may yield inconsistent results or even weak and inconclusive support (Gallivan, 2001). Such circumstances are for instance when adoption occurs within an organizational setting and where the actual use of the innovation is mandated from higher authority or when the

adoption requires extensive and specialized training (Gallivan, 2001) or to quote Fichman (2000);

It applies less well to more complex technologies, to technologies where adoption decisions are linked in some important way, and to technologies adopted in and by organizations. (Fichman, 2000, p. 3)

A CRM system is one of the above mentioned complex technologies adopted in and by organizations. The implementation process of a CRM system is hence one of the so called not suitable circumstances.

In organizations as a hierarchical environment, the higher authority takes the decision to invest in and implement a new system. The employees do not have the possibility to actually choose anything but to use the new system in order to perform their job tasks. There are no other alternatives. To better explain the mandated implementation process, Gallivan (2001) has created a complete framework combining different disciplines of both stage and process research in order to study and investigate organizational adoption and assimilation. In the following sections we will outline the importance of this framework for this research, especially focusing on the part containing assimilation and the affecting factors.

2.2.1. Gallivan's framework

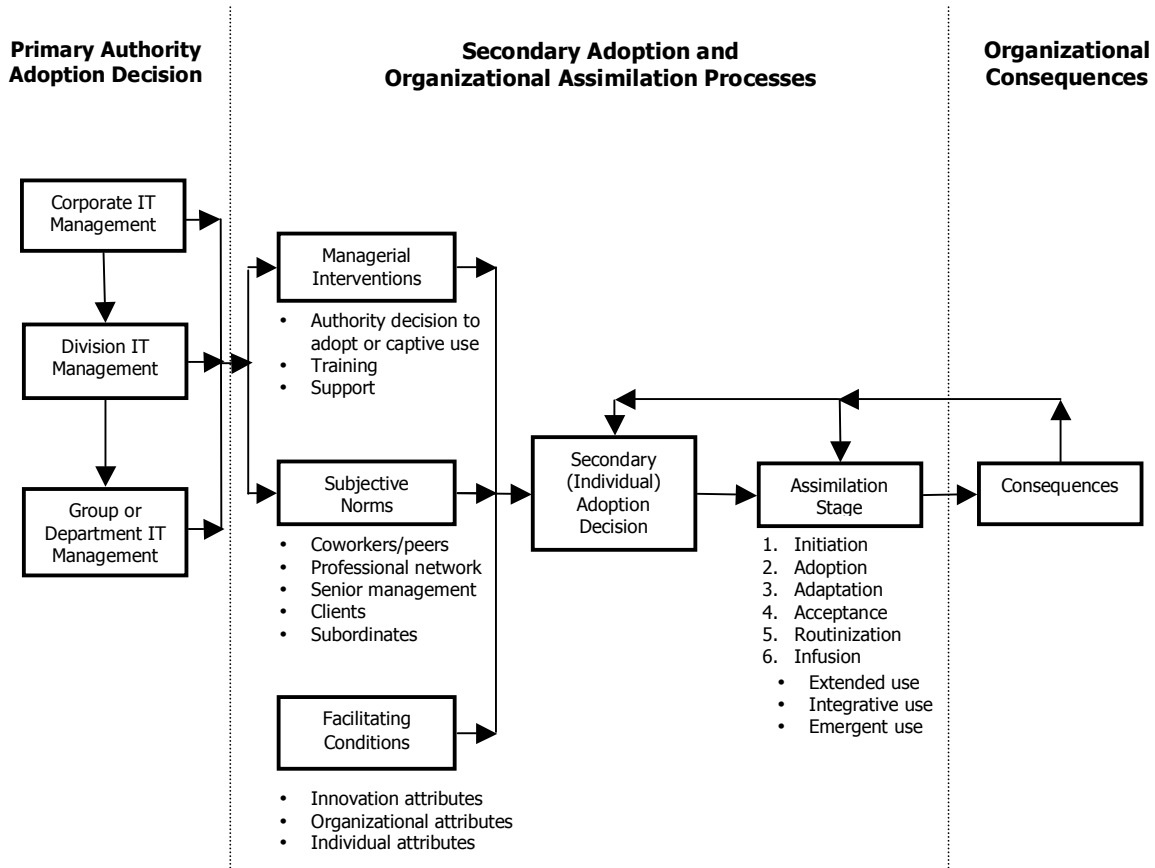


Figure 2:1 Gallivan's hybrid framework illustrating the organizational adoption and assimilation of complex technological innovations (Gallivan, 2001, p. 60)

Gallivan's (2001) hybrid framework combines aspects of adoption and organizational assimilation and is separated in three sections; primary adoption, secondary adoption/assimilation and consequences. The first step, primary- or formal adoption, must occur before secondary adoption can occur. The primary adoption decision is neither the focus of Gallivans framework nor this thesis since many researchers have already investigated the parameters, factors and circumstances of primary adoption (Galivan, 2001).

Secondary adoption, which is also called individual adoption, is determined by three constructs: managerial intervention, subjective norms and facilitating conditions. The process between secondary adoption and the assimilation within the adopting unit is iterative and so called multilevel. This means that the three factors mentioned influence all stages of the assimilation process. Depending on the degree of assimilation, the organizational consequences, which is the last step of Gallivan's framework, differs. This step is also included

in the iterative process where different results in the first two steps produce different organizational consequences (Gallivan, 2001).

From here on, focus will be on the part of the framework exploring assimilation and secondary adoption decision, which is the middle part in Gallivan's framework, Figure 2:1 above.

2.2.2. Assimilation model

Assimilation is defined by Fichman as;

the process within organizations stretching from initial awareness of an innovation, to potentially, formal adoption and full-scale deployment. (Fichman, 2000, p.1)

Gallivan shares the same view and narrows it down even further when determining the innovations degree of assimilation as;

how extensively the innovation is used and how deeply the firm's use of the technology alters processes, structures, and organizational culture. (Gallivan, 2001, p.59)

Associated with the categorization of levels of analysis (Martinko et al, 1996) explained earlier, the assimilation process takes place at the organizational level.

When illustrating the various stages of technology assimilation in his framework, Gallivan uses the six-stage implementation model proposed by Zmud and his fellow researchers (Kwon & Zmud, 1987; Cooper & Zmud, 1990). The model is the best-known implementation model in IS literature and is originally constructed from Lewin's (1952) three-step change model consisting of unfreezing, change and refreezing. Gallivan (2001) emphasizes the strength and usefulness of this process and stage research model for understanding the different stages of technology assimilation. Thus, the model does not only illustrate the implementation stages of an information system, as is the original intent, but also the assimilation process within the adopting organization (Gallivan, 2001). From this point and onward in this thesis, the implementation model described above will be named and referred to as the assimilation model in the same manner as Gallivan (2001).

A CRM system, as in focus of this research, is a technology adapted to an organization rather than a custom made system. According to Cooper and Zmud (1990) who refer to Pelz (1983), an implementation model based on sequential steps, as the six-step assimilation model, is appropriate for researching adapted technologies. Consequently, the assimilation model fits this research.

The six stages of the assimilation model as illustrated by Cooper and Zmud (1990) are:

Initiation

Process: Active and/or passive scanning of organizational problems/opportunities and IT solutions are undertaken. Pressure to change evolves from organizational need (pull), technological innovation (push), or both.

Product: A match is found between an innovation and its application in the organization.

Adoption

Process: Rational and political negotiations ensue to get organizational backing for implementation of the IT application.

Product: A decision is reached to invest resources to accommodate the implementation effort

Adaptation

Process: The IT application is developed, installed and maintained. Organizational procedures are revised and developed. Organizational members are trained in both the new procedures and in the IT application.

Product: The IT application is available for use in the organization.

Acceptance

Process: Organizational members are induced to commit to the innovation's usage

Product: The IT application is employed in organizational work.

Routinization

Process: Usage of the technology application is encouraged as a normal activity

Product: The organization's governance systems are adjusted to account for the IT application; the IT application is no longer perceived as something out of the ordinary

Infusion

Process: Increased organizational effectiveness is obtained by using the IT application in a more comprehensive and integrated manner to support higher level aspects of organizational work.

Product: The IT application is used within the organization to its fullest potential.

Figure 2:2 The six stage assimilation process (Cooper & Zmud, 1990, p. 124)

The six steps can and have been divided into early and later stages of assimilation. The early stages include initiation and adoption whilst the later stages range from adaptation to infusion (Gallivan, 2001). The borders between the different stages are however somewhat dissolved and might, depending in the implementation project, partly overlap (Cooper & Zmud, 1990).

As pointed out earlier in the introduction to this thesis, the first stage in the two stage adoption process, primary adoption, can be translated to the early stages of assimilation and the secondary adoption to the later stages. This relationship concludes that the factors influencing the later stages of assimilation are the same as the ones influencing the secondary adoption decision. Hence is the two stage adoption decision process, with focus on the secondary adoption and its influencing factors accounted for further in the following section.

2.2.3. Secondary adoption decision

As described earlier, Gallivan is influenced by the traditional innovation adoption by Zaltman, Duncan and Holbeck (1973) that examined innovation adoption within organizations. They found that an authority decision to adopt (primary adoption) followed by actual implementation that included individual adoption (secondary adoption). This process of contingent authority innovation adoption within organizations includes two stages where the second stage is contingent of the primary stage because the employees cannot adopt until formal adoption has occurred at the authority level (Gallivan, 2001).

According to Gallivan (2001) there are three constructs that lead to secondary adoption, managerial intervention, subjective norms and facilitating conditions. They are constructed from the Theory of Planned Behaviour by Ajzen, 1985; Taylor & Todd, 1995 (ibid, p.61). The three factors influence the individual employee's adoption of the system. Since the company mandate to adopt, as mentioned earlier, the employee is going to use it no matter what. Gallivan argues that when speaking of secondary adoption he refer to it as when and how the employee adopt the new system, which means:

through what experiences, with what obstacles encountered, and how these events influence organizational assimilation and outcomes
(Gallivan, 2001, p. 62)

Managerial intervention refers to;

the actions taken and resources made available by managers to expedite secondary adoption, including mandating usage.
(Gallivan, 2001, p. 61)

These actions include providing for training and support. In research managerial support is considered one of the critical success factors of an implementation. It is well known that supervisors influence how the employees perceive their jobs.

Attitudes of supervisors predicted the successful adoption of innovations. (Martinko et al, 1996, p. 316-317)

According to Fichman (2000) managerial interventions play an important role in the diffusion and assimilation of IT innovations. The recognition of the importance of managerial support have been evident in IS literature (Sharma et al., 2003) even though the influence of management is stronger in technical innovations than in administrative (Leonard-Barton & Deschamps, 1988).

Subjective norms refer to the individuals' beliefs about others' expectations regarding their own individual adoption behaviour. Examples of "others" are co workers, senior management, clients, subordinates, etc. Subjective norms;

...shape potential adopters' beliefs about when and why to adopt an innovation, how much effort to undertake on their own to learn it, or when to abandon the technology for an even-newer innovation.
(Gallivan, 2001, p. 61)

Facilitating conditions is a broad category of factors that can make implementation more- or less-likely to occur, which include specific attributes of the work task, organizational culture and environment and also of the specific technology (Gallivan, 2001).

A further clarification of the construct managerial interventions follows in the next section.

2.2.4. Managerial interventions

As explained in the previous chapter, the construct managerial interventions is defined by Gallivan (2001) as;

the actions taken and resources made available by managers to expedite secondary adoption, including mandating usage.
(Gallivan, 2001, p. 61)

In the article *The Diffusion and Assimilation of Information Technology Innovations* (2000), Fichman define the Innovation Delivery System as the means by which the implementation process is supported and managed for. This definition, as well as the similarity of the containing factors makes it evident that the two authors are actually defining the same, or at least extremely similar, construct, but using different names. Hence, Fichman's (2000) view on the defined factors fits the model and will be an important part of this research's theoretical framework. However, the innovation delivery system contains a factor called links to propagating institutions (Fichman, 2000), which does not concur to the construct managerial interventions. The factor propagating institutions is associated to the adopted technology and refers to the actions seeking to propagate the innovation through e.g. advertising and standardization of the innovation. The focus on the technology context is different from the managerial interventions which focus on the organizational context. The factor is therefore not included in this review.

The result from Gallivan's (2001) case study illustrates a number of defined themes correlated to what construct it relates to as well as what stage of assimilation it facilitates. Only themes connected to managerial interventions facilitating the later stages will be of further interest and discussed.

Messages of top management support

The first theme presented is what Gallivan (2001) defines as strong and clearly communicated messages of top management support for the innovation. This is without hesitation an important factor in IS research and has previously been subject for numerous studies, ranging from the implementation of a system to the success factors determining the use of a system. Leonard-Barton and Deschamps (1988) emphasize the effect an authority message has on the second and individual adoption decision by stating;

A message about the adoption of an innovation issued by an 'authority source' (Kochen and Deutsch 1980) generally alters the receiver's adoption decision process ... more than does a message issued by a person without authority. (Leonard-Barton et al.,1988, p.1253)

They also further claim the importance of the managerial messages by expressing that;

Providing access is not enough; they [the users] will await a managerial message. (Leonard-Barton & Deschamps, 1988, p.1262)

All in all, the importance has been determined in previous research (Cooper & Zmud, 1990; Leonard-Barton & Deschamps, 1988). Due to this proved importance, it is a matter of course that the theme is included in this theoretical framework.

Training

Another important theme and factor Gallivan (2001) puts forth within the construct of managerial interventions is training. Jaspersen et al (2005) studied post adoptive use of different IT-implementations and looked at the context of voluntary and mandatory use and conclude that;

Most explanations of ERP implementation failures are invariably traced to inadequate training. (Jaspersen et al, 2005, p. 526)

Robey Ross & Boudreau (2000) reports that before an end user can effectively use a new system, he/she must appreciate its implications for his/her work. In able to achieve this, formal training on the system itself must be provided and also in some case training on the new business processes.

Evidently, researchers share the view of training as an important part of the implementation process to overcome the assimilation barrier. Nonetheless, what Robey Ross & Boudreau (2000) concludes in the research of ERP implementations is that both successful as well as unsuccessful firms have provided training; it is the amount of training that differs. To summarize their findings, we quote;

Where they invested wisely in training and adopted an incremental approach to organizational change, they dealt more successfully with the assimilation of their ERP. (Robey Ross & Boudreau, 2000, p. 29)

Jaspersen et. al (2005) argue that organizations need more powerful tactics to give users confidence to expand their use of an installed IT-system and further claim that researchers often overlook post-adoptive interventions and the potential of its context and that;

Training and change management interventions are critical in the post-adoptive context. (Jaspersen et. al., p.526)

Resources

the distribution of interests and/or resources in a potential adopter population can be particularly important (Fichman, 2000, p.25)

The research founding the theoretical base all present the factor resources but no exact definition of what constitutes the term has been made (Gallivan, 2001; Fichman 2000). Hence, the same standpoint will be taken and the factor is undefined at the start of the investigation. It is not intended in any way to define the term resources or what is considered as resources, but rather in some way to bring a small piece of clarity to what resources the users find and perceive as important. Robey, Ross and Boudreau (2000) report that companies which have successfully implemented ERP systems have all set up core teams with responsibility for configuring the firm's new processes. Not only were these core teams existent during the implementation but also later turned into what they name "super users".

Technology championship

The last but not least part of Fichman's (2000) Innovations Delivery System is the fact of technology championship. The presence of a champion has been strongly linked to the success of technological innovations, but as Howell and Higgins (1990) conclude, the champion for an innovation can have one of many roles and can therefore be hard to identify. A champion can, amongst many others, have the role of a project champion, who distil creative ideas and promote them within the organization. He or she can also be a user champion, who implements the innovation by training and by providing assistance to the users or as a technical innovator who design and/or develop the innovation. The most common way in identifying a champion have been to simply ask individuals the simple question of if there is a champion or not regarding either the organization or the project (Howell and Higgins, 1990). According to Howell and Higgins (1990), this way of identifying the champions might be biased by the individuals seeking to credit themselves as being more influential than others.

Summarizing the themes and factors of managerial interventions form the following disposition.

Theme	Author (Year)
Messages of top management support	Gallivan (2001) Leonard-Barton & Deschamps (1988) Cooper & Zmud (1990) Fichman (2000)
Resources	Gallivan (2001) Fichman (2000) Robey Ross & Boudreau (2000)
Training	Gallivan (2001) Fichman (2000) Robey, Ross & Boudreau (2000) Jasperson (2005)
Technology championship	Fichman (2000) Howell and Higgins (1990)

Figure 2:3 Disposition of managerial interventions

3. Research method

In this chapter, we explain the research method of collecting and analysing the empirical data. Discussions research quality and ethical considerations continues and the chapter ends with a short description of the case.

3.1. Research strategy

Within the field of social science two different methodologies in how to conduct research is existent, qualitative and quantitative, which both aim to reach a better understanding of the society that surrounds us and also how individuals, groups and institutions act and influence each other (Yin, 2003; Miles & Huberman, 1994). This research is to be looked upon as a qualitative investigation and aim to reach a deeper understanding of the phenomenon being studied through the subjective experiences of the respondents. As a qualitative procedure this research is strongly connected to empirical results and from there derive statements inductively (Backman, 1998).

In order to answer the research question and to achieve the purpose stated in the first chapter, we decided on a case study as the best strategy. The case study is known and accepted as an important research strategy within the IS field (Cavaye, 1996) and the choice concur with Yin (2003) who argues that using a case study as research strategy has a distinct advantage when

a 'how' or 'why' question is being asked about a contemporary set of events, over which the investigator has little or no control. (Yin, 2003, p.9)

Another reason for the choice of strategy is that this research is trying to enlighten and understand a complex social phenomenon in a real life setting (Yin, 2003). By using a single case study as research strategy we are enabled to investigate this phenomenon in depth (Cavaye, 1996). Further on, we as researchers have very little control over events during the study and hence the risk of environmental manipulation is minimal. Yin (2003) states the case study as preferable when studying a contemporary environment, since the means of proof is reachable. The interest of this research lies in highlighting the current perceptions of end users as opposed to collecting historical data in retrospect, which reinforce the use of a case study. The final part of the data collection, the final interviews, is conducted three months subsequent to the Go Live date and is hence highly contemporary. It is also therefore of certainty that the later stages of assimilation in the CRM system implementation process studied have been reached.

We do not intend to assess any causal explanations of events or effects as an explanatory case study would (Yin, 2003) but as already stated, instead intend to illustrate and describe a current situation and phenomenon. In correspondence with research methods (Yin, 2003; Creswell 1998) we therefore argue this case study as being of descriptive nature.

3.2. Data collection

The most common technique of collecting qualitative data is by interviews (Bryman, 2002). It has a more open approach in comparison to quantitative methods since it aims to capture a deep understanding of a context (Kvale, 1997). We aim to ascertain the end users view and to get an understanding of their perceptions concerning the managerial interventions, and therefore chose interviews as the best instrument for collecting empirical data.

The less standardised and sequential process of qualitative research (Backman, 1998) rendered it possible for us to carry out interviews in two stages. The first stage is from here on called the pre-study, aimed to scope and create basic knowledge about the case and assisted in focusing the questions for the second stage. The second stage of the procedure, the final interviews, is where the emphasis of this research lies and also where the empirical data for the discussions is collected. The features of both stages will be explained in more detail later on in this chapter, but first the more general information concerning the data collection and instruments will be reviewed.

Both stages of interviews were conducted in a semi-structured manner which according to Kvale (1997) creates guidance for us as interviewers and at the same time the possibility of openness towards the interviewee. The openness gave us the freedom to follow up on interesting subjects that came up during the interview sessions. It also gave the respondents the freedom to talk more freely about related matters otherwise maybe overlooked (Kvale, 1997). The interviews were held in Swedish, which is the native tongue of both the interviewers and the interviewees.

Both Yin (2003) and Kvale (1997) proposes a number of skills and qualities of a researcher i.e. be a good listener, be adaptive/flexible, have a firm grasp of the issues being studied and be unbiased by preconceived notions. The intention of this is to not lead or manipulate the respondents to answer in a certain manner. During the interviews we therefore constantly considered and reminded ourselves of our own behaviour in order to address this risk.

The possibility to visit the call centre to perform the interviews at place instead of using long distance techniques i.e. phone or internet-based chat services gave us the benefits of instant visual feedback. If misunderstandings were noticed, we could directly ask the respondents altered follow up questions to ensure the

collection of correct data. Before an interview, it is of high importance to be clear with the main objectives of the research so the respondents feel safe and comfortable (Kvale, 1997). By informing our respondents about all this, namely the purpose, procedure and future use of the interviews as the first step, we strove to make the respondents feel comfortable and consequently more open and narrating.

When constructing the questions it was done in a way we found it least possible for the respondents to misunderstand. As Bryman (2002) proposes, when creating questions one should think of being in the position as a respondent and with the questions one should always try to capture the information concerning what is of interest in the study.

The questions used in the pre-study were concerning attributes of the case in a more general nature and constructed from a review of literature related to the research area. After further literature review and discussions between the researchers regarding the empirical data and, the targeted area of managerial interventions was chosen and the questions from the pre-study were revised.

As explained earlier, were the final interviews conducted in a semi structured way which allowed for written down themes specific of what we wanted to discuss. By constructing our interview themes as the themes of managerial interventions, namely messages of top management support, training, resources and technology championship, we gave each respondent the possibility to narrate about these matters in an open way. The questions used in the final interviews were thereafter constructed in relation to the theoretical framework. The interview guide used during the final interviews is attached to this thesis as appendix A.

3.2.1. Pre-study

The intention with the pre-study was, as already stated, to gain a better picture of the organizational context and the implementation project. Five minor interviews with different respondents were all performed on the same day April 19th 2006 and lasted from 22 minutes to 46 minutes. In order for us to focus on the conversation and also make retrospective use possible the interviews were recorded directly into a computer. The head manager of the call centre was contacted beforehand to give permission for performing interviews at the call centre. The selection of respondents was conducted somewhat randomly using the snowball selection technique (Bryman, 2002) due to workload and availability. We as researchers decided on the wanted role of the respondents, in total 2 team leaders and 3 persons working directly towards the customers, showing in Figure 3:1.

Respondent	Perspectives	Total Working Years
1	Team Leader	1 ½ years
2	Front Office	8 months
3	Front Office	2 ½ years
4	Team Leader	2 years
5	Front Office Key User	2 years

Figure 3:1 Disposition of the different respondents participating in the pre-study interviews

3.2.2. Final interviews

The final interviews were held after Go Live, more precisely on Aug 10th 2006, in order to ensure the correct timestamp according to the assimilation stage. The selection of interviewees was once again done using the so called snowball selection technique (Bryman, 2002). It does not produce a statistically approved selection, but as described earlier, the research is a single case study and not focused on statistical generalization or analysis. The method used therefore fits the study's purpose (Bryman, 2002). The six interviews were all conducted on the same day and ranged from 26 minutes to 41 minutes. These final interviews were also recorded directly to a computer for the same reason as the pre-study interviews. Once again, it helped us to focus on the conversation and also make the retrospective use of the possible.

Respondent	Perspectives	Total Working Years
1	Frontoffice	2 ½ years
2	First Aid	1 year
3	Frontoffice	1½ years
4	Frontoffice Key User	2 years
5	Frontoffice Key User	1 year
6	Hired consultant	½ year

Figure 3:2 Disposition of the different respondents participating in the final interviews

Figure 3:2 shows which roles and what perspective the respondents of the final interviews had and how many years they have been working at Vattenfall AB. Depending on the employee's tasks at the working place they might have different views on the system. First Aid refers to someone that has some more knowledge of the working area and gives the other employees in the same team limited support when they do not know how to act using the system. Key users are seen to be experts in the system and the employees could turn to them in questions about how to perform or complete a task in the new system. The First Aid respondent and the Key users have received more training than their co-workers. Front office means sitting in the first line answering the customer's calls and questions. In chapter 4, called Empirical Findings where the results of the interviews are presented, the respondents are referred to as R1, R2 ... R6.

3.3. Data analysis

After empirical data is gathered, the next step in any given research is to analyze it. However, as Yin (2003) conveys, the analysis of case study evidence is;

... one of the least developed and most difficult aspects of doing case studies. (Yin, 2003, p.109)

This assumes that a strategy of how to approach the evidence is needed. In order to make all the collected data contained in the final interviews easier to handle and analyse, transcriptions of all the recorded material were made and printed out. There are no standard answers in whether to transcribe an interview word for word or summarized (Kvale, 1997). We chose to produce the transcriptions word for word so nothing is lost in the process. Transcription is a very time consuming process and in order to avoid mistakes need counteractions (Bryman, 2002). To avoid the mistakes and ensure that the correct transcription was made, the researchers, namely us, transcribed three interviews each and when completed, the interviews were exchanged. Consequently, each researcher listened through the interview recordings whilst simultaneously reading the transcription and correcting errors, if any. By performing this procedure, having two persons listening to and interpreting all interviews we lower the amount of errors.

There are different techniques to analyze qualitative data; meaning condensation, meaning categorization, and narrative structure to mention a few. In this research we have focus on meaning condensation which means that long statements are coded into central themes (Kvale, 1997). By using meaning condensation we keep the significance of the reply, yet reduce the material for analysis. Since the interviews were held in Swedish, so are the transcriptions and also the analysis. However, when presenting quotes in this thesis we have used the so called natural unit and translated the parts into English. An example of how the meaning condensation was conducted is illustrated in Figure 3:3 below.

Naturlig enhet	Centralt tema (R) = respondent
<p>Jag tror inte de förstår hur mycket merarbete det är för fotfolket kanske, samtidigt som vi hade mycket problem då så att de vet inte hur mycket skit vi får...och systemet är inte förberett, jag vet inte vad jag skulle kunna ge för exempel...äh...men som kunder som lämnar mätarställningar, det är ju väldigt många som gör...eh, varje månad och då gör de det via webben, men helt plötsligt så kan kunder som är kund hos oss, men inte ha nätavgiften hos oss, de som bara har det liksom genom elavtal hos oss, kan inte lämna mätarställningar på ungefär en och en halv månad eller nåt, två månader... kan de inte lämna på internet och det gör ju att det blir väldigt arga och ringer och det är långa köer och det blir ännu längre köer och så är de arga och skäller väldigt mycket, de får ju inte ta den biten hela tiden och ta det från kunderna. De förstår att det är illa, men de förstår inte hur mycket en sån sak betyder för kunden. De förstår inte, de har inte den förståelse att, de tror att man kan ändra något i systemet såhär bara, eller att såhär kommer det bli, och då skall vi säga till kunderna att såhär är det, men kunderna köper ju inte det...ehh...många kunder kan ha så mycket individuella krav, och jag menar varje kund är ju en individ liksom, det ser inte de på samma sätt utan de ser ju mer helheten, visst några kommer bli missnöjda tänker de så kör de bara liksom, det är väl problemet.</p>	<p>(R) tycker ledningen är oförstående för de anställdas situation</p> <p>Om funktion inte funkar -> arga kunder -> långa köer</p> <p>(R) tycker inte ledningen ser att det är mycket viktig för kunden att det funkar</p> <p>(R) tycker ledningen missar individualiteten hos kunderna, utan ser dem som helhet</p>

Figure 3:3 Example of how meaning condensation have been conducted

In the data analysis, we have further coded the collected data of the four major themes into sub-themes. These helped in structuring the data and increased the overview of the empirical findings. The sub-themes are displayed in Figure 3:4 below

Theme	Sub-theme
Messages of management support	Perception of top management's opinion towards the new system
Training	Communication from top management
	Missing or needed information
	Difference in need of information
	Structure of training
	Opinions about training
Resources	Responsibility of training
	Training-System coherence
	Enough training
	Resources put in
Technology championship	Time
	Importance of resources
	Technology champion
	Influence

Figure 3:4 Sub-themes apparent in the empirical findings

3.4. Scientific quality

There are different ways of judging the quality of a case study. According to Maxwell the different test strategies should not only verify the conclusions but also test the plausibility and see if there are any existing threats to the conclusions in the report (Maxwell, 2004). Two of the test strategies are validity and reliability.

Validity means that the study investigates what is intended to investigate and contains three aspects; construct, internal and external validity. Internal validity is not applicable for descriptive case studies (Yin, 2003) and therefore overlooked. Regarding the construct and external validity, they both refer to kinds of generalizability (Yin, 2003).

Case research findings are often argued not statistically generalizable to a larger population (Yin, 2003; Cavaye, 1996). However, that is generally not the intention and purpose of qualitative research (Andersen, 1998) neither this research. Instead, we intend to describe and enlighten a situation, where the research problem is a part and from there generalize the results to similar cases. This corresponds with both Yin (2003) and Cavaye (1996) who argues that case studies rely on analytical (Yin, 2003)/theoretical (Cavaye, 1996) generalization, not on statistical generalization.

To strengthen the validity of case research, both Yin (2003) and Bryman (2002) acknowledge four types of triangulation of which one is called investigator triangulation. We have aimed to employ the ideas of this triangulation by analysing the material one by one, one part at a time, and then discuss the results. Instead of just combining the conclusions, which is not triangulation

(Yin, 2003), we have striven to creating connections between the different researchers' conclusions.

Reliability is easy put, if other or the same researchers follow the procedure of the study once again and by doing so end up with the same result. No matter how many times the case study is repeated, the same conclusions are to be drawn. Critics express that case studies often have been poorly documented and therefore hard to repeat (Yin, 2003). To minimize the errors, researchers also need to minimize the bias effect. We have taken two measures in increasing the reliability of this case study. The first measure by documenting the procedures during the research and the second measure as explained earlier, by performing tasks separately, i.e. the transcription and analysis of the empirical data, and then unite the results of each into one.

3.5. Ethical considerations

When performing interviews, Kvale (1997) describes certain ethical factors, needed to be considered. There are of natural causes no explicit rules or solutions how to handle the ethical problems that may arise during research and all researchers need to figure out there own stance (Kvale, 1997). Our opinion is that we as researchers need to reflect on how both the interviews and the resulting thesis might affect the participating respondents in the investigated environment

In this research we have informed the respondents about the purpose of the interviews and our research. We, as researchers, value the comfort in the respondents and that their situation after participating in this research is unaffected. We have therefore decided to take partial means of confidentiality, trying to keep the respondents' identities hidden. This means that we limit the publishing of private data and therefore also have decided to exclude the interview transcriptions of this thesis making it troublesome for readers trying to identify the respondents.

As Kvale (1997) recommends, we have assessed the risks of breaking our promise and found it more beneficiary not to.

3.6. The case

The case investigated in this research is the Swedish company called Vattenfall AB which fully owned and run by the Swedish government and have over 32.000 employees. Vattenfall AB is the fourth largest producer of electricity in Europe and is active in all stages of the value chain including production, transmission, distribution and sale.

Vattenfall AB's decision to implement a new CRM system is part of a larger ERP system implementation. The reasons for the implementation include future support for reorganisations and changes in the economy but also to decrease the gap between front- and back-office. The CRM system implemented in their two call centres located in Nyköping and Umeå, is intended to replace 43 of the 46 existing different systems.

The implementation of the CRM system at Vattenfall AB is chosen as the case of this research due to a number of reasons. First, the implementation affects a total of 300 end users, where about 115 of these are situated in Nyköping. The amount of future end users constitutes the implementation process as mandated from higher authority, which target the interest in capturing the end user perspective. The second reason is the current timeframe of the CRM system implementation and the contemporary events it conveys. The choice of this implementation creates the intended and sought after context which contributes to the knowledge in the CRM system implementation area.

4. Empirical findings

This chapter presents the empirical findings from the final interviews in a descriptive way as the respondents answers are rather summarized into statements and enforced through quotations.

4.1. Messages of top management support

Perception of top management's opinion towards the new system

When the respondents were asked about the top management's opinion and whether they support the new system or not, all of them answered that the top management had a positive attitude towards the new system and support it to 100 per cent. As two of the respondents answered;

They have been from the beginning...it is supposed to be good and so much better when this new system started, so the top management are pretty positive towards the system. (R6, p. 3)

and;

Yes, to 100 per cent. (R5, p. 2)

Despite the acknowledged support, the respondents also reported the top management not well informed about how the system really worked and that;

They have been here on meetings to listen to what we have to say but that's all to it ...it sounds good what they say but if you turn to reality it does not really work that way. (R1, p. 3)

One of the respondents was given the task to demonstrate the new system to the top management. This is stated as the first time the system was presented to them and took place a couple of weeks before the planned GoLive date. The event was expressed as surprising (R4) and the fact that it was the first time was;

rather comical considering they are the ones committing to it. (R1, p. 12)

When asked about whether the top management's opinion had changed during the project all but two responded as not actually knowing, and as one respondent answered:

Sometimes it happens that people from the top management show up and are present in our team meetings...but it is still hard to get a picture of what they really think. (R6, p 3)

The two respondents who declared a change in the opinion thought that the top management change was similar to the change of the end users' opinions, but not as extensive;

They probably thought some parts [of the project] would be easier (R4, p 3)

and that they have become more aware of the faults in the system.

They still support it, the system, but are probably more aware of the defects... but at the same time they support it whole-heartedly, most people do actually. (R2, p 7)

R1 added that there were many things not working in the system and that the responsibilities in the organization should be much clearer. Another respondent thought that the top management understood that parts of the system had not worked that well but that they did not understand the whole picture and how much "crap" the employees get from the customers (R2). Despite the key users meetings with the top management, when the respondents got to forward standpoints and problems, the respondent wished that the top management had taken time to sit and listen during conversations with customers so they could realize how much it meant and how it affected the relationship to the customers when parts of the system were working improperly (R2). Another respondent believed that the top management was making the system look better than it really was but that they still have to support it (R5).

Communication from top management

The primary tool of communication used by top management is reported as email, but according to two of the respondents, there were a large amount of emails being sent (R1; R2). The routines of sending emails are reported to have changed during the project. Now, the team leaders send an email every morning in the form of a PowerPoint presentation with 4-5 pages containing important information (R2; R3). In addition the respondents report that when important information comes up, they are told to read their emails or the information on the project website (R2). This project website is mentioned as a source of information by four of the six respondents.

The employees have also received information through different meetings, some of them including members of the top management, which was reported as a demand from the employees;

So we know what they are doing and who they are. (R1, p 5)

Each of the respondents takes part in team meetings in which the team leaders go through the most important information. The team leaders also collect information and viewpoints and forward these higher up in the hierarchy. Customers have received information regarding the project even before the respondents have (R1). The respondents also emphasized that they need to be the first ones to know about changes.

Somewhere it goes wrong, it is kind of like when the top manager is on TV and announces things we are not informed about (R1, p 5)

Only one of the respondents, working as a key user, answered that she had gotten the information directly from the top management either through personal meetings or by phone (R4).

Most of the respondents received some kind of information about expected consequences with the new system being implemented. The key users got information all the time. R3 got to know about the expected consequences before the employment began:

They said there was going to be many working hours, not easy...they said that it would be heavy, so I was aware of that. (R3, p. 5)

Some of the respondents felt they did not get any direct information about expected consequences:

We got information in the beginning but not that much...but nothing about, about prognosis like the next couple of weeks are going to be really heavy. (R6, p. 4)

Missing or needed information

Most respondents answered that they were not missing any information. The respondent working as First Aid had more time to gather information and check the changed routines. The respondent answered that everyone should be able to use the information if there only were more time (R2).

One respondent told that information about work routines was constantly missing since the routines they were supposed to follow were wrong and not updated (R1). R3 thought that if they missed out on any information they could always ask the key users. One of the key user respondents replied that since working as a key user one had gotten more information but it was also due to the fact that the job as a Key user required it (R4). Two of the respondents wanted to have more clear directives. One of them thought that if there were rumours circulating, the top management could tell them how things really were as well (R5).

Difference in need of information

Half of the respondents did not see that there was any difference in the way the managers perceived the need for information and the respondent's way of perceiving it. The other half of the respondents thought there was a gap and one of them expressed that she wanted to know as much as the top management (R5). Another respondent wanted to have more information about the organization e.g. where they are heading and so on and not solely information about the system (R3). Furthermore one respondent thought that the managers did not realize how many mails they actually received and that the employees did not have the time to read them all through thoroughly (R1).

I think they believe that it works fine by mailing. (R1, p. 7)

One respondent thought that the information they were getting was good and the explanation for that was that people had begun to realize that the system was not waterproof. In the beginning people thought that it would be great with a new system and that everything would be much easier and function better. But when working in the new system they discovered errors which made them open their eyes (R2). They had found out that there were faults in the new system and that created a need of new information. This way they learned to solve the errors faster:

we are prepared...tomorrow maybe the system is not working. (R2, p. 8)

4.2. Training

Structure of training

All respondents had different encounters towards the training. In general, everyone attended an introduction course for about a week. However, due to several postponements of the projects Go Live date combined with the amount of time the respondents have been employed, the introduction courses had been spread out during the implementation and some respondents have gotten refresher courses. In addition, all respondents replied getting training in a test environment set up to educate the user in the real SAP system called E-learning. In the E-learning software, the users were told to complete exercises on their own.

For R1, the respondent employed the longest, the training started 18 months ago, the time of the first Go-live date, but by then the system was not completed and the exercises only targeted small parts. After the postponement, the users had one or two days of training to refresh their memories. The second postponement of the Go Live date was six months, which meant additional days to refresh their training. The end users had also been training in the e-learning but the flaws had been the system, which was not complete at the time they got their training. The person responsible for training the employees had done it well but that did not help R1 since the system did not

work properly. When the company finally implemented the entire system for use, the respondent still felt like a beginner even though the person had some kind of sense of the system.

The respondent R2's first introduction course was terminated due to postponement of the Go Live date. Instead he received the proper introduction course on a later occasion, two months before the actual Go Live, so in total it spanned over a week and a half.

I was supposed to attend one last fall, but it was cancelled in the middle of it, because they figured out that they would postpone the system change so I only attended half the education. (R2, p. 8)

Beside the basic training, R2 went on a special course, Info Com, which covered telephone and mobile phones.

According to R2 one did not learn from E-learning since the user did not receive any feedback from making errors in the test-system and explains it as;

One was supposed to sit with it for half an hour or one hour a week and so on. (R2, p. 8)

R3 had a course within the telephone area, for four weeks excluding the (one week) introduction course and e-learning. Further the respondent had a course for future and planned parts of the systems.

R4 is a key user and first went on a two week course but totally it ended up being four weeks. The reason was that the Go Live was postponed several times and that they had to go through the same course and repeat it.

Everything was so unsure all the time, you had a lot to concentrate on. (R4, p. 5)

As the respondent narrated, it made her feel that she might not have put her entire soul into the education since the situation with whether going live or not was so unsure all the time though the respondent thought that the education was good. Besides going on the special course, Info Com, the respondent since being a key user also went on an expert course, special training at Info Com. Before they went live with the new system the key users got more time to sit by themselves and train in the system compared to the other employees.

Respondent R5 is also a key user and had two weeks of training and e-learning. R6 had one week of training but expressed that he got it late, only some month before they went Live. He as well as the other respondents used the e-learning environment but explained that it was hard to find time for their individual exercises:

You were supposed to dispose one hour per week or something like that for self training, but at that time the phones were ringing constantly so by then it was pulled back. (R6, p. 4)

The respondent R2, who have been present since the beginning of the project period told that the employees who had worked there for a long time were critical to the Go Live date due to the several postponements. Instead, a number of employees felt unprepared when it really happened (R2).

Opinions about training

Most of the respondents thought the education was a good thing. R1 told that if everything in the new SAP system works, then the education is good but also expressed a need for more time on your own for the exercises and a longer education, this due to the pressure from the phone calls and the go-live date being postponed several times.

R2 thought that some parts were boring especially since the employees work within different tasks and areas.

I have to sit and waste an entire education on sitting and learning something that I will not work with...I thought that was a waste of time and that makes you become less ambitious in a course like that.
(R2, p. 10)

R5 was critical towards the education on becoming a key user. It was not properly done. R6 saw benefits with learning to use SAP since there are many other companies using the system. It was considered a good qualification to have knowledge in SAP and to be able to handle their working tasks at Vattenfall they have to learn it.

Responsibility of training

The majority of the respondents thought that both the company and the employees share the responsibility for the education. R2 replied

You have an obligation to learn, you learn things all the time while working here, but education is great in the way that the company does not have to look at it as a cost to give an education but you can see it as something they get back. (R2, p. 12)

R6 thought that it was partly his own responsibility to acknowledge that he did not have enough knowledge within areas and to tell the supervisor so that he as an employee could receive more training if found necessary.

Two of the respondents thought it was the company that had the responsibility for the training.

Training-System coherence

Half of the respondents thought the system was pretty accurate, but the other half expressed that parts of the education were different. R6 replied:

It is also a bit difficult to remember what you learned from your training and what you have learned in the mean time. But otherwise it corresponds pretty well. (R6, p. 5)

R4 added that since they were not working with the same tasks the respondent felt that it was unnecessary to learn about exactly everything.

According to Respondent 1 the system was not complete when they went live with the new system. The training is expressed as it gave a picture of how SAP worked, how large the system is and how many things one could do in it. Since there have been a lot of changes during the learning period the respondent thinks that it is important that the routines are constantly updated. R5 replied that it did not cohere that well because there were many things that was said to work in a certain way but unfortunately did not work in the training environment.

Enough training

When it comes to questions targeting whether the respondents felt educated enough only one respondent answered that he was well prepared (R2). One respondent expressed that there was way too much to learn and felt not enough educated (R1). The reason for this was that the time to play around with the system during their training had been insufficient. R3 did not think he would ever be educated enough. The respondent felt that it was impossible for him to know everything that he should know but thought he could handle the situation at the moment (R3).

One respondent thought that in a way the training was enough but on the other hand they kept learning new things all the time (R4). However, the respondent did not explain that she was missing something from the training. R5 did not feel enough educated and wanted to learn more about everything, especially since the respondent was working as a key user and many questions arose that she had no clue about. R6 did not feel fully educated for doing everything.

I would believe there is no one that can, who feel they are enough trained at the time being (R6, p. 6)

And also added that it is mostly special cases that you are not trained in and for that they have the key users who help them to solve these issues.

4.3. Resources

Resources put in

When asked about which resources the management had put in, the majority of the respondents answered key users. Other resources they mentioned were

education, e-learning and First Aid. R4 added that the key users also had gotten extra time but:

...then you had to take, as a key user when we went there, a lot of initiative...you had to study on your own and maybe grab hold of people who knew better and ask them if they could not show and stuff. (R4, p. 8)

Other resources the majority of the respondents mentioned were First Aid, whom they should turn to if they needed any help with the system and hired consultants. According to R1 there were about three teams with fifteen people in each that were hired from a firm of consultant's right before the Go Live. R6 did not think there were other specific resources for the project since all the other resources had been there all the time at the beginning of the system implementation but mentioned in a proceeding question that there had been consultants hired for the project.

Half of the respondents thought that the resources were enough. The rest of them replied that was not the case. R5 answered:

it would not hurt if we had more of [First Aid and consultants] (R5, p.7)

Respondent R4 also narrated the top managements' efforts in putting more resources in i.e. creating more key users, and hiring more consultants. Although she also added that they did this after the problems arose.

R2 thought that even if the company had done things to decrease the workload and to make things better it was not enough. Still the same respondent believed that the top management had done a pretty good job.

It has to take the time it takes and it has to be the problems it gets because you have to learn things, it has to be hard work...they [the management] have taken actions, with the answers at hand maybe that was not enough, but that is not something that I demand from them either. (R2, p. 11)

Time

Some of the respondents thought that they had got enough time. R3 thought that there were time in the beginning but it was rather intense.

you would imagine that they would have thought about that a little earlier, that there would be a bigger need for key users so you did not have only one month to study the system like crazy, on such a short time. (R4, p. 10)

Other respondents thought that there was not enough time. R6 felt that the time was insufficient in the beginning but now since he knew it pretty well it felt sufficient.

One week of education and every second week of training in e-learning. During the education you did not feel like you learned something not until you started to work with it..I guess, it takes both education and working in it practically to learn it. (R6, p. 7)

When comparing the ability to create time for education with the ordinary users and the key users, R4 answered that there had not been enough time for the ordinary users since it had taken so long between educations and the Go Live-date had been postponed so many times.

Importance of resources

Most of the respondents thought that the most important resource for them was the key users. One respondent replied:

The most useful resource is the employees that help one another when there is a problem. (R1, p. 10)

Another respondent thought that the fact they could get routines about most things they did was the most important resource.

4.4. Technology championship

Technology champion

Four out of six respondents mentioned Niklas, Emanuel and Henrik as driving forces at work. Niklas and Henrik are key users and Emanuel is team leader of the key users. The respondents reported them as having knowledge and interest in the system. R4 did not think there was any special person since no one knew everything. R4 explained that some employees had good knowledge in a certain area but then they did not have a clue of other areas. R5 did not experience it like there was a driving force. According to R1 some employees that started to work at EON [a business competitor to Vattenfall AB] before the project started, was one of those that promoted the SAP to be very good.

Half of the respondents further replied that there were persons that had a driving act in the implementation during the project but only two of the respondents mentioned names (R3, R4). R4 also added that the respondent herself, since the person became a key user, could be seen as a driver for the use of the system. R6 did not know but later acknowledged the key users

they seem to enjoy to help out and teach about the system so that you know it; they seem to like it very much to give us training. (R6, p.8)

Influence

Most respondents reported being influenced in some way by the persons that had a driving act in the implementation. R1 felt that they had put pressure on them e.g. when R1 started to give up on the new system then Niklas had been there to encourage her. R2 replied with both yes and no and explained that it is good if they are impartial:

The worst thing is almost when people say that it is a terrific system when you know that it is not so, it becomes so transparent, it is like propaganda. (R2, p. 13)

R2 further explained that the propaganda came from people who did not work in the system i.e. team leaders and top management who say the situation will get better and easier:

but they do not know how it is if they do not work in it, what can go wrong. I feel a little like that but that picture is not accurate maybe, since we do believe it is going to be better. (R2, p. 13)

Half of the respondents told that if educators thought the system was really bad then it would have an affect on them (R1,R3,R6). R3 added that these persons might not feel as motivated as before and thought it might be because they got tired of it in the long run. R6 saw himself as a possible influence for their co-workers:

Many in my team were very negative towards a change but I think I might have affected some to become more positive. (R6, p. 9)

R4 believed that the driving forces had been an influence since they had inspected how much the employees had learned in the system and if there was something that the employees needed. R4 did not believe that she was an influence to others but tried to be positive when meeting people that had complained about the system. R5 did not feel any influence rather that if you discussed the system then you should have the possibility to say what is on your mind.

5. Discussions

This chapter focus on discussions of the empirical findings from the performed interviews. The discussions are presented in four subchapters representing the themes in the theoretical framework.

5.1. Messages of top management support

As constituted earlier in the theoretical framework, the first of the themes affecting the later stages of the assimilation process is defined by Gallivan (2001) as clearly communicated messages of top management support and the effect by Leonard-Barton and Deschamps (1988) as:

A message about the adoption of an innovation issued by an 'authority source' (Kochen and Deutsch 1980) generally alters the receiver's adoption decision process ... more than does a message issued by a person without authority. (Leonard-Barton et al., 1988, p.1252)

The empirical findings show that all respondents in this study answer that they perceived the top management as 100 per cent supportive and also very positive to the new system. However, when further analyzed, an uncertainty of in what way the top management support was expressed is evident. The strength and clarity of the messages is questioned as four out of six respondents did not know if the management's opinion had changed during the process. One respondent expressed it as:

it is still hard to get a picture of what they [management] really think. (R6, p 3)

This indication of the end users not really knowing the current opinion amongst the top management steer us in the direction of the use of communication channels. When the discussion targets the channels used to spread information about the implementation and hence also messages of their support it gets more factual. The common standard of communication in companies today is email and the case company is of no difference. This makes us interested in how the end users perceived the ways of communication. Due to the fact that the environment had changed and the respondents experienced not having time to go through all the emails, it made some of the respondents more prone to criticize the information channel.

I think they believe that it works fine by mailing. (R1, p.7)

Despite the different channels of communication used, the customers had found out about changes before the end users. When the information about flaws in the system reaches the customers before it reaches the end users, as respondents reported, we interpreted a feeling of the top management neglecting to inform them. This in turn might create an “us” and “them”-feeling. An example of this is when one respondent felt that the management was exaggerating the systems performance and capabilities (R5). The question if the end user perceives the information from the management as reliable is therefore tangible.

The worst thing is almost when people say that it is a terrific system when you know that it is not so, it becomes so transparent, it is like propaganda. (R2, p. 13)

One can not help wonder if the information the end users receive is of current interest. Half of the respondents had perceived it as if there were a gap between the need for information perceived by the top management and them. The other half did not perceive any difference in need. What is their view on this? The different views might depend on what role the end users have. The information was more available to the key users as their role required them to have more knowledge about the system to be able to support the front office staff. When analyzing and comparing the key users’ answers it stands out that they had perceived the need differently so the assumptions of the roles unifying their perception can not be determined. One theory might therefore concern the amount of time employed. The key user employed for the longest time had not felt there was a gap whilst the other key user in the research had done so.

The results of the case study expose partial dissatisfaction about the messages received from top management, which might give a hint of the respondents’ opinion about the promises made regarding the system feeling empty (R1). Four of the respondents had received some kind of information about the expected consequences with the new system being implemented still the respondents have not really felt prepared. This sceptic perception from the end users regarded the stressful environment that developed when the new system showed faults and did not function properly when using it. It lacked functionalities that in turn delayed work. The information had targeted the change in the working environment and not what part of the system was dysfunctional since not even the management had a clue about that. Some of the respondents seemed sceptic if the top management fully understood how the new system had affected the end users after Go Live.

They have been here on meetings to listen to what we have to say but that’s all to it ...it sounds good what they say but if you turn to reality it does not really work that way. (R1, p 3)

The information from the top management about supporting and favouring the new system builds expectations amongst the end users. Top management’s

commitment to implementing the new system affects the employees' view of it. Hence, we can discern that the messages of top management support is not perceived by the end users as strong and clear as emphasized important in the theoretical framework.

5.2. Training

It has been stated before, and evidently, training is a main strategy in IS and CRM implementations and gives the employees a preview about what is to come and to prepare them for the new system. In the theoretical framework of this thesis, the highlighted references Jaspersen et al (2005) and Robey, Ross & Boudreau (2000) provide explanations of failures as either inadequate training or the amount of it as the difference between a successful or not successful implementation.

The empirical findings show that the employees were educated through both an introduction course and a self-educating environment called e-learning. All respondents got this basic training and the ones working as key users or First Aid were extra educated through special courses. It is evident that a separation into introduction course and e-learning needs to be done in order to discuss them further due to the difference in influence.

What's very compelling about the training in general is that five out of the six respondents did not feel educated enough at the time of Go Live and as one respondent expresses:

I have much much much much more to learn (R1, p. 8)

Regarding the introduction course none of the respondents claimed explicitly dissatisfaction about neither the amount nor the quality of the training they received. Instead, the respondents expressed a satisfaction with the actual training, but are somewhat also split up in two camps, the first reporting that the training coheres with how the system works today and the second camp that it differs. This might occur due to many reasons, one possibility brought up, that the system was far from ready when the training took place. An interesting thing though about the two camps is that concerning the end users' work roles they are evenly split up, each consisting of one key user and two front office staff. Some respondents reported dissatisfaction about the introduction course when educated in procedures and areas they don't actually work in, which were expressed as a waste of time. This over-education was probably not intended from higher authority to be a negative matter for the users, but seem to have that effect after all.

When instead targeting the e-learning course the respondents view is different. Not only did the respondents experience a lack of time due to the increase in workload on the regular day-to-day work with the phones ringing constantly,

but also the lack of quality of the e-learning system. In the system, there were no possibilities for trial and error learning, very much missed by the respondents and the e-learning system was very simple compared to the real system implemented. Therefore, the end users felt under stimulated and have a different view on the e-learning than on the introduction course.

Overall, the end users seem to somewhat neglect the training and especially the e-learning. To exactly state why this is the situation is a thesis of its own, an explanatory to be more exact, but findings in this research depict that the end users view of training changed with the many postponements in the project. The question is if there were no postponements, would the end users have a different view of the training? Most certainly but not more positive than they are now. Since the system showed flaws after the postponements it most certainly would have been even more if the Go Live would have been earlier. Then the training might not have been adequate either and the stressful environment would have been even more stressful with more customers complaining. Another cause to the end users neglecting the training was they being educated in all parts of the system even though they were not going to work in those areas and that the e-learning lacked a completeness of the later installed system.

One respondent (R2) have experienced all the changes of the Go Live date and explains the phenomenon as the employees were critical to when and if the Go Live date would stand and therefore a number of employees felt unprepared when it really happened. Not only due to the change of date, but also due to all the changes in both the system and the procedures. The same respondent might target the accurate view as he expresses the situation with the words;

You shouldn't put too much energy into training beforehand (R2, p. 10)

5.3. Resources

Once again, different researchers have extolled a factor as important for an implementation to succeed. According to Gallivan (2001) Fichman (2000) and Robey, Ross & Boudreau (2000), high level of resources is one of these factors and should be available in an implementation.

the distribution of interests and/or resources in a potential adopter population can be particularly important (Fichman, 2000, p.25)

The most important resource for the end users was not time as one might think, but actually the Key users and is appreciated by all respondents. The Key users help out with the different problems that arise with the new system. The employees have different knowledge and when the system doesn't work and time to read the information is non existent, it is very much appreciated by the

end users to be able to ask someone that knows the specific area. All in all, the end users view of the key users fit what Robey, Ross & Boudreau's (2000) define and constitutes as an important resource for the end users.

A resource predicted to have greater impact on the end users is time. But why have it gotten a smaller part of the apprehension of importance during the implementation. The simple answer in this case is probably the most correct one and it has been stated numerous times in the empirical findings. The end users highlight their stressful work situation and that they did not even have enough time perform their tasks and duties. It is therefore very natural that time is not looked upon as a resource in the project but as something clearly missing. However, in some cases, namely the education of the key users, time has been considered as an important resource and provided to the extent needed, which is narrated by the key users in this research.

In general, once again, the respondents are split into two camps, half of which thought the resources provided by the top management were enough and the other half did not. However, what is important to put forth is the view of the top management and that they have provided enough resources but always too late. The answers may depend on the individual's workload or it might as well mean that enough resources were provided and nothing the end users actually thought about before the interviews. The conclusion from the end users is that they perceive the handling of resources from top management as repetitive mistakes. They should have learnt from earlier mistakes and not make them numerous times as they have.

5.4. Technology championship

According to Howell and Higgins (1990) studies have found a link between the presence of a champion and innovation success. Have the end users perceived such a person and have the person had an effect on the employees? The empirical data show that most of the respondents recognized a person at work being a driving force. The respondents nominated three co-workers as strongly influencing. Someone else's spirit and positive view of the system have had an impact on the respondents enough for them to recall that such a person exists. Howell and Higgins (1990) mention different possible roles of a champion. The champions perceived by the end users had a role as educators of the new system. These roles can be identified as user champions, who helps the innovation by training and providing assistance to the users (Howell and Higgins, 1990). The champions in the study were characterized by the end users as having interest and knowledge about the system.

It was further perceived that if the educator thought the system was really bad then it would have an affect on the respondent. What is remarkable is that the key users did not see the mentioned driving forces as the other respondents

did. Still the mentioned names were either working as key user and at the same time responsible for the education or as team leader for the key users.

One of the respondents (R2) implied the importance of having the so called champions as impartial. The respondent saw the information from the top management about the system going to be easier and better as propaganda. This could have to do with the respondent going through all the changes during the process and that makes it hard to see the light in the tunnel. It is not easy for the respondents to see the vision that the top management have.

6. Conclusions

In this last chapter of this thesis we present our concluding remarks from the discussions and give suggestions to future studies.

We have researched the four themes of managerial interventions affecting the assimilation process of a CRM system implementation from the end user perspective. By natural reason, as they differ in characteristics, the themes are all addressed and perceived differently. However, an interesting conclusion we see in the findings of all themes is that the end users perceptions seem to be dependent on the many postponements of the Go Live date. Therefore in order to gain an actual understanding of these conclusions and case studied, one needs to take the problems and postponements of the project and system implementation into consideration.

As for messages of top management support, the results of the study points out the importance of the channels of communication. The end users reported as not knowing if changes have occurred in the top management support during the project. This arises from the fact that the end users report getting an overflow of information and the messages of top management support get distorted on their way. The top management try to enforce their support for the new system and depict it functioning better than the old one whilst the end users at the same time are phasing difficulties using it. This creates perceptions of the messages as either unreliable or just as propaganda.

The importance of giving the end users accurate training is to prepare them for the new system. The training is perceived as not adequate prone to the many postponements and the use of a training tool as e-learning which did not reflect the implemented system. Both factors of being educated in areas that the end user where not going to work with and not having time to train in the new system plays an important role of how the end users perceived the actual training.

As for the third theme of the managerial interventions, resources, the end users can not emphasize enough their positive comments on the resource key users. Similarly to the other themes, the view and ranking of the importance of resources can be derived from the awareness of an implementation process struggling with postponements as the current stressful work situation of the end users require expert help when problems arise.

Regarding whether a technology champion have been present earlier or not is of no importance but in the later stages of assimilation the end users gave the

educator a prominent role as the most driving and influencing force in the project.

If the tools of managerial interventions are used improperly it might postpone the assimilation and in turn increase the cost of the project. Certainly the lack of time, the stressful situation, and a system not working properly creates the end users perception to be somewhat more negative than if the situation would be the opposite. However, as all knowledge contributes to enrich the picture of the assimilation process of a CRM system it is at least as important to capture.

This case study shows the importance of considering the end users perspective since the end users are the indicators of how long the assimilation process in an CRM implementation might take. In the end it can save time and decrease the cost of an CRM-implementation and even turn the project to a success story.

For future research we have two suggestions as we find the most interesting. As the results of this thesis illustrate and relate to the effect a postponement has on the view of managerial interventions, we find this relationship an interesting area to follow up on. Another suggestion is to add a time aspect to the case study and on different points in time study the managerial interventions and illustrate changes of the end users opinion. This can for instance take place before Go Live, at the Go Live and also later on when the system have been in use for a while. Another interesting aspect worth focusing on is the partiality of the technology champions and the effects of it. How will the end users view the managerial interventions then and what effect does it have on the implementation process?

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Appendix A – Interview guide

How do you perceive the top management's attitude/opinion towards the new system?

Do they support the new system?

Do you feel that the management's opinion have changed during the project?

How did you get information about the top management's opinions?

How did you get information about the project?

Do you miss any information during the project itself? Is there any information you feel that you at some point needed?

How and have you received information about the expected consequences with the new system?

Do you feel that there has been a gap between the management's way of looking at the need for information and your way of looking at it? If yes, explain.

How have the training been structured?

Who do you think is responsible for your training in the new system? Is it the company's responsibility to give or your responsibility to get information?

How well does the training cohere with how the system works today?

What is your opinion about the training? Is it good for the future or something that you just have to do?

Do you feel educated enough?

Which resources have the management put in, for you to get to know the system better?

Do you think the resources the management has given were enough?

Were there any other resources?

Do you think you have been given enough time?

Which resources have been the most important for you?

Do you feel there is a driving force for the project?

Is there anybody special that have had a driving act in the implementation?

Have these persons influenced you in any way?