IMPLEMENTING AN INFORMATION SYSTEM
– A STUDY CONDUCTED AT NORDIC LUBRICANTS AB –

FREDRIK CRONSTEDT
&
NIKLAS FYHR
Acknowledgements

The process of writing this thesis, which began a dark November morning, has been characterized by moments of hope, chaos, and glory. Luckily we have managed to maintain focus and therefore been able to finalize this study.

We would like to thank Jakob Bergenudd for all the help with putting us in contact with the interviewees, which made the realization of this thesis possible. In addition we would like to thank all the members that attended our seminars and gave us valuable insight in how to improve the quality of this thesis, especially our supervisor Bo Hellgren.

Fredrik Cronstedt and Niklas Fyhr

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Chapter 1

1 Introduction

The first chapter of this master thesis is an introduction to the subject and gives the reader insight into the problem area that we, the authors, aim to study. Initially, we present a background to the investigation that has the aim of capturing the reader’s interest as well as providing a short review of the aspects that our thesis touches upon. Then, we dig deeper into the subject by discussing the problem and presenting the purpose of this thesis. Finally, we conclude this chapter by stating which delimitations our study required.

1.1 Background

Information has become an evermore-critical ingredient in today’s society. Many observers and commentators have proclaimed the dawning of a new age, known variously as the information society, the information economy or post-industrial society. This “new age” is characterized by the increased usage of information and the various methods of processing it.

Organizations are a part of the society, thus they have also become evermore dependent on information and how the information is utilized. This has driven the development of information technology (IT) and information systems (IS), which has made it possible for organizations to process vast amounts of information. IT refers mainly to the hardware of
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computers and telecommunication equipment. IS, on the other hand, is often interpreted in a broader sense including IT as well as management. Management in the sense of how technology can best be applied and what its wider implications are. (Bloomfield et al, 1997; Checkland & Holwell, 1998)

Information systems and technology (IS/IT) have, as we mentioned above, become one of the most necessary and critical cornerstones of an organization. When running their business and day-to-day operations, companies use information for functions such as planning, controlling, organizing and decision-making. The IS must ensure that the right information gets to the right people at the right time. (Melin, 1998; Checkland & Holwell, 1998; Ward et al, 1990)

The structure and the strategic planning behind an IS are of high importance in a static organization but if the organization changes in some way there will be yet another dimension to the problems. An example of organizational change that can be problematic is when two corporations are connected through a merger or an acquisition. (Ward, 1990)

A major change like this may stand the information system on its head and this may lead to the fact that either the IS strategy or the structure must change. In a merger or an acquisition there are three possibilities of choosing an IS, either the acquirers or the acquired companies existing systems are implemented in the new organization or a totally new system is purchased or developed. Whichever choice the organization makes it will
face the problems with implementing an IS. When there are significant changes in the organizational structure after the merge of two companies the IS have to be adjusted to the new structure or the structure has to be adjusted to the system. If the information that is provided from the system is designed to fit the old structure it may make the new structure even harder to use and function. (Melin, 1998; Hussey, 1996; Nilsson, 1997)

Integrating information systems is a complex process, which encompasses a wide variety of problems that are more or less critical to solve to ensure a smooth implementation. We find this phenomenon, IS implementation, interesting since all companies at one stage or another will eventually be forced to implement a new IS.

The reason why we have chosen to study this phenomenon in conjunction to an acquisition, is that we think that the problems revolving an implementation of an IS are highlighted and brought up to the surface when a company acquires another, given the demand on successful integrations. What is important to note here is that this thesis does not cover acquisitions as such, the reason why we involved this example of organizational change is because we believe that the problems involved with an IS implementation are accentuated during an acquisition.

Due to the explicitness of the problems surrounding an IS implementation, we focus this thesis on how the implementation of an IS system is carried out and in addition we aim to interpret the methods employed through two
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different approaches; a “hard” rational approach and a “soft” less pragmatic approach.

The empirical material on which this thesis is based on is British Petroleum’s acquisition of Castrol\(^1\), with focus on the Nordic part of the deal\(^2\), and the intricacies that may or have surfaced during the implementation phase of the IS they employ. The information system that we intend to use to carry out our study is the one that British Petroleum uses today, which is an economic resource planning system (ERP) called International Systems Program (ISP). This system is to be implemented in the new organization (Nordic Lubricants AB) in which the former Castrol organization is an important stakeholder.

### 1.2 Problem Discussion

According to the international consulting firm PriceWaterhouseCoopers (www.pwcglobal.com), nearly three out of four companies report problems when integrating information systems, causing delays, lost revenue, and missed opportunities. Creating well functioning merged corporations involves, seemingly, a difficult technical integration. We wonder how companies cope with this difficult task of implementing information systems in new company structures.

\(^1\) This acquisition was announced on the 14\(^{th}\) of March 2000. (www.bp.com)

\(^2\) By Nordic we mean Norway, Sweden, Denmark, and Finland
Olson and Weill (1989) conducted a study to see whether firms differ in their ability to benefit from an investment in information systems. A factor that emerged from this study that affected this relationship was the nature of the organizations growth. They found that problems can arise when a company has grown through acquisition of an existing company, rather than through organic growth. The result of these acquisitions was that in a number of cases the acquired information systems were incompatible with the companies existing information structure.

In a study by Owens et al (1996), a number of companies felt that their information systems were designed to achieve business objectives, which they did effectively. On the other hand, they also believed, that their existing IS/IT were barriers to success. This feeling stemmed from that the majority of the surveyed companies had grown through acquisitions of existing businesses, rather than by pure organic growth. This meant that they had acquired a number of legacy information systems.

Their findings seemed contradictory because they first state that the systems perform in the way that they were expected to, but on the other hand they must cope with the acquired companies’ legacy systems. To us this relates to the “us-against-them” feeling that can arise during acquisitions. Many studies have shown that the acquiring companies encounter resistance from the acquired company and feel that they must defend themselves. This feeling might be the origin to the contradiction, which was exemplified above. Acquiring companies defend their systems
and at the same time see the “legacy system”, which the acquired companies bring with them, as inefficient. (Owens et al, 1996)

Mercer Management Consulting found that the presence or absence of an integration plan could explain success or failure of mergers or acquisitions. Companies with strong integration plans, create above average value in their industries. Integration plans relate to all aspects of the merging corporations, i.e. their technologies, policies, systems, and cultures. (Tetenbaum, 1999)

Literature in the field of mergers and acquisitions has shown that companies that acquire other firms have a number of options when planning the integration of these entities. Among them, three options are immediately evident, of which the last relates to the choice British Petroleum made during the integration of Castrol. One, they can choose to let the acquired company function on its own as a separate organization. Two, they can choose to absorb the purchased company and liquidate all of its assets. Or three, choose to fully integrate the acquired company. (Larsson, 1990; Mirvis & Marks, 1992; Gaughan, 1994)

To fully integrate an acquired company means, among all aspects, that their processes and systems must be managed and modified to fit the new organizational structure (Gaughan, 1996). This last statement is what urged our curiosity and is therefore the aspect that this thesis touches upon.
Chapter 1

- What methods can be used when implementing an information system?
- Who are the stakeholders in an implementation process and can they influence it?
- What problems may occur in an implementation process?

These questions presuppose that there exists a formal process of implementation, which can be seen as a “hard” and rational view. Nevertheless, it is also possible to view these questions from a “soft” and less pragmatic perspective, which considers the human aspects of IS implementations. This thesis intends to discuss the study questions by comparing and contrasting these different approaches, see figure 1.

Figure 1: Research Model

<table>
<thead>
<tr>
<th>Questions</th>
<th>Hard View</th>
<th>Soft View</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>![Hard View Arrow]</td>
<td>![Soft View Arrow]</td>
</tr>
</tbody>
</table>

Source: Own

1.3 Purpose

The purpose of this thesis is to describe the implementation process of an information system from an organizational perspective rather than to dig deep into technical explanations. We aim to analyze the process, and the eventual problems within, using two different views on implementation processes; namely the hard and the soft view.
We have chosen to investigate the implementation process of ISP as a part of the integration of British Petroleum and Castrol, which has resulted in the creation of the new organization Nordic Lubricants AB.

1.4 Delimitations

The thesis does not cover acquisitions as such; we have merely used this form of organizational change to highlight the intricacies of an implementation process of an information system in a newly formed organization, which resulted from an acquisition.

We concentrate on the implementation process of ISP at Nordic Lubricants AB. This means that, although the deal between BP and Castrol is global we focus on the specific implementation process in the Nordic region.

The interviewees were selected based on their involvement in the implementation process of ISP and therefore not as end-users, even though some of them could be classified as such.
In this chapter we describe our scientific and methodological approach. Furthermore, we present our investigation process and finally we critically reflect over the chosen method and discuss the criteria for quality in scientific research.

2.1 Scientific Approach

“The philosophical orientation that is adopted plays an important role in business and management research and the researcher needs to establish his or her approach early on in the research process.”

(Remenyi et al, 1998)

How to conduct a study is a dilemma that confronts most investigators and there are differing opinions on how a study should be conducted to be scientific. The big differences in opinion are whether an investigator can be objective or not, i.e. whether he or she can conduct a study regardless of personal values and experiences. Our personal belief is that it is not possible to be completely objective, nor do we believe that one should be. It is, though, important that we as authors conduct an open and critical discussion around the subjectivity that may characterize our thesis. (Bell, 2000; Remenyi et al, 1998)
The subjectivity in this thesis arises from our interpretation of the literature and the empirical findings since we are influenced by our prior knowledge, experiences and values when we interpret.

In this study we aim to describe the implementation process of ISP in the new organization, Nordic Lubricants, which arose from BP’s acquisition of Castrol. The descriptive study is popular in business research and it deals with the discovery of answers to who, what, when, where and how questions. The very essence of a description is to locate and elucidate properties of a phenomenon. (Emory, 1993)

A descriptive and interpretative approach, like ours, is sometimes called phenomenology. This school of thought implies that research is about understanding the essence of a phenomenon. Phenomena in business and management are complex and hard to measure and some authors argue that it is only possible to cope with these complexities through phenomenological research. This approach is not universally accepted but it is of growing importance in the business and management research arena where it is often referred to as hermeneutics. (Remenyi et al, 1998)

Advocates of the hermeneutic approach claim that it is impossible to create a reproduction of reality that is independent of the observer. They look upon reality as a social construction; thus they believe that there is not only one “true” reality but various views on reality that are independently shared among different groups of people. The hermeneutic scientist has to develop a pre-understanding of the problem and it is also important that this is
articulated and explicitly explained in the report. As opposed to positivism the hermeneutic scientist strives to gain a deeper insight and a comprehensive understanding of a problem. (Eriksson & Wiedersheim-Paul, 1997; Wallén, 1993)

The other extreme of the scientific spectrum, positivism, builds on a belief in positive knowledge, i.e. knowledge that is logical, reliable, verifiable and true. A positivistic scientist strives for objectivity, rationality and uses scientific methods with precise measures to provide reliable explanations. The reliability of these explanations can be tested by measurements such as validity, i.e. that the results from different measurements and observations under the same circumstances turn out to be the same. (Wallén, 1993; Eriksson & Wiedersheim-Paul, 1997)

In this study we have adopted a non-positivistic approach, which bears resemblance to the hermeneutical and phenomenological views. The reason for this is that we do not believe that we are able to nor are willing to consequently distinguish what information that we include is not affected by our subjective interpretations.

2.2 Methodological Approach

A study starting out from an unbiased collection of empirical material is called an inductive study. Such studies are often used for an explorative
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purpose where the researcher searches for new empirical findings. (Lundahl & Skärvad, 1992; Alvesson & Sköldberg, 1994)

A deductive study, on the other hand, starts out with a theoretical study and then searches for adequate empirical findings. The theoretical framework works as a tool for testing relevant material often in the shape of hypothesis.

When we first decided to do a study on the implementation of an information system we started out by browsing the literature available at the university library. This gave us a broad picture and a pre-understanding of the subject area and a basis for the study. We went through numerous books from various research fields, e.g. information systems, M&A, organizational change, strategy etc.

The purpose of this literature study was to familiarize ourselves with the chosen subject and contribute to the formulation of specific study questions. These questions were the basis for our collection of empirical material. The impressions we got from the empirical study then made us search for new theories, as well as reread some that we previously studied. Thus, we have experienced different periods from where our approach has turned from being inductive to deductive, and vice versa. This mix of approaches is similar to what Alvesson & Sköldberg (1994) name abduction.
2.3 Investigation Process and Design

The strategy of a study may be thought of as an overall direction of the process and should provide a basis from which the researchers may assert the validity of their findings. In other words, the researcher should describe the research process in a way that makes it possible for the reader to evaluate the conducted study. However, it is important that the methodology does not dominate the research procedure. It should be seen as a mere intellectual framework that supports the researchers creativity. (Remenyi et al, 1998)

When presenting a study, like this thesis, we believe that it is more interesting if we are able to find theories with contradictory solutions to a problem. In this way we can create a state of tension that makes the thesis more intriguing. We aim to do this by using two differing views to the IS/IT implementation process. Our central study questions, which were presented earlier, will be studied through these two approaches. Thereby we will be able to connect the different perspectives, which these views have, to the central questions we study in this thesis. The method is shown in the diagram below.

Figure 2: Research Model

<table>
<thead>
<tr>
<th>Questions</th>
<th>Hard View</th>
<th>Soft View</th>
</tr>
</thead>
</table>

Source: Own
2.3.1 Collection of Empirical Material

This thesis is based on an empirical study at Nordic Lubricants AB in Stockholm. The study focuses on one single case, but to call it a case study would be misleading. A case study, according to Yin (1989), requires an in-depth study where the researcher uses a number of different methods of collecting material to provide a multi-dimensional picture of the situation. An in-depth study includes a detailed examination of, for example an organization over a substantial period of time. Due to the available time for this study, we do not believe that we could fulfill this requirement. However, this thesis does bear resemblance to what is generally defined as a case study.

As mentioned earlier in this chapter, we have adopted a non-positivistic approach to scientific research. This implies that we look upon the world as shaped by social interaction amongst individuals. We also believe that individuals create their own subjective world and in order to understand and describe the implementation process in our study we need to interpret the participant’s views of the problem area.

This can best be achieved by conducting qualitative interviews, since we are dealing with people not objects. People have the ability to think, argue and experience the world and it is hard to deliver an understanding of these human dimensions through a quantitative study. (Remenyi et al, 1998; Ghauri et al, 1995; Lekvall & Wahlbin, 1993)
2.3.2 Interviews

We have conducted five face-to-face interviews at Nordic Lubricants. The choice of interviewees was made after we consolidated our first contact at the company. He provided us with a thorough introduction to the background and pointed out some key-participants in the implementation process of the information system.

Figure 3: The interviews

<table>
<thead>
<tr>
<th>Interviewees</th>
<th>Position</th>
<th>Interview Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>No 1</td>
<td>Controller</td>
<td>BP</td>
</tr>
<tr>
<td>No 2</td>
<td>IT Manager</td>
<td>BP</td>
</tr>
<tr>
<td>No 3</td>
<td>Assistant Manager</td>
<td>BP</td>
</tr>
<tr>
<td>No 4</td>
<td>IT Coordinator</td>
<td>Castrol</td>
</tr>
<tr>
<td>No 5</td>
<td>System Expert</td>
<td>Castrol</td>
</tr>
</tbody>
</table>

Source: Own

Three of the interviews were made at BP’s office and two at Castrol’s. The interviews were more or less unstructured, since we wanted the interviewees to tell us their story without us interfering too much. Unstructured interviews mean that there is no predetermined order of questions and the questions are asked in a spontaneous manner (Lekvall & Wahlbin, 1993). We had, though, an interview template as a support during the interview.

When conducting the interviews it is important that the interviewers are knowledgeable about the questions and concentrated on the interview so
that they can ask relevant follow up questions. In order to do this our aim was to record the interviews on a MiniDisc recorder, but due to certain technical problems we have only managed to do this during three of the interviews. During the two interviews at Castrol’s office we had to rely only on our note taking. To minimize the risk of missing relevant information both of us made thorough notes that we put together immediately after the interview. In addition, the recorded interviews have been put together and written down on paper to make it easier for us to interpret.

2.4 Critical Evaluation of the Study

In this section of the chapter we aim to present a “quality check” of our investigation. We would like to start by pointing out that we have adopted a non-positivistic approach, which means that we do not believe that it is possible to conduct an objective study. This implies that common ways of evaluating a study, such as validity, reliability and generalisability, may be inappropriate since they were developed for evaluation of positivistic studies. However, Remenyi et al (1998) state that these measurements can also be used for evaluating non-positivistic studies by referring to softer issues than for example statistical validity. They also point out that these measurements are the most important criteria used to evaluate research and should indicate how well the study will be accepted by the reader.
Regarding the collection of empirical material, there may have been problems associated with validity issues. We say this because of our choice to conduct unstructured interviews, which may have resulted in the absence of relevant information. On the other hand, we have tried to show openness in this chapter by explaining the interpretation problems that may arise during the collection of empirical material. In addition we were given the possibility to contact our interviewees at a later stage with follow up questions to clarify any obscurities, which we have taken advantage of.

A study with high reliability means that if other researchers carry out an investigation using the same method and under the same conditions will draw the same conclusions from their empirical material. In a non-positivistic study, such as ours, the concern is to investigate a particular phenomenon at a given time. This makes the replicability of the study very difficult. Rather than pretending that our study conditions can be replicable, we aim to follow good practice guidelines and clarify our method in the best way possible.

A problem with hermeneutic studies is that it is hard to create a common base for interpretation, which reduces the possibility to generalize from it. But Remenyi (1998) means that it is generally of little interest to the researcher that the study will not lead to law-like generalizations in the same sense as to what researcher with a positivistic approach wants. Another difficulty that the hermeneutic researcher faces is the problem of separating facts from feelings. This implies that a certain degree of subjectivism may occur when the researcher attempts to understand those
involved in the investigation. (Lundahl & Skärvid, 1992; Eriksson & Wiedersheim-Paul, 1997; Wallén, 1993)

Another aspect of the generalisability is that, given that we are studying a particular phenomenon in a single case, it is difficult to draw general conclusion that can be related to other cases. On the other hand, we hope that some of the results derived from this study can be related to other cases in similar contexts.
This chapter commences with a section on the key concepts that the reader should be aware of to understand the following sections. After the section on concepts we present the hard traditional view on how an IS implementation process should be carried out. After the section on the hard view, we present a discussion about the problems that can arise during an IS implementation. These problems are then handled in the following section where we present the soft view on how an IS implementation should be carried out. We have included a section at the end of this chapter to summarize and clarify the different characteristics of these two views.

3.1 Concepts

Making sense of the field of this study requires clear concepts of what “information” and “information systems” are. But unfortunately there are no well-defined definitions of such terms upon which there is general agreement. This means that these concepts cannot be taken as given. (Checkland & Holwell, 1998; Wilson, 1990)

It is not our intention to present clear definitions of the terms, but to present a discussion where we aim to give some meaning to them.
3.1.1 Information

The first step in describing “information” is to mark the distinction between “data” and “information”. (Wilson, 1990)

Data are a starting point in our mental processing. For example, the position of the speedometer at 50 km/h is an item of data for the driver. In other words, a piece of data is a fact. When we interpret and put meaning into the observed data it becomes information. We relate it to other things, we put it in context and we see it as a part of a larger whole. Thus, information can be described as interpretation of data that gives it meaning. (Checkland & Holwell, 1998; Davis, 1974; Wilson, 1990)

Davis (1974) uses the following definition that is close to the way the word is often used in everyday language.

“Information is data that has been processed into a form that is meaningful to the recipient and is of real or perceived value in current or prospective decisions.”

3.1.2 Information Systems (IS)

An important feature of the described distinction between data and information is that the act of creating information is a human act, not one that a machine can accomplish. It is the human being who can attribute
meaning to the observed data and the context in which this being done may be shared by many others, but may also be unique to an individual. Thus, a piece of data in an information system may be meaningful and hence be information for just one individual. The aim of the system designer is, of course, that the data processed by the system will be meaningful for many people but this cannot be guaranteed. (Checkland & Holwell, 1998)

Given that we see information as data attributed by meaning and that this attribution only can be done by human beings makes the word “information systems” a bit confusing.

Checkland and Holwell (1998) state that the phrase “information system” is ill chosen. They mean that the phrases used in the early days of computers, “data processing systems” (DP) or “electronic data processing system” (EDP), were more accurate and it would be a good idea to return to the use of those. The word “information systems” is, though, so often used and well known that this is unlikely to be achieved.

“Students coming to the IS field for the first time often imagine, as they begin to read the literature, that what the books refer to as information systems must be relevant to their concerns. They are then puzzled that the statistical considerations of that theory seem to bear no relation at all to what we understand by information in common usage. The point is that information theory is grotesquely misnamed.”

(Checkland & Holwell, 1998)
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However, the usage of the term IS may not be the best but it is still used and we will present some general explanations to what it is used for in practice. An information system is a group of components that work together. The main components are equipment or hardware (computers), instructions or software for the computers, people to operate the system and procedures for the people to follow. These components provide information for an organization. Information systems are used in organizations to support their business activities, e.g. sales, accounting, management etc. (Nickerson, 1998)

Nowadays, when we talk about information systems most of us mean systems based on information technology (IT). IT is the technology used for collecting, processing, storing and transferring information. It includes everything from computers, software, and telecommunication to television and multimedia. (Falk & Olve, 1996)

It is important to mention that an IS can also be manual, i.e. an IS where human beings process all the data without help from technology. Examples of manual information systems are putting papers in folders or storing addresses in address books. Today, it would be impossible to efficiently process information without computers and other forms of IT because of the vast quantity of information that organizations have to process. (Nickerson, 1998)

Markus (1984) uses the term “system” broadly, yet we find it applicable to our study area on information systems. He explains that different parties
are concerned about different types of problems with systems. Designers of systems tend to blame the users of the same systems. They say that users fail to use the systems in the way the designers intended the systems to be used. Users on the other hand, blame the designers and say that the systems do not do what they are expected to do. A third perspective he brings up is the organizational context. It may well be so that the systems are well designed to improve performance and the users are using them correctly, but the organizational structure is the bottleneck.

3.2 The “Hard” View on IS Implementation

Many authors have their own denomination of what the hard view of implementing an information system plan is. Most concur in that the process is made up of rational actors and information processors that have analytical and political perspectives that perform procedural and resource reviews. (Mirvis & Marks, 1992; Ward et al, 1990; Tjäder, 1999)

This perspective bears resemblance to how Earl (1989) describes a top-down strategy formulation and implementation. He says that the overall business strategies should be reflected by how the information systems work and are implemented. The needs of the information systems are identified through an analytical approach with formal methods requiring input from managerial levels. The rationality and straightforwardness of this approach is characteristic of the hard view of IS implementation.
Mirvis & Marks (1992) include planning as a part of the implementation process. They present three steps management should take when implementing an IS plan. They suggest that management should first scan the environment to identify problems and opportunities, and then formulate a plan to address these problems and finally plan activities as well as people to achieve the desired results. In this case meaning the implementation of an IS strategy.

Hussey (1996) explains that the analytical approach (which we call hard) encompasses facts, analysis of the facts, rational evaluation of options derived from the analysis based on hard criteria, the creation of action and project plans based on decisions deductively derived from information, and finally close and tight monitoring and control of the implementation process.

This approach is probably how Markus (1984) envisions the process when he gives the reason to why system designers should not define the context in which the systems are intended to function. He states that defining the context of a system often involves redrawing the boundaries of the organizational units. And because redrawing the boundaries of the organizational units is a political issue it requires the strong commitment of a manager who manages all affected units.

The political aspect is an issue that Mirvis & Marks (1992) also bring up as part of the hard view on how to implement IS. They explain that when
more than one unit is affected by the implementation there are often various interests that strive to maximize delegation of power and resources. The organizational change approach presented in De Wit & Meyer (1998), states that once an IS implementation plan has been developed, the executive puts it to effect by taking steps such as reorganizing the company structure, changing compensation schemes or hiring / firing staff.

Tjäder (1999) discusses an instrumental view on the implementation process that is similar to the hard view. He notes that this view on the process of implementation requires a structure. This structure can be created in four phases:

Figure 4: Implementation Process Structure

| Gathering of information | System design | System testing | System installation |

Source: Own adaptation from Tjäder (1999)

He also adds that different variations of this structure formalization are available in relevant literature and the choice of which variation is most applicable depends on the scope and risk of the implementation. His discussion about the instrumental view’s need for a structure, leads us to the concept of projects.

Projects can be organized in different ways and are made up of a series of different stages (Hjelmquist, 1991). To implement an IS a project must contain at least the following stages:
The preparation phase involves identification of the strengths and weaknesses of the existing systems (Nilsson, 1991). This phase is analogous to one of the steps Earl (1989) presents in the Bottom-Up method of strategy formulation in which the examination of current systems may suggest either that some could be better exploited for strategic advantage or be built upon to yield significant added value.

Markus (1984) interjects here by suggesting that after the design of the system has been done the chances of a successful implementation of IS are improved by performing an organizational impact assessment. An organizational impact assessment consists of testing the features with the context and predicting likely areas of resistance or negative impact. This assessment can be done with or without the involvement of the intended users. The risk with this is that user involvement could slow down the process but at the same time probably shed light on problem areas that the systems designers have neglected to address.

The second stage, training, is an essential success factor because it is the first time that the majority of its intended users come in contact with the system (Launi, 1991). It is very important that the suppliers of the system, be it the designers or the acquiring company that imposes the system on the
new organization, have a deep knowledge of the system and its features, so that they can inspire confidence with the users.

The third stage, installation, is when the technical installation of the hardware and software takes place. But many authors see the softer aspect of acceptance from the users as a critical success factor during this stage. What is important here is that the next stage, usage, is intertwined with the soft view since it is the stage in which the intended users utilize the system in the daily business (Larsson, 1990).

Closely related to the usage phase is the support phase where the users who encounter trouble can turn to a specialized group of professional users that help in solving technical system-related problems. Often, the support organization that has been formed to help users also is involved in the next phase, maintenance. (Hjelmquist, 1991)

In the maintenance phase the systems are serviced and corrected for problems that may lie within. Normally, though, this maintenance is or should be carried out before the systems are installed. The last phase, evaluation, also relates to the softer view of IS implementation where the systems are followed up and evaluated and mistakes are learned from so that future IS and implementation plans work more smoothly. (Hjelmquist, 1991)
3.2.1 Stakeholders

As we mentioned earlier, projects can be organized differently. Hjelmquist (1991) states that there are three levels in all projects: project committee, project leader (who also can be called implementation manager), and people who are responsible for certain individual activities.

The project committee is burdened with the ultimate responsibility for the project and is often composed of members from higher levels of management. They see to it that the project progresses on schedule, that expenditure is in check and that quality is ensured throughout the whole implementation. (Hjelmquist, 1991)

Ashkenas & Francis (2000) describe the role of the implementation manager. The implementation manager is a person who is internally appointed by a company to guide everyone and every aspect of the implementation.

To speed up the implementation process they vamp up planning efforts, accelerate installation, push for decisions and actions, monitor progress against goals, and pace the implementation efforts to meet deadlines. To create structure they provide flexible implementation frameworks, mobilize joint ventures, create key events and timelines, and facilitate team and executive reviews. To make social connections they act as ambassadors between the stakeholders, provide the possibility for employees to vent their views and opinions, and interpret the customs, languages, and cultures
of all involved parties. To engineer short-term successes that produce business results they help in identifying critical business synergies, and launch short term projects to achieve bottom-line results (Ashkenas & Francis, 2000).

To have the right people, who are responsible for certain individual activities, in the right positions effectively performing their tasks is organizational capability. The implementation team must make sure that the systems and procedures that are to be implemented are aligned with the strategic intent of the acquisition. If the intent of the deal is to capitalize on economies of scale, then the implementation team should keep attention aimed at eliminating redundancy and reducing overhead. If the motive is to leverage the core business, then the team should concentrate on processes that support the acquisition of a new product or the ability to go after market share. Another way the team can make the implementation process go smoothly is to set success indicators that are consistent with the business strategy. These indicators are then used to test whether or not the process is on track. Most important, though, is that the team must ensure that, whatever focus they have, the procedures and systems are aligned with each other and the overall strategy. (Tetenbaum, 1999)

3.2.2 Acquisition Recommendations

According to Bower (HBR; March 2001:92), mergers and acquisitions occur for five reasons and for each of these reasons he presents a set of
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recommendations from the acquirers perspective. We choose to present the ones that have relevance for our specific study area.

When the head motive for an acquisition is to roll-up geographically fragmented industries it is important to ease the acquiring company’s processes and routines into the target company if substantial resistance is encountered. Normally the target companies welcome more streamlined and efficient processes and systems, yet it is more important to hold on to key personnel than to realize efficiencies quickly.

If one of the main strategic objectives with the acquisition is market expansion, the most important thing to remember is that the acquiring company’s core processes may not be central in the target firm. This means that if the acquired firm has well functioning routines and business methods in the markets that are the reason for the acquisition, the buying company should study these core competencies and take advantage of them.

When the strategic driver for the acquisition is to substitute in-house research and development, it is essential to really understand and know what it is that is being bought. Time is of the essence in cases like these, meaning that there is no time for slow assimilation. In addition, the acquiring firm must put well-regarded, powerful executives in charge of acquisition integration who are divested of all other responsibilities during the integration process. Make this into a high visibility assignment. Spend equal amounts of time keeping the new people happy and fitting the new products or technologies into existing activities.
In many acquisitions, the buyer dictates the terms of integration. Financial and human resource managers come to the acquired firm and perform extensive procedural and personnel reviews. They then determine how and when the acquiring firm will introduce its own management and information systems. Schedules are set whereby the acquired company will conform to the new reporting routines and hierarchies. Decisions come quickly in this hard approach, which often leads to integration problems. (Mirvis & Marks, 1992)

Jemison & Haspeslagh (1991) mentions that the buyers who only accept one model of how to do business, (their own), fail to pay attention to the acquired firms philosophies. In other words, this approach fails to incorporate the political dimension. The advantage this method of integration has is that the parent company can, by imposing their own systems, control the integration process and often gain more resources and authority in the combined organization. Jemison & Haspeslagh (1991) go on to argue that the hard approach can work when a parent company wholly absorbs a subsidiary. It does not work, however, when the deal depends on mutual synergy and the combined know-how of people. The reason being that dominated employees can leave or sabotage the integration process. (Mirvis & Marks, 1992)
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Resistance occurs for many reasons and is an aspect that emerges from most implementations of IS systems, no matter how careful the integrators or persons who implement the systems are. Markus (1984) states that what is often referred to as resistance should be called partial use. In many cases, the label has been wrongly applied to innocent users that lack adequate training on the system or lack of time away from everyday job pressures to learn how to use it.

Larsson (1990) touches upon the resistance problem by stating that there are two types of resistance: active and passive. The active resistance can take the form of, (as Mirvis & Marks (1992) also point out), sabotage, voluntary exits and strongly voiced opinions. The passive resistance is exemplified by absenteeism or disobedience.

Larsson (1990) also mentions different perspectives that explain the origin of problems that emerge in the named process. The psychological perspective explains problems such as “us-against-them” mentality, condescending attitudes, distrust, tension and hostility. This perspective also identifies how organizational changes (like acquisitions) affect career plans of the employees by forcing lay-offs, relocation, and the loss of individual influence. Mirvis & Marks (1992) also name the psychological perspective as a soft aspect that must be addressed during IS implementation. They say that the implementation plan for the IS is constantly being revised and adjusted according to the project leaders emotional state. His or her emotional state varies according to daily tasks.
that may be reactions to threats, financial losses and even personal injustices.

The other perspective Larsson (1990) mentions is the cultural perspective, which names cultural clashes as the explanation for resistance problems. Most studies, according to Larsson (1990), show that it is in acquired firms that this phenomenon is most common. Mirvis and Marks (1992) concur with Larsson (1990) by also addressing the cultural perspective as a source to the problems that can emerge during the implementation of an IS. The reason they give is that each organization (in the case of an acquisition) has its own set of values, beliefs and norms, which means that they each have their own definitions of what is believed to be rational and appropriate behavior.

Gattorna and Walters (1996) address the problems, expressed as a quality gap, that arise between the expectations of suppliers (in this case BP) of the systems and the buyers (in this case users in the new organization). They state that this quality gap arises due to the inexact formulation of expectations from the buyer’s side. They add that if the buyers had been more involved in the process of systems implementation from the beginning, their expectations may have been met to higher degree. An important issue they also mention is that the gap is not only the buyer’s fault, but also the supplier’s inability to help their customers express their problems and or expectations.
The solutions to these problems depend on which perspective is used to view the problem. By concentrating on one perspective may mean neglecting other possible solutions. The important thing here is to view the problems from all angles and then choose a solution that solves the fundamental problems. Some of the problems connected to user involvement might be better addressed from a softer perspective.

3.4 The “Soft” View on IS Implementation

Traditionally the research on system implementation and project management originates from an objective view with rational actors. This means that formulation of problems in this arena do not revolve around the complexity, which encompasses the “soft” approach. A possible reason for the problems that are associated with system implementations is that the traditional hard view does not consider the human aspect of the implementation nor the different actors need to learn during the process. (Tjäder, 1999)

The hard approach sees the information system as a managerial tool for decision-making in the pursuit of goals, the soft approach views it more as a social construction based upon personal and collective sense making. (Checkland & Holwell, 1998; Tjäder, 1999)

In Checkland and Holwell (1998), it is mentioned that the traditional hard view is so widely accepted and has been so much taken for granted that it
can be said to form the “conventional wisdom” of today. This conventional wisdom of IS is based on a view of the organization as given. Not much effort is made to either generally explain the complexity of an organization, nor particularly the human dimensions of it.

Askenäs (2000) also makes a distinction between a hard and a soft view, where the latter is a socialconstructionistic approach that sees the organization as an unstable and constantly changing entity. Further, it is stated that organizations cannot be seen as given since they are built on a number of structures that are influenced by the interaction with human beings. This interaction is a constantly ongoing process and the reason to why organizations change.

Winograd and Flores (1986) mean that organizations are constituted as networks of conversations in which commitments are generated. Such conversations can be supported by an information system as a tool for conducting the network of conversation. This is yet another example of authors that intend to break the rationalistic tradition of the IS field.

Information systems have structure-like characteristics that affect both the individuals and the organization. The complexity surrounding the IS and the problems of creating an unambiguous picture of it affect the methods of implementation. (Askenäs, 2000; Tjäder, 1999)

Methodologies for implementing an IS motivate why a structure should be designed in a certain way and describe how it is shaped. When a hard
approach focuses on how to design an efficient system, the soft approach concerns current structures influence on human beings, e.g. in the form of learning. A soft method should result in a process where the participants feel that they are involved and given the possibility to make a contribution. It is important to create a state of tension between the efficiency objective and the need for change in the implementation process. This tension increases the possibility of reflection, which is an important aspect in the learning process. (Tjäder, 1999)

Checkland & Holwell (1998) presents a more practical oriented methodology that can be used to solve IS related problems, the Soft Systems Methodology (SSM). This methodology was from the beginning developed for action research on IS but has also been used as an interpretative approach to managing or organizational problem solving. A difference from the hard view is that this methodology is more concerned with sense making rather than decision-making. The aim of SSM is to provide a more socialconstructionistic approach to IS methodology. Hard system thinking assumes that the world consists of systems whose performance can in some sense be optimized. Soft system thinking assumes that the world both persists and changes and therefore concentrates on interpretation and learning instead of optimization.

SSM focuses on human situations in which at least one person considers problematic. It was developed from the realization that such situations contained people who were trying to take action to solve the problem in some way. The aim of the methodology was to explore these situations and
provide a tool for making the actions taken purposeful so that they correlate with the aim of the IS implementation. (Checkland & Holwell, 1998)

Given this soft view, it is difficult to talk about a formal implementation process, since the IS is seemed to be created through an interaction between its stakeholders and not as an object that can be managed. (Vickers in Checkland & Holwell, 1998)

### 3.4.1 Stakeholders

Traditional literature on IS emphasizes the need for dialog between experts and management without the involvement of users. Literature with a soft approach stresses the importance of user participation in the design and implementation of an IS. Middle management and users have a perspective that is closer to the business and should therefore have a major role in the implementation process. The dialog between these two stakeholders is critical and should provide requirements for the IS based on internal and external demands on the business. (Sannes in Lundeberg & Sundgren, 1996; Checkland & Holwell, 1998)

User involvement can take many forms. Empirical studies presented by Sannes (Lundeberg & Sundgren, 1996) have shown three dimensions of user involvement.

*Participation* is direct involvement in a process. *Influence* means direct influence on decisions concerning the IS, e.g. by giving the idea for an IS
project. Participation does not necessarily lead to influence. Communication with persons who influence decisions involving IS makes the user indirectly involved in the process. Such indirect influence includes influence through social or informal networks.

Further Sannes (Lundeberg & Sundgren, 1996) means that involvement has a positive effect on user satisfaction with a new IS and that it should be seen as a valid indication of how well an IS supports the business.

Tjäder (1999) suggests the use of Argyris’ models for learning when implementing an IS. These models consider the roles of the stakeholders in the implementation process. Classical problems in system implementation can be derived from the lack of user involvement and a far too rational view. This may cause that the most influential actor tends to be experienced as defensive, controlling and self-centered. An unequal accessibility to information concerning the implementation can lead to suspiciousness between stakeholders and a limited willingness to address greater issues than their “own”.

To create better conditions for learning and to counteract errors in the new IS it is important that all relevant stakeholders are given the possibility to participate and that they have full insight into the process. An open and correct communication between all participating actors is a condition for a successful implementation. (Tjäder, 1999)
3.5 The Two Different Views

Most textbooks take an instrumental, functional and goal-seeking view of organizations, the approach we have chosen to call “hard”. There are, however, authors that take an alternative view where they incorporate more aspects concerning the nature of the implementation process. This approach, that we call “soft”, also pays more situation-specific attention to the IS problem. A “soft” approach differs from the “hard” mainly in the way that they address the human aspects of the IS. (Checkland & Holwell, 1998; Wilson, 1990)

In Tjäder’s (1999) dissertation on system implementation in practice he studies two different ways to explain actions taken by project managers which are derived from two different approaches or types of logic, the control logic and the learning logic. The former approach stems from theories on project management and dictates the ideal conditions for an efficient implementation process. The aim of the latter approach is to facilitate flexibility and good conditions for learning whilst carrying out projects. Tjäder (1999) assumes that these logic’s are mutually exclusive, yet there exists a need for them to interact during system implementation projects. These two approaches bear resemblance to the hard and soft views that were presented earlier.

Checkland and Holwell (1998) present two broad traditions that explain the main differences between hard and soft approaches. We have chosen to
include the following table to clarify the different characteristics of these two views. See figure 6 below.

**Figure 6: The Hard and Soft Traditions**

<table>
<thead>
<tr>
<th></th>
<th><strong>The Hard Tradition</strong></th>
<th><strong>The Soft Tradition</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concept of</strong></td>
<td>Social entities which set up and seek to achieve goals</td>
<td>Social entities which seek to manage relationships</td>
</tr>
<tr>
<td><strong>Organization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Concept of IS</strong></td>
<td>An aid to decision making in pursuit of goals.</td>
<td>A part of interpreting the world, sense making with respect to it, in relation to managing relationships</td>
</tr>
<tr>
<td><strong>Underlying Systems</strong></td>
<td>“Hard” systems thinking: the world assumed to be systemic</td>
<td>“Soft” systems thinking: the process of inquiry into the world assumed to be capable of being organized as a system</td>
</tr>
<tr>
<td><strong>Thinking</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Process of</strong></td>
<td>Predicated upon hypothesis testing; quantitative if possible</td>
<td>Predicated upon gaining insight and understanding; qualitative</td>
</tr>
<tr>
<td><strong>Research and Inquiry</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Social Theory</strong></td>
<td>Functionalism</td>
<td>Interpretive</td>
</tr>
<tr>
<td><strong>Philosophy</strong></td>
<td>Positivism</td>
<td>Phenomenology</td>
</tr>
</tbody>
</table>

Source: Checkland & Holwell, 1998
4 Empirics

The first section of this chapter is about the global background behind British Petroleum’s acquisition of Castrol. The material presented concerning the global background comes mainly from British Petroleum’s official homepage (www.bp.com), except the parts where we refer to the interviewees. The rest of the chapter is solely based on the interviews that we have interpreted and compiled.

4.1 Global Background

British Petroleum announced in March 2000 that an agreement had been reached on an all cash offer for Castrol. The price paid was £16,75 per share or the equivalent of 74% over the trading share price. The total disbursement amounted to about £3 billion. One interviewee said that Castrol’s management urged shareholders to accept the bid; it was an offer they could not refuse.

For BP this deal is a significant step in the development of the downstream\(^3\) strategy since it became obvious in 1998 that the BP-Mobil joint venture would end. The agreement between BP and Castrol was seen as an

\(^3\) The downstream part of the BP organization is involved in the refinement and sales of the products.
opportunity to grow in the consumer-focused business. The three strategic drivers that were announced in the deal are presented below.

4.1.1 Brand and Marketing

In the announcement, BP accentuated the greatness of Castrol as a brand. The Castrol brand represented, before the deal, a global market share of 5% in the lubricants business and was one of the market leaders in over 50 countries around the world.

The acquisition also meant that BP gained access to skilled marketers who had developed the Castrol brand and created their leading position. BP believed, then, that these key persons would add importantly to the management and knowledge base of the new division.

One of our interviewees mentioned that one of the reasons behind the acquisition was to gain access to the advertising expertise that Castrol has when it comes to lubricants.

“Castrol is a stronger brand than BP’s counterpart in the lubricant business.”

(Assistant Manager)

Furthermore he said that he thought that the new company, Nordic Lubricants, would concentrate on the Castrol brand, but BP’s brand has
been kept alive. Another comment was that Castrol products were not to be sold in the same market segment as the BP equivalent.

According to a respondent Castrol’s brand is said to rest on more than good advertising and its involvement in motor sports such as Formula One and Rally. In addition Castrol has established a long-term relationship with BMW and their workshops. It also symbolizes marketing excellence based on passion for meeting customer needs, status, prestige, and high performance.

“Castrol will become the flagship brand of the newly founded global lubricants division...”

(David Baldry, 2000, Group Vice President, www.bp.com)

BP made it clear, though, that it was Castrol’s lubricants that would be prioritized and that their chemical business would eventually be disposed of.

### 4.1.2 Cost Synergies

The deal is expected to deliver cost savings of at least $260 million per year. These savings would be derived chiefly from the elimination of duplication in areas of blend plants, distribution, and back office support services; concretely about 1700 jobs worldwide. It was also noted that the final bill for the complete integration of the businesses would be approximately $390 million, which was charged to the year-end income
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statement of 2000. The payback time for these investments was estimated to be within 2-3 years.

“The products bear resemblances to one another and synergies can be attained as an effect of coordinated production.”

(Assistant Manager)

4.1.3 Global Reach

Although synergies are important, the main driver for this acquisition was growth represented by the global fit between the two enterprises in both a sector and geographical sense. This was corroborated by one of our interviewees when he said that the main reason for BP’s acquisition of Castrol was to widen the business with a new strong brand and simultaneously gain access to the marketing and sales expertise that exists within Castrol. Castrol entered the deal with a record of growth in sales that outperformed the market growth in emerging economies such as Latin America and Asia.

In terms of customers, the combination of BP and Castrol meant access to millions of additional customers worldwide as well as presence in markets that BP alone did not have. Before the deal and after the dissolution of the BP-Mobil joint venture, BP controlled approximately 6% of the European market that was heavily biased towards the commercial automotive sector.
The reason why the joint venture was terminated was that Exxon had bought Mobil and that meant that the resulting corporation would have been a combination of BP, Exxon and Mobil. That conglomerate would have been so large\(^4\) that the European Commission prohibited it. This left BP alone and without a strong brand in the lubricants business but with a strengthened fuel business since BP inherited the fuel stations that Mobil had owned.

One of our respondents said that BP wanted to retain their existing customers. Through a lengthy discussion BP managed to keep half of its worldwide customer base, which meant that BP managed to maintain 85% of its European customer base. The new enterprise would result in that the European market share would increase to 13% with a much more balanced sector portfolio. The geographical fit was said to be perfect.

### 4.2 Nordic Background

The Nordic region, in Castrol’s view, is comprised of four countries. In BP’s eyes the Nordic region is considered as one country. This explains why BP utilizes one system in the whole region, whereas Castrol’s has various. BP-Mobil had a factory in Uddevalla that supplied the Nordic market with commercial lubricants. But this factory was being run on minimal resources. They had not implemented the ISP system. They were

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\(^4\) According to the assistant manager 70% market share on the European market.
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using a system designed by IBS\(^5\) that was tailored to support the business at the plant. BP seemed very unsure of the future at this plant. Today the joint venture between BP and Mobil has been terminated and the factory in Uddevalla has been closed down.

Internationally British Petroleum is much larger than Castrol. This was something that the employees at Castrol realized after the deal was done. The sheer size of BP implies that greater funds are available creating opportunities to enlarge restrained budgets. As one of our interviewees explained the enlarged budgets have meant that Castrol has had to rethink their investments since now they feel that they are funding “large gray masses” instead of smaller, controllable investments. Economies of scale that Castrol could not create alone, are now feasible. The implementation of ISP is part of the cooperation, which is good since it is a centralized system says one of our respondents.

“There was no earlier rivalry on the market between BP and Castrol. They did not operate in the same market segments.”

(IT Coordinator)

A difference one of our interviewees brought up was that BP and Castrol work differently towards their customers. Castrol invites their customers to their offices and informs them about their products. One example is the

\(^5\) International Business Systems AB – an information system supplier
brand specific workshops (e.g. BMW’s) whose employees are trained to know why they should recommend Castrol products to their customers.

“Castrol sells knowledge.”

(IT Coordinator)

Castrol sees the customers as partners rather than clients. They focus on high quality and augmented services. They are also flexible in the production to be able to provide the customers in the best way and are very anxious about their factory, according to our respondents.

Many Castrol employees were surprised to hear about the acquisition. People were naturally worried about loosing their jobs. Within Castrol, the employees are proud of their company and have strong feelings towards their brand. The feeling of surprise was quickly replaced by a positive feeling since employees at Castrol began to realize that BP was acquiring Castrol because of what they were good at.

“We’re being bought because we’re good at what we do!”

(IT Coordinator)

That meant that they did not have to worry too much about loosing their jobs, since it was their expertise that BP was aiming for, according to the IT Coordinator at Castrol.
4.3 International Systems Program (ISP)

ISP is a downstream application, developed internally by BP, which was rolled out globally for the first time about 10 to 15 years ago. It was developed to take advantage of all the business opportunities there existed. It is an Economic Resource Planning application that covers all the needs of the business, but which was especially designed to cope with the need for economic consolidation of financial material of the organization. In addition it serves as a “spider” that connects all smaller individual applications through interfaces and controls all the information that comes in to the system. One disadvantage of the ISP that was mentioned is the lack of a windows interface. This means that users who are used to working in a windows based environment may find using the ISP difficult to grasp. BP has tried to remedy this, but have not been successful due to the high development costs involved.

4.3.1 Support

The support organization has to be available 24 hours a day since the system has been implemented worldwide. A central ISP support team is located in Hemel Hempstead, outside London, that has resources placed in strategic locations around the globe. The Business Support Group (BSG) that works out of Copenhagen is not part of the ISP support organization, but serve as support to BP’s Nordic organization regarding the sales and marketing applications of the ISP system. If the support from BSG is not sufficient, then BP Nordic can turn to the ISP support in the UK. An
interviewee said that to be able to turn to a “big brother” inspires a feeling of security.

Before users in the BP Nordic organization turn to the BSG group in Denmark they can turn to the “super users”. These people are specially trained by BSG to help users on a local level. According to the respondents these resources are the key to the success of this support organization. They are locally employed with other tasks and can at any time, depending on workload, switch from their daily jobs to the roles of super users to help other users with any problems they might have with the ISP system. They are also the channels by which contact is made to the BSG organization. One of the interviewees mentioned that the super users do not stay with the company long, due to the remuneration policies the company employs. This is not necessarily a disadvantage since the specialty needs change as the technology develops as well as the opportunities for new professionals present themselves.

A major advantage, mentioned by a respondent, is that support is only needed for one system. Another advantage is that since the system is developed internally, all expertise is available within the organization, which in turn means that all the costs involved in support and development are kept within the company.
4.3.2 Changing ISP

To change the way ISP functions there are a series of costly steps that must be taken. First a problem must be identified which must be attempted to solve using the existing structure. If this does not work the organization which suggests a change must write an official action request, which is sent to the ISP support organization in the UK. There are documentation requirements and many other overhead costs that must be addressed. The reason for this bureaucratic process is that the ISP system is worldwide and any change at one extreme changes the conditions for the rest of the organization that uses the system. The costs involved in assessing the nature of the suggested change are very high; this is because so much work and resources must be put into the process. To avoid this bureaucratic process, local organizations within the BP group, can design “work-arounds”. These work-arounds are systems that solve the actual local problem but do not affect worldwide ISP. These solutions are often much cheaper and are as well much quicker to implement.

4.4 This Specific ISP Project

Our respondents mentioned that BP implemented ISP in the BP-Mobil joint venture in a similar way. The difference is that it was implemented more centrally then. This time, in Castrol’s case, regional decisions can be taken, that make it more adaptable to each region. The fact that ISP will be
implemented in Nordic Lubricants means that ISP will replace all the legacy systems that Castrol brings with them.

BP expressed that they did not want the implementation of ISP and the rest of the integration to follow the same course of action as the joint venture with Mobil did. In the joint venture with Mobil, management bulldozed the integration. There is though, according to another interviewee, a big difference with the BP-Castrol integration compared to the BP-Mobil integration. This time, BP is more careful and tries to adapt the Castrol structure and systems as far as possible. This can hamper the integration according to one of our interviewees.

In this integration, management has intended to establish a dialog about processes with the involved parties. The organization allocated large amounts of resources in the form of money and hired external consultants to accentuate the need for this line of thought. The idea was to invite all parties to participate and influence the decision process of what system to implement. This line of thought was not efficient enough in the eyes of management so they decided on the implementation of ISP.

“I had rather seen that they used the conventional method from the beginning; it would have saved time and money.”

(Controller)

The scope of allowed adaptations of the ISP system to be implemented at Castrol is limited, but it was seen by management that to install a new
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system would have been risky and therefore was not considered as an alternative. Compared to other information systems that were discussed, ISP is costly. The problem with alternative information systems is that ranges of interfaces are necessary to connect the whole system. The ISP integration is not simple, yet in the long run it is strategically better according to one of our sources.

IT projects are always costly according to one of our sources. He goes on to say that he would rather see a closer relationship between the “hardware” team and the ISP project group. Today, strangely enough, these do not work together towards the goal of full integration under the ISP platform. He also finds it odd that the Nordic IT manager has no responsibility in the ISP project.

Another part of BP’s corporate IT strategy is that all employees should have the same workstations. They name this Common Operational Environment (COE), which means that everyone has the same hardware in the form of laptops, terminals, screens, etc. The reason for this is to minimize compatibility problems and to make it easier for employees to work whilst visiting other offices (e.g. in other countries).

A group in charge of the integration located in Britain runs the System Integration Program. One of the most important announcements they have made is that no one in either of the Nordic organizations will be laid-off the coming two years. Furthermore the plan according to one of our respondents is to carefully integrate Castrol, meaning that the employees
are able and encouraged to voice their opinions. BP’s aim was not to steamroll the Castrol employees. The search for a new office where the new organization will function is an example of where both employees and management from both organizations cooperate to find a new location that suits all involved parties. This process has been lengthy and therefore headquarters in Britain is now trying to accelerate the process. The search for common premises can be problematic. A respondent believes that there is a risk of eventual cultural clashes when the new organization is grouped together under the same roof. There is, therefore, a risk that the division between the companies will be sustained, according to the respondent.

4.4.1 Implementation

All projects classified within information technology at BP must pass through a series of stages in something called a Capital Value Process (CVP), shown in figure 7 below. The ISP project today is somewhere between the define stage and on the border of the execute stage, according to the interviewees.

Figure 7: Capital Value Process

![Diagram of Capital Value Process]

Source: Own adaptation of BP’s CVP
The CVP shows the stages that a project must go through to finally be implemented. Each stage consists of various activities (e.g. business case in the appraise stage and financial memorandum in the select stage), which we have chosen to omit for simplicity.

The CVP does not in itself state the actual implementation stages of an information system. BP uses a system master plan to give structure to the implementation process of ISP. The timeframe of the master plan is, according to our sources, approximately 6 months. The system master plan consists of the following objectives that should be reached during the implementation process:

- Business Mapping
- Workshops
- Business Procedures
- Integration
- Developments
- Dataload
- Training
- Infrastructure
- Testing

Some of the objectives were put forward by the interviewees and described as follows.
Chapter 4

The business mapping objective involves the identification how the business functions. The people in charge of the implementation map all the processes that the system must handle. In Castrol many of the systems they use are specially designed to work for a specific purpose, which can make them hard to map. The important aspect of this stage is to find common denominators between the existing systems and ISP. It also shows which changes must be made to the existing systems and thereby see where rationalizations can be made.

“The business mapping can be seen as a test of ISP in regard to Castrol’s requirements.”

(ISP Expert)

According to an interviewee, the implementation team has mapped the business and is adapting the system. Since ISP is a complex system, this stage takes time. It is important to note that the system will not be implemented at the same time all over the world, which means that certain priorities are given to the special markets that are to go live sooner than others. An example of this is Finland, where the system has to be implemented and ready to go in January 2002 due to the introduction of the Euro. The implementation team decides the priority of the stages in the process. After the implementation in Finland has been completed, the rest of the Nordic companies will follow in a sort of “Big Bang” unless anything unforeseen occurs.
Workshops function as a advertising forum of the ISP system towards the intended users. These workshops provide a place where the project team can inform the employees about the progress of the project. The aim of these workshops, from the implementation team’s point of view, is to capture the problems in the system and give an opportunity for the intended users to express their standpoints. Some problems have already been found, but according to our respondents they are not major problems that have hampered the implementation process. Our respondents stress the importance of finding the right methods to identify the problems in the system. By involving as many intended users as possible in these workshops they involve valuable know-how and experience that the designers might have lacked during the design of the system.

“Many experienced employees at Castrol have pointed out problems with the system.”

(ISP Expert)

According to one of our respondents, training on the new system is an aspect of the implementation that occurs successively. The super users, which were successful in the integration of Mobil, are constantly on call. The whole training aspect is characterized by “learning by using”.

BP runs a number of different ISP applications today, which are aimed at different business functions, e.g. accounting or sales. These are the systems that are to be built upon when integrating Castrol’s business. The system must be adapted to the conventional business functions at Castrol. In
addition, Castrol has other specific businesses that the system does not support and has to be adapted to. An example is ELT, which function is to lend out heavy equipment to factories and workshops. This means, in terms of what the system has to handle, that these machines have to be paid off by installments using various methods. The ingenuity of this business, according to a respondent, lies in that Castrol binds their customers to the company by establishing long-term financial relationships, which are very profitable. The counterpart in BP’s organization represents a very small portion of its total business and therefore is important to consider when adjusting ISP to Castrol’s business.

Today Castrol uses a standardized system, which is to be replaced by ISP. The advantage of using a standardized system, that an interviewee named, is that Castrol can at any time turn to external professional consultants who have the necessary expertise and that are available locally. Castrol’s structure is a bit different than BP’s since they implement systems locally and not on a worldwide basis like BP.

One of the interviewees described the implementation process, from a system-engineering point of view, consisting of four main stages; business mapping, build, SOGL, and go live. According to him the business mapping stage is basically the same as what was presented above.

The build stage involves the design of the system. Here one tries to optimize and standardize the processes as far as possible so that the system will fit with the existing systems and processes.
SOGL is an acronym for System Ongoing Live, which is the period just before the implementation where the people in charge of the implementation test the system. The new system is run parallel to the old to a certain extent. The reason why the systems are run parallel is to find out which processes are critical.

GO – LIVE is, simply put, when the new system is implemented and used.

### 4.4.2 IT Priority

Strategically, BP’s management wants the implementation to be carried out as fast as possible and preferably in connection to the office move that will take place in April 2002. Another reason that was presented for the quick implementation was that the systems Castrol uses today do not fulfill the security requirements that BP advocates for its systems and therefore want the combined businesses to fulfill the higher security requirements that BP advocates as soon as possible.

According to another respondent, the ISP project has received a low priority in the integration process. He said this because he felt that the process of evaluating the alternative system one of the business streams\(^6\) suggested was a waste of valuable time. It took a long time before management took the final decision of implementing ISP in the new organization, Nordic Lubricants. The reason was that when it was

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\(^6\) Streams are in BP terms a classification of business areas, for example Consumer and Commercial
announced that BP had acquired Castrol and that they would be coordinated in Nordic Lubricants, every stream presented a business case and wrote a financial memorandum, where they stated what system they considered as the best alternative.

One of the interviewees, who wrote a financial memorandum, considered ISP to be the obvious choice since this was the system they already used. The Consumer stream, based in Denmark, was not satisfied with ISP and wanted another system. They lobbied for a system called Axapta, which was developed by a Danish company. Due to this, the decision about what system that should be implemented dragged on. Finally, though, it was decided that everyone in Nordic Lubricants should use ISP. A majority was satisfied with this decision, except Consumer who felt that they were forced to use ISP. Castrol also had another case, according to one of the interviewees, but this option was never evaluated since the low internal support costs for ISP were decisive.

One of our sources felt that the ISP implementation should have received a much higher priority since it is fundamental that the systems are up and running when the combined businesses are integrated. An example that shows the problem with this is that Nordic Lubricants has been able to deliver products to their customers but not able to send out invoices. He said that it would have been preferable to receive a clear directive from management from the beginning regarding which system was to be implemented. This would have been better since the business would have
been able to be coordinated earlier and the problems with the system could have been identified and dealt with at an earlier stage.

The integration has proceeded too quickly, according to an interviewee. BP had recently left their joint venture with Mobil and that change had not yet sunk in. One respondent thought that it would have been preferable that BP and Castrol functioned separately during a certain period of time, approximately one year. As it was now the integration began immediately and it might have resulted in premature lay-offs of key persons. The immediate integration was a result of the need to integrate Castrol quickly in order to show the shareholders power of initiative.

A respondent said that it is a disadvantage that the Nordic region is so small compared to the whole BP group. This means that strategic implementations such as this one do not receive a high priority in relation to the rest of the world. Which also implies that the payback time for an implementation of such a relatively small-scale project is shortened. This in turn means that large implementation costs will burden the financial results during a short period of time. On the other hand, he said that one must consider the group interests and understand that the major markets are the ones that should be prioritized.

4.4.3 Resistance

When one of our respondents was asked if the implementation process had encountered any resistance, he answered: “Definitely!”
The organization in Finland, which is the first to go live with ISP, is positive and sees the possibilities with the new system. In the Danish organization there is a certain degree of resistance and there are some difficulties in collaborating between the streams. In the Swedish organization there was initially no problems, but some differences in opinion have been brought up during the search for a common office location. The project that is responsible for the new premises include persons from many different positions, both from former BP and former Castrol. It seems like the sales people work well together, according to the interviewee. He also points out that many Castrol employees have worked in the company for a long period of time and that they are very tight. This leads to that it is difficult for them to let go of the fact that they no longer are Castrol employees.

When asked whom they worked for, the interviewees said that they either work for Castrol or BP and not for Nordic Lubricants.

“I work for Castrol.”

(IT Coordinator)

One of the respondents mentioned that the dialog between management and the involved parties, which was intended to minimize resistance, did not fill its purpose. He explained that this was because nobody within the organization was used to this method and because it had not trickled down to all the levels in the organization.
Castrol is a stronger brand and a larger company than BP in Sweden (not internationally though) and this can be reflected in the way that Castrol see themselves as superior to BP, says one of the interviewees.

“Castrol is one of the strongest brands in the lubricant industry and they market top of the line products.”

(Assistant Manager)

The employees of the affected organizations are resisting the change of IS because they know that when ISP is fully implemented the life-cycle of the system will be short and therefore they will have to adjust to yet another system after three to five years. On the other hand one of our interviewees couldn’t see the problems with this, since the affected employees are used to system upgrades and that technology changes rapidly.

4.4.4 The Future of ISP

Management is already looking for a system to replace ISP. The integration of Castrol under one platform will make the transition from ISP easier in the future. The effect of that management is already looking for a replacement system is that certain applications of the ISP system are being disposed of. This means that the ISP that will be implemented at Castrol will not be complete. This causes one of our interviewees to wonder if it wouldn’t be better to wait and implement the replacement system.
Strategically, BP management has decided that the future of ISP is limited and that it is not a product that will be used forever. Specifically, they have decided that ISP will be replaced within three to five years. The organization for downstream has stated that what they are looking for is a system with better functionality and with a broader user base, yet tailored to fit BP’s business. One of the problems with using widely implemented information systems, according to a respondent, is that they are expensive and it is difficult to find available consultants to help with any troubles that might arise whilst using the system.

The fact that BP is implementing ISP in Castrol’s structure before the upcoming worldwide implementation of a new system seemed a bit confusing to some of our respondents. The reason given by one of the respondents is that BP wants to refine the whole group’s systems by eliminating non-ISp systems. Another respondent considered ISP to be acceptable, but that it is becoming obsolete. On the other hand, he does not think that any of the other currently available alternatives would be better.
This chapter contains a discussion comprised of our thoughts and reflections concerning the empirical material presented in the previous chapter. These interpretations are made with the help of information found in our frame of reference.

5.1 Strategic Drivers

The strategic drivers presented by BP state that it was the global reach of the deal that influenced the choice of which company to acquire. According to Bower’s (2001) recommendations when the main strategic driver of an acquisition is to roll-up geographically fragmented industries the acquiring company’s processes and routines must be eased into the target company to minimize the chances of resistance. From what we found out from our conducted interviews, this is what BP has intended to accomplish. Apparently, BP learned some sort of lesson from earlier deals, where they steamrolled the acquired companies during the implementation of the processes and routines. This time, in the acquisition of Castrol, BP management has tried to establish a dialog with the ultimate goal of minimizing resistance and thereby retaining key personnel and expertise.

BP’s management also identified two other strategic drivers that influenced the choice. These were brand and marketing as well as cost synergies.
Bower (2001) goes on to explain that if the acquired company has well functioning processes and routines these must be studied and taken advantage of. BP has attempted to do this by accentuating the need to keep the marketing expertise and strong brand of Castrol unhurt throughout the integration. The way Castrol nurse their customers is new to the BP organization and is seen as an asset that must be kept alive after the integration. The product Castrol contributes with is a high performance and prestigious lubricant that compliments BP’s product mix.

The lubricants that Castrol enters the deal with are not seen as substitutes of BP’s counterparts, as one of our interviewees thought. On the contrary, they are lubricants that compliment BP’s product mix. Bower says that if the strategic driver for the acquisition is to substitute in-house development, it is essential to really understand what is being bought. We chose to adapt this recommendation to the actual case by stating that the development of the lubricants that Castrol has is important and must be fully understood so that the quality will not dissipate after the integration is done. The point is that it is important that the characteristics that have made the Castrol brand so strong must not be overlooked after the deal is completed.

5.2 Implementation Process

The ISP implementation team follows a relatively hard and traditional model. There are clear steps that have to be followed. Every
implementation project has to go through the model suggested by the top management. The model called CVP describes a process in five phases starting out from an idea in the appraise phase and ending in a post project review in the last phase, operate.

The interviewees stated that the project is currently somewhere between the define and execute phases. This means that the project has gone through the appraise and select phases. So we can say that the selection of ISP appears to be final.

When it comes to the practical implementation there is also an official “System Master Plan”. This plan presents some certain objectives for the implementation, e.g. business mapping, workshops and testing. In the literature we have found similar enumerations of proposed objectives in implementations. One example is Hjelmquist (1991) who presents a model with seven steps where the first step is preparation. In the ISP implementation the preparation has been carried out through business mapping. To do this BP has reviewed all the company’s processes and identified the different systems. This is similar to how Mirvis & Marks (1992) recommends management to first scan the environment to identify problems and opportunities. On the basis of this BP was able to create a comprehensive picture of the situation and see what strategic advantages the existing systems have, as Earl (1989) also recommends.

We have noticed some differences in how the implementation was described by the different interviewees. Especially in one case where the
respondent describes the process from a system-engineering point of view that differs somewhat from the system master plan. The steps that he points out are mainly concerned with specific system issues, for example how the system can be optimized. This is typical for the hard view of implementation. According to Checkland & Holwell (1998) a hard system thinking assumes that the world consists of systems whose performance can in some sense be optimized. We believe that this can be a dilemma for the organization, since a common problem, according to Lundeberg & Sundgren (1996), is that system designers and users do not understand each other due to the fact that they have different views.

Even though there were some differences, most of the respondents bring out that the involvement of the users is an important aspect of the implementation. This shows that the implementation, which at first seemed to be a hard and traditional process, has its softer aspects. It was clearly expressed that the implementation team aimed to involve the actual users as much as possible throughout the entire process. They tried to get all the stakeholders to feel that they were involved and encouraged them to communicate their opinions of the system as well as their demands for specific functions. It is important, according to Launi (1991), that the implementation team has a deep knowledge of the system and its features so that they can inspire confidence with the users. We consider that the implementation team has succeeded to inspire this confidence. It was mentioned during the interviews that some users, especially the experienced ones, have declared their standpoint and that the team has adopted these.
Another important measure to get the users involved and also to facilitate learning has been through a number of workshops. Tjäder (1999) recommends that the users should be given an equal accessibility to information in order to reduce suspiciousness between stakeholders and inspire learning. The workshops have been an opportunity for the implementation team to market the system and also a forum where the users have been able to discuss and ask questions about it. We mean that the workshops are a key to success and that they therefore should be prioritized. If the implementation team neglects to utilize the workshops as a forum to market the information system, we think that it could result in resistance further down the line in the implementation process. The problems related to resistance are discussed later on in this chapter.

The confidence inspired by the implementation team through the workshops is maintained and strengthened by the internal support organization. A part of BP’s support strategy is to educate “super users” that are locally employed. Their function is to aid the users in their daily work and thereby increase and better the usage of the system. We think that the super users will play an important role in the continuous learning process.
5.3 Priority

Given that British Petroleum’s aim is to implement ISP as soon as possible means that the priority allocated should be high. This does not seem to be the case, since BP management has also expressed a wish to carry out the process carefully and openly.

These contradictions of priorities make it difficult for us to establish which goal is primary. The fact is that it is like a negative spiral. Without the dialog and the participation and influence from the affected parties, the system employed may be inefficient. On the other hand, if the system is not implemented and installed quickly and efficiently, the fundamental framework of the business will suffer. This explains why some of the respondents said that it has been a waste of valuable time, meaning the discussion about which system to implement has been lengthy and has slowed down the integration of Castrol.

Bower (2001), explained that when the strategic driver of an integration is to substitute in-house development, there is no time for a slow assimilation. Although this is not really the case, since the main driver of this deal was the geographical fit, he also recommends that management should spend equal amounts of resources in keeping the involved parties content and fitting the new products and technologies into the existing activities.

The implementation of the system has to receive a higher priority so that the business does not suffer. The fact that Nordic Lubricants has been able
to deliver products to their customers, but not send out invoices, shows how catastrophic this situation is. One advantage the employed conversational process had, according to our respondents, was that certain attributes (problems) of the ISP system have been addressed, improved and adapted to the processes and routines at Castrol. Yet this has not been sufficient and the effect has been that the business has suffered.

We can understand BP management’s viewpoint to slow down the process, based on earlier steamrolling techniques, but in this case the inefficiency of the dialog has hampered the business. We feel that it was a good idea to involve the stakeholders in the implementation process. But after the fact, we see that it might have been better if management had taken the decision on which system to implement from the beginning. In fact, we are inclined to believe that this was the case and therefore it seems contradictory that management invited the stakeholders to voice their opinions and suggestions during the selection phase. It has, however, been a positive process since the potential feeling of hostility between the stakeholders was dampened, through this dialog.

We feel that the decision to implement ISP should have been taken from the beginning and that resources should have instead been directed towards the adaptation of ISP to Castrol’s business. This would probably have accelerated the implementation process and shown the shareholders along with the rest of the stakeholders initiative and determination from BP management.
5.4 Resistance

Some of the interviewed respondents at BP mentioned that there was a certain degree of resistance towards the integration of the companies and the implementation of ISP. On the other hand, the respondents on the Castrol side did not see any resistance in the process. This is an important distinction because according to the literature we found, resistance to deals of this sort normally stems from the acquired company and not the acquiring company. Another interesting thing to point out is that the perceived resistance that some of our BP respondents mentioned was about the Castrol employees and not that BP’s employees resisted the deal. This means that the accounts of resistance are based on what our BP interviewees thought the Castrol employees felt. It can also be an effect of how the different interviewees interpret the term resistance. In our opinion, the resistance that was mentioned was mainly found in the Castrol organization. This correlates with what we found in the literature.

When asked which company the interviewees worked for they said that they either worked for BP or Castrol. We found this interesting since the fact is that they all work for Nordic Lubricants. We think that the reason for this is that Nordic Lubricants does not have a brand named after it and is therefore harder to relate to. Both BP and Castrol have strong established brands that inspire their employees. The respondents probably feel that it is easier to relate to a brand than to a new organization.
Some Castrol employees felt that BP’s acquisition of Castrol was surprising. This is because in Sweden the Castrol organization was larger than BP’s. In addition, the prestige of Castrol’s brands in comparison to BP’s made it difficult to accept. This relates to the psychological perspective Larsson (1990) mentions. He says that the “us-against-them” mentality can spur resistance and hurt the deal. Nevertheless, after the deal was completed and the Castrol employees had gotten used to the fact that, in their eyes, a smaller corporation had bought them, they began to realize the grandeur of the BP organization. This specific form of resistance diminished almost as quickly as it had surged since the employees realized that they were being bought for their know-how.

Jemison and Haspeslagh (1991) state that when an organization wholly absorbs another, the hard traditional approach is preferable. On the other hand if the success of the deal depends on mutual synergies, as in this case, the philosophies of the acquired company must be taken into consideration. Failure to do so can result in resistance. BP’s management has probably learned this from previous acquisitions and was therefore interested in incorporating the political dimension in this acquisition. We think that BP’s management managed to soften the deal and minimize the potential resistance through this.

Checkland and Holwell (1998) talk about soft systems methodology, which in our opinion, in a way has been utilized in this case. The SSM focuses on human situations in which at least one person has a problem with something and is looking for a solution. The methodology tries to explore
the situation and isolate the actions taken by the people who have a problem, and then try to coordinate the efforts in a purposeful manner so that they correlate with the overall strategy. The fact that the implementation process in this case has accentuated the need for a dialog shows that BP’s management has tried to employ a softer view that is similar to the main points in the SSM. The employee’s opinions are heard and actions have been coordinated in an orderly fashion so that all involved parties have felt that they have participated and influenced the decision process. We believe that this has hampered the overall process in the short run, but in the long run has established valuable relationships between management and the involved parties. The risk for active resistance the way Mirvis and Marks (1992) as well as Larsson (1990) define it (e.g. sabotage) has diminished thanks to the openness and diplomacy shown by BP’s management.

The only evidence of active resistance that was brought up in our empirical study was the fact that one business stream in Denmark lobbied for, at late stage, a different information system. This slowed the whole implementation process down and is therefore the reason why we call it a form of active resistance.

Markus (1984) mentions partial usage of the system as something that is often misinterpreted as resistance. In this case we have not been able to devise if there exists any partial usage of the system. We are, although, of the opinion that once ISP is fully implemented there will initially be problems of this sort, but these are not to be considered as resistance to the
system. After a period of training on the job, (learning by using as one of our respondents called it), we think that Nordic Lubricants will function as planned.

The cultural clashes that Larsson (1990) and Mirvis and Marks (1992) bring up may present themselves after both organizations move into one common facility and thereby have to work side by side. This may create tension between the two corporations. Hopefully, though, the employees have by then grown accustomed to the fact that they both work towards the same goals and that the cultural differences will not matter much. We see a potential problem related to this. Namely, the way Castrol nurses their customers today. This may seem rational and logical to the Castrol employees, but may seem completely irrational to the employees coming from the BP organization. Hopefully, again, this will not be a problem if the former BP employees are open-minded and see that this process has been effective earlier and may well be the reason why Castrol has managed to strengthen their brand to what it is today.

The eventual problems that Gattorna & Walters (1996) mention about the quality gap between the suppliers and the buyers could have been present if there had not been any dialog between the involved parties. We feel therefore that the quality aspect of the deal and ISP will, in the future, be high. On the other hand, the time aspect has created some resistance amongst some involved parties. They feel that the implementation of ISP has taken so long that once it is fully installed it will have to be replaced within a short period of time. This means that the payback time of the
whole implementation process is shortened and will therefore burden the income statements heavily during the next couple of years.

As mentioned earlier, ISP will be replaced within a timeframe of three to five years after its implementation. According to some of our interviewees, the employees of today’s enterprises should be aware of and ready for system upgrades as well as new system implementations. Changing organizations that persist requires learning on the part of the users of systems according to the soft view on IS implementation.

We believe that this frame of mind is healthy, not only for the employees but also for the organization as such. To be prepared for change and expect it means that the employees maintain a critical point of view towards the processes and routines and thereby learn from previous experiences which will in turn result in more efficient and better adapted new information systems in the future.
6 Concluding Thoughts

In this concluding chapter we will discuss and summarize the outcome of this study. Initially, we present the main points made and relate them to our study questions and our purpose. Finally, we discuss the possible use of the results and give recommendations for further studies.

In this thesis we have investigated the implementation process of an information system. We have tried to highlight the different opinions, found in the literature, on how to implement an information system by presenting the hard and the soft views.

The hard traditional view, which can be found in most IS literature, puts forward the importance of a structured and rational implementation process that follow predetermined phases. The soft view, on the other hand, concerns more about the human aspects of the implementation and focuses on user-involvement and learning. We believe that the structure, which is advocated by the hard view, is important in order to efficiently implement an information system and to keep the project within the set timeframe. However, the soft views recommendations for user involvement cannot be neglected. The users play an important role and are the ones who use the system in their daily work and therefore must also be involved in the implementation process.
Furthermore the aim of this thesis has been to investigate and describe how the implementation of an information system is done in a real case. Our study of the implementation of ISP in Nordic Lubricants AB has shown that they rely on and follow a, by the top management, predetermined model that shows different phases of an implementation process. We think that this arises from traditional thinking and demand for efficiency. British Petroleum, who own Nordic Lubricants, is a large corporation and since ISP is used worldwide they want to maintain common routines in regard to the system.

However, this specific implementation also has a soft touch, exemplified by the way that BP chose what system to implement. They wanted to create a dialog with the different streams in the new organization in order to avoid steamrolling them. Since this case regards an acquisition, we believe that it was a correct decision by BP to show an open attitude towards Castrol. This way of offering a dialog differed from earlier implementation processes.

This soft view has also been visible in the specific implementation process. We have noticed a wish to involve users and this may also be derived from the fact that BP did not want to run over the employees in the new organization. The aim of this, in our view, was to prevent resistance.

We hope that our description of the implementation process at Nordic Lubricants can be valuable to others. As we stated in the methodology chapter, we are aware that it is difficult to draw any general conclusions.
from a study that concentrates on a certain phenomenon. The phenomenon studied is specific and can therefore not be directly related to other circumstances. On the other hand, we feel that the results of this study should not be disregarded in similar cases, i.e. implementations of information systems in newly acquired companies.

We would like to point out the weakness of this study. Our goal when we set out to study the implementation process of an IS was to describe the complete process. Unfortunately, this has not been possible since in the studied case the process is not yet finalized. However, we mean that we have gained insight in the ongoing process and the phases, which have preceded the launch of the system in Nordic Lubricants. The system will be launched during the first half of the year 2002. Therefore we have, in our opinion, been able to describe and analyze these parts of the implementation process.

Companies that are on the verge of an IS implementation may be advised that it may be important to consider the soft aspects in addition to the harder traditional aspects of an IS implementation to avoid problems encountered by companies in similar situations that have neglected to do so.

Another way we feel that this study may contribute to others is by setting a stage for further studies. People interested in this field may benefit from our study in the sense that they can avoid missing the critical aspects of an IS implementation that are covered by the soft view.
Students writing essays on the subject can learn from this study that it is not necessarily enough to consider the traditional hard aspects of an IS implementation, presented in the majority of the literature, to effectively minimize the chances of problems during the process. As a suggestion for future research, we would like to see that from the study of other IS implementations under different circumstances, if they also call for the involvement of the softer aspects of an organization. Another interesting research topic might be to see if there is newer literature, than the literature we used, that advocates the inclusion of softer aspects during IS implementation projects. This might shed light on how the hard view on IS implementations might be softening up.
Bibliography

• Alvesson Mats, Sköldberg Kaj (1994), *Tolkning och reflektion: Vetenskapsfilosofi och kvalitativ metod*, Studentlitteratur, Lund
• Askenäs Linda (2000), *Affärsystemet*, Unitryck, Linköping
• Checkland Peter, Holwell Sue (1998), *Information, Systems and Information Systems*, Wiley & Sons Ltd. Chichester
• Falk Thomas, Olve Nils-Göran (1996), *IT som strategisk resurs*, Liber Ekonomi, Malmö
Implementing an Information System

- Larsson Rikard (1990), *Coordination of Action in Mergers and Acquisitions*, Lund University Press, Lund
- Lekvall, Per, Wahlbin, Clas (1993), *Information för marknadsföringsbeslut*, IHM förlag AB, Göteborg
- Lundahl Ulf, Skärvad Per-Hugo (1999), *Utredningsmetodik för samhällsvetare och ekonomer*, Studentlitteratur, Lund

82
• Tjäder Jimmy, (1999), *Systemimplementering i praktiken: en studie av logiker i fyra projekt*, IDA, Linköping
• Ward John, et al. (1990), *Strategic Planning for Information Systems*, Wiley & Sons Ltd., Chichester
• Wilson Brian (1990), *Systems: Concepts, Methodologies and Applications*, Wiley & Sons Ltd., Chichester
• Winograd Terry, Flores Fernando (1986), *Understanding Computers and Cognition – a new foundation for design*, Ablex, Norwood
Articles

- Tetenbaum, Toby fall 1999, *Seven Key Practices that Improve the Chances for Expected Integration and Synergies*, Organizational Dynamics, Vol. 28, Issue 2, pp. 22,

Internet