Hilkka Poutanen

DEVELOPING THE ROLE OF HUMAN RESOURCE INFORMATION SYSTEMS FOR THE ACTIVITIES OF GOOD LEADERSHIP
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DEVELOPING THE ROLE OF HUMAN RESOURCE INFORMATION SYSTEMS FOR THE ACTIVITIES OF GOOD LEADERSHIP

Academic dissertation to be presented with the assent of the Faculty of Science of the University of Oulu for public defence in OP-sali (Auditorium L10), Linnanmaa, on 28 May 2010, at 12 noon
Abstract
The research of the thesis is a human- and context-oriented qualitative study in the field of information systems (IS) discipline. The thesis has five research concepts: human resource information systems (HRIS), leadership, human resource management (HRM), tacit knowledge and emotional intelligence (EI). HRIS and leadership are two main concepts of the research, whereas HRM provides an application area and managerial activities of leadership for HRIS. Tacit knowledge and EI, for their part, are used to describe and interpret actions that make good leadership activities human, sensitive and successful.

The theoretical framework of the thesis consists of two ideas, 1) when thinking and acting in the current way, what kind of information systems it produces, and 2) when thinking and acting in another way, what kind of information systems it creates. The framework has its base on thinking and acting in a conventional, routine and stereotyped way, which hinders the process of observing, finding out, applying and using alternative thoughts and actions although they might provide useful and innovative solutions or activities for IS design. The research has been carried out and accomplished using hermeneutic phenomenography as a research method to understand, interpret and to describe the phenomenon of the activities of good leadership and the phenomenon of the role of HRIS in the case organizations.

As a result of the interviews, the good leaders’ main activity is to learn to know their employees. The essential finding is that the role of HRIS is partly unclear and even non-specific in organizations. The results indicate that the leaders do not use HRIS willingly. In their opinion HRIS do not serve or support their leadership activities. The use of HRIS is more a burden for them than a useful system. The data of HRIS benefits the managerial activities partly but does not benefit the human activities that the leaders have described and emphasized. Thus, a construct of hermeneutic phenomenography has been developed as a contribution to describe the research phenomena and to demonstrate how the role of HRIS could be developed for the activities of good leadership.

Keywords: emotional intelligence, hermeneutic phenomenography, human resource information systems, human resource management, leadership, mind maps, neuro-linguistic programming, tacit knowledge
Dedication

The thesis is dedicated to the idea of the book ‘The Little Prince’ by Antoine de Saint-Exupéry (1962).

“And he went back to meet the fox.
‘Good-bye,’ he said.
‘Good-bye,’ said the fox. ‘And now here is my secret, a very simple secret: It is only with the heart that one can see rightly; what is essential is invisible to the eye.’
‘What is essential is invisible to the eye,’ the little prince repeated, so that he would be sure to remember.
‘It is the time you have wasted for your rose that makes your rose so important.’
‘It is the time I have wasted for my rose –’ said the little prince, so that he would be sure to remember.
‘Men have forgotten this truth,’ said the fox. ‘But you must not forget it. You become responsible, forever, for what you have tamed. You are responsible for your rose …’
‘I am responsible for my rose,’ the little prince repeated, so that he would be sure to remember.” (de Saint-Exupéry 1962: 84)
Acknowledgements

“Success is composed of making one’s dreams come true, singing one’s own songs, dancing one’s own dances, creating things with one’s own heart and of fully enjoying the journey and trusting that whatever happens, it will be OK.”
- Elana Lindquist

“I have a dream,” said Martin Luther King when he spoke up for equality of all people. Numerous poets, writers and thinkers emphasize the profound power of a dream. They also remark that though all dreams do not come true, abandoning them may lead to cynicism and tend to diminish one’s possibilities to reach out something meaningful. Having dreams is one of my essential resources. When I look back, I have had quite a few dreams that have come true, some of them partially, others totally, but still they have come true. Writing a thesis has been one of my dreams. It has taken over twenty years before the dream has come true but it has, finally. I have done my share and have got a great deal of support and encouragement from the people around me. Therefore, it is a pleasure to thank all those who made this thesis possible.

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For the censorship of the preliminary examination and for the valuable advice I am indebted to Associate Professor Liisa von Hellens and Professor Shirley Gregor. I am also in gratitude to Docent Hannakaisa Isomäki, PhD, Research Director, Adjunct Professor for being my opponent. For scholarships I express my thanks to Tauno Tönningin säätiö, Faculty of Science, University of Oulu, and to Yliopiston apteekin rahasto. I would also like to thank the staff of Oulu
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When executing qualitative research, appropriate data is essential. I had an opportunity to interview good leaders from three ICT companies. I am highly grateful both to the case organizations and the twelve leaders for the interviews. Without you I could not have had such an excellent material to study. Thank you! For language checking and overall interest in my thesis I warmly thank Ms. Marja-Leena Oikarinen, MA. We have had rewarding sessions when going through my texts. I also like to thank for the friendship that the shared meetings have evoked. Thank you Malla!
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Oulu, May 2010
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<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>AIS</td>
<td>Association for Information Systems</td>
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<tr>
<td>AIT</td>
<td>Advanced Information Technology</td>
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<tr>
<td>AST</td>
<td>Adaptive Structuration Theory</td>
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<tr>
<td>CD</td>
<td>Contextual Design</td>
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<td>CHRIS</td>
<td>Computer-based Human Resource Information Systems</td>
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<td>DSS</td>
<td>Decision Support Systems</td>
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<td>EDP</td>
<td>Electronic Data Processing</td>
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<td>e-HR</td>
<td>Electronic Human Resource</td>
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<td>Electronic Human Resource Management</td>
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<td>EI</td>
<td>Emotional Intelligence</td>
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<td>ERP</td>
<td>Enterprise Resource Planning</td>
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<td>Enterprise Resource Planning Information Systems</td>
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<td>HR</td>
<td>Human Resource</td>
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<td>HRD</td>
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<td>Human Resource Management</td>
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<td>I&amp;O</td>
<td>Information &amp; Organization</td>
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<td>ICEIS</td>
<td>International Conference of Enterprise Information Systems</td>
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<td>ICT</td>
<td>Information and Communication Technology</td>
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<td>IPM</td>
<td>Institute of Personnel Management</td>
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<td>IS</td>
<td>Information Systems</td>
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<td>ISDT</td>
<td>Information Systems Design Theory</td>
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<td>ISR</td>
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<td>IT</td>
<td>Information Technology</td>
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<td>JAIS</td>
<td>Journal of Association for Information Systems</td>
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<td>KBS</td>
<td>Knowledge-based Systems</td>
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<td>KL</td>
<td>Knowledge Leadership</td>
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<td>KM</td>
<td>Knowledge Management</td>
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<td>MISQ</td>
<td>Management Information Systems Quarterly</td>
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<td>MSCEIT</td>
<td>Mayer-Salovey-Caruso Emotional Intelligent Test</td>
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<tr>
<td>NAI</td>
<td>National Association of Interpretation</td>
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<tr>
<td>NHS</td>
<td>National Health Service</td>
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<td>NLP</td>
<td>Neuro-Linguistic Programming</td>
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<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>NPS</td>
<td>National Park Service</td>
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<tr>
<td>PC</td>
<td>Personal Computer</td>
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<td>PSIC</td>
<td>Punctuated Socio-technical IS Change</td>
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<tr>
<td>SAP</td>
<td>Systeme, Anwendungen und Produkte</td>
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<tr>
<td>SHRDP</td>
<td>Strategic Human Resource Development and Planning</td>
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<tr>
<td>SHRM</td>
<td>Strategic Human Resource Management</td>
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<td>SISP</td>
<td>Strategic Information Systems Planning</td>
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<tr>
<td>TKML</td>
<td>Tacit Knowledge for Military Leaders</td>
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<tr>
<td>UK</td>
<td>United Kingdom</td>
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<tr>
<td>USA</td>
<td>United States of America</td>
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<tr>
<td>WWW</td>
<td>World Wide Web</td>
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1 Introduction

Human resource information systems (HRIS) and the activities of good leadership form the basic phenomenon which will be studied in this thesis. The thesis is qualitative research where hermeneutic phenomenography is used as a research method to examine interviews. The interviews have been conducted utilizing the logical levels of neuro-linguistic programming (NLP), and the subjects of the interviews have been described using the Mind Map™-technique. The results of the thesis contribute to the description of developing the role of HRIS for the activities of good leadership.

The study of the thesis is significant because a) the research of HRIS is in its early stage and it needs to be highlighted for wider studies, b) in practice the use and the exploitation of HRIS should be considered from alternative perspectives and thus c) the research context is unconventional compared with the application area wherein HRIS have been designed and implemented. HRIS are designed for the activities of human resource management (HRM) and in the thesis the application area is the activities of good leadership. The reason for the choice of the application area is to observe and find out details and aspects of the role and the use of HRIS. The findings and results of the thesis can be considered significant.

In this chapter the introduction of the thesis is provided as follows. First, the research topic is described, the research tasks are introduced and the research aims are discussed. Secondly, the motivations to commence the research and to write the thesis are depicted. The research method and research concepts are introduced in the third section whereas the theoretical framework is created in the fourth section. Thereafter, the significance of the thesis is highlighted and, finally, the outline of the thesis is described in the last section.

1.1 Research topic, tasks and aims

The human- and context-oriented study in the information systems (IS) discipline is the thread of the thesis. The human-orientation means that rather than focusing on a human resource (HR) information system as a system, the thesis studies the role of the system in concrete human activities of leadership. Thus, the activities of the leaders form the research context. Yet, the concept of contextual design (CD) created in IS research has not been used in the thesis. CD is developed by Beyer & Holtzblatt (1998). It focuses on studying rationalized workflows for
customer-oriented area and designing IS for human-computer interfaces (Beyer & Holtzblatt 1998). CD offers concrete methodological solutions for designing IS and it can be seen as an alternative for engineering and feature driven models for designing IS (Beyer & Holtzblatt 1998). This study, however, focuses on developing human-oriented and sensitive IS utilizing the meaning of the role of IS in the organization and therefore the ideas of CD have not been included in the thesis.

The study of the thesis is qualitative and interpretative research where twelve leaders have been interviewed in the context of information and communication technology (ICT). The focus of the interviews is on the leaders’ good activities. It has its base on the idea to concentrate on well-working actions which maintain success in the organization rather than focus on problems which give rise to contradictions. It can be argued and discussed what ‘good’ as a qualifier means and includes. In the thesis the word ‘good’ is determined using the appraisals the employees have given to their superiors in the companies’ feedback systems. This means that the chosen leaders have got high numerical and verbal appraisals from their subordinates for a long period of time. Thus, the word ‘good’ has not any theoretical background but a strong practical base. It can also be asked if some other qualifier than ‘good’ could have been used to describe the leaders activities. It could have been possible but in the thesis the word ‘good’ has been given a wide sense. It means that the leaders’ activities consist of diverse actions and multidimensional skills which lead to successful situations and results, and which, for their part, well indicate employees’ appraisals. In the thesis the word ‘activities’ means the relationship between a leader and an employee as well as the actions which occur in the relationship. When observing the activities of good leadership, stable work tasks are not the core cases but dynamic and diverse activities in a work community.

In the organizational context an information system is part of the reality where different activities occur. The use of an information system from the user’s point of view is not work in itself, rather it provides the user with a beneficial tool to work. In other words, an information system does not exist only for the process or production of information but it has a great influence on activities. Based on the previous conception, from the contextual point of view the main questions of the thesis are what HRIS mean for the good leaders and what is the role of HRIS when the leaders are executing their leadership activities. Four research tasks have been created to give answers to the questions. They are
to understand how the good leaders execute their leadership
- to understand the role of HRIS in their leadership activities
- to discuss the role and the development of HRIS in the sensitive and human-oriented application area
- to connect the research results and the research concepts to contribute to the development of the role of HRIS for the activities of good leadership.

Hence, the objective of the study is not to explain what the research phenomenon (the activities of good leadership and the role of HRIS) strictly speaking is, but to create understanding of the research phenomenon to describe it as a whole. In addition, the HR information system as a system is not developed directly but a description of the development construct is created to give a picture of what kind of issues should be taken into account when the HR information system is developed to benefit the activities of good leadership as well as the whole organization. To attain the objective, the empirical study focuses on the activities of good leadership first and then on examining the role of HRIS in those activities.

1.2 Motivations of the thesis

What motivated me to study the activities of good leadership and HRIS together, were the experiences I had got working in practice. Every once in a while managers and leaders repeat the phrase “people are the most important resources in the organization” in different organizational meetings and personnel events. When I heard the phrase frequently, I commenced to think what the phrase meant to them when they maintained activities concerning employees. What were leaders’ and managers’ thoughts and actions when they yearly executed the activities concerning employees and HR as a whole? How did the leaders and managers combine human and other activities in their daily routines? On what knowledge and intelligence did leaders and managers base their activities? What could be regarded as superiors’ primary goal in the organization: managing HR or leading the employees?

Organizations also invested a great deal of money in HRIS and, therefore, profits were expected. In addition, from economical viewpoint, the personnel itself was an item of expenditure. Due to the emphasis on the financial benefits of the organization, how could the superiors’ activities with the employees be executed humanly or at least sensibly when a great deal of issues that related to
personnel were costs? These were the questions which bothered me when I worked as a system analyst and later as a HR analyst in ICT organizations.

I was also able to participate in a design process of a HR information system. It was an opportunity to perceive different working activities of managers and leaders. Some answers to the questions above were found when observing the superiors’ behavior, actions and attitudes with the employees and HRIS. I also realized that the behavior, actions and attitudes affected the use of HRIS. Conventionally, the HR information system was designed to focus on the activities of HRM. The superiors, however, were confused with the system. The reason for the confusion was both the data and the system itself. The superiors were able to work with the employees’ data with the help of the system, i.e. to store, maintain and process the automated manual data of the employees which they already knew. Thus, the data did not offer anything new to them. In addition, the HR information system did not have the features the superiors had developed with their own systems when executing their activities with the employees earlier. In other words, some non-verbal, inarticulate or unspoken communication of the superiors signalled that their activities with the employees did not co-ordinate with the use of the HR information system. Therefore, regardless of the HR information system, some superiors had maintained their own manual data, word documents or table files to confirm their work with the employees.

Because of these experiences, I continued to wonder the role of HRIS in organizations as well as in the superiors’ activities. It aroused a need to study HRIS and human issues related to it. Shortly I learned that the research of HRIS was in its early stage and therefore finding proper research material was no easy task. Still, I carried on my research work by publishing two papers on HRIS and HRM (Poutanen 2004, 2005). Thereafter the research work of the thesis led me to publish two more papers. In the first paper (Poutanen & Puhakka 2007) an initial framework of HRIS was developed, and in the second paper (Poutanen & Puhakka 2010) a number of various sides of HRIS were introduced.

Due to my observations on the superiors’ activities, to get a larger picture of the role of HRIS in the organizational context, the study of the thesis was focused on leadership rather than on HRM to find out the human activities between the superiors and the employees as well as the real meaning of the role of HRIS in those activities. By concentrating on good leadership especially, I could have a chance to study the role of HRIS in the work of leaders based on their ways to perform leadership activities well and to use their knowledge, intelligence, beliefs
and values in their good leadership. This brought forth new knowledge of HRIS for practice and for HRIS research.

1.3 Research method

The study of the thesis is qualitative and interpretative research which can be placed into the human- and context-oriented part of the IS research area. Hermeneutic phenomenography is used as a research method to interpret, understand and to describe the research phenomenon at the theoretical level. Phenomenographic research is created by Marton and Svensson (Marton 1981, Svensson 1997). The basic idea of phenomenography is to describe the research subject in question. In the phenomenographic research the empirical material is categorized in the course of the examination. Thus, in the thesis conversational themes have been created to categorize the issues of the interviews.

Activities of the good leaders have been studied by interviewing twelve leaders from ICT companies who are constantly successful in their leadership. The interviews were carried out in Finland in the summer of 2005. One of the two purposes of the interviews has been to understand what the leaders do when they lead the employees, how they carry out their activities, what is important and works well in their leadership, i.e. why they execute their leadership activities as they say they do. Herein, the ideas of NLP (Bandler & Grinder 1975, Grinder & Bandler 1976) and the logical levels (Dilts 1990) are benefitted to highlight the leaders’ tacit knowing and emotional awareness.

The other purpose of the interviews was to find out the role of HRIS in the leaders’ activities. Therefore, after discussing the leadership activities, the leaders were asked to describe the role of HRIS in their leadership activities, i.e. how they used HRIS in their activities, how HRIS supported and benefitted their activities and what they thought about the companies’ HRIS. They were also inquired about possible development ideas for developing HRIS to support their activities in leadership. In the course of the research work mind maps (Buzan & Buzan 1993) have been utilized to depict the activities and their connections visually. They have also been used to highlight the essential issues of the leadership activities and the role of HRIS in the case organizations.

As stated earlier, the focus of the study of the thesis is on describing the role of HRIS in the activities of good leadership. Figure 1 gives a depiction of the focus. When an information system is designed for a human application area, the challenge is to understand the importance of the interaction between the people
and the activities of the application area. The more human the activity is the more challenging is the design phase. (Avison & Elliot 2006, Chole & Avison 2007.) The research and its results are linked to the discussion of IS research to understand existing knowledge better and to combine new knowledge to existing understanding when designing an information system (Chole & Avison 2007). In addition, the study gives some implications for the discussion about IS and leadership.

![Fig. 1. Focus of the study of the thesis.](image-url)

### 1.4 Theoretical framework

As the theoretical framework of the thesis there are two approaches, which enable the research to have alternative perspectives to expand knowledge of the research work and the research subject by aiming to find alternative research approaches and solutions. The ideas of the two approaches are,

1. when thinking and acting in the current way, what kind of information systems it produces,
2. when thinking and acting in another way, what kind of information systems it creates.

The application of the two approaches does not mean that something in the current way of thinking and acting is wrong or bad in its entirety, or that the alternative way of thinking provides something new or good altogether. The two approaches can be described as follows: First, ‘thinking and acting in the current way’ means that a conventional, routine and stereotyped way of thinking and acting has so strong an influence on people’s ways of thinking and acting that it may hinder the process of creating alternative solutions or innovations. The common way of thinking and acting works satisfactorily and regardless of the problems and complaining, people are not willing to or do not seek alternative solutions. They are used to working in the current way and they have adapted
their own work to the existing situation and environment. This conventional way of thinking and acting means to adhere to living within customary boundaries (Lewis 2002: 36–42, 122–202).

The concept of conventional moral is created by Hart (1961: 165) and can also be introduced in this connection. As a jurisprudent Hart (1961) studied the general nature of law and its relationship to moral issues. The predominant conventional moral of the society means behavioral roles which obligate people to act in a certain way. The social pressure and the aim of the conformity maintain the roles. (Hart 1961: 163–176.) Therefore, it can be asked if in IS science and practice conventional behavioral roles or activities exist which obligate people to act in a certain way and thus to study and design IS according to certain patterns.

Secondly, in this study ‘thinking and acting in another way’ means the courage to abandon the common, conventional and convenient way of thinking and acting in any situation. It enables to look for and find alternative means to develop views, opinions, attitudes, conceptions or anything of issues or situations which need improvements or changes. Saarnivaara (2002) uses the concept of transgression when she discusses crossing over the border, i.e. thinking and acting in another way. Transgression is used in different disciplines. For example in geology it means that the shore goes to the land when the surface of the water rises. When talking about being and acting as a human being, the transgression means transition of the border and creating new forms. It also means such an over-transition which breaks an unwritten role, a moral principle or other similar issues. (Saarnivaara 2002: 4.) Saarnivaara (2002: 4) quotes Bataille (1998) when writing that “thinking about the over-transition of the border as a mental, psychic or social phenomenon, we notice that in addition to crossing it is characteristic of the over-transition that the border transfers to a new spot. ... Crossing the border always means a formation of a new border irrespective of whether we identify its existence at that very moment.” bell hooks (1994) has written about transgressive teaching or teaching to transgression. For her transgression means to learn to think in a new way and to free the thinking of the structures and borders which are built by the society (hooks 1994).

Thinking and acting in another way also challenges people’s cognitive development (Eysenck 1984). The conventional way of thinking keeps the minds and ideas inside the comfort area. To approach issues in alternative ways demands changes in thinking and also increases concrete acts. It challenges design work, decision making, problem solving as well as the interaction between people and different groups. First of all, another way of thinking challenges patience because
it takes time to learn what another way of thinking means and how to learn to use it. Therefore people do not make these changes easily. But if they do, the efforts are rewarded because by crossing the borders, people learn alternative and even new issues about the surrounding world, themselves, other people and about various interactions and situations.

The thesis in itself is a good example of an alternative way to think and act with regard to the research context. Because HRIS are designed for the activities of HRM, it would have been expedient to study HRIS in that context, i.e. to interview HR managers and professionals. Still, I have chosen good leadership as a context for the thesis to highlight an alternative way to think and act with regard to HRIS, i.e. to develop the role of HRIS in organizations by examining HRIS from the viewpoint of the knowledge producers of employee data. It has produced interesting results of the attitudes, benefits, use and the role of HRIS and provided alternative and innovative development ideas of HRIS. Conventionally, IS have been regarded as technical systems which have databases and data which can be coded. Now it is possible to consider IS as communal service systems which support human activities. It might be asked if the research carried out in the HRM context would have produced as significant results as that in the context of good leadership.

Thus, in this thesis ‘thinking and acting in another way’ means that the research has a strong human- and context-oriented approach to IS design. From the viewpoint of IS research this means that investigating IS by using non-conventional application area and, in addition, well-working activities of the application area enables the alternative way to think and act to develop HRIS. This may lead to a better outcome than the conventional way of focusing on the traditional application area of IS and on problems and contradictions might lead to. In addition, the uncommon research method and tools have been used to highlight and depict the role of HRIS in the research context as well as to create the research results. They are not only used as an experiment to practice another way of thinking and acting, but to bring out issues which may affect the design and development of IS in human application areas. In this thesis, tacit knowledge and emotional intelligence (EI) as important issues are connected to the activities of good leadership. Together they represent the human application area wherein HRIS have not sufficiently been used and utilized by the leaders. The research results will highlight the leaders’ tacit knowledge and EI, and the study of the thesis will produce implications for the research context and contributions to HRIS research and practice.
Thus, the thesis has five research concepts: HRIS, leadership, HRM, tacit knowledge and EI. HRIS are a novel research subject in IS field. The definitions of HRIS are created in the 1980s and in the 1990s. The literature of HRIS has its base mostly on research articles and papers because HRIS have been studied more extensively and thoroughly not until in the new millennium. Four books are available of HRIS. They are mainly handbooks or other practical guidebooks of the design and use of HRIS in organizations. Thus, so far any other books on HRIS do not exist. In addition, even though DeSanctis (1986) wrote an article on HRIS in the 1980s, the number of the research articles on HRIS has not increased until in the late 1990s and in the new millennium. Leadership, for its part, has a long history as a discipline and has plenty of theories, definitions, categorizations and characterizations. It has been examined for centuries and it is a discipline which has quite a number of research approaches and active research communities. In this thesis the definitions and theories of leadership are introduced shortly. The purpose is to give a theoretical overview to understand the research context. In addition, due to the human research context of the thesis, leadership is examined from an individual perspective rather than from a strategic, procedural or as a business viewpoint.

There is a concept in IS science called ‘IS leadership’ which focuses on questions how IS and information technology (IT) are led in an organization after investments and what are the competencies of leaders to lead IS and IT in an organization (Applegate & Elam 1992, Sharma & Rai 2003, Watson & Brohman 2003). The scientific discussion of the study of the thesis does not include discussion about ‘IS leadership’ because the study of the thesis is not about how to lead IS or IT in an organization but on the role of IS in the organizational activities. Still, IS leadership research is also an interesting issue to be taken into account in future studies.

The concepts of HRM, tacit knowledge and EI are used to understand and interpret the activities of good leadership. HRIS are regarded as organizational IS and they are designed for and reflected by the activities of HRM. Therefore, the concept of HRM is included in the research. In the thesis HRM is introduced as an application area of HRIS and also discussed as a managerial part of the leadership activities. Due to the research context, other managerial viewpoints than HRM are not included in leadership. Tacit knowledge and EI are utilized to understand, interpret and to describe the humanity, sensitivity and the individuality of the activities of good leadership at the empirical level. They have a significant role when examining the leadership activities and developing the
role of HRIS in the research context. The research concepts are introduced in greater detail in chapter 2.

1.5 Significance of the thesis

A great number of IS have been created to support different organizational activities like management, economy or resources. In this thesis the focus is on the role of HRIS in the leadership activities because HRIS are seen as essential systems when leading people and managing human resources in the organizations. Because the research of HRIS is a novel field in the IS discipline, the thesis has highlighted a significant research area among other organizational IS. Moreover, from practical point of view the study of the thesis opens a discussion how HRIS should be developed for organizations. It has been significant to find out how and on what occasions the leaders use HRIS, what their opinions of HRIS are and how they would develop HRIS to support their leadership activities. According to the research results, the use of HRIS is a burden for the leaders. HRIS do not serve their leadership activities. Even the data of employees is almost useless because the leaders know their employees well.

The purpose of the thesis has been to see the current state of HRIS and the role of HRIS in the case organizations. Conventionally HRIS are designed and implemented for the activities of HRM. Still, it is required that the whole organization, especially the superiors, managers and leaders use the system. In addition, organizations invest large amounts of money and time in maintaining and developing HRIS with the idea that the system benefits the whole organization. Thus, the minor use of HRIS causes costs for the organization. In addition, because the leaders are dissatisfied with HRIS, they are not eager to develop them. In their opinion it would be almost a waste of time. The leaders should, however, comprehend that the data and the information in the system come from the activities they accomplish. They are the users of the system which should benefit both managerial and leadership activities in the organization. Here a challenge is the morality and legality of the data content. There are official laws and even moral conceptions which determine to what extent the factual and sensitive knowledge of the employees can be stored in a system. Despite their resisting attitudes towards HRIS, the leaders suggest ideas for developing HRIS to benefit the leadership activities.

The examination of the activities of good leadership highlighted that the leaders acted highly sensitively and humanly with their employees. The most
important activity for them was to learn to know their employees, and that is what they repeatedly underlined. It meant that they had to learn to know the employees as persons, i.e. how they act, react and feel during the working day. The leaders also emphasized the importance of supporting and serving both the employees working and private life. They stressed that they should not be friends with the employees but to be aware of what was happening in the employees’ lives because it affects the well-being and the work of the employees. Their common opinion was that as leaders they have to be trustworthy if the employees want to come to discuss anything. The factual data, for its part, paid a minor role when the leaders were co-operating with their employees. More important was that the employees understood the wholeness, i.e. how the system of the organization worked and that everyone worked together. In that way the work would be done. Still, the leaders did not discuss effectiveness but that the employees should be happy when working. One of the outcomes of good leadership was in their opinion that the employees enjoyed coming to the working place and they enjoyed working.

In this human context it is challenging to design and develop HRIS which could support and benefit the activities of good leadership. Hence, chapters 4 to 6 describe the interview process and the empirical data comprehensively. Chapters 7 and 8 introduce the research results, the summaries of the results as well as the contribution and the conclusion of the thesis in more detail to give answers to the research tasks and to put forward proposals for the development work of HRIS in the research context.

1.6 Outline of the thesis

The current chapter is the introduction to the research method and concepts and to the theoretical and empirical issues of the thesis. In addition, some essential findings have been described to highlight the significance of the thesis, i.e. the research itself, the research results and the contribution. In the following seven chapters the research and the results are opened and described as follows. In chapter 2 the key concepts of the thesis are introduced. The two main concepts are HRIS and leadership. Theoretically HRIS are presented introducing the definitions, the construct of six viewpoints and the current state of HRIS research. The construct of the viewpoints of HRIS has been developed to be later used to summarize the research results. Leadership is described using some of its definitions and theories to show the understanding of its diversity, history and
present as a discipline. In the thesis HRM has been included in managerial activities of leadership. Still, it is significant to give a short introduction to HRM separately because it is mostly utilized as an application area for HRIS. Tacit knowledge and EI are presented to characterize the activities of good leadership and to describe the issues which makes the good leaders’ activities successful. It is also discussed how IS and IT have been entered into leadership research. Finally, the research concepts are summarized.

Chapter 3 is dedicated to the research approach, method and techniques. First the qualitative and interpretative research approaches are introduced. Secondly, the research method, i.e. hermeneutic phenomenography, is presented introducing ideas of hermeneutics and describing the method of phenomenography first. In addition, some similar phenomenographic studies to that of the thesis are presented. Thirdly, the research techniques are introduced depicting first the qualitative interview as a data collecting method. Then NLP and the logical levels as an interview method are described. Mind Map™-technique is introduced to be utilized in creating the descriptions of interviews. Finally, the research approach, method and techniques are summarized.

In chapter 4 the conduct of the study of the thesis is described. The chapter introduces the selection of the interviewees, the interviewees’ careers and backgrounds and the interviewing process. It also introduces how hermeneutic circles have been applied to examining the interviews. Chapter 5 includes the survey of the empirical data of the activities of good leadership. Firstly the interviewees are introduced. Then their beliefs and values in leadership and their reflections and self-evaluations with regard to leadership are described. The idea is to understand how the good leaders approach and execute their leadership. Secondly the activities of good leadership are depicted categorizing them as conversational themes and as essential issues. The description section is quite comprehensive because the purpose is to introduce the diversity and multidimensionality of the interviewees’ activities in leadership as an application area. At the end of the chapter the phenomenon of good leadership is described. In chapter 6 the role of HRIS in the interviewees’ leadership is depicted. Herein, conversational themes are also created to categorize the discussed issues. The themes describe the role of HRIS in the case organizations, the interviewees’ descriptions of the companies’ HRIS and their opinions of HRIS and their use in the activities of leadership. The idea is to find out and examine which activities HRIS have an influence on, what opinions the leaders have about HRIS and its use and what are the leaders’ conceptions of HRIS. After that the interviewees’
development ideas related to HRIS and their conceptions of HRIS as ICT leaders are discussed. Finally, the phenomenon of the role of HRIS in the case organizations is introduced.

In chapter 7 the results of the leadership activities and HRIS are combined. After summarizing the research process briefly, the theoretical and empirical results of good leadership and the role of HRIS are introduced. Chapter 8 is dedicated to the contribution and the conclusion of the thesis. First, the construct of hermeneutic phenomenography is utilized to create elements for the development of the role of HRIS. This means that a construct of the mediating artifact is formed to support creating a construct of good leadership and a construct of HRM as well as a combined construct of good leadership and HRIS. Thereafter, the role of HRIS in the activities of good leadership is developed, first by listing the empirical results, secondly by reflecting on the research and results with regard to the research concepts, thirdly by introducing the contribution and finally by discussing the main research findings and observations as an addition to the empirical results. Then the suggestions for further studies are offered and the researcher’s reflections on alternative ways to perform the research – how the research could have been performed differently – are introduced. In conclusion the author’s experiences of the research and the writing processes are described completing the thesis with a passage from the book ‘The Little Prince’ by Antoine de Saint-Exupéry (1962).
2 Key concepts of the thesis

In this chapter the key concepts of the thesis are introduced. The research concepts are HRIS, leadership, HRM, tacit knowledge and EI. Section 2.1 comprises the definitions of HRIS and to viewpoints which give a picture of the history and development of HRIS as well as of the issues involved. Also the research situation and the current state of HRIS are depicted in this section. Leadership is determined by studying some of its definitions and theories (subsection 2.2.1). HRM is a concept related both to HRIS and leadership. In subsection 2.2.2 HRM is introduced by including it in the activities of leadership. Tacit knowledge and EI are used to characterize the activities of leadership in the research context (subsection 2.2.3). The conclusion of the research concepts is drawn in section 2.3.

Before introducing the research concepts, a short justification for the chosen concepts is presented utilizing the human-oriented approach of IS discipline. Despite its technical face, IS discipline enables social and human approaches and, hence, interacts with such disciplines. IS have been defined in different ways and the emphasis of definitions depends on the interests of the researchers. In other words, whether the emphasis is on technology, management, organization or society, or whether it is on academics and research, or whether it is on the system itself and its role in application areas, the definition includes various aspects of interest (Avison & Elliot 2006). Avison & Elliot (2006) introduces three definitions of IS, which indicate these different viewpoints. The first definition is by Avison & Fitzgerald (2003), the second is suggested by the UK (United Kingdom) Academy for Information Systems and the third one is by Lee (2001).

“The effective design, delivery, use and impact of information [and communication] technologies in organizations and society.” (Avison & Elliot 2006: 3).

“The study of information systems and their development is a multi-disciplinary subject and addresses the range of strategic, managerial and operational activities involved in the gathering, processing, storing, distributing and use of information, and its associated technologies, in society and organizations.” (Avison & Elliot 2006: 3).

“IS discipline is distinct in that it examines more than just the technological systems, or just the social systems, or even the two side by side; in addition it
investigates the phenomena that emerge when the two interact.” (Avison & Elliot 2006: 4).

Considering the human-oriented approach of the thesis, Lee’s definition emphasizes the aspects which are important and significant. The social system includes the activities of good leadership linked with tacit knowledge and EI, and the technological system involves HRIS. The question is what emerges when they interact and what could emerge in the interaction if HRIS are developed by an emphasis on leadership, tacit knowledge and EI oriented.

Because of its human-oriented side, the IS discipline has been connected with social sciences – sociology, psychology or anthropology – but the social sciences are also regarded as related disciplines to IS. In addition, the IS discipline has diversified its own theories utilizing other disciplines such as linguistics, semiotics, ethics, psychology and sociology. This kind of overlapping enables cooperation and interaction between sciences although they have their own focus, purpose and orientation of activities. In addition, other disciplines have helped construct better IS (for example for management), more user-friendly and communicative systems, and more effective software. (Avison & Elliot 2006.) Baskerville & Myers (2002) have also depicted IS as a referenced discipline which Avison & Elliot (2006) have adopted in their article. Thus, as an applied science, the IS discipline has offered significant issues to today’s multi-faced research. Figure 2 is from Avison & Elliot’s (2006) paper. The figure gives a good picture of the diversity of the IS discipline. The need of the development of other disciplines, such as leadership together with tacit knowing and emotional intellectuality, should be perceived because the knowledge or information they need also challenges the development of IS. In addition, together with theories practical foundations are also highly important and they contribute to the development of IS theories and design (Avison & Elliot 2006).
2.1 Human resource information systems

Because of the novelty of HRIS in the IS field, the definitions, development and state of the art are introduced comprehensively. The purpose is to give a good and thorough basis for the research and the empirical study. In sub-section 2.1.1 the definitions of HRIS and the six clarifying viewpoints to HRIS are introduced. In sub-section 2.1.2 a construct of the viewpoints is created and depicted. Sub-section 2.1.3 describes the research situation and the current state of HRIS.

2.1.1 Definitions and six clarifying viewpoints

Various definitions of HRIS are available in the literature. First, the definition by Walker is offered (1982: 16): “The modern Human Resource Information System may be defined as a computer-based method for collecting, storing, maintaining, retrieving, and validating certain data needed by an organization about its employees, applicants, and former employees.” Secondly, Kavanagh, Gueutal & Tannenbaum (1990: 29) define that “a human resource information system is a system used to acquire, store, manipulate, analyze, retrieve, and distribute
pertinent information about an organization’s human resources”. Haines & Petit (1997: 261) and Ball (2001: 679) have also used this definition. Thirdly, in their article Kossek, Young, Gash & Nichol (1994: 135) use Broderick & Boudreau’s (1992: 17) definition of HRIS, according to which human resource information system is “the composite of data bases, computer applications, and hardware and software that are used to collect/record, store, manage, deliver, present, and manipulate data for Human Resources”. The fourth definition is adapted from Walker (1982) and used by Kovach & Cathcart Jr. (1999: 275). It states that “a Human Resource Information System is a systematic procedure for collecting, storing, maintaining, retrieving, and validating data needed by an organization about its human resources, personnel activities, and organization unit characteristics”.

In conclusion, the four definitions of HRIS emphasize the technical activities to process the data of human resources. In addition, the definitions are also affected by the application area. Thus, because HRIS are related to HRM, the definitions of HRM are shortly noticed and referred to. HRM is defined by using lists of different tasks associated with employees like: recruiting, training, promoting, record keeping and meeting various legal requirements. HRM is also defined as monitoring, facilitating and setting up processes that select, assess, and assign people to appropriate roles in an organization (Townley 1994, Hubbart, Forcht & Thomas 1998, Targowski & Deshpande 2001, Ball 2001). HRIS, earlier personnel systems, were mostly designed and implemented for those activities of HRM. It is easy to perceive that the definitions of HRIS supplement the definitions of HRM (see closer sub-section 2.2.2). Therefore, the concept of HRM is included in the thesis to see how the role of HRIS could be developed and diversified for the activities of good leadership.

Next the development of HRIS is introduced from six viewpoints to create a thorough and diverse picture of the subject. The viewpoints are: 1) history and background, 2) HRIS and data, 3) effects of HRIS on organizations, 4) HR and IS professionals and HRIS design, 5) use and exploitation of HRIS, and 6) HRIS and management work. Some HRIS issues are re-discussed in the viewpoints because the issues influence several areas. The re-discussions may seem tautophonous but when the viewpoint in question is taken into account, the meaning of the re-discussions will open up to the reader. In addition, the viewpoints bring out the connections between HRIS and the activities of HRM. However, in this thesis the purpose is to describe and develop the role of HRIS for the activities of good leadership rather than for the activities of HRM.
History and background

The history of HRIS begins from payroll systems in the late 1950s and continues into the 1960s when the first automated employee data was used (Kavanagh et al. 1990, Walker 1993, Martinsons 1997). Walker (1993: 11) presents how a “true” personnel system was defined in the late 1960s:

“A “true” personnel system (a system that is not just appended to payroll) has the following characteristics:

1. It is used to solve personnel’s needs, not just payroll’s. That is the system is developed primarily for the Personnel Department’s use, to solve personnel – not financial- problems.
2. It is multifunctional and in that it handles or addresses user needs in more than one personnel area. In other words, it is not limited to one function such as benefits, or employment, or wage and salary administration.
3. It utilizes the five basic concepts underlying human resource systems (These concepts are expanded upon in A. J. Walker (1982) HRIS Development – A Project Team Guide to Developing an Effective Personnel Information System. New York: Van Nostrand Reinhold.).
   - a database with definitions specified for data elements
   - a method of data update and entry
   - ad-hoc retrieval techniques
   - a human resource information centre to assist with administration
   - a data quality focus.

These concepts bring methodology to the development and operation of personnel systems. As objectives, they provide an approach and structure for the work, and they necessarily involve procedures, users, and systems professionals.”

Thus, the first personnel systems were made to store a tremendous amount of data for record keeping and reporting associated with personnel administration. In the course of time, the development of HR activities generated the design, development and the successful implementation of various computer-based HRIS (Martinsons 1997). Kavanagh et al. (1990) present their conception of the development of HRIS introducing the historical eras in HR from the pre-World
War II era to the 1980s and how the eras have affected the development of HRIS. Table 1 introduces the Exhibit 1.1 by Kavanagh et al. (1990: 7).

Table 1. “Historical eras in HR” (Kavanagh et al. 1990: 7).

<table>
<thead>
<tr>
<th>Era</th>
<th>Emphasis in HR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-World War II</td>
<td>Reactive, caretaker activity; not part of the mainstream of business; record keeping and caretaker of employees.</td>
</tr>
<tr>
<td>Postwar: 1945–1960</td>
<td>Importance of employee morale; personnel is part of operating costs but not yet in mainstream of operations; research and development (R&amp;D) in selection of employees; payroll automation; early applications of mainframe computers for personnel are used in defence industry.</td>
</tr>
<tr>
<td>Social issues era: 1963–</td>
<td>Social issues legislation changes HR; increased paperwork and reporting requirements; protector of employees; advent of MIS in computer world; introduction of IBM/360; HR now more in mainstream of operations.</td>
</tr>
<tr>
<td>1980</td>
<td></td>
</tr>
<tr>
<td>Cost-effectiveness era:</td>
<td>HR expected to cost justify activities; the increased government regulation of the 1980s increases HR role and paperwork; advent of microcomputers and HR software explosion; HRIS capabilities lower in cost, thus affordable by smaller firms; HR becomes part of the business strategy process; increased emphasis on R&amp;D for HR, particularly utility analysis</td>
</tr>
<tr>
<td>the 1980s</td>
<td></td>
</tr>
</tbody>
</table>

In the 1990s there existed various expectations of how HRIS should have affected an organization’s HR activities and business planning. Studies about advantages of using HRIS and about users of HRIS were performed. An organization was considered efficient if it had technology and IS to support HR activities. Also, effectiveness of HRIS on work and development of HR departments and HR professionals were under discussion. (Tannenbaum 1990, Broderick & Boudreau 1991, 1992, Kossek et al. 1994, Atwater 1995, Groe, Pyle & Jamrog 1996, Townsend & Hendrickson 1996, Haines & Petit 1997, Axel 1998, Hubbard et al. 1998, Rodger, Pendharkar, Paper & Molnar 1998, Stroh, Grasshoff, Rudé & Carter 1998, Van der Linden & Parker 1998, Elliot & Tevavichulada 1999, Niederman 1999.)

In the new millennium electronic services such as e-learning, e-commerce and e-business became possible and common because of the invention of World-Wide-Web (WWW). Along with the development of HRIS the concept of electronic HRM (e-HRM) has also been launched as an internet invention and implementation of HRIS. Because of the different technical devices and realizations, there are terms which may have similar meanings to e-HRM, such as electronic HR (e-HR), virtual HR(M), HR internet, web-based HR, computer-based human resource information systems (CHRIS) and HR portals. Still,
according to the literature, various articles and web sites, e-HRM is the most commonly-used term.

The research community of e-HRM is in its early beginning. Therefore, there is not an explicit definition of e-HRM but following the available initial definitions, e-HRM is

- “a way of implementing HR strategies, policies, and practices in organizations through a conscious and directed support of and/or with the full use of web-technology-based channels”, by Ruël, Bondarouk & Looise (2004: 365)
- “the, as a rule, spatial segregated, both technically networked and supported, shared and organized performing of HRM tasks through at least two actors”, by Strohmeier (2005: 2).

Ruël et al. (2004: 366) present that “the word ‘implementing’ in that context has a meaning, such as making something work, putting something into practice, or having something realized”. Strohmeier (2005: 2), for his part, explains that ‘spatial segregation’ means the situation where the actors and the HR application are in different places. ‘Technical network’ means that actors may work in the same room or on different continents and use the same application. ‘Technical support’ usually consists of the use of e-mail. ‘Shared organization’ and ‘at least two actors’ mean that the work is shared between several actors. ‘Performing of HRM tasks’ includes the basic work processes, such as recruiting, development and compensation. Based on the above it is possible to conclude that today the development of HRIS is still an on-going process both in practice and in science.

**HRIS and data**

The commonly used interpretation is that the purpose of HRIS is to store, manipulate and provide data on employees. In addition, HRIS have been designed to accomplish most of the routine HR tasks that help to maintain necessary HR knowledge in databases. The data is important a) for management and b) to keep the HRM effective and in real-time order. Thus, HRIS are mostly constructed for knowledge management (KM) of HRM. The reason for that is the desire to control basic data of personnel, which creates better challenges to a profitable and effective organization. For example, strategic human resource development and planning (SHRDP) is focused on strategic management, organizational behavior
and HRM. It links business strategy and organizational strategy to the management skills. Strategic information systems planning (SISP), for its part, supports the process of SHRDP, and knowledge-based system (KBS) helps deliver HRM qualitative outputs as well as increases both employee and customer satisfaction. (Grundy 1997, Martinsons 1997, Basu, Hartono, Lederer & Sethi 2002.) Therefore, for SHRDP reliable data and knowledge are vital issues.

Mainly HRIS have been designed to store, manipulate and provide data of employees for the organizational use. Names, addresses, phone numbers, education, training, career development and documents of the personal development discussion are typical employee data in HRIS. Also different private or semi-private data could have been stored in the system. Herein it should be taken into account that because of the automation, data can be available in a different way than in manual systems and requires more concern of data security and sensitivity than earlier. Therefore, at least following questions should be asked when designing, implementing and maintaining HRIS: Who can have access to the system? What kind of data is available to different users? How are the system and data protected? What kind of security system has been implemented? What legal and ethical issues should be considered in data specifications? (Hubbard et al. 1998)

**Effects of HRIS on organizations**

Personnel, software and hardware can be regarded as both investments and costs for the organization. Top management and stakeholders expect the investments to benefit the organization. At the same time the costs should be kept in check. Thus costs and benefits are the subjects of conversations when employment and device investments are in question in an organization. Therefore the discussions of the costs and benefits of the employees and HRIS are highlighted.

In figure 3 a chronological development of personnel costs and computer costs are described. It imitates the same by Kavanagh *et al.* (1990: 14). The figure does not include specific HRIS costs but it concentrates on computer costs. In addition, the figure does not speak out the ranges between employee and computer costs directly, in other words it does not give exact numbers of either of the costs, but it indicates visually that in the 1960s employee costs were low whereas big computers were expensive investments for organizations. Only big enterprises could use personnel systems because they were able to invest in both computers and software. The development of technology influenced the prices of
big computers. In the 1970s new inventions such as microcomputers, databases and personal computers (PC) decreased the costs of computers. Now companies were also able to invest in different IS due to the decline in costs of technology. In addition, small companies became interested in automating their HR actions and making them more effective. (DeSanctis 1986; Kavanagh et al. 1990; Walker 1993.) Simultaneously, legislation of personnel functions as well as demands and needs of different administrative activities and reports developed significantly. Personnel costs started to increase resulting in careful consideration when investing in IS. Although technology was cheap, a company had to budget money for personnel expenses. Also, the design and implementation of other organizational IS needed more resources and increased prices of software, which had an effect on investments in HRIS. (Kavanagh et al. 1990: 11–13.)

![Fig. 3. Chronological development of employee and computer costs adapted from Kavanagh et al. (1990: 14).](image)

In addition to costs and benefits, the automation and computerization of HR activities and tasks have other influences as well. First, a well-designed, workable and effective HR information system provides a company with a significant competitive advantage (Broderick & Boudreau 1992). Developed and sophisticated HRIS do not only reduce overall HR costs but also help to simplify the way the customers, managers and employees access and use HRIS both locally and globally. Secondly, globalization gives an extra challenge to HRIS. An organization must be aware which parts of the HR information system is similar in every unit regardless of the country. Simultaneously the organization must be familiar with cultural differences which should be taken into account in designing...
Thirdly, the automation and computerization of HR activities and tasks have an influence on the implementation of new HR technology and the HR information system in an organization. The process should be started step by step, and necessary resources, i.e., devices and workforce, should be allocated for the process sufficiently. At the same time, it is important to inform personnel in detail about the implementation and the reformation of the system as well as to organize training to all levels to confirm capability to use the system. Herein, the collaboration between HR and IT experts keeps the users’ ideas in practical shape and helps all of them in problematic situations (Axel, 1998). Still, regardless of all the notions and advice concerning the HRIS use, in the 2000s the implementations of HRIS are still under consideration. Cost and benefits are constantly the matters involved when measuring the meaning of HRIS. A positive finding is that some studies have already been made to investigate and highlight the barriers behind the implementation of HRIS in organizations (Ngai & Wat, 2006).

As IS in other organizational application areas, HRIS usually bring about changes in the activities of HRM. Changes affect not only everyday processes but also the skills of managers, leaders, and HR professionals. It is important that HR professionals understand what an information system is about and what it takes to design, accomplish, and implement HRIS. The skills to understand database management help HR professionals to understand what data is stored and how it is stored as well as why and how that data can be manipulated, for example, how to produce reports for decision-making. It would be a great advantage if managers, leaders, and HR professionals were aware of how to specify data technically and what the changes to the old system are. If technological development and changes are not taken into account, an organization will lose a lot of money and resources.

**HR and IS professionals and HRIS design**

Due to the novelty of HRIS research, some significant areas are not yet studied thoroughly. Relevant research papers to be referenced are so far few in numbers. One of the discussed research areas is the relationship between HR and IS professionals and HRIS design. An overview is made using the referenced scientific publications of HRIS, different internet pages of HRIS as well as papers of practical and semi-scientific studies of HRIS after the year 2000. When exploring and summarizing the published issues, some discussions on designing
HRIS as well as on HR and IS professionalism are found. According to the summation, HRIS transform both the information process and the role of human resources. They change processes, job specifications and collaboration with employees. When thinking about demands on HR and IS in an organization, HR professionals are concerned for effectiveness of HR processes and, on the other hand, how an information system aims at making an organizational process more efficient. Those who are constructing HRIS should understand both. Typically, HRIS projects in an organization are run by cross-functional teams and the implementation of a system can be regarded as a process. Haines & Petit (1997) studied the presence of IT department and IT professionals during a design process. They concluded that the presence increased and strengthened both the system itself and the user satisfaction. When the organization, tasks and the system were in balance, people used HRIS and were satisfied. Users knew they could get help if needed. In addition, stakeholders’ opinions were relevant for the development of HRIS services. However, Haines & Petit (1997) emphasized that the external user support, i.e. the analysis of needs and the ease of use and usefulness, should be studied more.

When managers and HR professionals consider designing and implementing HRIS in an organization, they focus on administrative tasks and costs as well as on business and competitive goals. HR people have their own conception who should use the system, what activities should be supported and what data collected. Accessibility of the system is an important issue. Herein some questions can be asked: Who will use the system? How can a user access the system? How will the data be updated? A technical design is necessary when software systems are designed, tested and implemented. Also ethical and legal issues should be taken into account, and the data in HRIS has to be valid, reliable and useful. (Hubbart et al. 1998, Kovach & Cathcart Jr. 1999.) When the system is in use, the relevant question is who is in charge of HRIS. Should HR department be responsible for the structure, table maintenance, security systems and data itself because HRM is the application area where IT delivers productive and suitable tools to get the job done? Or should IT department be in charge of the structure, maintenance, security and data because it provides the needed technology and software? These questions should be discussed at the beginning of an acquisition process.

According to Niederman (1999), even though technologies and systems have been part of HRM over forty years, there is not enough training for HRM students and professionals in using and especially in designing and developing IT or
Therefore, it can be asked what abilities HR professionals should have when using technology and information systems. Another issue is whether they can participate in the design process of HRIS if they are not trained for those skills. Anyway, training in HRM seldom includes a course of HRIS or IT although information systems are quite common in HR activities. (Niederman 1999.)

Niederman (1999) presents a socio-technical approach to information systems design and use. According to Niederman, it “requires recognition of the inextricable link between information technologies and humans as designers and users” (Niederman 1999: 33). He has studied global organizations and constructed five interaction areas for IT and human computer designers/users. The areas are as follows:

1. “using information technology to support the human resource strategy of global organizations
2. using information technology to support the generation and distribution of organizational learning
3. to use human resource management techniques and programs to support the work of information systems professionals
4. using human resource management techniques and programs to support the work of global ‘end-user’ or knowledge workers
5. national and regional policies to support technical and human resource infrastructures.” (Niederman 1999: 33).

Niederman (1999) proposes several research questions for each of these areas to study the importance of the issues. He claims that the skills of designing and using IT and IS in HRM should be enhanced by training HR professionals. Also the awareness of knowledge of HR activities should be emphasized in the work of IS professionals. In other words, when HR professionals are familiar with IT and IS and IS professionals know the application area, it enables successful collaboration between HR and IS professionals as well as designing of useful HRIS.

**Use and exploitation of HRIS**

Since the 1960s due to the growth of computerized HRIS, HR managers and professionals have spent a great deal of time establishing, maintaining and using HR databases. Before automated HR data, HR managers needed a lot of time, for example, to identify which employees need certain technical skills, which need
supervisory skills or management skills. Today HRIS are supported by techniques which help recognize the needs of training and allow tracking suitable training for employees. HR people spend less time on day-to-day administrative tasks and have more time on strategic decision making and planning. HRIS have become more sophisticated than ever. Some people state that HRM and HRIS are ready to assume a far greater enterprise role. The HR information system is a tool that supports HR management functions and assists managers in managing their human resources more effectively than earlier. (Targowski & Deshpande 2001.)

New technologies give new possibilities to solve administrative work efficiently. Although HRIS are mainly created for HR people, also employees and managers should be able to use and should use the system.

Technology offers effective devices to implement and use IS. Still, users can be skeptical when using IT and IS. They may wonder if the technology works, if the data is reliable and if they are familiar enough with the technology, i.e. if they make mistakes when using IT and IS. Lippert & Swiercz (2005) introduce their model which offers 11 propositions to explore the relationship between HRIS technology trust and implementation success. “Technology trust can be defined as an individual’s willingness to be vulnerable to a technology based on person-specific expectations of the technology’s predictability, reliability, and utility as moderated by the individual’s predisposition to trust technology.” (Lippert & Swiercz 2005: 341). Lippert & Swiercz (2005) argue that the model forms a framework to test the relationship empirically. They also emphasize that the theoretical development of the model brings out several significant conclusions. For example, by understanding the technology trust, the improvement of user satisfaction may increase. Also the understanding of the determinants of HRIS may improve overall organizational performance. (Lippert & Swiercz 2005.)

What organizational qualities make an organization use HRIS? The number of employees is the first issue. In a large organization usually both individual and organizational knowledge of HR functions are computerized. Secondly, using HRIS generates needs to add new useful modules to the system. For example, some organizations utilize HRIS when hiring people and therefore HRIS are developed widely in HR activities and administrative actions. There are also organizations utilizing HRIS in training and recruitment. They begin developing HRIS by separating it from HR administration. (Ball 2001.)

As stated before, the essential purpose of HRIS has been to store, manipulate and to provide data on employees. Some questions can be presented when the core meaning of HRIS is evaluated: What tasks is the system for? What do
managers expect of HRIS? Does the HR information system support strategic initiatives? Does it provide information – not just raw data – to support decisions? How does the HR information system serve corporate needs and expectations? Furthermore, the HR information system brings changes to everyone’s work. It is important for both managers, leaders and HR professionals to be involved together when designing and developing HRIS with the help of IT professionals. This may cause co-operational challenges between managers, leaders and HR people, but the situation also gives an opportunity for possible hidden features of HRM to emerge. Still, technology brings more possibilities to operate with data than manual systems. (Kovach, Hughes, Fagan & Maggitti 2002, Lippert & Swiercz 2005.)

HRIS and management work

As emphasized several times before, originally HRIS have been planned for managerial and HR work. Their use has caused uncertainty about the division of labor between managers and HR staff. Managers have been responsible for employee data and thus they may have drawn a conclusion that it has been on their shoulders to update administrative information. On the other hand, HR professionals, who have wanted to maintain the control of HR issues, have not been pleased with the change brought about by managers’ and employees’ more active roles in HR administrative work. Yet, a HR information system can be designed so that it is easy to use by everyone and it will not be a burden or a loss to anyone. The questions when considering HRIS design are: How does the HR information system help managerial work? How can employees attend to their own profiles in the system? What is HR staff’s responsibility in using the HR information system? HR professionals mostly work with top and line management because HRM is part of the managers’ work. When the HR work is shared between the managers and HR staff, the HR professionals have more time to develop HR strategy in the organization. (Kossek et al. 1994, Axel 1998, Hussain, Wallace & Cornelius 2007.)

A HR department and HR management have been regarded as less of a priority than sales, marketing or finance in an organization, even though technology had been introduced and HRIS developed. Human resources have been considered a business function, but still have been lagged behind in the technological change. Currently, HR activities have become more of a business partner and they have met both financial and strategic objectives instead of having
only the role of decision support and information broker. (Kossek et al. 1994, Axel 1998, Hussain et al. 2007.)

Technology and computerization may also cause the management work to transfer from managers to HR professionals. If managers are not comfortable with the HR information system and if they do not get needed data, they will not use the system. Furthermore, the managers with longer work experience may be less satisfied with the HR information system. It is important to pay attention to encouragement at management level and point out the usefulness of the HR information system. Also HR professionals with more general IS experience may encourage users at higher levels. User satisfaction and system usage have become common measures of system success in HR function. Even though managers and HR professionals may have good skills to construct HRIS, it does not automatically mean they are effective and sufficiently good users of systems. A HR information system is considered a tool to support HRM functions and an aid to help managers in managing their human resources effectively. HRIS also develop management both locally and globally. Therefore, organizations must be familiar with cultural differences to identify them in HRIS. Globally integrated HRIS should be efficient by developing management in the increasingly competitive multinational global markets. (Haines & Petit 1997, Stroh et al. 1998, Hussain et al. 2007.)

2.1.2 The construct of the six viewpoints

The six viewpoints described in the previous sub-section highlight diverse characteristics of HRIS. The viewpoints create a construct that is applied when the research results of the empirical data are studied. In table 2 the central elements of the construct are introduced. The left column consists of the titles of the viewpoints and the right column includes the central issues of each viewpoint. The purpose of the construct is to summarize the issues which have been discussed when introducing HRIS in the previous sub-section. It should not be interpreted as a framework or a model but as a construct which highlights the important issues when HRIS are studied and developed further.
Table 2. The construct of the viewpoints of HRIS.

<table>
<thead>
<tr>
<th>Viewpoint</th>
<th>Central issues of the viewpoint</th>
</tr>
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<tbody>
<tr>
<td>History and background</td>
<td>- development begins from payroll systems</td>
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<td></td>
<td>- first personnel systems</td>
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<td></td>
<td>- HRIS were made to store data for record keeping and reporting associated with personnel administration</td>
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<td></td>
<td>- development of HR activities generated the design, development and implementation of various computer-based HRIS</td>
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<tr>
<td>HRIS and data</td>
<td>- HRIS maintain HR knowledge in databases, i.e. knowledge management of HRM</td>
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<td></td>
<td>- data consists of employees’ basic information, i.e. employees’ contact information, information of education and training, career development, memos of development discussions</td>
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<td></td>
<td>- data is important for management and to maintaining effective HRM</td>
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<tr>
<td>Effects of HRIS on organizations</td>
<td>- costs and benefits of hardware, software and HR expenses</td>
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<tr>
<td></td>
<td>- utilization in legislation issues of personnel functions as well as demands and needs of administrative activities and reporting</td>
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<tr>
<td></td>
<td>- locally and globally competitive advantage</td>
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<td></td>
<td>- similarities and differences of HRIS data in different countries</td>
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<td></td>
<td>- to train the whole organization to use HRIS</td>
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<td></td>
<td>- to inform about the use and reforming of HRIS</td>
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<td></td>
<td>- HRIS change HR and HRM activities</td>
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<td>HR and IS professionals and HRIS design</td>
<td>- the need of effectiveness of HR processes and HRIS</td>
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<td></td>
<td>- HRIS projects are run by cross-functional teams</td>
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<td></td>
<td>- collaboration between management, employees, HR and IS professionals</td>
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<td></td>
<td>- to train HR professionals to use and design HRIS</td>
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<tr>
<td>Use and exploitation of HRIS</td>
<td>- effective use of stored employee data</td>
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<td></td>
<td>- validity and reliability of stored data</td>
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<td></td>
<td>- saves time and money</td>
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<td></td>
<td>- a greater enterprise role of HRM and HRIS</td>
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<tr>
<td></td>
<td>- HRIS benefit big organizations in different HR activities</td>
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<tr>
<td></td>
<td>- HRIS add new modules to the whole system</td>
</tr>
<tr>
<td></td>
<td>- HRIS reveal hidden features of HRM</td>
</tr>
<tr>
<td>HRIS and management work</td>
<td>- HRIS are planned for managerial and HR work</td>
</tr>
<tr>
<td></td>
<td>- uncertainty about the use of HRIS</td>
</tr>
<tr>
<td></td>
<td>- managers responsibility of being in charge of the employee data</td>
</tr>
<tr>
<td></td>
<td>- HR professionals control of HR data</td>
</tr>
<tr>
<td></td>
<td>- managers may avoid using HRIS</td>
</tr>
<tr>
<td></td>
<td>- encouraging IS experienced HR professionals</td>
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<tr>
<td></td>
<td>- HR activities are strategic and business partners in an organization</td>
</tr>
</tbody>
</table>
HRIS are defined as IS which store, manipulate, analyze, retrieve and distribute information on HR. They are also described as IS which collect, store, maintain retrieve and validate data needed for managing HR in organizations. The definitions also highlight the importance of technical issues such as data bases, computer applications, hardware and software when data of HR is collected, recorded, stored, managed, delivered, and presented. (Walker 1982, Kavanagh et al. 1990, Broderick & Boudreau 1992, Kossek et al. 1994, Haines & Petit 1997, Kovach & Cathcart Jr. 1999, Ball 2001.) As seen in the table, the central issues give new and diverse viewpoints to highly technical and simplified definitions of HRIS, which complements more the activities of HRM than the wider meaning of HRIS in an organization. In such a situation it can be interpreted that the development of HRIS is dependent on the development of HR activities only. Thus, the development of leadership activities cannot affect the development of HRIS although it is expected that all people use HRIS in HR and leadership activities. Herein a contradiction between the use of HRIS and the conception of the use of HRIS emerge, which has an effect on the role of HRIS in an organization.

2.1.3 Current state of the research of human resource information systems

Earlier, in practice HRIS were used to support transaction processing and to maintain management control in HRM. Later, HRIS and technology improved decision making and supported competitiveness. Technical demands and better understanding of the opinions of both managers and HR professionals have brought practical and scientific research of HRIS closer to each other. (Haines & Petit 1997, Ball 2001.) Still, a good example of the incomplete HRIS research is that no specific studies exist to categorize what information systems are or are not regarded as HRIS. Kavanagh et al. (1990: 17–19) argue that HRIS consist of electronic data processing (EDP), management information systems (MIS) and decision support systems (DSS) in addition to the specific HR systems. DeSanctis wrote in 1986 that the new software technology in general made the development of HRIS possible. She argued that the HR information system was designed to serve compensation, benefits and equal employment opportunities and to support managerial activities and routine reporting. Her conclusion was that the HR information system was part of MIS. (DeSanctis 1986.)
Development of WWW necessitated designing e-HRM along with the development of HRIS. Ruël et al. (2004) commenced a scientific discussion of e-HRM in Europe. European Academic Workshops on e-HRM have been carried out as well as International Workshops on HRIS in conjunction with International Conference of Enterprise Information Systems (ICEIS). Still e-HRM is a novel research subject in IS and HRM and it will take some time to find its terms of reference. In addition, Ruël et al. (2004) argued that HRIS and e-HRM have fundamental differences. HRIS are constructed for HR departments and its users are mainly HR staff, whereas e-HRM is for people outside the HR department: employees and management. This means that HRIS support HR activities and e-HRM serves employee activities.

Ruël et al. (2004: 365) state that “the difference between HRIS and e-HRM can be identified as the switch from the automation of HR services towards technological support of information on HR services”. Nevertheless, it can be claimed that HRIS serve both HRM and employee tasks, which may be implemented electronically. In other words, the differences between HRIS and e-HRM are the system design and technical solutions. Technical choices, which are made when designing and implementing systems, may differ, but the content comes from the activities of HR staff, managers and leaders to both of the systems. As the matter of fact, an e-HRM can be regarded as a HR information system of one kind. In addition, it can be claimed that the user interface is ordinarily the only visible difference for users. Both HRIS and e-HRM are created for and serve the whole organization (HR staff, employees and management), and technically there is a database of employee knowledge behind the systems. Ruël et al. (2004: 365) give support for this statement saying that “technically speaking it can be said that e-HR (electronic human resource) is the technical unlocking of HRIS for all employees of an organization”. However, if HRIS and e-HRM are seen as two different IS and if the development work of HRIS is taken into account, how these two systems can be connected so that they serve the whole organization.

Kossek et al. (1994) stated that the role of HRIS in an organization had become clearer but more research was needed. There were only a few studies on HRIS in the 1990s but in the new millennium research has increased and developed. Still, according to the literature not many scientifically improved articles or papers on HRIS exist so far, neither do any scientific books. Scientific articles are mostly studies on opinions or experiences of HRIS and its use. Semi-scientific papers can be interviews, stories of experiences or advertisements of
HRIS designers, producers or suppliers. These papers give a view to the state of the discourse in practice. HRIS handbooks were written by Kavanagh et al. (1990) and Walker (1993). Kavanagh et al. (1990) focus more on the IS side of HRIS. The book analyzes the system itself and what should be noticed before implementation. It also introduces HRIS applications. Walker’s (1993) book gives a more technical and process-oriented viewpoint to the development and implementation of HRIS. The message concentrates on effectiveness, i.e. what the system can offer to the strategic HRM and to the whole organization in the future. Both publications are referenced in the thesis, although the handbooks do not have a distinct academic background. Two earlier publications are also available. In 1982 Walker wrote a book titled ‘HRIS Development, A Project Team Guide to Building an Effective Personnel Information System’. It was a concrete, step-by-step guide to develop a HR information system for an organization. Its goal was to provide guidelines for installing a computer-based personnel system that works for the organization. The book gave information about preparation and needs analysis, design and installation, as well as viewpoints on corporate perspectives and profitability. (Walker 1982.) Cascio & Awad (1981) published a book called ‘Human Resource Management: An Information Systems Approach’. Their focus of HRIS based on various activities of HRM, such as staffing, evaluation, environmental and legal factors, job analysis and design, recruitment, selection and placement (Cascio & Awad 1981). In addition to the research papers, only these four books are available on HRIS at the moment.

Some HRIS models have been constructed using HRM and HRIS literacy. For example, Mayfield, Mayfield & Lunce (2003) developed a model to improve HRIS. The components (called also factors) of the model and their activities are presented in table 3, which is a quotation of table 1 made by Mayfield et al. (2003: 147). Mayfield et al. (2003) studied over five-hundred relevant articles and identified seven primary components of a HRIS model. The components of their model are strategic integration, personnel development, communication and integration, records and compliance, HR analysis, KM, and forecasting and planning. In the article they described the model where these seven components were linked to each other and also to other activities of an organization. It gives a good picture of the many issues that HRIS is linked to.
Table 3. “HRIS functions and major activities” (Mayfield et al. 2003: 147).

<table>
<thead>
<tr>
<th>Factors</th>
<th>Major Activities</th>
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<tbody>
<tr>
<td>Strategic Integration</td>
<td>Used to aid top management in making long term HR planning.</td>
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<tr>
<td>Personnel Development</td>
<td>Used to enhance worker’s skills and abilities. Also includes quality of work life enhancements.</td>
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<td>Communication and Integration</td>
<td>Inter-organizational communication support and coordination of disparate organizational activities including change.</td>
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<tr>
<td>Records and Compliance</td>
<td>Used to manage organizational information and ensure governmental compliance.</td>
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<td>Human Resource Analysis</td>
<td>An ongoing means of gathering and diagnosing human resource needs.</td>
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<td>Knowledge Management</td>
<td>Facilitates development and information retention of beneficial human resource practices.</td>
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<tr>
<td>Forecasting and Planning</td>
<td>Used in long range planning to assess future organizational HR needs.</td>
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<tr>
<td>Organizational Vision</td>
<td>Drives and integrates the HRIS factors to positive organizational outcomes.</td>
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</table>

Salminen, Saranen & Saranen (2003) carried out a qualitative research in ICT organizations. They published a research report which described HRM in the ICT field as well as the state and the development needs of HRM in software companies. The survey used a research report which is depicted in table 4. The authors interviewed professionals in 40 small and middle-size ICT companies. They tried to collect as many common and distinguishing factors as possible of software business and HRM. The framework divides HR strategy into five main tasks, which influence HRM and HRIS (presented vertically on the two right-hand columns). The tasks are HR acquisition, HR orientation, HR development, HR administration and HR motivation (Salminen et al. 2003: 18). The report concludes that at that moment the most common business measure was profitability rather than expansion. Fast changes in the business environment meant fewer methods in business itself. The planning schedule shortened to quarters, even to months. Consequently, fewer plans were made for human resources than earlier because of the uncertainty of the permanence of operations. (Salminen et al. 2003.)
Table 4. Framework used in the research of Salminen et al. (2003: 18).

<table>
<thead>
<tr>
<th>Business plan of a company</th>
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<tr>
<td>Human resource strategy</td>
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<td>HR acquisition</td>
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<td>HR administration</td>
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The most central processes in HRM were recruiting, orientation and development. It was important to get the right people for the work and to familiarize them with productive work as soon as possible. HRIS were also a part of the framework. People who were responsible for HRM believed that the importance of HRIS would grow significantly in the future. In bigger companies the growth was critical. The number of employees was already high and set limits to the use of an
information system for HRM to be able to improve the effectiveness of business. (Salminen et al. 2003.)

In the new millennium several technically-realized systems have been developed to support different functions of HRM. There is a huge variety of IS and electronic systems on the market. On the one hand, there are large HR systems such as SAP (Systeme, Anwendungen und Produkte) which supports enterprise resource planning (ERP) in organizations. On the other hand, there are small web-based systems, even excel tables, which support some detailed part of HRM in organizations. In general, current HRM actions determine the needs and the choices of IS and technology. In addition, the challenge to implement and to use HRIS remains in the role of HRM in organizations. Visions, missions, strategies and business processes focus on performance, activities and core tasks which are regarded as profitable elements. Employees, technology and software are investments and acquisitions for an employer. Benefits of HRIS should be measured or at least clarified in HR strategy for investigation. Therefore, it is highly important to prove that HR investments and resources support the core business processes and objectives. Weatherly (2005: A1) points this out in her article saying that “from the HR perspective, strategically using the information assets of the organization means that HR business processes, organizational support systems and HR information technology are aligned to continuously capture, maintain and utilize key strategic information assets (i.e., knowledge and judgments) to improve business performance”.

The research of HRIS is in its early stage. It is fragmented in several areas of the activities of HRM and the solutions of IS. As stated earlier, in this thesis the development of HRIS is challenged by studying its role in the activities of good leadership. It is a new research area of HRIS. This research is supported by the idea that the relevant employee data for HRIS comes from the activities of leadership work. Therefore it is important to study leadership as a concept, leaders’ activities as well as their opinions of and attitudes towards HRIS. The next section introduces and determines the concept of leadership in the research context.

2.2 Leadership in the research context

Leadership is an extensive discipline. In the study of the thesis the target is not to go through leadership in-depth because it is not the subject to be contributed to, but as a context and as an application area of HRIS. The definitions and the
theories of leadership are introduced in an adequate extent (sub-section 2.2.1). In connection with the description of HRM the differences between leadership and management are discussed briefly (sub-section 2.2.2). The emphasis of the thesis is on the human-oriented viewpoint, i.e. what are the activities that occur when a leader leads an employee. Herein tacit knowledge and EI are introduced as characteristics of the activities of leadership. Finally, it will be described how leadership and IS are discussed together.

### 2.2.1 Short descriptions of defining and theorizing leadership

In English the term ‘leadership’, being used since 1800, is considered a sophisticated concept. However, according to Stogdill (1974) the Oxford English Dictionary in 1933 notes that the first signs of the word ‘leader’ are from the year 1300. Earlier than that the words ‘chief’, ‘king’, ‘head of state’, ‘princes’, ‘military commander’ or ‘proconsul’ were commonly used and had, from the societal viewpoint, the same kind of meaning as the word ‘leader’ (Stogdill 1974: 7, Yukl 1989a: 3, Bass 1990: 11, Rost 1991: 37–38). Since the concept of leadership has been used to describe a person, in general a man who acts with other people and makes them follow him and his orders, it has been theorized, defined, conceptualized, described, typified and characterized innumerable times during centuries. In 1990 Bass comments that “there are almost as many different definitions of leadership as there are persons who have attempted to define the concept” (Bass 1990: 11). In this respect Alvesson & Sveningsson (2003) argue that because of the variety of different meanings of leadership, it could be made nonexistent. According to their empirical study, managers could not express precisely what their leadership is and how they execute it, and on the other hand, leadership in general has various meanings to different people. Alvesson & Sveningsson (2003) also criticize the scientific research of leadership as a phenomenon because of its unorganized and even chaotic concepts. They underline that the existence of leadership as behavior, meaning, identity and discourse should not be taken for granted but studied critically. Although their strong criticism focuses on the existence of leadership, Alvesson & Sveningsson (2004) speak for the managerial leadership. It could give leadership some backbone and understanding for what the relations in workplaces are. Next leadership is defined and theorized to give a picture of its extensiveness as a discipline.
Defining leadership

In the course of the leadership research the number of definitions has increased and they have been categorized in different ways. Northouse (2004: 2) states that 65 different classification systems have been developed for leadership during the last 50 years. The classification he empathizes comes from Bass (1990: 11–20) who has categorized the definitions of leadership from the organizational viewpoint. According to the classification of Bass (1990: 11–18), leadership is defined

- as a focus of group process
- as a personality and its effect
- as an art of inducing compliance
- as an exercise of influence
- as an act of behavior
- as a form of persuasion
- as a power relation
- as an instrument of goal achievement
- as an effect of interaction
- as a differentiated role
- as an initiation of structure
- as a combination of elements (Bass 1990: 11–18).

Rost (1991), for his part, examined 587 books, book chapters and journal articles written in the years 1900–1990. His classification involves nine decades of the 20th century and he found 221 different definitions of leadership, which he analyzed (Rost 1991: 44). Rost admits that his investigation has its limitations and gaps even though it indicates well how research in leadership has increased and developed towards the end of the 20th century (Rost 1991: 45). The definitions of leadership in the first three decades of the 20th century emphasized control and centralization of power, and the number of definitions were 16. In the course of the decades different issues affected defining leadership, such as development of trait and group theory, relationships and shared goals. In the 1950s effectiveness in leadership was highlighted for the first time. In the 1970s human interactions, organizational and managerial orientations as well as psychological and ethnic issues affected the development of the definitions of leadership and the number of definitions grew. In the 1980s, however, an explosion of new ideas emerged. The number of definitions increased to 312 and leadership was defined using, for
example, group or organizational goals, management or transformation. The enormous number of definitions of leadership indicates the ambiguous, multiform and intricate development of leadership and its research. What is also noteworthy is that no earlier than in the 1980s did female authors and researchers make an impact on leadership literature and get an opportunity to publish their research. (Rost 1991: 47–95.)

After presenting the definitions of leadership in decades, Rost (1991: 102–128) introduces his outline of defining leadership. The outline of the definition is:

“Leadership is an influence relationship among leaders and followers who intend real changes that reflect their mutual purposes.” (Rost 1991: 102).

The definition includes four essential elements with their characteristics: 1) The influence relationship is multidirectional, and the influence behaviors are noncoercive. ‘Multidirectional’ means that influence “flows in all directions and not just from the top down” (Rost 1991: 107), and ‘noncoercive’, means the possibility of free discussion with agreements and disagreements. 2) Leaders and followers are the persons in the relationship. Followers’ activity is essential and there is typically more than one leader and must be more than one follower in the relationship. Because leaders exert more influence than followers, the influence patterns of relationship are unequal. 3) Leaders and followers intend real change. ‘Intend’ “means that the changes are purposeful and are in the future” (Rost 1991: 117). ‘Real’ means that the changes the leaders and followers are intending are distinct and genuine. It is also common that leaders and followers have more than one change at the same time and therefore the word ‘change’ is pluralized. 4) Leaders and followers develop mutual purposes. Purposes are emphasized and they should be mutual for both leaders and followers but should differ from goals. Purposes give more space and qualification to reflect in the relationship of leaders and followers as well as of the whole community. With these elements Rost (1991) highlights that for him leadership is transformation. He emphasizes that all four elements should be present if the relationship is called leadership and is distinguished from other relationships. He also argues that with these elements it is easy to analyze if a phenomenon is leadership. (Rost 1991: 102–123.)

Northouse (2004: 3) defines leadership as “a process whereby an individual influences a group of individuals to achieve a common goal”. The important words in his definition are ‘process’, ‘influence’, ‘group’ and ‘goal’. Process means that either traits and characteristics nor linear events define leadership but it is a transactional and interactive event where leaders affect followers and are
affected by followers. The influence in leadership means how a leader affects followers. Leadership occurs in a group of individuals who have a common purpose. Goals in leadership mean attention to tasks which have to be accomplished. The leader’s duty is to direct individuals to achieve something together to move towards the goals. (Northouse 2004: 3.)

Yukl (2006), for his part, has listed definitions of leadership from 1957 to 1999. He states that "most definitions of leadership reflect the assumption that it involves a process whereby intentional influence is exerted by one person over other people to guide, structure, and facilitate activities and relationships in a group or organization" (Yukl 2006: 3). He also states that several viewpoints to define leadership exist. One viewpoint is to compare leadership and management and the other is to view leadership as roles of leaders and followers. If leadership is viewed as a social process, the term of an influence process is used. "According to this view, any member of the social system may exhibit leadership at any time, and there is no clear distinction between leaders and followers." (Yukl 2006: 4).

Some controversies about the definitions of the influence process of leadership have emerged. One controversy is related to the discussion who exercises influence or what type of influence is exercised, i.e. if the follower is encouraged or controlled, and the outcome, i.e. how effective and ethically right leadership is executed. The other one is focused on the purpose of influence attempts, i.e. who or what is benefited in leadership: the follower, the leader, the organization or all of them. (Yukl 2006: 4–5.) In the third controversy the influence based on reasons or discussed emotions. Yukl (2006) claims, that up to the 1980s the definitions of leadership have emphasized rational and cognitive processes, i.e. “leaders influence followers to believe it is in their best interest to cooperate in achieving a shared task objective” (Yukl 2006: 5). Since the 1980s the emotional and value-based aspects have influenced leadership much more than reason and they have produced exceptional achievements in groups and organizations (Yukl 2006).

Salaman (2004) states, that the decade 1985–95 has been a period of great interest of management competences. Since then attention has moved from management to leadership because “leadership is seen as the source of organizational success and the key determinant of organizational performance, and lack of leadership is blamed for poor performance at business and even national levels” (Salaman 2004: 72). Still Yukl (2006: 5) underlines that “the relative importance of rational and emotional processes, and how they interact, are issues to be resolved by empirical research, and the conceptualization of
leadership should not exclude either type of process”. He also talks about definitions of direct or indirect leadership. Mainly, the definitions of effective leadership focus on leaders’ direct influence on followers whereas indirect leadership may occur in different occasions, for example issues are transmitted form top management through middle-managers to employees, or formal programs or different MIS have been used to improve, for instance, human resource planning, training and development, compensation and benefits, safety, process and quality improvement, KM and employee empowerment. (Yukl 2006: 7.)

**Theorizing leadership**

Several theories have been introduced and categorized in leadership literature (Stogdill 1974, Burns 1978, Vroom & Jago 1988, Bass 1990, Rost 1991, Northouse 2004, Yukl 1989a, 2006). Stogdill (1974) introduces the categories of great man, environmental, personal-situational and exchange theories. Burns (1978) talks about transformational and transactional leadership. Yukl (1989a) introduces power-influence, trait, behavioral and situational approaches to leadership theories. Bass (1990) discusses personal and situational, interaction and social, perceptual and cognitive theories as well as theories and models of interactive processes and hybrid explanations. Northouse (2004) introduces trait, skills, style, situational and psychodynamic approaches to leadership theories as well as contingency, path-goal and leader-member exchange theories, and transformational and team leadership. Goethals, Sorenson & Burns (2004b) have several categories, such as trait, behavior, and situational or contingency approaches as well as cognitive and constructivist theories of leadership.

Yukl (2006) compares the leadership theories from the conceptual viewpoint. He introduces four levels which can also be viewed hierarchically. The first level is an intra-individual process, the second level is a dyadic process including the first level, the third level is a group process including levels one and two and the fourth level is an organizational process which covers all the others. Leadership is also studied as a process. In the intra-individual process leadership theories study a person from psychological viewpoint (Lönnqvist 2005) or his/her effectiveness as a leader or a follower. “The dyadic process focuses on the relationship between a leader and another individual who is usually a follower.” (Yukl 2006: 16). In the group process two aspects can be found. The first aspect is about the role of leadership in a group task, i.e. how a person performs his/her leadership task in a
group. This includes skills to organize and utilize personnel and to make them committed. Different formal and informal meetings have a key role in the group process. The second aspect focuses on examining why some individuals are more influential than others and what determines who will be chosen to become a leader. “The organizational level of analysis describes leadership as a process that occurs in a larger open system in which groups are subsystems.” (Yukl 2006: 17). In the organizational process the survival and prosperity are linked to strategic leadership, such as the influence of the environment, the resources, marketing and different regulations. It also includes the efficiency of the transformation process, i.e. how different resources are utilized most effectively.

Yukl (2006: 18–19) also introduces three other bases to compare leadership theories. First, leader- vs. follower-centred theories which emphasize the actions and characteristics of a leader. Secondly, descriptive vs. prescriptive theories, of which descriptive theories depict leadership processes and the leader’s activities and behavior, and prescriptive theories focus on how to become an effective leader. Thirdly, universal vs. contingency theories, of which “a universal theory describes some aspects of leadership that applies to all types of situations” and “a contingency theory describes an aspect of leadership that applies to some situations but not to others” (Yukl 2006: 19). They both can be either descriptive or prescriptive.

An overview of the definitions and theories of leadership has been introduced and it is obvious that the number of them is great. The presentation of the definitions indicates the historical development of leadership research and the different categories and classifications of theories show how leadership as a discipline is described. The investigation described above helps to perceive the complexity and multidimensionality of the application area of leadership.

### 2.2.2 Human resource management and the activities of leadership

Before discussing HRM, a description concerning the debate between leadership and management is introduced. The focus of the thesis is on leadership rather than on management, however, HRM is included as a concept because it is the application area of HRIS and it is regarded as part of leadership in this thesis.
Leadership versus management

A continuous debate about the differences between leadership and management has taken place in the course of decades. Some of the researchers state that leadership equates to management and others present that management and leadership are two different things (Bennis & Nanus 1985, Rost 1991.) There are also argumentations that leadership is part of management or vice versa (Yukl 1989b, Bass 1990, Yukl 2006). The article by Zaleznik (1977) is one example from the 1970s. He described differences between leaders and managers. According to his article leaders are restless souls trying to find new possibilities and to evoke changes and they inspire others with their ideas and visions to achieve the new possibilities and changes. They also examine general views and act on an emotional level. Managers, for their part, aim for effectiveness of stable state, they act within the possible and on a sensible level. In addition, details, especially those which can cause problems, exercise managers’ mind. (Zaleznik 1977.) Bennis & Nanus (1985) claim, that leadership and management have a profound but still important difference. “To manage’ means ’to bring about, to accomplish, to have charge of or responsibility for, to conduct’. ‘Leading’ is ‘influencing, guiding in direction, course, action, opinion’. The distinction is crucial. Managers are people who do things right and leaders are people who do the right things. The difference may be summarized as activities of vision and judgment – effectiveness versus activities of mastering routines – efficiency.” (Bennis & Nanus, 1985: 21).

Bass (1990) articulates the relationship of a leader and a manager and its variations in an organization using studies of different researchers. He clarifies the differences saying that leaders’ activities are “to facilitate interpersonal interaction and positive working relations, to promote structuring of the task and the work to be accomplished, to plan, organize, and evaluate the work that is done. Managers plan, investigate, coordinate, evaluate, supervise, staff, negotiate, and represent.” (Bass 1990: 383). However, he emphasizes the conception that it depends on the level and the situation where the manager or the leader is in the organization and it depends on the role of the manager or the leader, how they accomplish their duties. In addition to the leadership activities some leaders accomplish several managerial tasks and some other managers lead almost as much as they manage. In some cases leaders and managers are located in the same position in different organizations but their job descriptions may differ totally. Also the performances that leaders and managers do in the same
position can be diverse. (Bass 1990.) Bass (1990) is interested in how the existing conceptions and the history of work content in the organization affect the execution of leaders’ and managers’ work. He also emphasizes that different interviews or questionnaire surveys do not help to understand the work of leaders or managers but diaries and observational studies will be of use (Bass 1990: 414).

For Rost (1991: 145) “leadership is an influence relationship among leaders and followers who intend real changes that reflect their mutual purposes”. He separates leadership and management concretely. He justifies the conception introducing a definition of management in the same way he defined leadership. Management is “an authority relationship between at least one manager and one subordinate who coordinate their activities to produce and sell particular goods and/or services” (Rost 1991: 145). ‘An authority relationship’ means that a manager has certain commitments: organizing, planning, staffing, communicating, motivating, controlling, decision making. Management is “a process whereby a manager gets the job (whatever that job is) done efficiently and effectively” (Rost 1991: 146). The words ‘manager’ and ‘subordinate’ in the relationship identify the positions where those people are in the organizational chart. It shows that a manager manages and a subordinate is responsible to report to the manager about his/her tasks, and to obey the manager. The coordination between a manager and a subordinate means that when the work is done together, common goals will be reached. In addition, Rost (1991: 148) states that “producing and selling are the purpose of the relationship that is management”.

Northouse (2004: 8) stresses that both leadership and management have similar parts in their processes, such as influence, working with people and effective goal accomplishment. They also have significant differences. Leadership was already known in the era of Aristotle whereas management was discovered at the beginning of the 20th century to reduce chaos and to increase efficiency in an organization. Northouse (2004: 9) borrows Kotter’s (1990) description of the differences between leadership and management: “The overriding function of management is to provide order and consistency to organization, whereas the primary function of leadership is to produce change and movement”. The main activities of the functions are listed in table 5, which is adapted to the one presented in Northouse’s (2004: 9) book. Northouse (2004: 8) underlines that Kotter separates management and leadership. Northouse (2004: 10) himself is interested in leadership as a process and states that in his book the roles of managers and leaders are treated similar rather than emphasizing differences.
Table 5. Functions of management versus leadership (Northouse 2004: 9).

<table>
<thead>
<tr>
<th>Management</th>
<th>Leadership</th>
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<tr>
<td>Planning / Budgeting</td>
<td>Establishing Direction</td>
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<tr>
<td>Organizing / Staffing</td>
<td>Aligning People</td>
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<tr>
<td>Controlling / Problem Solving</td>
<td>Motivating and Inspiring</td>
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Yukl (2006), as most scholars of management and leadership today, states that management and leadership involve similar issues. The important and complex question is how to integrate the two processes. Yukl (2006) claims that debate about ideal definitions does not produce any answers, but exploring empirically what to include in the domain of essential leadership processes does.

**Human resource management**

Conventionally, in an organization HRM is connected with the managerial activities. In this thesis, however, HRM is included in the activities of leadership to innovate alternative features in HRIS which could support the activities of leadership better. HRM is often defined by its job description and activities associated with employees such as recruiting, training, promoting, terminating, record keeping and meeting various legal requirements (Targowski & Deshpande 2001, Ball 2001). It is also defined as monitoring, facilitating and setting up processes which select, assess, and assign people to appropriate roles in an organization (Townley 1994). Several other definitions of HRM exist as well. Here the definition of Bratton & Gold (2003: 7) is introduced:

“**Human resource management (HRM) is a strategic approach to managing employment relations which emphasizes that leveraging people’s capabilities are critical to achieving sustainable competitive advantage, this being achieved through a distinctive set of integrated employment policies, programmes and practices.**”

The investigation of employment from labor forces to human resources can be interpreted to have started from the industrial revolution at the end of the 18th century (Bratton & Gold 2003: 5). There are several viewpoints on how, when and where the studies and research of employment started. One of the well-known rational theories which focuses on employees, work and management comes from Taylor in the 1910s. He wanted to study work and tasks to find efficiency and
productivity, the maximum prosperity, in organizations. He pointed out four main ideas of the mechanism of management:

1. Managers develop a scientific system for each work element.
2. Managers select suitable workmen and arrange their scientific education and development.
3. Managers and workmen have intimate and friendly cooperation to ensure the scientific work ground.
4. Work and responsibility divide almost evenly between managers and workmen. Managers take responsibility for all the work which suits them best. (Taylor 1911: 15–16.)

For decades this rational-oriented management theory of workmen, called taylorism, kept its position as a leading management style in organizations. One of the significant turning points was the Second World War in 1939–1945. According to Bratton & Gold (2003: 5) “the war increased the demand for labor and personnel specialists, and in 1946 those professionals working in people management established the Institute of Personnel Management (IPM).”

In the 1950s and the 1960s new perspectives were developed to understand work activities and management in an organization. Schein (1965) introduced the organizational behavior of people and aspects of organizational culture. In his early studies of organizational behavior the main points were that:

- people realize they can do more together than alone
- a common target or goal can be reached by coordinating activities
- tasks should be progressively differentiated
- hierarchical structure of authority is necessary to combine and manage the activities of different units. (Schein 1965: 18–20.)

In the 1960s personnel departments were established in organizations to take care of increased personnel activities. The 1970s and 1980s were the decades of the growth of legislation in different personnel functions. At that time different parts of organizational activities were named resources. Also the term ‘human resources’ replacing the word ‘personnel’ originates from that period, and personnel departments changed to become human resource departments. (Walker 1993: 22.) The significance of HRM grew and ‘strategy’ became a buzzword in organizational vocabulary in the 1980s especially. It defined the long-term goals and targets in companies and the actions and allocation of resources necessary to attain those goals and targets. (Bratton & Gold 2003: 5-7, 45.) One of the major
HRM models was published in 1984 when strategic human resource management (SHRM) was introduced by Fombrun, Tichy & Devanna. (1984). The model focuses on strategic management including four functions: selection, appraisal, rewards and development (Fombrun et al. 1984: 33–51). The same year another model was published by Beer in Harvard. That model focuses on human relationship with its six components: situational factor, stakeholder interest, HRM policy choices, HR outcomes, long-term consequences and feedback loop. (Bratton & Gold 2003: 19–20.) Several other models were made towards the end of the 1980s and in the early 1990s, for example the Guest model published by Guest in 1989, the Warwick model published by Hendry and Pettigrew in 1990, and the Storey model published by Storey in 1992 as cited in Bratton & Gold (2003: 18–26).

In the 1990s the number of the project organizations increased, and human resources were organized in a new way. Knowledge, capabilities, competences and communication skills were the important issues concerning employees. Organizational functions were described using process models. Performance management and organizational changes were basic issues among fast growing management studies. Technology-based systems, as MIS, were developed to strengthen management actions. At the same time HR information systems had their fast-growing development stages. HRM was developed from its original record-keeping and record-maintaining role to more strategically oriented cooperation with accounting, marketing and finance. HRM research areas became vital and they brought HRM theories closer to organizational practice and activities. The study of HRM widened its analysis to the functional tasks of planning, recruitment, selection, training, development, compensation, ‘reward’ systems and performance appraisals. (Ferris, Hochwarter, Buckley, Harrell-Cook & Frink 1999, Mabey, Salaman & Storey 2001: 1, 24–41, Bratton & Gold 2003: 11–18.)

The genesis and growth of HR obligations have created groups of HR professionals, staff and management as well as categories of HR tasks, competencies, abilities and work. Diversity has caused confusion how to organize and arrange all these HR activities and people in organizations. In some cases HR departments have been established, in other cases one or two HR people are hired or HR activities have been outsourced. In some organizations HR activities are decentralized as part of the managers’ daily work. Regardless of the arrangements, the people who have executed HR tasks have been insecure about the role and the demands of HR and its work among other activities in an
organization. It has been shown that a well organized and working HR activity is a competitive advantage for an organization. (Amit & Belcourt 1999.)

Several definitions and models have also been designed in the new millennium to depict the diversity of HRM. The definition of HRM by Brewster & Larsen (2000) is introduced as an example. They argue that “HRM concept attempts to integrate the interplay between individual, task and organization” (Brewster & Larsen 2000: 2). To defend their argument they describe that, on the one hand, individuals are recruited to execute their job with certain tasks, so individuals go with work. On the other hand, work can be seen as activities in an organization, so designing and developing work goes with the organization. Therefore, HRM is interplay between people, tasks and organization (Brewster & Larsen 2000). Several other arguments have also been highlighted as important and significant reasons for considering HR work in organizations. For example, satisfied employees have an effect on customer satisfaction. In addition, the discussion of the state of HR work and HRM as partners with top management, line managers, business and other activities of the company has also been a hot topic among HR professionals and researchers over the last decade and it still continues. (Juran, Garwood & Hallen 1999, Losley, Meisinger & Ulrich 2005, Armstrong 2006, Francis & Keegan 2006.) Recently, studies of HRM have focused on internationalization and human aspects in general rather than on maintaining the conception of HRM only being record-keeping of employees’ data or taking care of legal issues (Scullion, Collings & Gunnigle 2007, Conway & Monks 2008, Thory 2008). In addition, technology has brought an extra challenge for HR professionals. Since computers and information systems arrived in the organizations, in one way or another they have been used as tools to operate with employee data.

2.2.3 Characterizing the activities of good leadership by an emphasis on tacit knowledge and emotional intelligence

In human activities, for instance in leadership, some people seem to have something or they seem to do something or know something that makes their acts special. Continuously they perform their work well. Polanyi (1966) wrote about skills or knowledge that people have but that they are not conscious of and called the phenomenon tacit knowledge. Nonaka & Takeuchi (1995), for their part, underlined the importance of tacit knowledge in creating knowledge in organizations. In the 1990s Goleman (1995, 1998) as well as Mayer and Salovey
(Salovey & Mayer 1990, Mayer & Salovey 1997) were interested in people who managed to communicate with other people extremely well. They called this invention emotional intelligence.

Putting an emphasis on tacit knowledge and EI among the characteristics of good leadership changes the study of the thesis from the factual and predefined research to research where the skills to understand, create and to lead relationship and communication between a leader and an employee are in a more essential position than the factual knowledge. According to the research results of the thesis, tacit knowledge and EI seem to have a strong effect on the leaders’ good activities. Tacit knowledge and EI consist of information and knowledge which are invisible but can be apparent if they are identified. In general, it can be interpreted that tacit knowledge and EI affect leaders’ behavior constantly but are not taken into consideration when, for example, IS are designed and implemented for human activities in the organizations.

Next tacit knowledge and EI are described with and reflected on leadership. The following presentations can also be viewed so that if an IS for leadership is designed, how tacit knowledge and EI could be taken into consideration and utilize as a mine of human and sensitive information.

**Tacit knowledge**

Polanyi (1966) highlighted the well-known expression, which he regards as a starting point of his studies of tacit knowledge: “We can know more than we can tell” (Polanyi 1966: 4). Rather than immediately defining the concept of tacit knowledge with straight formulated sentences, Polanyi (1966) explained it and simultaneously defined it with conceptions of four aspects of tacit knowing, which are described in table 6.
The four aspects of tacit knowing.

<table>
<thead>
<tr>
<th>Aspect of tacit knowing</th>
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<tr>
<td>Functional structure</td>
<td>“We know the first term only by relying on our awareness of it for attending to the second. ... We are attending from these elementary movements to the achievement of their joint purpose and hence are usually unable to specify these elementary acts.” (Polanyi 1966: 10).</td>
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<tr>
<td>Phenomenal aspect</td>
<td>“We may say, in general, that we are aware of the proximal term of an act of tacit knowing in the appearance of its distal term; we are aware of that from which we are attending to another thing, in the appearance of that thing.” (Polanyi 1966: 11).</td>
</tr>
<tr>
<td>Semantic aspect</td>
<td>“We are attending to the meaning of its (tool) impact on our hands in terms of its effect on the things to which we are applying it.” (Polanyi 1966: 13).</td>
</tr>
<tr>
<td>Ontological aspect</td>
<td>“Since tacit knowing establishes a meaningful relation between two terms, we may identify it with the understanding of the comprehensive entity which these two terms jointly constitute. Thus the proximal term represents the particulars of this entity, and we can say, accordingly, that we comprehend the entity by relying on our awareness of its particulars for attending to their joint meaning.” (Polanyi 1966: 13).</td>
</tr>
</tbody>
</table>

Later, tacit knowledge has been defined as knowledge which is personal and context-specific and which people carry in their mind and is, therefore, difficult to access, formalize and communicate (Nonaka & Takeuchi 1995: 59). Nonaka & Takeuchi (1995) introduced a theory of organizational knowledge creation by using the concept of tacit knowing. They described knowledge creation with four modes (socialization, externalization, combination and internalization (Nonaka & Takeuchi 1995: 62–70)), with five conditions of spiral model of knowledge (intention, autonomy, fluctuation and creative chaos, redundancy and requisite variety (Nonaka & Takeuchi 1995: 74–83)) and with five-phase model of the organizational knowledge-creating process (sharing tacit knowledge, creating concepts, justifying concepts, building an archetype and cross-levelling the knowledge (Nonaka & Takeuchi 1995: 85–89)). Nonaka & Takeuchi (1995) presented a sensible explanation of tacit knowledge which is easy to confirm and apply in an organizational context. After their work many papers have been published on tacit knowledge in organizations.

Researchers of KM in IS science may have responded to the research of tacit knowledge most strongly (Stenmark 2001). Stenmark (2001) writes that tacit knowledge is simultaneously ambiguous and elusive which results from three reasons at least:
people are not fully aware of their tacit knowledge
- people do not have a need to make tacit knowledge explicit on an individual level
- people may lose power or competitive advantage making tacit knowledge explicit. (Stenmark 2001: 11–12.)

Stenmark (2001) presumes, based on his empirical findings of leadership, that in practice demonstrated and explained tacit knowledge with empirical evidence is much more trustworthy than theory-based explicit knowledge. He challenges future knowledge management systems (KMS) to be more open also for unstructured tacit knowledge.

On an individual level tacit knowledge is something that people are not aware of. They can become aware of it in a specific context where some thing raises the another thing into the awareness. The context can be concrete or it can be memorized. Tacit knowledge as a phenomenon in an interactive or cooperative situation is a sentimental occasion. Emotions are important elements when people are communicating with each other. (Polanyi 1966.) Polanyi (1966: 12–13) spoke about feelings in a very concrete way, such as feeling a tool in one’s hand and what it indicates. Emotions as abstract parts of the situation are essential when highlighting tacit knowing. Here the important question is how tacit knowing – becoming aware of past experiences and of how they feel – may help, support, limit or prevent communication. Generally speaking, how tacit knowing influences people’s behavior, beliefs, values and attitudes when they are communicating.

In this thesis tacit knowledge is used to characterize the activities of good leadership. In leadership research several studies of tacit knowledge exist. For example, the study by Hedlund, Forsythe, Horvath, Williams, Snooke & Sternberg (2003) is linked to the concepts of leadership and tacit knowledge. Their quantitative research is introduced as an example of the shared study of leadership and tacit knowledge. Here tacit knowledge has been regarded as a way to solve problems. In this sense, Hedlund et al. (2003) published their results of studying why some leaders are more successful than others in the military context. They developed three-level framework which they named Tacit Knowledge for Military Leaders (TKML) to assess the amount of knowledge leaders possess. A total of 562 leaders at platoon, company and battalion levels participated in the study. The research and the results were highly interesting. From the viewpoint of the research of the thesis it was significant to notice that
the inventories of TKML “can be used to help leaders identify areas in which they may need further development and can stimulate their thinking about important leadership issues (e.g., how to manage one’s anger in front of subordinates). Alternatively, the inventories can be used to help leaders develop the skills to learn more effectively from their experiences.” (Hedlund et al. 2003: 136). The interviewees of the thesis also underlined how meaningful it was to learn to know one’s own behavior in leadership and to be able to develop their work using that knowledge.

Tacit knowledge is hard to codify and to articulate explicit knowledge. Busch & Richards (2001) introduce how tacit knowledge could be codified as an IS. They present an approach which aims to graphically represent articulable tacit knowledge. They divide the approach into two fundamentally different approaches to provide a visual perspective as to what tacit knowledge constitutes. The approaches are:

1. “an initial approach using formal concept analysis as a means of visualizing tacit knowledge differences in questionnaire respondent”
2. a qualitative approach which “aims better to define both textually and then graphically what we may actually consider to comprise tacit knowledge” (Busch & Richards 2001: 51).

In the first approach Busch & Richards (2001) made a questionnaire and asked 14 participants to answer it and analyzed the data quantitatively using formal concept analysis. In the second approach they used grounded theory as a research method, ‘network maps’ to connect the codes found in empirical data and ATLAS.it™ to analyze data. Network maps resemble technically the mind maps made in the thesis. Busch & Richards (2001) are cautious with highlighting their research result but still they state that they took significant steps providing a visual alternative to textual level. Their approach was “to model not only how tacit knowledge may be illustrated comparatively from one individual to the next, but also how we may graphically define what the ingredients of tacit knowledge constitute” (Busch & Richards 2001: 60). This article encourages creating a system of tacit knowledge to support the work of leadership.

Emotional intelligence

The book ‘Emotional intelligence’, written by Goleman (1995), brought the concept of EI public awareness which is still a topic of interest in organizations.
Definitions of EI have constantly been changing but, in general, they underline people’s skills, abilities and capacities to perceive, assess, and manage one’s own, others’ and the group’s emotions.

Goleman (Goleman 1995, 1998, 2000, Goleman, Boyatzis & Mckee 2002) created an EI framework of five domains (see table 7), which he later simplified into four domains, where two of them, self-awareness and self-management, are linked to personal competence and the other two, social awareness and relationship management, are linked with social competence (Goleman et al. 2002: 39). Personal competencies determine how people manage themselves and social competencies determine how people control relationships (Goleman et al. 2002: 39). Self-awareness is the basis for confronting others. If a person does not recognize one’s own emotions, s/he cannot manage them or understand others’ emotions. Self-aware persons perceive inner signals and how emotions affect signals and job performance. They are empathic, they sense how others see a situation or they become sensitive how others feel. Empathy in social awareness enables an appropriate behavior such as calming fears, assuaging anger or joining in good spirit. Empathy is listening to and taking into consideration other people’s perspectives, creating channels between people and fine-tuning messages according to other people’s emotional states. Awareness of one’s own direction and priorities – self-awareness – makes it possible to understand one’s own values and visions, which, for their part, catalyze resonance from other people. (Goleman et al. 2002: 30–31.)

<table>
<thead>
<tr>
<th>PERSONAL COMPETENCE</th>
<th>Description of Competence</th>
</tr>
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<tbody>
<tr>
<td>Self-Awareness</td>
<td><strong>Emotional self-awareness:</strong> ability to read and understand one’s own emotions and to recognize their impact on work performance, relationships, and the like. <strong>Accurate self-assessment:</strong> a realistic evaluation of one’s strengths and limitations. <strong>Self-confidence:</strong> a strong and positive sense of one’s self-worth and capabilities.</td>
</tr>
<tr>
<td>Self-Management</td>
<td><strong>Emotional self-control:</strong> ability to keep disruptive emotions and impulses under control. <strong>Transparency:</strong> consistent display of honesty and integrity: trustworthiness. <strong>Adaptability:</strong> flexibility in adapting to changing situations or overcoming obstacles. <strong>Achievement:</strong> a drive to improve performance to meet inner standards of excellence. <strong>Initiative:</strong> readiness to act and seize opportunities. <strong>Optimism:</strong> seeing the upside in events.</td>
</tr>
<tr>
<td>SOCIAL COMPETENCE</td>
<td></td>
</tr>
<tr>
<td>Social Awareness</td>
<td><strong>Empathy:</strong> skill at sensing other people’s emotions, understanding their perspective and taking an active interest in their concerns. <strong>Organizational awareness:</strong> ability to read the currents, decision networks, and politics at the organizational life. <strong>Service:</strong> ability to recognize and meet follower, client, or customer needs.</td>
</tr>
<tr>
<td>Relationship Management</td>
<td><strong>Inspirational leadership:</strong> ability to guide and motivate with a compelling vision. <strong>Influence:</strong> ability to wield a range of tactics for persuasion. <strong>Developing others:</strong> propensity to bolster others’ abilities through feedback. <strong>Change catalyst:</strong> initiating, managing, and leading in a new direction. <strong>Conflict management:</strong> ability to resolve disagreements. <strong>Building bonds:</strong> proficiency at cultivating and maintaining a web of relationships. <strong>Teamwork and collaboration:</strong> competence at promoting cooperation and building teams.</td>
</tr>
</tbody>
</table>

The history of EI begins in the 1960s when the term was used for the first time by the researchers Van Ghent (1961) and Leuner (1966). In 1986 Payne highlighted it again in his dissertation, and in the 1990s Salovey and Mayer (Salovey &
Mayer 1990, Mayer & Salovey 1997) wrote two articles about EI, where they explicitly defined EI and started to develop a theory and measure (Mayer, Salovey & Caruso 2004, Mayer, Roberts & Barsade 2008). They have depicted EI as “a form of social intelligence that involves the ability to monitor one’s own and other’s feelings and emotions, to discriminate among them, and to use this information to guide one’s thinking and action” (Salovey & Mayer 1990: 189). By studying EI, Salovey & Mayer (1990) were also excited about the conceptions of social intelligence and they regarded the conceptions as useful. The conceptions were: unifying construct for understanding personality by Cantor & Kihlström (1985, 1987) and constructive thinking as a core component of personality by Epstein & Meier (1989) (Salovey & Mayer 1990: 188–189).

Fig. 4. A four-branch model of the skills involved in EI (Mayer & Salovey 1997: 11).

In 1997 Mayer and Salovey developed a four-branch model for the skills of EI, which still today offers the basis of EI (Mayer & Salovey 1997, Mayer et al. 2008). The model is introduced in figure 4. The model has its base on Mayer & Salovey’s (1997) argument that EI describes actual abilities rather than preferred courses of behavior. The lowest level skills involves an ability to identify emotions in one’s own and other people’s physical states and an ability to express emotions and discriminate between accurate and inaccurate expressions of emotions. (Mayer & Salovey 1997.) The next level up means “assimilating basic emotional experiences into mental life, weighting emotions against one another and against other sensations and thoughts, and allowing emotions to direct attention” (Mayer, Caruso & Salovey 2000a: 270). The third level includes understanding and reasoning of emotions: ability to label emotions and recognize relations, to interpret meanings, to understand complex feelings and to recognize likely transitions among emotions. The highest level promotes emotional and...
intellectual growth: ability to stay open to emotions, to reflectively engage or detach emotions, to reflectively monitor emotions and to manage emotions. (Mayer & Salovey 1997, Mayer et al. 2000a, Mayer et al. 2004.) In addition, Mayer & Salovey (1997) argued that before discussing EI, the concepts of intelligence and emotions should be first explored. For them “intelligence pertains to abilities such as power to combine and separate concepts, to judge and to reason, and to engage in abstract thoughts” (Mayer & Salovey 1997: 4). Emotions “include emotions themselves, moods, evaluations, and other feeling states, including fatigue and energy” (Mayer & Salovey 1997: 4). They emphasized, however, that not everything that connects cognition to emotions is EI. The description of EI they preferred combined the ideas that “emotion makes thinking more intelligent and that one thinks intelligently about emotions” (Mayer & Salovey 1997: 5).

Fig. 5. "The Scope of Emotional Intelligence" (Mayer et al. 2008: C-1).
Mayer et al. (2008) have explored EI, emotions and intelligence further. In figure 5 the scope of EI is presented. The upper box labelled ‘emotional intelligence’ consists of abilities which EI is composed of. In Integrative-Model approaches all the specific abilities of EI are studied together. The bullet items in the upper box indicate Specific-Ability approaches to EI, which study matters such as “how well a person identifies emotions in faces or how well a person understands emotional meanings” (Mayer et al. 2008: C-1). Mayer et al. (2008) argues that EI is closely related to emotions (the box on the left) and intelligences (the box on the right).

There also exist Mixed-Models approaches of EI, which consist of non-EI qualities and do not completely fill the framework of EI. They begin with qualities related to EI but “mix in with them:

- motives such as need for achievement
- social styles such as gregariousness and assertiveness
- self-related qualities such as self-esteem
- control-related qualities such as flexibility and impulse control” (Mayer et al. 2008: C-1).

Mayer & Salovey (1997) have defined and revised their definitions of EI as a result of their researches. The following definitions exist.

“Emotional intelligence involves the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth.” (Mayer & Salovey 1997: 10).

“Emotional intelligence is the set of abilities that account for how people’s emotional perception and understanding vary in their accuracy. More formally, emotional intelligence is the ability to perceive and express emotions in thought, understand and reason with emotion, and regulate emotion in the self and others.” (Mayer, Salovey & Caruso 2000b: 401).

“Emotional intelligence concerns the ability to carry out accurate reasoning about emotions and the ability to use emotions and emotional knowledge to enhance thought.” (Mayer et al. 2008: 511).

Mayer et al. (2004) developed and introduced a quantitative method to measure EI in emotion-laden problem solving situations. They named it Mayer-Salovey-Caruso Emotional Intelligent Test (MSCEIT). The test measures four core
emotional competencies: perceiving emotions, using emotions to facilitate thinking, understanding emotions, and managing emotions (Mayer et al. 2004, Lopes, Brackett, Nezlek, Schütz, Sellin & Salovey 2004, Salovey & Grewal 2005, Brackett, Rivers, Shiffman, Lerner & Salovey 2006). When examining the results of the MSCEIT in organizations, Mayer et al. (2004) found some complexity concerning leadership and organizational behavior. On the one hand, EI skills may be an obstacle to career development in organizations where they are not noted or considered necessary. On the other hand, in organizations where EI is appreciated, positive relations between aspects of the subordinates’ commitment to the organization and the superiors’ EI have been found. (Mayer et al. 2004.)

In the new millennium, the number of articles in EI and leadership has increased. For example, George (2000) wrote about the role of EI in leadership. She emphasized that feelings, moods and emotions play a central role in leadership process. In The Leadership Quarterly several articles have been published on EI and leadership. For instance, Wong & Law (2002) argued that EI is a core factor that affects the performance of leadership. Based on that argument they made an exploratory study where they examined a positive effect of leaders’ and followers’ EI on job performance and attitudes. In addition, in 2002 The Leadership Quarterly published a special issue on emotions and leadership. In the introduction of that journal, Humphrey (2002) lists some of the examined issues of the articles: leadership traits, perceptions of leaders, leadership emergence, effects of leadership on productivity, the leadership process, satisfaction with leadership, climate and other topics. He considers that articles address many key issues in leadership and constitute different faces of leadership. Humphrey (2002) argues that in the long history of leadership research small amount of attention has been directed to emotions and their meaning in leadership. He states that the articles of the special issue demonstrate well how empathy is important in leadership emergence, how management of employees’ emotions is significant in the leadership process, how emotional displays affect perceptions of leaders and how a successfully managed group process influences performance. (Humphrey 2002.)

Groves, McEnrue & Shen (2008) tested empirically if EI abilities of leaders can be developed. They designed a training program based on the model of Mayer & Salovey (1997). They had treatment and control groups of fully-employed business students. The overall number of participants was 270. 135 of them accomplished the 11-week training program. Groves et al. (2008) created a statistical measurement to indicate if the training improved the leaders’ EI. Their
study showed that EI abilities can be deliberately developed by training. Groves et al. (2008) were satisfied with their results and they emphasized the importance of developing both the training of EI and the measurements of EI improvement of leaders. They also hoped that in the future “management development professionals will find our work useful as a template for future training efforts and for empirical studies on the process of enhancing EI” (Groves et al. 2008: 242).

Argumentations against EI and its reliability have also been presented. It has been labelled as an elusive concept and doubted if EI even exists (Mayer et al. 2004). Despite the critics, focusing on positive emotions, feelings and moods has produced effective work and good results in organizations. (Wolff, Pescosolido & Druskat 2002, Zhou & George 2003, Kellet, Humphrey & Sleeth 2006, Riggio & Lee 2007.)

2.2.4 Information systems and information technology in the leadership research

In this thesis the main focus of the research work is on the role of HRIS for the activities of good leadership. There are studies that concentrate on ICT in leadership. As stated earlier, with the development of WWW several electronically designed information systems have been implemented, such as e-learning and e-business. E-HRM has already been introduced in sub-section 2.2.2. Electronic leadership (e-leadership) however, has not yet been studied sufficiently. Some good viewpoints are presented on how IT affects leadership or leaders, how leaders are disposed towards technology, what studies have already been made as well as on the importance of executing more research in e-leadership (Avolio, Kahai & Dodge 2000, Goethals, Sorenson & Burns 2004a). In addition, some leadership researchers have realized how to develop leadership studies in today’s complex knowledge economy. They have started to use computational modelling, in other words, simulating the work of leaders and the leadership process. Hazy (2007) gives an overview of modelling techniques and what kind of computational models exist for leadership. He emphasizes that software programs give new possibilities to see different sides of leadership and to link them together. They may also bring out issues that have not earlier been noticed. He speaks for a new discipline where software is used to produce new theory for leadership. (Hazy 2007.)
Avolio et al. (2000) have published a wide article about leadership and e-leadership. With the framework based on Adaptive Structuration Theory (AST) they studied how Advanced Information Technology (AIT) could influence on leadership and was influenced by leadership. They also examined leadership widely to provide recommendations for developing a research agenda on e-leadership. Avolio et al. (2000) used DeSanctis & Poole’s (1994) article to define AIT. They defined it “as tools, techniques, and knowledge that enable multiparty participation in organizational and inter-organizational activities through sophisticated collection, processing, management, retrieval, transmission, and display of data and knowledge” (Avolio et al. 2000: 616). On the one hand, it is argued that when AIT is used in economy, it creates a new context for leadership because it influences real-time information availability, greater knowledge sharing with stakeholders and the use of this information and knowledge to build “customized” relationships. On the other hand, AIT is implemented with the expectation of business and personal benefits including increased efficiency, productivity and profitability, but concrete indicators, especially financially measured indicators, have not yet emerged. (Avolio et al. 2000.) The same expectations and problems also relate to HRIS.

Avolio et al. (2000) chose the term e-leadership to examine a new context of leadership. They define e-leadership “as social influence process mediated by AIT to produce a change in attitudes, feelings, thinking, behavior, and/or performance with individuals, groups, and/or organizations” (Avolio et al. 2000: 617). They argue that e-leadership can occur at many levels of organizations as well as on one-to-one and one-to-many interactions within and across large units and organizations (Avolio et al. 2000). In Avolio’s et al. (2000) opinion, AIT will create a new context where leadership can be exercised.

As a conclusion Avolio et al. (2000) introduced a question: “How does the organizational context, including the specifications of levels of analysis, affect how we conceptualize, define and measure e-leadership?” (Avolio et al. 2000: 658). With the help of their framework and literature they created answers to the above question at individual, group and organizational levels. In the end, the authors underlined the benefit of e-leadership in examining leadership wider. They also provided specific themes to explore e-leadership further:

- “How existing leadership styles and cultures embedded in a group and/or an organization affect the appropriation of advanced information technology systems?
– How technology will interact over time as each becomes more adept at appropriating new technology?
– How introducing different styles of leadership may result in different patterns of problem-solving capacity in computer mediated versus face-to-face groups?
– To examine the leadership behaviors of an individual and/or the collective.
– How to best use technology within and between multi-cultural groups?
– How men and women leaders appropriate new technology within and between different cultures? How does the emergence of social systems impact subsequent interactions within and between different gender groups? Do male versus female leaders use technology with followers in ways that are different, resulting in different social structures and interactions being formed?
– Will the introduction of video and auditory cues bring us backwards in terms of the influence that stereotypes have had on social interactions in organizations? Once we know whom we are interacting with, will old biases and stereotypes affect the type of social interactions that result? How a ‘virtual’ type of contact affects our interactions and expectations of each other as we work at a distance from each other?
– How to intervene to affect the course of emergence of human and technological systems? How do we train leaders and teams to affect the course of emergence? What strategies can we use to accelerate the emergence of organizational systems that are technically and socially more effective? How the insertion of information technology in human systems emerges over time with strategically timed interventions?” (Avolio et al. 2000: 661–662).

Questions indicate how Avolio et al. (2000) were ahead of their time and their questions are still significant. For example, if HRIS and e-leadership are considered two different systems and the ideas of the above questions are taken into account, they can also be applied to leadership and HRIS research.

In this thesis the human-oriented focus is on the activities of good leadership and the managerial activities are presented through HRM. When the organizational activities between a superior and an employee are in question, IS have been designed considering the issues of management. Hence, MIS and DSS as well as HRIS have been constructed to support managerial processes in organizations.
Process descriptions and charts usually mean that a process has been studied and formed into a model in certain phases and with certain knowledge. From IS viewpoint it is well-defined to design and implement a system to support complete processes or explicit work phases. IS focus on knowledge and how it can be structured so that users get results which benefit certain processes. As the definitions of leadership indicate, the variation of knowledge is so ambiguous, multidimensional and multiform, that it would be a huge challenge to construct a phase-by-phase process model for leadership although processes as part of leadership have been introduced since the 1970s (Stogdill 1974, Bass 1990, Rost 1991, Northouse 2004, Yukl 2006).

Knowledge is a significant concept and a highly popular and studied subject in the IS discipline. The terms KM and KMS are used mostly. In the leadership discipline, there is a concept called ‘knowledge leadership’ (KL). According to Viitala (2004), Skyrme (2000) may have used the term ‘knowledge leadership’ for the first time by stating that “in contrast to knowledge management, knowledge leadership refers to constant development and innovation – of information resources, individual skills and knowledge and learning networks” (Viitala 2004: 528). As early as in 1974 Stogdill (1974: 9–10) depicted the idea of KL in his book and Viitala (2004: 528) uses it defining KL “as a process whereby an individual supports other group members in learning process needed to attain group or organizational goals”. She also speaks for IT as a tool and a function to be developed to support KL. Cavaleri & Seivert (2005: 15) stated that “knowledge leaders are both data driven and informed by their intuitive senses of things as they continually build pragmatic knowledge”. They continued that it is important for knowledge leaders to become aware of their own thinking and reasoning processes when they are making decisions about how to act. They also found IS as a significant service when operating with knowledge. (Cavaleri & Seivert 2005.)

As an example of the use of IT, Scott (2004) introduced how innovative online technologies were utilized informing leadership topics at the National Health Service (NHS) in the UK. The technologies of telepresence webcasting were used in the case study. ‘Telepresence’ meant ‘being there’, i.e. the participants were present to enhance interaction. (Scott 2004: 138) explained how the webcasting was realized: “The live events were multicast over hospital network. The multicast feature of the broadcast ensures that however many remote users connect to the event it consumes a fixed bandwidth of the corporate intranet. ... During the broadcast the video was also recorded to file, together
with the timing of slide changes, and any text chat between participants.”. The people, who were unable to attend the original event, were able to view the recorded broadcast later and to keep themselves up-to-date of the leadership topic in question. In the course of the broadcast the participants could submit any questions or comments via the chat interface. At the end the presenter scanned the written texts and replied to the questions. In addition, the user had a chance to give feedback how the event worked. Some technical and operational difficulties and problems occurred but the experiences of the broadcasts were encouraging. (Scott 2004.) Scott (2004) emphasized that the presence technologies can offer significant opportunities for leadership development.

As a summary, it would be beneficial for both IS and leadership disciplines to invest more energy in studying the disciplines together. However, it is good to remember that when IT and IS are applied to sensitive human activities such as leadership, the speed of data processing (effectiveness) or the amount of data are not the relevant issues but the depth and the intelligence of knowledge. The common way of thinking about the design and the development of IS and IT makes both designers and users stick rigidly to the existence of coherent knowledge rather than find its diversity. In human activities, relativity of knowledge in different situations as well as relations of knowledge in relationships and interactions should be taken into account rather than purely factual knowledge. The IS researchers may also confront similar challenges when making studies in the sensitive human contexts. Nevertheless, it is encouraging that if people are willing to develop both the systems and the human activities together, new innovations will be created.

2.3 Conclusion of chapter 2

The study of the thesis is focused on the empirical research of HRIS and on developing HRIS for the activities of leadership, not only for those of HRM, to support and serve the activities of good leadership in which tacit knowledge and EI play a significant role. In general, HRIS are designed to support the activities of HRM and therefore the features of HRM have strong effects on HRIS and their development. HRM is regarded as an activity to manage the human resources of an organization. It is more an administrative function to take care of HR as a whole than a direct managerial function between a manager and an employee (Townley 1994, Ball 2001, Targowski & Deshpande 2001, Bratton & Gold 2003). When comparing the definitions of HRM and HRIS, they have several interests in
common. HRM is defined by its job descriptions as well as by emphasizing employees’ capabilities as competitive advantages. Hence the definitions of HRIS underline storing and maintaining the needed data of employees to manage HR (Broderick & Boudreau 1992, Kossek et al. 1994, Haines & Petit 1997, Kovach & Cathcart Jr. 1999, Ball 2001). Nevertheless, based on the empirical study of the thesis, some activities of HRM are considered to be part of the activities of leadership, such as recruiting, motivation and career development. Thus the focus of the thesis is to see how HRIS design could be developed in the leadership context. HRIS already contain information which is important in leadership work but they lack relevant information which supports the human activities (tacit knowing and EI) concerning the relationship between the leaders and the employees.

Due to the human-oriented research approach, the concept of leadership is used rather than the term management. According to Rost (1991), Northouse (2004) and Yukl (2006), management includes business economics, strategies, processes and other tasks that focus on operating issues in an organization whereas leadership is seen as activities which cover the human actions besides managerial ones. The activities of leadership include the leader and the employee as well as all their dealings in various events. Rost (1991) underlines the relationship and the mutual purposes of leaders and followers. The relationship is multidirectional and both leaders and followers are active actors in the relationship. Leaders and followers intend real changes, which means that they purposefully desire certain substantive and transforming changes. In addition, they develop mutual common purposes. (Rost 1991.) Northouse (2004) discusses processes of influences between individuals and groups and those between common goals. The process does not mean certain characteristics or linear events but transactions and interactions between leaders and followers. Influences mean two-way effects of leaders and followers in a group. Common goals direct them both to achieve something together. (Northouse 2004.) Rost (1991) as well as Northouse (2004) underline that leadership is not only something that one person does but it also includes both the people and the activities which occur between them.

As stated earlier, in this thesis HRM is regarded as a managerial part of leadership whereas tacit knowledge and EI are considered human characteristics of the activities of good leadership. Polanyi (1966) and Nonaka & Takeuchi (1995) emphasize both knowledge creation and emotions in tacit knowledge. In this thesis tacit knowledge refers to the experiences and learning the interviewees
have had in the course of their working life. It also includes the leaders’ subconscious attitudes, beliefs and values as well as the influence of tacit knowledge on the leaders’ behavior, reactions, actions, abilities, knowledge and skills. When executing leadership for a long time, leaders seem to practice it in a natural way. In addition, leaders have experienced innumerable events and thus enhanced their knowledge, which has become tacit in the course of time. They know which activities work well and which activities should not be executed. EI, for its part, is regarded as people’s skills, abilities and capacities to perceive, assess and to manage one’s own, others’ and groups’ emotions (Mayer & Salovey 1997, Goleman et al. 2002). When increasing the knowledge of the effect of people’s behavior on their emotions, leaders learn to know themselves as well as other people and to use their EI in interactions and relationships with employees. In other words, knowledge is regarded to increase intelligence and knowing one’s own emotions enhances abilities to communicate with other people. Because tacit knowledge and EI influence people invisibly, it is not easy to identify the manifestations of tacit knowledge and EI in people’s behavior, actions, reactions, abilities, knowledge, skills, beliefs and values. However, when tacit knowledge and EI are recognized, they will open new insights and possibilities to develop the target at issue. They will altogether broaden the way how people think and act in their lives.

In this thesis, tacit knowledge and EI are included in leadership also for the reason that they have an effect on behavior, attitudes and emotions when IS are used in human activities. However, the information of tacit knowledge and EI is not available in IS because of their non-explicit nature of data. Therefore, they are highlighted as invisible ‘variables’ in leadership. The word ‘variable’ means that depending on the situation, the leaders apply and vary their tacit knowledge and EI in different and various ways in their leadership activities. ‘Invisible’ means that tacit knowledge and EI are not visible or concrete ‘variables’ in the leaders’ activities but the leaders use tacit knowledge and EI in their daily activities unbeknown. It depends on IS professionals’ skills and abilities how they can find out and use those ‘variables’ and the information of the ‘variables’ in a way that the ‘variables’ develop the human-oriented information systems.

As a summary, the concepts of the thesis and their interconnectedness are depicted in table 8. In the first column all the concepts are listed. The second column includes a short description of each concept from the viewpoint of the study of the thesis. The third column indicates how the concepts are linked to each other: HRIS are linked to HRM and leadership, leadership is linked to HRIS,
HRM, tacit knowledge and EI. HRM is linked to HRM and leadership, and both tacit knowledge and EI are linked to leadership.

**Table 8. Summary of the concepts of the thesis.**

<table>
<thead>
<tr>
<th>Concept</th>
<th>Description</th>
<th>Linkages</th>
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<tbody>
<tr>
<td>HRIS</td>
<td>Is the IS whose role is studied in the research context.</td>
<td>HRM, Leadership</td>
</tr>
<tr>
<td>Leadership</td>
<td>The empirical context of the study. Involves activities and interactions</td>
<td>HRM, HRIS, HRM</td>
</tr>
<tr>
<td></td>
<td>between a leader and an employee.</td>
<td>Tacit knowledge</td>
</tr>
<tr>
<td>HRM</td>
<td>Involves managerial activities concerning human resources of the company.</td>
<td>HRIS, Leadership</td>
</tr>
<tr>
<td>Tacit knowledge</td>
<td>Unconsciously influences one’s actions, reactions, emotions and</td>
<td>Leadership</td>
</tr>
<tr>
<td>EI</td>
<td>influences one’s actions, reactions, emotions and attitudes.</td>
<td>Leadership</td>
</tr>
</tbody>
</table>

The purpose has been to find out in which activities the good leaders use HRIS and how the systems can be developed to support the good leaders’ activities in the best possible way. Here the empirical data plays a significant role. HRM is used to clarify the current state of HRIS and the managerial part of leadership activities. Tacit knowledge and EI have been utilized to highlight the interviewees’ human activities in leadership which form the development area of HRIS. Hence, before examining the role of HRIS, the leadership activities have been described in the way the interviewees depict them. Leadership, together with tacit knowledge and EI, consists of multidimensional activities, which challenge the development work of HRIS and the development work of IS in general. All the research concepts are used when generating the research results.
3 Research approach, method and techniques

In this chapter the research approach (section 3.1), research method (section 3.2) and the research techniques (section 3.3) are introduced. The qualitative and interpretative research approach of the thesis has its philosophical base on hermeneutics for the purpose of creating understanding for the research work and the research phenomenon. Hermeneutic phenomenography (Marton 1981, 1986, Uljens 1989, 1991, 1993, 1996, Webb 1997) as a research method is used to examine and describe the research phenomenon. A construct of hermeneutic phenomenography is developed to depict the parts of the research phenomenon and to combine the research results for the contribution. NLP (Grinder & Bandler 1976) is presented as a qualitative interview method, and Mind Map™-technique (Buzan & Buzan 1993) has been utilized in describing the empirical research results of the thesis. The research method and techniques used in this thesis are seldom utilized in the IS research. Thus, the qualitative and interpretative research approach is introduced to give basis for the chosen research method and techniques that are appropriate to the study of the thesis. Also their relations to IS science are depicted. In section 3.4 the research approach, method and techniques are summarized using the stages of discussion created by Chole & Avison (2007). The conclusion is presented in section 3.5.

3.1 Qualitative and interpretative research approach of the thesis

Qualitative research as a research approach enables research methods which support other than pure numeric and statistical studies. It analyzes rather than measures empirical data. Interpretative research as a category of qualitative research studies different research results underlining diversity of life, which is more than generalizing actions and meanings. Denzin & Lincoln (2003b: 4) note that “as a site of discussion, or discourse, qualitative research is difficult to define clearly”. Nonetheless, they offer an initial, generic definition to qualitative research: “Qualitative research is a situated activity that locates the observer in the world.” Denzin & Lincoln (2003b: 4). Qualitative research has a great deal of different methods but does not possess them entirely. Qualitative researchers use narrative, content, discourse and other analyses when carrying out studies. They also practice phenomenology, feminism, hermeneutics, ethnographies and other approaches, methods and techniques in their studies. In addition, qualitative research consists of different interpretative practices. So, qualitative and
interpretive researches are often done simultaneously. (Denzin & Lincoln 2003b: 9–10.) Next, features of the qualitative and interpretative research are introduced separately.

Qualitative Research

Qualitative research has a long history in several disciplines such as social sciences, pedagogics and nursing science. In every discipline it studies material which can be audiovisual, textual, photos, videotaped et cetera. In addition, qualitative research includes several research methods, for example ethnography, phenomenology, narrative research, grounded theory, discourse analysis, case study and phenomenography. In general, a human being as a thinking and acting research target is the common issue to all qualitative research methods. (Denzin & Lincoln 2000, 2003a, Myers 2004.) After the generic definition of qualitative research, Denzin & Lincoln (2005) have defined qualitative research as follows:

“They qualitative research is a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings, and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings they bring to them.” Denzin & Lincoln (2005: 3)

Hence, it can be stated that it is characteristic of qualitative research that theories, methods and information do not have clear logical or linear continuum. There is seeking, studying and pondering, which could be called scientific learning. Research and growth of scientific competence intertwine with each other as distinct and different processes creating a scientific and theoretical weft with experience and empirical data. Theoretical frameworks can change and research propositions or tasks will be solved during the research process. Therefore, qualitative research can be characterized as a continuous series of decision making and problem solving. A research problem is not necessarily precisely expressed at the beginning of the research but it will be specified during the whole study. Decisions and solutions are made leaning on different basic principles or clues which may change partly or even totally along with practical
experiences of the research process. Trauth (2001b) describes experiences of
doing qualitative research similarly in the introduction of her edited book of
qualitative methods in IS research.

In addition, qualitative research can be done based on the material or theory
inspired. It is not purely and simply testing but creating propositions. It analyzes,
not measures, the empirical data. It emphasizes the relationship between
understanding and generalizing. Motivation of doing qualitative research has its
base on the possibility to study human and cultural behavior and relationships of
human beings. Common research questions in the qualitative research can be
classified by interrogatives why, how and what kind of. Qualitative research also
has extensive characteristics. For example, the strength of the qualitative research
leans on many different research approaches and methods which can be executed
separately or together to study research phenomena. Thus, diversity is richness in
qualitative research. However, the great variety of combinations of methods may
pose a potential pitfall of focusing the research work on combining methods
rather than on the research itself. Nevertheless, a controlled use of several
methods diversifies descriptions and deepens understanding of phenomena.
(Denzin & Lincoln 2000, 2003a.) For example, phenomenology focuses on
learning from phenomena by studying them as they are. Phenomenography, for its
part, describes different conceptions of phenomena. Still, both of them can
support the same research and can be used simultaneously if needed. Also the
combinations of qualitative and quantitative research methods are used. With this
methodological triangulation a researcher aims to validate analysis and result.

During the last few decades the IS research has adopted qualitative
approaches besides quantitative studies. The qualitative IS research was launched
in the 1980s to study systems and information from alternative perspectives than
exclusively quantitatively. New research methods were needed to clarify the
diversity of information the organizational context offered. (Hirschheim & Klein
the 1990’s qualitative research in the IS field increased because of an interest to
study relationships between IT, IS, people and organization. Phenomena were
influenced by behavioral, social and cultural issues. In several IS research
communities Markus’ (1983) article is being underlined as one of the most
significant and cited qualitative research article in IS field. In her article Markus
(1983) studies the meaning and the position of IT in organizations. Also the
article of Orlikowski & Baroudi (1991) has its importance of introducing
differences between three categories of qualitative research as well as surveys done in IS. Myers (1994a, 1994b, 1995, 1997a, 1997b, 2004), for his part, has done great deal of work and effort increasing knowledge of qualitative research in the IS field. In his opinion “qualitative research involves the use of qualitative data, such as interviews, documents, and participant observation data, to understand and explain social phenomena. Qualitative researchers can be found in many disciplines and fields, using a variety of approaches, methods and techniques.” (Myers 1997b: 241). Myers’ work with other IS researchers (Klein & Myers 1999, Myers & Avison 2002, Myers & Newman 2007) is also significant in studying and depicting qualitative IS research. In the 1990s Orlikowski & Baroudi (1991) and Myers (1994b) discuss elements which affect qualitative IS research. In Trauth’s (2001a) book several IS scholars introduce their experiences of different qualitative methods used in IS researches.

Orlikowski & Baroudi (1991) and Myers (1997b) follow Chua’s (1986) categorization of qualitative research in three parts: positivist, interpretative and critical (figure 6). Positivists test theories and observe objective and measurable reality outside. Interpretative researchers, for their part, assume that social constructions create the reality. They focus on understanding the meanings of phenomena people create and on the complexity of human sense making. The history and the continuous change in reality are significant for critical researchers. People make their reality in social, cultural and political context. Critical researchers study phenomena in a complex and diverse environment where a goal is to avoid alienation and domination. (Myers 1997b.)

![Fig. 6. Categories of qualitative research.](image)

The study of the thesis is not examining the research target from an outsider’s viewpoint as positivists do. The research idea of the thesis is, to certain extent, consistent with the critical researchers who present that the world and phenomena are complex and continuously changing and people make their reality in the
social, cultural and political contexts. Still, this thesis wants to describe phenomena which have not yet been studied to the extent that comparable actions can be done as done in critical research. Therefore, in this thesis the category of the interpretative research is chosen to execute qualitative research.

**Interpretative Research**

All three categories of qualitative research have activities which challenge researchers. However, interpretative research may be the one which is most easily subjected to criticism. Situations, where data has been collected and different methods of analysis have been used and where especially the researcher’s own prejudices and interpretations have emerged, affect results which are unique and unrepeatable and therefore also vulnerable. Critics and reviewers state that because results cannot be generalized they fail to produce rigorous data to a research community. (Denzin & Lincoln 2003b.) Interpretative researchers defend their studies arguing that different research results underline diversity of life, which is not a line of general actions.

Interpretative research is done in several teaching and research communities. For instance, the National Association of Interpretation (NAI) and the National Park Service (NPS) in the USA (United States of America) practice interpretative research and teaching interpretation. NAI has emphasized the importance of conceptions and ideas of interpretation. For example, how the meaning of interpretation is brought out and what issues the interpretation itself should make visible (Knapp & Benton 2004, Ham 2004, Zarki 2004). The focus of the activities of NAI is on nature and how to describe nature’s great features. Nevertheless, the conceptions of interpretation of NAI can also be applied in other research areas. Members of NAI have had long-term discussion of the definition of interpretation and interpretative research. Brochu & Merriman (2002) introduced three definitions by Mills (1920), Tilden (1957) and by Ham (1992).

Mills’ definition: “The aim is to illuminate and reveal the alluring world outdoors by introducing determining influences and the respondent tendencies. A nature guide is an interpreter of geology, botany, zoology, and natural history.” Brochu & Merriman (2002: 13).

Tilden’s definition: “An educational activity which aims to reveal meanings and relationships through the use of original objects, by firsthand experience,
and by illustrative media, rather than simply to communicate factual information.” Brochu & Merriman (2002: 13).

Ham’s definition: “Interpretation is an approach to communication ... translating the technical language of a natural science or related field into terms and ideas that people who are not scientists can readily understand.” Brochu & Merriman (2002: 13).

Although the definitions vary because of the orientation and the historicity of the definition makers, the interpreters of NAI emphasize an applied communication research and interaction in interpretation. They claim that interpretative research is highly individualistic and personnel and interpretations are made to explain, clarify and to describe the target to others (Beck & Cable 2002, Ham 2004). Beck & Cable (2002: 8) state that “Each interpreter’s product will be different – personalized by one’s background, experience, knowledge, imagination, creativity, and tenacity. The interpreter is taking the elements of a landscape or events from history, and relating them to broader meanings through her or his own experience.” Consequently, the interpretation is not a separate action as a results of an individual’s thinking, feelings, attitudes and experiences but all the history and the constructed conceptions have an influence on interpretation. Also, the meaning of the success of interpretation and of the successful interpretation is introduced in articles of the interpretative researchers of NAI. They underline the intention of interpretation and the role of audience (Ham 2004, Knapp & Benton 2004).

Some of the significant writings of interpretative research in the IS field are from Boland (1991), Kaplan & Maxwell (1994), Walsham (1993, 1995b) and Klein & Myers (1999). In IS literature Orlikowski & Baroudi (1991) and Walsham (1993) have defined the interpretative research as follows:

“Interpretive studies assume that people create and associate their own subjective and intersubjective meanings as they interact with the world around them. Interpretive researchers thus attempt to understand phenomena through accessing the meanings participants assign to them.” (Orlikowski & Baroudi 1991: 5).

“Interpretive methods of research start from the position that our knowledge of reality, including the domain of human action, is a social construction by human actors and that this applies equally to researchers. Thus there is no objective reality which can be discovered by researchers and replicated by
In the 1990’s interpretative discussion in IS research continued on a larger scale. Because of the novelty of the interpretative research approach, IS researchers have studied interpretation from different viewpoints, such as philosophical basis of interpretative research, history and current status of interpretivism in IS research, definition and nature of interpretative research, principles for interpretative field research, positivist versus interpretative research, interpretative research method and process, objectivity and diversity of the analysis, meaning of empirical data and interaction between researchers and subjects (Walsham 1995a, 1995b, Klein & Myers 1999, 2001).

These issues indicate that IS researchers are more concerned about validity, suitability and mechanism of interpretative research as well as the rigor of methods and data than how interpretative research can expand and diversify the existing know-how. It is understandable to verify, justify and adjust the “tools” used in science as in any other area. However, alternative viewpoints and knowledge as well as benefits gained by the interaction between IS researchers, practitioners, users and different application areas are utilized. For example, Stahl (2005) uses phenomenological and hermeneutic conceptions together with the ideas of the ‘other’ and the ‘self’ of philosopher Paul Ricoeur (1990). He states that the ‘other’ has usually been considered as another person or situation around us and the ‘self’ has been seen as oneself, i.e. as me. However, it is often forgotten that the ‘self’ is the ‘other’ to the outside world. Stahl (2005) emphasizes the meaning of the ‘other’ and the ‘self’ which he considered to have been ignored in IS research.

Orlikowski & Baroudi (1991) studied research articles of IS to argue for more philosophical perspectives in IS research to examine relationships between IT, people and organizations. They presented interpretative and critical research philosophies and illustrated their use with empirical examples. As a conclusion they stated that the use of several research perspectives could enable effective investigations of IS phenomena. In the 1990s Walsham (1993, 1995a, 1995b) published a book and two articles concerning interpretative research in IS. The texts were mainly focused on IS case studies. In the new millennium Walsham (2006) continued his work of interpretative research widening it to all interpretative research methods in IS. In his work he utilized materials of various fieldwork as well as used theories and data analysis. He emphasized the
constructions and justifications of contributions in interpretative IS research as well as ethical issues and tensions when executing interpretative research work. (Walsham 2006.)

The criticism of interpretative research is aimed at the characteristic of knowledge which cannot be called clearly objective because of the nature of the research which emphasizes understanding more than statistical comparison and generalization. Understanding includes a researcher’s personal and individual experiences and conceptions as well as features of the relationship between a researcher and people involved. Also the number of cases can differ and can be even quite small: one classroom, six members of a club, three foreigners in Finland or ten nurses. However, interpretative researchers defend their studies explaining that the goal is to sort out people’s experiences, motives and lifeworld, and to understand details of the whole as well as people’s different behavior to construct a bigger picture of a diverse phenomenon rather than to create simple generalizations (Walsham 1993, Stahl 2005). The people they study are not subjects but participants in the research. Thus the nature of interpretative research has strengthened itself to become an understood and trustworthy method among researchers and participants.

In the thesis interpretative research has been utilized when interviewing the leaders, examining the transcripts and describing the research results. The leaders discuss similar and different activities of their leadership work. It is important to highlight these issues when introducing and concluding the empirical material. Herein the ideas of the definitions by Orlikowski & Baroudi (1991) and Walsham (1993) have their significance.

3.2 Introduction to research method

In the 1990’s different qualitative and interpretative research methods, such as action research, case study, grounded theory and ethnography were used in IS research (Myers 1994b, Myers 1997b). The aim of this thesis is to expand knowledge and understanding of human behavior, organizational habits and the role of HRIS in leadership. Therefore, hermeneutic phenomenography (Marton 1981, 1984, 1986, Uljens 1989, 1991, 1993, 1996, Webb 1997) is used as the research method because rather than explaining or predicting the research phenomenon, the purpose is to understand it by interpreting and describing the research phenomenon from the parts to the whole and back in the context of the thesis. Thus, to give reasons for the choice of the research method, hermeneutics
is introduced as a philosophical approach first (sub-section 3.2.1), then phenomenography is described as a qualitative research method (sub-section 3.2.2) and finally, hermeneutic phenomenography as a research method of the thesis is presented (sub-section 3.2.3).

### 3.2.1 Ideas of hermeneutics

The philosophical approach of the thesis has its base on hermeneutics, which emphasizes human understanding in interpreting the meaning of written text and also of music, art, history and society. A hermeneutic method is applied with interpretation. The most known researchers of hermeneutics are Heidegger (1889–1976, philosophical hermeneutics), Gadamer (1900–2002, modern hermeneutics) and Habermas (1929-, interests of knowledge). The central issue of hermeneutics is how the subject can understand the meaning of the text. Heidegger (1976) developed classic hermeneutics bringing along human understanding. He asked how such a creature, whose existing consists of understanding, is in the world. In classic hermeneutics a subject, who aspire after knowing, aims at right understanding of an interpreted target using different techniques and processes of consciousness. (Heidegger 1976)

Gadamer (1975, 1976a, 1976b), for his part, developed modern hermeneutics. He criticized the pure understanding and included the conception of researcher’s pre-understanding which improves and develops in the communication of the text and other research object but never reaches the final similarity. According to Gadamer (1975, 1976a, 1976b) reality is constructed by conceptions. He stated that

- understanding involves equal and dialog relationship with targets, awareness of one’s own prejudices and critical evaluation
- in hermeneutic understanding one’s own prejudices are tested against an interpreted target, which is the matter itself and not states of minds or subjective experiences
- interpretation never ends but is always ‘understanding in different way’
- time creates new possibilities for meanings and new knowledge tends to overcome old prejudices. (Gadamer 1975, 1976a, 1976b.)

Habermas (1977) criticized Gadamer’s descriptions of hermeneutics and underlined communication as a part of critical theories of social science. He used a conception of Lebenswelt – the world of living – and emphasized the meaning
of interaction and communications. Philosopher von Wright (1916–2003) launched hermeneutics in Finland. In his article “Two traditions in the philosophy of science” (in Finnish “Tieteen filosofian kaksi perinnetä”) von Wright (1970: 5) writes:

“But a psychological tinge is also connected with understanding but is not connected with explaining. This psychological feature is emphasized by methodologists in the 19th century who were against positivism. Perhaps the strongest opinion comes from Simmell (1885–1914) who thought that understanding, as a characteristic method of sciences which studies human being, is a kind of empathy for spiritual atmosphere, thoughts, emotions and motives related to a research subject.”

Several classifications of hermeneutics are made. Myers (2004) describes how the hermeneutic scale can be created by the ideas of hermeneutic philosophers. The scale begins with Dilthey (1976) who presented so called ‘pure hermeneutics’, which is described as the most objective form of hermeneutics. It is at the one end of the hermeneutic scale. At the other end of the scale is postmodern hermeneutics, which questions the existence of an objective or ‘true’ meaning of texts, and claims that a ‘fact’ is socially and culturally constructed. This highly subjective hermeneutics agrees that every reading of a text is unique and differs from each other. Critical hermeneutics places itself between pure and postmodern hermeneutics. It agrees that interpretations differ but different interpretations are equally valid. Societies and cultures have an influence on facts, and communication between human beings is constrained with socioeconomic and political issues. (Myers 2004.)

Hermeneutic method is a starting point of hermeneutics. It tries to understand and interpret actions, culture or text of a human being and to work out meanings. Research and results made by hermeneutic method are not repeatable or falsified. Criticism is often aimed at these issues. However, hermeneutic researchers emphasize that the research method solves how reality is studied. In addition, hermeneutics also includes several concepts, such as historicity, hermeneutic circle, prejudice, distanciation, autonomization, appropriation and engagement which help to execute a hermeneutic task (Myers 2004). The concepts are described in table 9, where texts and quotations are quoted from Myers’ (2004: 106–111) text. The concepts of historicity, autonomization, distanciation, appropriation and engagement create the basis of the hermeneutic method.
Table 9. Hermeneutic concepts.

<table>
<thead>
<tr>
<th>Concept</th>
<th>Description</th>
<th>Meaning</th>
</tr>
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<tbody>
<tr>
<td>Historicity</td>
<td>&quot;Hermeneutics defends the ontological claim that human beings are their history.&quot; (Wachterhauser 1986: 7) (Myers 2004: 106).</td>
<td>Our understanding of ourselves and others occurs in a historical context where our &quot;historically informed present informs our interpretation of any topic or subject&quot; (Wachterhauser 1986: 7) (Myers 2004: 106).</td>
</tr>
<tr>
<td>Hermeneutic circle</td>
<td>&quot;It is a circular relationship: ... The anticipation of meaning in which the whole is envisaged becomes explicit understanding in that the parts, that are determined by the whole, themselves also determine this whole.&quot; (Gadamer 1976a: 117) (Myers 2004: 107).</td>
<td>The idea &quot;refers to the dialect between the understanding of the text as a whole and interpretation of its parts, in which descriptions are guided by anticipated explanations&quot; (Myers 2004: 107). Better understanding - &quot;how everything (the whole) fits together&quot; - why things are the way they are - from the whole to the part and back to the whole&quot; (Myers 2004: 108). The concept &quot;suggests that we have an expectation of meaning from the context of what has gone before&quot; (Myers 2004: 108).</td>
</tr>
<tr>
<td>Prejudice</td>
<td>&quot;The basic idea is that our attempt to understand a text always involves some prior knowledge or expectation of what the text is about.&quot; (Myers 2004: 109).</td>
<td>Significances - understanding the language - understanding involves interpretation - to be aware of one's own ideas and personal experiences - &quot;foreknowledge is the necessary starting point of our understanding&quot; (Myers 2004: 109).</td>
</tr>
<tr>
<td>Autonomization</td>
<td>Whenever speech is inscribed in a text, also the meaning is inscribed in a text and it takes on a life of its own (Myers 2004: 110–111).</td>
<td>After inscription &quot;the text takes on a fixed, finite and external representation which means that the text has an autonomous, 'objective' existence independent of the author&quot; (Myers 2004: 110).</td>
</tr>
<tr>
<td>Concept</td>
<td>Description</td>
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<tr>
<td>Distanciation</td>
<td>Text is communication in and through distance (Myers 2004: 111).</td>
<td>The text “becomes dissociated from the original author, the originally intended audience and even its original meaning” (Myers 2004: 111). - distance “in time and space between the text and its original author and the readers of the text” (Myers 2004: 111).</td>
</tr>
<tr>
<td>Appropriation</td>
<td>To appropriate the meaning of a text for oneself; to make it one’s own (Myers 2004: 111).</td>
<td>Appropriation is essential in understanding meanings which does not reside in - “the subjective feelings of the interpreter, - the intentions of the author” (Myers 2004: 111).</td>
</tr>
<tr>
<td>Engagement</td>
<td>“As a reader engages with the text, both the reader and text (or the meaning of the text) are changed.” (Myers 2004: 111).</td>
<td>“Meaning emerges from the engagement of reader and text - crucial in the critical engagement with the text” (Myers 2004: 111).</td>
</tr>
</tbody>
</table>

As an example of the hermeneutic method, my viewpoint is that, as a researcher and a human being, I have my history, experiences and images of communication with different people originate from childhood, school and study years as well as from different working places and work positions. They influence my conceptions, meanings and interpretations of the research issue. When I wrote transcriptions, notes and texts in the course of the research process, I also inscribed the meanings in the texts. When I read the texts later, I had to consider the time between the present (I am reading the text) and the past (I wrote the text). Also, when I read books and articles, I could not ignore the time when they had been written and authors who had written them. In addition, how I interpreted and understood the texts and how I was engaged with the texts influenced my research process and results of the study.

The hermeneutic circle and prejudice are the concepts applied in this thesis mostly. The hermeneutic circle means an interpretation of a relationship between the part and the wholeness. Understanding of every single case is based on some prejudice of the meaning of the wholeness in question. Every prejudice of the wholeness is predetermined by the meanings of a preceding individual case. Every “new understanding” of single cases revise prejudice of the wholeness and thus affects understanding of the above-mentioned individual case. (Ricœur 1981.) Siljander (1988) explains in detail the hermeneutic circle with three meanings.
1. Process of knowledge formation
   a) knowledge formation cannot have any absolute beginning
   b) prejudice is always behind every new understanding
   c) prejudice changes and is corrected as understanding and interpretation develop
   d) prejudice does not fully change but is affected by previous knowledge
   e) hermeneutic circle may also be called hermeneutic spiral because of the possibility to go on and on.

2. Understanding through parts and wholeness
   a) when interpreting a text one cannot understand its parts without the wholeness but the interpretation of parts affects the interpretation of wholeness
   b) circle proceeds as dialog relationship between parts and wholeness.

3. Incompleteness of interpretations and of definitions of concepts
   a) concepts cannot be defined precisely in advance but the study can, for its part, lead to make changes in the definitions of concepts
   b) as the study goes on a researcher aims to question his/her own prejudices and to fix them. (Siljander 1988: 115–117.)

Siljander (1988) states that hermeneutic circle as a research process can be problematic for an empiric-analytic research tradition. Hence, the use of quantitative research, which includes exact prearranged plans and definitions of concepts, together with the qualitative research, which aims to work out meanings, may complement each other in the research processes.

### 3.2.2 Description of phenomenography

Etymological background of the word ‘phenomenography’ comes from Greek: *phaino’menon* means phenomenon, or more precisely ‘come to light’, and *graphein* means drawing and writing or ‘describe something’. So, phenomenography means, freely interpreted, **describing a phenomenon or writing about a phenomenon to bring it to light**. Phenomenographic research was created in 1970 by Marton and Svensson and in 1981 Marton named the research phenomenography (Marton 1981, Svensson 1997). Though the research tradition of phenomenography is not old, it is based on older traditions such as on
traditions of hermeneutic, ethnographic and phenomenological methodology. Svensson (1997: 164), however, emphasizes that “from historical point of view, phenomenography was not developed on the basis of phenomenological philosophy and, although there are fundamental similarities between phenomenography and phenomenology, it is also problematic to totally include phenomenography as a part of the phenomenological tradition”. He also stresses that phenomenographic research was developed to carry out other kind of research than positivist and quantitative research. Instead of giving results of knowledge in forms of points or grades, knowledge is described in terms of an individual’s understanding. (Svensson 1997.)

Mainly phenomenographic research has been used in the discipline of Education – learning and teaching. It has also been executed in psychological and anthropological researches (Uljens 1991, Hasselgren & Beach 1996, Järvinen 2004). Today, along with pedagogic and educational research, phenomenography is also used in nursing science. Lately phenomenographic research has been interested in experiences where the research is focused on “a way of experiencing something” and “the actual difference between two ways of experiencing the same thing” (Marton & Fai 1999: 4). Phenomenography is most used in Sweden, the United Kingdom and in Australia (Webb 1997, Bowden & Walsh 2000, Bowden & Green 2005).

The target of phenomenographic research is people’s different conceptions of the same phenomenon and how the conceptions vary between people as well as in a person’s mind depending on the situation or on the way the question has been formed (Marton 1981, 1986). Marton (1981: 180) defines phenomenography as a “research which aims at description, analysis, and understanding of experiences; that is, research which is directed towards experiential description”. Later he specifies the definition saying that phenomenography is “a research method for mapping the qualitatively different ways in which people experience, conceptualize, perceive, and understand various aspects of, and phenomena in, the world around them” (Marton 1986: 144). Phenomenographic researchers are interested in the whole phenomenon. When studying phenomena, they may ask the following questions:

- How does the world manifest itself?
- How do people perceive, understand, interpret and experience phenomena and events, and how do they create conception?
What kind of mental structures do people form from the reality in their consciousness?

How do people understand things? (Marton 1994, Marton & Fai 1999.)

Phenomenographic research can be seen as a qualitative research which follows closely Silverman’s (1993: 29) criteria of qualitative research. According to Silverman (1993) an empirical research should, first, concentrate more on theoretical rather than technical (measuring methods) questions. Secondly, social phenomena should be studied as ways of actions instead of concentrating on seeking causes for them. Thirdly, the social field of the research should be defined using the everyday understanding. Fourthly, the research should occur rather in natural circumstances than in artificial experimental arrangements. The second and the third criteria describe phenomenographic research well because its aim is not to work out why people have certain conceptions on a phenomenon but to describe different views from people’s own perspective. (Silverman 1993.) This relates closely to the research idea of the thesis.

Svensson (1997) characterizes phenomenography using conceptions of research tradition, research programme, research tool and research orientation. Because phenomenography does not have a long historical development, the term ‘tradition’ is used in a general sense. The research tradition means that the origin of phenomenography is known as well as how the activities and products of phenomenography are related to each other. Phenomenographic research has been used in researches already accomplished and also in suggested research programmes where the aim is to describe people’s conceptions. In phenomenographic research descriptions of conceptions are used to study various phenomena, and from this perspective phenomenography is called a research tool. The research orientation is a combination of research programme and research tool where the focus and descriptions are on conceptions. (Svensson 1997.)

At the end of his article Svensson (1997: 171) lists the most fundamental assumptions of phenomenography:

- “knowledge has a relational and holistic nature;
- conceptions are the central form of knowledge;
- scientific knowledge about conceptions (and generally) is not true but uncertain and more and less fruitful;
- descriptions are fundamental to scientific knowledge about conceptions (and generally);
Phenomenographic research can also be described as a research approach where the world becomes evident for a person through conceptions. The phenomenographic research approach has a double sense: first a method-creating approach adapted to the objects, and secondly a specific approach adapted to the objects of conceptions. It is also an approach to describe and compare conceptions (Svensson 1997). The phenomenographic research approach together with the orientation is called a research specialization (Marton 1986). In addition, Svensson (1997: 162) stresses that “the most significant characteristics of the approach are the aiming at categories of description, the open explorative form of data collection and the interpretative character of the analysis of data”.

![Diagram of Phenomenographic View of the Formation of a Conception](image)

**Fig. 7. Phenomenographic view of the formation of a conception.**

How a conception is formed in phenomenography is introduced in figure 7. Orientations, limitations and interpretations of the outside world affect how a subject sees an object, and this has an effect on the relationship between the subject and the object. The previous experiences the subject has had and the interaction the subject is having with the object influence how the subject sees, feels and talks about the relationship. Through this current experience the subject forms and expresses the conception of the relationship. (Marton 1981, Uljens 1991.) Thus, a conception is the central issue in phenomenography.

To clarify and diversify the short description of the term ‘conception’ the following viewpoints can be used:

- an individual’s relationship with the surrounding world
Conceptions are constructed by previous knowledge and experiences, and new conceptions are based on earlier conceptions. In practice, a conception is often compared with an opinion. However, in phenomenography conceptions are considered as a basic relationship between an individual and the world. Usually, a person takes the world and its phenomena for granted and s/he believes that other people have the same views as s/he has although people’s conceptions may vary tremendously. Phenomena are also situated in people’s consciousness although they do not realize it or are not aware of it (compare tacit knowledge). These features of conceptions are called pre-reflective and reflective conceptions. Constructing new understanding means organizing and differentiating pre-reflective and reflective conceptions as parts and as a whole. Conceptions are people’s way to link themselves to the world. A content of a conception depends on the context where it belongs to. The context of the conception can be observed culturally, in other words, in different cultures people have different conceptions of the same phenomenon. Still, in the same culture the conception of the same phenomenon may also vary. In addition, people may conceptualize a phenomenon differently in different contexts. The main issue in phenomenography is to describe the conception rather than to find causes why some people think about the same phenomenon differently than others. (Ahonen 1994, Häkkinen 1996, Marton 1981, 1984, Uljens 1989, 1991, 1993.)

A thinking process to give meanings is described with what- and how-aspect. What-aspect is a product of thought which can be either physical or mental. How-aspect describes the process of creating meanings. How we see defines what we see. The what-aspect emerges when the how-aspect starts the thinking process. With these aspects phenomenography separates the meanings of conceptualization and conceptions. (Uljens 1989, 1991, Järvinen 2004.) The conceptions are expressed with the language and conceptualization is the thinking process. However, thinking and the language have a close relationship. (Ahonen 1994.) In the thinking process people use existing conceptions which they have in their mind, old and new, and at the same time people use language, i.e. words to express what they have thought. Therefore, in phenomenographic research the language used in describing conceptions tends to be colloquial following experiences of participants. Descriptions include direct quotes from the interviews and transcripts. (Uljens 1991.) These two aspects lead the observation of
conceptions to the second viewpoint. In phenomenography there is a distinction between how things are and how things are conceptualized to be (Marton 1981, Uljens 1989, Häkkinen 1996, Järvinen 2004). The distinction is described as the first-order and second-order perspectives in figure 8. The first-order perspective (1) focuses on factual things and matters of a phenomenon. It is oriented towards the world and how people make statements about it. In science the first-order perspective includes theorization of phenomena in natural science. For example, conceptions can be observed whether they are right or wrong. The second-order perspective (2) means that a definite truth of the world does not exist. A certain group of people express and reflect their conceptions of studied reality, and a researcher’s role is to collect and form groups out of people’s conceptions which describe reality. The second-order perspective also means a distinction when an individual (or group of people) gives a different description of a phenomenon in different situations as Uljens (1991) explains next. (Marton 1981, Uljens 1989, Häkkinen 1996, Järvinen 2004.)

![Fig. 8. The first- and second-order perspectives (Järvinen 2004: 80).](image)

According to Uljens’ (1991) description ‘T1…T3’ are three situations, ‘A’ is a person, ‘X’ is the phenomenon the person A has a conception of. ‘ ______ ‘ is the person A’s conception of the phenomenon X at time 1 and ‘ ------ ‘ is the symbol of the person A’s conception of the phenomenon X at time 3. The vertical arrow represents the change from the first conception to the second conception. Here, the first-order relation is person A’s conception of the phenomenon X at Time 1 and Time 3. The second-order relation is the change between conceptions: it is the relation between the two conceptions. (Uljens 1991, Järvinen 2004.)

T1: A ______ X
T2: ↓
T3: A ------ X
The third viewpoint in phenomenography is categories of descriptions. They present the main results of the research and represent relationship between the theory and empirical data. Categories of descriptions are more abstract than descriptions of conceptions on individual level. They select and organize material. Fundamental similarities and differences are also shown and argued in categories. So, categories of descriptions can be used as abstract instruments to analyze concrete cases as well as people’s thinking in relation to common ways of thinking. The category-systems of description vary depending on the problem field of a phenomenon. First, they differ because they represent different ways to perceive the reality. Secondly, different ways to link structures of categories to each other cause variation. (Uljens 1991, Häkkinen 1996, Järvinen 2004.) According to Uljens (1991) systems of categories can be constructed in three ways: horizontally, vertically and hierarchically. They are introduced in table 10.

<table>
<thead>
<tr>
<th>Category-system</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>horizontal</td>
<td>- categories are equal in every sense</td>
</tr>
<tr>
<td></td>
<td>- related only to differences in the content (Uljens 1991)</td>
</tr>
<tr>
<td>vertical</td>
<td>- categories are arranged in relation</td>
</tr>
<tr>
<td></td>
<td>- to internal aspect of data</td>
</tr>
<tr>
<td></td>
<td>- to changes in people’s conceptions</td>
</tr>
<tr>
<td></td>
<td>- changes between categories are presented in individual level (Uljens 1991)</td>
</tr>
<tr>
<td>hierarchical</td>
<td>- specific feature: some of the conceptions are more developed than others</td>
</tr>
<tr>
<td></td>
<td>- categories are ordered according</td>
</tr>
<tr>
<td></td>
<td>- to internal, logical and structural aspect of the data (Uljens 1991)</td>
</tr>
</tbody>
</table>

Uljens (1991: 88) lists five steps of phenomenographic research procedure:

1. “The phenomenon (research object) or an aspect of it, is defined or delimited.
2. The chosen population is (often) interviewed about the focus of study.
3. The interviews are carefully typed out.
4. The interviews are analyzed.
5. The analysis results in categories of description.”

The steps 1–3 are quite similar to the procedures in other qualitative research methods. However, the analysis of phenomenography is less structured due to its interpretative nature (Uljens 1991). In the thesis all steps have been used.
Bowden (2000), for his part, introduces a phenomenographic research process which is illustrated in figure 9. He states that the process “should begin with a clear intention; the research should be planned around a particular purpose; that purpose should provide a focus through the whole study and guide action” (Bowden 2000: 6).

![Diagram of phenomenographic research process]

Fig. 9. “Phenomenographic research process” (Bowden 2000: 7).

Bowden (2000) emphasizes that the purpose is an essential issue for researchers at every stage when they execute their study. Also, the strategy is important because it keeps the planned research in its frame, especially when everyone is aware of it. A typical data collection method in phenomenography is interviews where the purpose plays a significant role. It leads the structure of questions. Making transcripts and analyzing them, however, is the most time-consuming phase in research work. It takes several iterations until the important details are noticed and categorized. The process of analysis can be divided in parts and carried out by different people and then the whole analysis can be pulled together. The analysis and the interpretation are widely connected through the purpose of the study and the context of the study and the application. (Bowden 2000.) Bowden (2000) states that his way to analyze data is rather rigorous. He also appreciates the developmental intention of phenomenographic research. However, he claims that
“once the final categories of description are determined the phenomenographic research process per se has ended” (Bowden 2000: 14).

At the end of the 1990’s Marton & Fai (1999) discussed the development of phenomenography. In addition to describing different ways to conceptualize a phenomenon, phenomenographic research can also focus on describing the variation in experiencing phenomenon. As the authors write “the object of research is the qualitatively different ways in which people are aware of the world, experience, understand, apprehend and make sense of various phenomena and situations around us” (Marton & Fai 1999: 10). The two faces of variation – methodological orientation and theoretical concern – represent different sides of the same object of research. The former studies variation between different ways of experiencing the same phenomenon, and mainly answers to the question: “What are the different ways of experiencing phenomenon?” (Marton & Fai 1999: 3). The latter, for its part, asks the questions: “What is a way of experiencing a phenomenon?” and “How do different ways of experiencing something evolve?” (Marton & Fai 1999: 3). This is a critical aspect of a phenomenon where the “experiencer’s” experiences are studied thoroughly using the anatomy of awareness. Marton & Fai (1999) state that in connection with the development of studying experiences in phenomenography the questions of the research paradigm are: “What is “a way of experiencing something”? or What is the actual difference between two “ways of experiencing the same thing”? ” (Marton & Fai 1999: 4).

In the new millennium phenomenographic studies have been executed to an increasing extent. Furthermore, learning has enhanced its research in different contexts area to become a significant object of phenomenographic research in different disciplines (Barrie, Brew & McCulloch 1999, Prosser 2000, Linder & Marshall 2003, Bruce, Buckingham, Hynd, McMahon, Roggenkamp & Stoodley 2004, Rose, Le Heron & Sofat 2005). In organizational and work behavioral research phenomenography has been used to describe the diversity of work life, consequently, more profound articles and literature from philosophical and methodological perspective have been published at the beginning of the new millenium (Bowden & Walsh 2000, Sandberg 2000, Chen & Partington 2004, Bowden & Green 2005, Paloniemi 2006, Anderberg, Svensson, Alvegård & Johansson 2007).

The criticism of phenomenography is targeted at similar issues as criticism of other qualitative and interpretative research methods: reliability of data and validity of results (Kaapu, Saarenpää, Tiainen & Paakki 2006). Specifically, in
phenomenography conceptions are criticized because of their abstract nature, which does not give enough potential to make research in reality. For example, if conceptions are tacit, how an outsider is able to interpret them (Häkkinen 1996). Here Marton (1984) uses the conception of pre-reflection when one’s conceptions are based on experiences, and are, therefore, situated in one’s consciousness. In interviews a researcher can use a method which makes possible to open an interviewee’s tacit knowledge, and to describe his/her conceptions more profoundly. Criticism is also directed to semantics. How willingly do the interviewees discuss their conceptions? How do an interview situation and other arrangements affect the interviewees’ answers? How do the differences of the interviewees’ competences affect the expressions and the use of vocabulary? Also, the categorization can be problematic. How can an unfamiliar person interpret other people’s conceptions and experiences? Also researcher’s own experiences and theoretical knowledge may have an effect on interpretation. Despite this pertinent and justified criticism phenomenographic research has opened alternative ways to study everyday conceptions. (Häkkinen 1996.)

Webb (1997) discusses the meaning of deep/surface metaphor of learning in higher education. He states that phenomenography and deep/surface metaphor were combined in the 1980’s when lecturers in higher education institutes got interested in developing teaching and learning. Webb (1997) argues that in that context phenomenographic research was too neutral and criticism was not given during a research process. Phenomenographic research was politically suitable in a situation where teachers were employed with their daily work. Webb (1997), himself, criticizes the second-order aspect which, in his opinion, does not consider the historical and social construction of thought. He makes questions: “What are the ‘prejudices’ of phenomenographers as they construct and interpret categories of understanding: what is the ‘something theoretical’ which informs their observation? What else can it be but their own historically and socially informed understanding.” (Webb 1997: 200). With these questions Webb (1997) challenges the phenomenographers’ ability “to have pristine perception, make neutral observations, build objective categories and give neutral interpretations” (Webb 1997: 201). Furthermore, Webb (1997) highlights the Western scientific view of phenomenography to ‘truth’. He points out an article written by Marton, Dall’Alba & Lai (1993) where the authors state that Chinese learners use the surface strategy for deep purposes, which is a different strategy compared with the Western one. The significance of memorization and understanding appears in
the article. (Webb 1997.) Still, Webb (1997) underlines the importance to diversify theoretical and practical conceptions of phenomenographic research.

Phenomenography has recently been used also in IS research, if only to a lesser degree (Isomäki 2002, Kaapu et al. 2006). Kaapu et al. (2006) state how the second-order perspective can be useful in IS research to explore the nature of truth. They argue that because of people’s different experiences, different alternative truth exists. Therefore, truth is relative and it is a sum of different understandings. As an example Kaapu et al. (2006) introduce phenomenography as part of the research of participatory design. New IS development methods should construct consideration, diversity, truth and interpretations. In addition, the diversity of processed data and knowledge should also be perceived. Kaapu et al. (2006) also present four different benefits – different views, unexpected views, comparable views and future views – which, used in phenomenographic research, can give new perspectives on the practical level of IS research. The four benefits and their meanings are introduced in table 11.

Table 11. Four benefits of phenomenographic research in IS practice.

<table>
<thead>
<tr>
<th>Title of the benefit</th>
<th>Benefit of phenomenography for IS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Different views</td>
<td>“The prime purpose is to differentiate subjectivities of meaning in the attempt to comprehend awareness and the process.” (Kaapu et al. 2006: 11).</td>
</tr>
<tr>
<td>Unexpected views</td>
<td>“Possibility to question the researchers’ taken-for-granted conceptions and catch unexpected views”. (Kaapu et al. 2006: 12).</td>
</tr>
<tr>
<td>Comparable views</td>
<td>“Possibility to compare different views”. (Kaapu et al. 2006: 12).</td>
</tr>
<tr>
<td>Future views</td>
<td>“Any prediction about future is speculative and particularly if the scenario involves the pace and direction of technological progress. … We claim that phenomenography can offer one way to understand and predict future development.” (Kaapu et al. 2006: 13).</td>
</tr>
</tbody>
</table>

The challenges Kaapu et al. (2006) have had, firstly relate to the uniqueness of information, in other words, to the existence of adequate information of variation of the case. Secondly, Kaapu et al. (2006) questioned the role of the researcher and the interview situation. They also argue that both researchers and informants affect the process and the results. Therefore, what people say and how they express themselves depend on expectations of an interview situation and expectations of expected descriptions. What and how they express also depends on the relationship between the interviewer and the informant. (Kaapu et al. 2006.) In 1979 Van Maanen wrote about ethnographic research and asked if
informants speak the fieldworker the truth as they know it and if a particular in situ activity has the characteristics ascribed to it by the fieldworker. He argued that misleading information is highly valuable to the fieldworker and examined how talk-based data can mislead the fieldworker (Van Maanen 1979: 544). As a conclusion he stated that many ethnographers knew the irreducible dilemma. Still they emphasized that spending some more time in the field and penetrating some deeper and further, something important and crucial would be revealed to tie up incomplete issues. (Van Maanen 1979: 549.)

Although different qualitative research methods can be listed, and although their main research propositions and processes focus on certain results, the methods do have similar procedure parts or they are used simultaneously to support and assure the relevant results. Hasselgren & Beach (1996) represent so called Gothenburg phenomenographers. They suppose that one reason for this characterization is that “phenomenography as practiced in Gothenburg has its origin in pragmatic empirical research, where the need to spell out ones philosophical commitments was not strongly felt” (Hasselgren & Beach 1996: 3). They introduce five contexts or modes of doing phenomenography – discursive, experimental, naturalistic, hermeneutic and phenomenological – in other words making analysis and documents. In the next sub-section table 12 describes the modes Hasselgren & Beach (1996) have presented.

3.2.3 Choice of hermeneutic phenomenography

As stated earlier, a qualitative research process does not always have a clear path from the method to empirical data collection and analysis, but the research method may change during the process. In this thesis the first option was to do action research. When the research context became more explicit, grounded theory seemed to be the right research method for the thesis. When the research process proceeded and the interviews had been completed, the options for the research method were grounded theory and phenomenography which were compared with each other (Richardson 1999, Hales & Watkins 2004, Kaapu et al. 2006). Taking into consideration their similarities and especially their differences, phenomenography was chosen as the research method of the thesis because the purpose was to describe the interviewees’ activities in their good leadership work and to describe the role of HRIS in the activities of good leadership rather than to create a theory.
Table 12 introduces the contexts or modes wherein phenomenographic studies have been made. A significant goal of this thesis has been to understand the research phenomenon profoundly as parts and as a whole and to describe them and the research results. Integrating hermeneutics with phenomenography offers an approach and a method which enable to reach the goal and to do interesting research. As table 12 indicates the idea of hermeneutic phenomenography is to utilize the material which is not originally collected for the analysis of phenomenography. In the example that authors had chosen, Lindblad (1995) studied inquiries made in the late 1940’s (Hasselgren & Beach 1997). Another research, where hermeneutic phenomenography has been used, was introduced in the paper written by Barrie et al. (1999). It reported, as the title of the paper expressed, “qualitatively different conceptions of criteria used to assess student learning” (Barrie et al. 1999: 1).

Table 12. Contexts of doing phenomenography.

<table>
<thead>
<tr>
<th>Context / mode</th>
<th>Description of the context / mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discursive</td>
<td>Phenomenography is “a collection of variegated and pragmatic responses to the demands of investigating a particular kind of research object under different conditions” (Hasselgren &amp; Beach 1997: 9).</td>
</tr>
<tr>
<td></td>
<td><em>Discursive Phenomenography is related to the attributed status of conceptions by phenomenographers to their ideas concerning the genuine location or residence of conceptions in terms of the notion that they can be voiced in a general and context free discourse to be understood non-hermeneutically</em> (Hasselgren &amp; Beach 1997: 9).</td>
</tr>
<tr>
<td></td>
<td>Examples: to study conceptions of learning, to study teachers’ conceptions of various aspects of their profession and professional role (Hasselgren &amp; Beach 1997: 9).</td>
</tr>
<tr>
<td>Experimental</td>
<td>It is typical of Experimental Phenomenography to create arrangements where two different groups are studied: a sample and a control group.</td>
</tr>
<tr>
<td></td>
<td>Example: to measure differences how students in separate groups learn and create conceptions when reading the same text (Hasselgren &amp; Beach 1997: 7–8).</td>
</tr>
<tr>
<td>Naturalistic</td>
<td>The idea of Naturalistic Phenomenography “is that what is registered as data is also possible to observe ‘naturally’, occurs as part of the routine interactions in a specific (kind of) setting and can therefore be generally representative for other similar such settings” (Hasselgren &amp; Beach 1997: 9).</td>
</tr>
<tr>
<td></td>
<td>Example: Lybeck’s study about Archimedes in the classroom in 1981 (Hasselgren &amp; Beach 1997: 9–10).</td>
</tr>
</tbody>
</table>
Context / mode | Description of the context / mode
---|---
Hermeneutic | “The basic tenet of hermeneutics is to understand things in their own context and on their own terms, however difficult it may appear.” (Hasselgren & Beach 1997: 11).

Hermeneutic Phenomenography means “the interpretation of texts or statements not originally made for the purpose of phenomenographic analysis in terms of their whole-part relations” (hermeneutic circle) (Hasselgren & Beach 1997: 11–12).

Example: Lindblad’s study about “descriptions of pedagogical experiments made by teachers for a School Commission of inquiry in the late 1940s” (Hasselgren & Beach 1997: 12).

Phenomenological | Phenomenological Phenomenography is interested in the experience of phenomenon rather than relationships between the conceptions of phenomenon (Hasselgren & Beach 1997: 12).

Examples: Dagmar Neuman’s study how young children acquire elementary mathematical skills in 1987, Amedo Giorgi’s work on empirical phenomenology in 1975 (Hasselgren & Beach 1997: 12).

The combination of hermeneutics and phenomenography has earlier been used by Uljens (1996). In his opinion hermeneutic phenomenography enables a research to study more essential features of experiences not forgetting the social, cultural and historical dimensions. It helps a researcher to consider both the population and the context, and challenges him/her to make analysis and to generalize results if needed. Uljens’ (1996) criticism, for its part, is focused on the outside aspect of phenomenographic research. Bowden (2000) lists similar features: lack of validity, lack of predictive power, research bias, and denial of the voice of the individual through categorization. Like Uljens (1996) also Webb (1997) emphasizes that hermeneutics offers understanding and more convincing descriptions and compelling explanations when the interpretation has been made from parts to a whole as in phenomenographic research.

The interviews of the thesis were accomplished during the research process and therefore they are not old or made by other researchers. However, the need to understand and describe the research phenomena rather than just analyzing or explaining them put emphasis on hermeneutic phenomenography as a research method. Also, due to all the introduced reasons of characterizations of hermeneutics and phenomenography and due to the research and its goals, the change of the research method from grounded theory to hermeneutic phenomenography was inevitable and the use of hermeneutic phenomenography
turned out to be justified. The research method gave an excellent approach to the empirical data together with the research techniques.

Finally, utilizing figure 7 (sub-section 3.2.2) a triangle construct of hermeneutic phenomenography is created to be applied when describing the research results and creating the contribution. The construct is depicted in figure 10. As a summary, in the construct a subject and an object are regarded as actors who have a relationship which is affected by the third actor; orientations, limitations and interpretations. Between the actors various activities occur which affect the existence of the phenomenon. Experiences and interactions influence how the subject sees the object and the relationship with the object. The triangle represents the phenomenographic part of the construct, i.e. the investigation of the empirical data of the phenomenon. The result of the construct is the interpretation of the phenomenon in question. In this thesis it means that the construct is adapted hermeneutically so that the interpretation can be seen as the main activity of the phenomenon in the research context. The base of the main activity comes from the subject’s experiences and interactions in the relationship with the object as well as from orientations, limitations and interpretations of the surrounding environment.

![Fig. 10. The construct of hermeneutic phenomenography.](image-url)

As an example from the thesis, the superior is leading his/her employees as well as possible. S/he does many activities in the course of his/her leadership. Still, s/he regards one of the activities as the main activity to lead the employees as good as possible. S/he bases his/her opinion of the main activity on his/her earlier experiences and interactions of the relationship with the employees and on the orientations, limitations and interpretations of the surrounding environment, i.e. the working place, legislation, et cetera. That main activity will be the result of the interpretation of the leader’s opinion.
3.2.4 Similar phenomenographic studies to that of the thesis

When taken into account the research method and the empirical study of the thesis, two similar studies are found. Wright, Murray & Geale (2007) have published a paper on supervising dissertation students. In their analysis they use phenomenographic research method. Byrom & Downe (2010), for their part, have studied ‘good’ leadership and ‘good’ midwifery. They apply phenomenological research method.

Wright et al. (2007) made a phenomenographic research regarding supervision of doctoral students. They interviewed twenty supervisors at three Australian universities to find out how the supervisors executed their work and what their understanding of supervision was. Their phenomenographic analysis exposed similar results as the study of executing leadership: “the supervisors undertake similar tasks when supervising, they approach these tasks differently because of their qualitatively different understanding of what supervision is” (Wright et al. 2007: 458). The differences emerged when the supervisors reflected individually on their experiences of supervision or on their own experiences of being supervised. Wright et al. (2007: 459) underlined that “the meaning of supervision is not fixed or constant but is socially constructed by, and between, superiors, students, and other members of the academic community based on their lived experiences”.

The analysis revealed five different ways of conceiving supervisors’ role: quality assures, supportive guides, researcher trainers, mentors, knowledge enthusiastic. Regardless of the five roles, the authors stressed that “the supervisors and their lived experience of supervision cannot be separated. The supervisor and the work of supervision are intrinsically linked by the supervisor’s understanding of that work.” (Wright et al. 2007: 471). The supervisors also appreciated new experiences which increased their understanding as supervisors and evolved their conceptions. In addition, the results of Wright et al. (2007) also met the issues of the traditional knowledge-based perception of research, training licensed scholars, motivation as well as of relationships between faculty and students. The authors concluded that the study “indicate that different supervisors have qualitatively different conceptions of what it means to supervise dissertation students. How supervisors work with their students is ultimately shaped by their understanding and interpretation of the meaning of their lived experience of that work” (Wright et al. 2007: 473).
Similar findings of leadership work were made in the study of this thesis. All leaders brought out certain issues which were important to all of them. However, they used different expressions when they depicted the issues. The differences emerged when they described how they had experienced their leadership work and had been led in the past. Using these experiences they had created their understanding and interpretation of leadership as a relationship between leaders and employees and as an activity in an organization.

The other similar study was made by Byrom & Downe (2010) when they explored midwives’ accounts of characteristics of ‘good’ leadership and ‘good’ midwifery. Classical phenomenological methods were used in the interviews and analysis. The authors took the view that “in the process of interviewing, stories are told by self-interpreting participants who bring their pre-understanding to the encounter” (Byrom & Downe 2010: 129). The analysis generated two meta-themes:

1. aspects of knowledge, skill and competencies (termed ‘skilled competencies’)
2. specific intrapersonal and interpersonal traits (termed ‘emotional intelligence’).

The meta-themes include sub-themes and they are defined with codes which are described in table 13 by Byrom & Downe (2010: 130). When comparing the issues of table 13 to the results and findings of the thesis, several similarities can be found. For example, categorization of ‘skilled competences’ and ‘emotional intelligence’ resembles the categorization of leadership as behavior, actions, reactions, abilities, knowledge, skills and leadership as important issues, beliefs, values.

Byrom & Downe (2010) underlined that the ‘goodness’ of leadership and midwifery encompassed both skilled practice and emotional capacity. “The good midwife helps women to both be and to feel safe. The midwifery leader also does this, but in addition the leader helps subordinates to feel that they are in ‘safe’ hand emotionally. This is enacted by creating a culture of mutual respect and fairness, within which staff can trust that they will be supported to achieve their maximum potential.” (Byrom & Downe 2010: 135).
Table 13. Themes and codes by Byrom & Downe (2010: 130).

<table>
<thead>
<tr>
<th>Theme</th>
<th>Sub-theme</th>
<th>Codes</th>
<th>Staff group to whom this code applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional intelligence</td>
<td>'Feeling your job'</td>
<td>'Feeling your job' Emotion, caring, attitude, empathy, support</td>
<td>Good midwife</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'This unseen thing' Connection</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>'The way they communicate' Communication</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>'Lets the women be themselves' Empowerment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>'Involved emotionally'</td>
<td>'Caring for staff' Empathy, attitude, support</td>
<td>Good leader</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'Negotiation and discussion' Communication</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>'Feeling valued' Empowerment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>'Same caring line'</td>
<td>'Gets involved' Caring, attitude, empathy, support</td>
<td>Good midwife, good leader</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'Different ways of communicating' Communication</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>'Valuing others' Empowerment</td>
<td></td>
</tr>
<tr>
<td>Skilled competence</td>
<td>'Good clinically'</td>
<td>'In control of woman' Power</td>
<td>Good midwife</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'Very experienced' Knowledge, practical skills, confidence, trust</td>
<td></td>
</tr>
<tr>
<td></td>
<td>'Ability to do the job'</td>
<td>'Being the boss' Power</td>
<td>Good leader</td>
</tr>
<tr>
<td></td>
<td></td>
<td>'Ability to do the job' Knowledge, clinical skills, confidence, trust</td>
<td></td>
</tr>
<tr>
<td></td>
<td>'Competent within their</td>
<td>'In control' Power</td>
<td>Good midwife, good leader</td>
</tr>
<tr>
<td></td>
<td>field'</td>
<td>'Knows their job' Knowledge, clinical skills, confidence, trust</td>
<td></td>
</tr>
</tbody>
</table>

EI and its meaning in good leadership is also underlined in the study of Byrom & Downe (2010). As implications the authors stated that the results of their study
can be offered “as basis for expansion of theories of leadership in midwifery, for the content of leadership and midwifery educational programmes, and for further empirical research and policy development in this area” (Byrom & Downe 2010: 136).

3.3 Introduction of the research techniques

Empirical materials in qualitative research may consist of interviews, transcripts, videos, texts, photos et cetera. In this thesis the material comprises the interviews, notes, transcripts and other informative material of the interviewees concerning the appraisals they have got from their employees. In this section the interview method (the logical levels by Dilts (1990)) used when collecting data and the description technique (Mind Map™-technique by Buzan & Buzan (1993)) used when making descriptions are presented. First, however, a qualitative interview as a data collecting method is introduced using the article of Myers & Newman (2007). It gives important viewpoints when executing qualitative interviews ethically and morally right. It also discusses some problems or pitfalls which may occur in the course of interviews.

3.3.1 Qualitative interview as a data collecting method

Qualitative researchers are interested to execute interviews and to study their subject in-depth. However, some important issues should be taken into consideration before starting to make interviews. From the structured viewpoint Denzin (1989) and Fontana & Frey (2000) introduce a common classification of interviews: structured interviews, unstructured or semi-structured interviews and group-interviews. A structured interview consists of a clear concept of what to do and ask. Questions are planned beforehand, and population may be large. Usually the researcher is not conducting the interview and there is no room for improvisation in a structured interview. In the unstructured or semi-structured interview improvisation is a central part of the activity. A researcher may have some specific questions but the idea is to be present in the interview. ‘To be present’ means that typically the researcher or one member of the research team is the interviewer. The group interview can be planned structured or unstructured. Here, the idea is that the interview situation includes more than one interviewee, and one or more interviewers. (Denzin 1989: 103–106, Fontana & Frey 2000.)
These three types of qualitative interviews form only a setting or frame for the interview situation. When executing an interview, human issues should also be considered, such as moral and ethical issues or the interest of interviewees to participate in the research. Myers & Newman (2007) have gathered some problems or pitfalls which may appear during qualitative interviews:

- **Artificiality of the interview** – interrogating a complete stranger; asking to give or create opinions under time pressure.
- **Lack of trust** – strangeness may affect an interviewee not to divulge all information, which causes incompleteness for data gathering.
- **Lack of time** – not enough time for the interview or time pressure for the interviewee, which causes either data incompleteness or data unreliability.
- **Level of entry** – significance of different working levels of the interviewees.
- **Elite bias** – complexity and credibility of the researcher’s and interviewee’s organizational status.
- **Hawthorne effects** – sensitivity in the interview situation.
- **Constructing knowledge** – the interview is not only a data gathering situation but a knowledge constructing situation for both the researcher and the interviewee.
- **Ambiguity of language** – a challenge of mutual understanding between the researcher and the interviewee.
- **Interviews can go wrong** – misunderstandings and dissonance between the researcher and the interviewee. (Myers & Newman 2007: 4–5.)

Myers & Newman (2007) have examined the research method sections in twenty-two articles from IS journals: MIS Quarterly (MISQ), Information Systems Research (ISR), Journal of AIS (Association for Information Systems) (JAIS) and Information and Organization (I&O). When analyzing data, they applied a general theory of face-to-face interaction developed by Erving Goffman (1956, 1961). The theory uses metaphors from a theatre, and sees the social interaction as a drama which includes stage, actors, audience, script, entry, exit and performance. As a result of the analysis Myers & Newman (2007) constructed seven guidelines which are adopted in figure 11 (Myers & Newman 2007: 16).
Fig. 11. “Guidelines for the qualitative research interview” (Myers & Newman 2007: 16).

The guidelines are addressed to the qualitative researchers and interviewers and they are described by Myers & Newman (2007) as follows:

1. Situating the researcher as an actor

   “Assuming that the researcher is the interviewer, it is important for the researcher to “situate” themselves before the interview takes place. That is, because the interview is a social encounter and the data gathered from interviewees are idiographic, the interviewer should situate themselves as well as the interviewee.” (Myers & Newman 2007:16).

2. Minimize social dissonance

   “as the interview is a social encounter; it is important to minimize social dissonance i.e. minimize anything that may lead to the interviewee to feel uncomfortable” (Myers & Newman 2007: 16).
3. Represent various “voices”
   
   “Finding different subjects is called “triangulation of subjects” (Rubin & Rubin 2005, p. 67), where the idea is to try not to force one voice to emerge.” (Myers & Newman 2007: 17).

4. Everyone is an interpreter
   
   “subjects are creative interpreters of their world as we are of theirs” (Myers & Newman 2007: 17).

5. Use Mirroring in questions and answers
   
   “Mirroring is taking words and phrases the subjects use in constructing a subsequent question or comment; mirroring their comments. ... The idea is for the interviewee to describe and explain their world in their own words.” (Myers & Newman 2007: 17).

6. Flexibility
   
   “the interviewer should take account of subjects’ different attitudes (awed, bored, deceiving, fatigued, show off, shy, confessing) and respond accordingly” (Myers & Newman 2007: 17).

7. Confidentiality of disclosures
   
   “It is important for researchers to keep transcripts/records/ and the technology confidential and secure.” (Myers & Newman 2007: 17).

With their research results Myers & Newman (2007) encourage IS researchers to use and execute diverse possibilities and a dramaturgical model of the qualitative interview. The dramaturgical model would have been an interesting interview method for data gathering of the thesis, if it had been available at that time. Anyway, the data gathering was accomplished using an unstructured qualitative interview method of the logical levels by Dilts (1990) which create a sensitive, appreciative and extensive approach to the interview situation as well as to the interviewee and his/her subject. It takes into account ethical and moral attitudes towards the interviewees.
3.3.2 Neuro-linguistic programming and logical levels utilized in the qualitative interview of the thesis

One of the important issues of the thesis was to find the proper technique for the interviews. Therefore, before introducing neuro-linguistic programming and the logical levels closer, a short description of making interviews with interrogatives is highlighted. In NLP the importance of the language and the words used in discussions and conversations is emphasized. As stated earlier, common research questions in the qualitative research can be classified by the interrogatives ‘why’, ‘how’ and ‘what kind of’ and in that specific order. In other words, interviewees are postulated to say immediately why they do something although they are not well aware what it is all about. The phenomenographic interview method mostly uses ‘what’- and ‘why’- questions in that order. People are asked what they do when they are involved with a researched phenomenon, and shortly after that why they do it (Trigwell 2000, Åkerlind 2005). That method seems to be a straightforward way to make interviews. Again, interviewees are postulated to be able to describe why they are doing the deeds they say they do and not given much possibility to reflect the thoughts first. The interviewees may say or explain why they do the deeds but it lacks a highly significant part: what is behind those deeds, in other words, understanding one’s own behavior, values and abilities. In hermeneutics the interest is in understanding and therefore ‘how’-questions are significant in the interviews. It gives more diversity and space for the interviews but still there is a need for a method which will support the interviews alternatively.

As Åkerlind (2005) stresses, making an interview is a difficult process for a researcher. It is easy to ask what people are doing, but to continue with ‘how’- and ‘why’-questions is a challenge at least for a newcomer but also for an experienced researcher. The researcher does not know the interviewees’ experiences and what is important and essential for the interviewees. No one is able to know other people’s deepest thinking and emotions. How to ask an interviewee about the researched phenomenon and simultaneously execute intelligible qualitative interview? A positive starting point is that the researcher is interested in the phenomenon and people’s activities in connection with the phenomenon. Finding a method and getting routine will help proceeding with interviews. (Åkerlind 2005.)

The research work of the thesis aims to find out the inner meaning of the interviewees’ leadership actions and the role of HRIS in it. Consequently, ‘what’-
and ‘why’-questions are not enough, but including ‘how’-questions the interviewees are able to discuss their leadership actions and the use of HRIS. Still, the purpose of the thesis is to find a way to highlight the interviewees’ deeper thoughts (tacit knowledge, EI, beliefs and values) and to find an interview method which will bring out the deeper thoughts.

NLP has been created and constructed in the mid of the 1970’s by Grinder, a linguist, and by Bandler, a psychotherapist, who earlier studied also physics, IT, psychology, mathematics and philosophy, and was interested in Gestalt therapy. Theoretical background of NLP mainly lies in cognitive psychology, linguistic and system theory (DeLozier 1995), and the words stand for

– Neuro – a nervous system where people’s experiences are processed by five senses (hearing, sight, sense of taste, sense of smell and sense of touch).
– Linguistic – language and non-verbal communication systems which people use to order, code and to give meanings to neural representations.
– Programming – people’s ability to recognize and use programs they run in neurological systems to achieve specific outcomes. (Grinder & Bandler 1976.)

Bostic St. Clair & Grinder (2001: 50) introduce NLP as follows:

“NLP is a modelling technology whose specific matter is the set of differences that make the difference between the performance of geniuses and that of average performers in the same field or activity. In this sense, the objective of modelling studies in NLP is to explicate in a transferable and learnable code these sets of differences. The core activity, then, is the mapping of tacit knowledge onto an explicit model. This meta-discipline was created by John Grinder and Richard Bandler in the early 70’s.”

Bandler and Grinder started their research by studying, analyzing and modelling the work of Fritz Perls, Virginia Satir and Milton H. Erickson, the therapists, who were highly well-known for their excellent professional abilities as communicators in therapy. In their first book of NLP, ‘The Structure of Magic, volume I’, Bandler & Grinder (1975) wrote about their experiences of analyzing Perls’ and Satir’s work (Bostic St. Clair & Grinder 2001: 148). The other book, ‘The Structure of Magic, volume II’, was published in 1976 and it continued to analyze the work of therapy. At the end of the second volume they noted that with these books they wanted “to show some of the many patterns that therapists of every school have in common. We never had the intention of starting a new school
of therapy; we wished, rather, to start a new way of **talking** about therapy so that the similarities of different schools approaching the task of helping people to change could be understood. We wished to demonstrate, not that any particular approach to therapy is any more potent than any other approach, but that all forms of therapy assist their clients in changing. So the question is no longer which approach is the best: it is how such seemingly different approaches all can work.” (Grinder & Bandler 1976: 194). Although NLP was developed in an academic environment and by academic people, it was not fully acknowledged. Probably the reason for that was NLP’s way of thinking about and discussing people’s activities. At that time it was quite a new and unfamiliar way. Today NLP still challenges both academics and practitioners.

In NLP one of the main ideas is that a territory is different than a map (Bandler & Grinder 1975: 172–174, Grinder & Bandler 1976: 4, Dilts, Grinder, Bandler, Bandler & DeLozier 1980: 3–4). It means that people do not react directly to the reality but they all have their own maps, philosophies of life of the reality, which are the base for how people react in different situations and with different issues. When a person regards his/her own map as true s/he narrows the reality to his/her own conception of the reality. Every person creates his/her own maps of the surrounding world using his/her language, and the maps are based on his/her genetic structure and personal history. One map never covers the whole territory but it is the person’s description and presentation of the interactions, information, experiences s/he has lived. If a person thinks that his/her map is the right one, s/he considers the other maps wrong. Whereas if s/he enriches his/her own map with issues from other people’s maps, the information and the conceptions of the territory improve and s/he will approve and understand other people’s maps. In the meantime, his/her own map becomes more diverse. People always make their best choices based on their own maps, which should not be evaluated as good or bad, or right or wrong but according to how diverse and rich alternatives they offer to people’s activities and experiences. The territory, reality, does not restrict people but the choices and the alternatives people regard as possible based on their own individual maps. (Bandler & Grinder 1975, Grinder & Bandler 1976.)

Currently NLP is considered a method which trains people to develop themselves and their communication skills. It has been regarded as a more effective and efficient method to create changes than other disciplines because NLP focuses on different issues and aspects of development, i.e. where people are successful, what activity works well and how to put effort on and develop those
activities which work well rather than pondering what is wrong or problematic. NLP does not underestimate problems or difficulties but looks at them from different viewpoints. It gives other choices and alternatives to solve problems. (Bostic St. Clair & Grinder 2001.) NLP and positive psychology launched by Seligman in the 1990s have several similarities.

NLP has been developed by Grinder and Bandler as well as by their co-developers Dilts, DeLozier, Cameron, Bostic St. Clair et cetera. In 1990 Dilts introduced his model of logical levels in NLP (Dilts 1990). Table 14 depicts the logical levels, their meanings and questions which indicate each level.

Table 14. Descriptions of logical levels (Dilts 1990).

<table>
<thead>
<tr>
<th>Logical level</th>
<th>Meaning</th>
<th>Question indicating the level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
<td>External limitations, influences and possibilities.</td>
<td>Where? When?</td>
</tr>
<tr>
<td></td>
<td>For example, working environment or ergonomics or security of a working place.</td>
<td></td>
</tr>
<tr>
<td>Behaviors</td>
<td>What do I concretely do?</td>
<td>What?</td>
</tr>
<tr>
<td></td>
<td>For example, work tasks of an employee.</td>
<td></td>
</tr>
<tr>
<td>Capabilities and skills</td>
<td>How do I go about doing things? What skills do I use?</td>
<td>How?</td>
</tr>
<tr>
<td></td>
<td>For example, employees’ and companies’ capabilities, skills and strategies.</td>
<td></td>
</tr>
<tr>
<td>Beliefs and values</td>
<td>Why do I do something? What is important? Generalizations, conceptions, meanings.</td>
<td>Why?</td>
</tr>
<tr>
<td></td>
<td>For example, the employee values honesty, or the company values employees’ well-being, or one believes that s/he can do whatever s/he wants to.</td>
<td></td>
</tr>
<tr>
<td>Identity</td>
<td>Who am I? For what do I live?</td>
<td>Who?</td>
</tr>
<tr>
<td></td>
<td>For example, a role of an employee in a working place.</td>
<td></td>
</tr>
<tr>
<td>Spirituality</td>
<td>Connection to a larger system.</td>
<td>What or whom to serve?</td>
</tr>
<tr>
<td></td>
<td>For example, a working place is a larger system for an employee.</td>
<td></td>
</tr>
</tbody>
</table>

Bostic St. Clair & Grinder (2001: 302–305) have strongly criticized Dilts’ (1990) logical levels and their connection with NLP. However, Dilts’ (1990) model is widely used by NLP practitioners. In this research Dilts’ (1990) logical levels are used to enhance and to strengthen the interviews. Dilts (1990) bases the model of logical levels on the work of Bateson (1972), who noticed that experiences and
behavior such as learning, change and communication occur at several natural logical levels. The use of logical levels provides the observation on different levels of experiences and attains congruence between different levels in a short period of time. Incongruence of levels is seen to cause problems. Therefore, a change at one level may evoke changes at other levels. (Dilts 1990.)

Logical levels are depicted as a system in figure 12. Dilts (1990) describes it as follows:

“From psychological point of view there seem to be five levels that you work with most often. (1) The basic level is your environment, your external constraints. (2) You operate in that environment through your behavior. (3) Your behavior is guided by your mental maps and your strategies, which define your capabilities: (4) These capabilities are organized by belief systems – which are the subject of this work – and (5) beliefs are organized by identity.” (Dilts 1990: xi)

In an organizational context logical levels can be introduced as follows. Identity defines the meaning why a person lives or why a company exists. Also the role defines the identity which sets limitations for what kind of beliefs or values can exist in an organization. Beliefs and values, for their part, have an effect on capabilities and skills and on how they will be developed. Capabilities and skills direct behavior through psychological maps, designs or activity plans. They
determine the concrete behavior in an organization: what routines the work community or employees generate. Interaction with the environment can take place in many different concrete deeds, for example, in meetings with clients. The choices made at other levels determine the concrete deeds, in other words, the capabilities and skills, which have been generated on the base of beliefs and values determined by identity, come true through certain deeds. The environment defines external possibilities and limitations the work community and employees should react to. (Dilts 1990.) The qualitative interview of the thesis has been executed mostly utilizing the levels 2–4. Yet, the levels 1 and 5 are also there through the descriptions of the interviewees’ careers, current working positions and conceptions of being a leader.

3.3.3 Mind Map™-technique in creating descriptions of interviews

When doing analyses, data, charts and tables are commonly used devices. Still, there are other methods or techniques which help to construct descriptions and they can be regarded as useful as the traditional ones. As Strauss (1987: 143) states, qualitative analysts may use devices, such as diagrams, matrixes, table and graphs but other visual devices have also been invented. He underlines that depending on the situation and data, flexible methods of doing analyses can be applied. Strauss (1987: 143–150) underlines illustrations which have been used by his research teams. Beyer & Holtzblatt (1998) depict various visual structures to support the design of IS from the user’s point of view. For example, floor plans illustrate immediately how different spaces are situated and the access between them is constructed. It is a useful method to get a visual overview of the subject. Lyytinen & Newman (2008), for their part, introduce a Punctuated Socio-technical IS Change (PSIC) model which takes into account changes of IS at multiple levels: the work system level, the building system level and the organizational environment. The highly visual model is created to explain complex IS changes to expand earlier research on socio-technical change. In their article Lyytinen & Newman (2008) describe how the diverse PSIC model can be used in the context of IS changes. They conclude stating that the PSIC model is a step forward to utilize “simultaneously ideas of incremental and punctuated change and multi-level view of change” (Lyytinen & Newman 2008: 22) in the complex design of IS changes.

In this thesis Mind Map™-technique (Buzan & Buzan 1993) was chosen to depict visually the diverse and multidimensional results of the empirical data.
Mind maps enable to highlight and see the multi-storey and multi-connective viewpoint of the good leadership activities and the role of HRIS even on the single level. It supports the idea of tacit knowledge where the mind is regarded as essential, i.e. people carry tacit knowledge in their mind (Nonaka & Takeuchi 1995). Mind maps were developed in the 1970's by Tony Buzan with the help of his brother Barry Buzan. It has the base on the brain research Tony Buzan had executed. In addition, the development was influenced by frustration he had experienced when noticing the enormous data flow students had had to learn but they had not been able to handle because of the lack of methods to use brains effectively (Buzan & Buzan 1993: 16–18). He developed “a concept of Radiant Thinking of which the Mind Map™ is a manifestation” (Buzan & Buzan 1993: 57). Buzan & Buzan (1993: 57) have described and defined Radiant Thinking as follows:

“Radiant Thinking (from ‘to radiate’, meaning ‘to spread or move in directions, or from a given centre’) refers to an associative thought process that proceeds from or connects to a central point. The other meanings of ‘radiant’ are also relevant: ‘shining brightly’, ‘the look of bright eyes beaming with joy and hope’ and ‘the focal point of a meteoric shower’ – similar to the ‘burst of thought’.”

The mind maps are described by Buzan & Buzan (1993: 59) in the following way:

“The Mind Map is an expression of Radiant Thinking and is therefore a natural function of the human mind. It is a powerful graphic technique which provides a universal key to unlocking the potential of the brain. The Mind Map can be applied to every aspect of life where improved learning and clearer thinking will enhance human performance. The Mind Map has four essential characteristics:

- The subject of attention is crystallized in a central image.
- The main themes of the subject radiate from the central image as branches.
- Branches comprise a key image or key word printed on an associated line. Topics of lesser importance are also represented as branches attached to higher level branches.
- The branches form a connected nodal structure.”
It is recommended to use colors, pictures, codes and dimension when creating mind maps. They will help to increase creativity, memory and to recall information. Mind maps also help to make a distinction between the mental storage capacity, which mind map will help to demonstrate, and the mental storage efficiency, which mind map will help to achieve. (Buzan & Buzan 1993: 60, 84.) When creating mind maps, Buzan & Buzan (1993) give four laws for technique and two laws for layout. The laws for technique are: 1) To use emphasis which improves memory and creativity. 2) To use association to improve memory and creativity. 3) To be clear to avoid hindering nature and clarity of thinking. 4) To develop personal style to help constantly develop and refine all mental skills. (Buzan & Buzan 1993: 97–104.) The laws for layout are: 1) To use hierarchy and categorization to enhance the power of brains. 2) Using numerical order helps organizing maps in specific order of chronology or of importance. (Buzan & Buzan 1993: 104.)

There are also some recommendations concerning the process of mind mapping and following the laws. The recommendations will release thoughts during the process as well as provide the best environment for brain and body. The recommendations are: 1) Break mental blocks. It means that, for example, added blank lines can be filled later when issues are thoroughly sorted out, or asked questions challenge networks of knowledge in brains, or added images increase re-remembering, or maintained awareness of the infinite associational capacity free the brain from its accustomed restrictions (Buzan & Buzan 1993: 106–107). 2) Reinforcing means to review Mind Maps and to do quick Mind Map checks. Reinforcing enables to refine or correct certain areas, to fill in any areas which may have been missed, to reinforce particularly important associations and to check what can be recalled without external stimulus. (Buzan & Buzan 1993: 107–108.) 3) By preparing mental attitudes one develops a positive mental attitude, commits oneself to one’s Mind Map and commits to the absurd. Preparing materials means to have one’s own papers, pens, highlighters and filling systems which one is attracted to and wants to use. By preparing workspace or environment means to ensure to have moderate temperature in a room, to use natural light where possible, to ensure to have plenty of fresh air, to furnish a room appropriately, to create pleasing surroundings and to play appropriate music, or to work in silence if one prefers. (Buzan & Buzan 1993: 108–110.) Also four danger areas or pitfalls are possible when making mind maps. For example, a mind map is not a mind map if it lacks the laws of techniques and layout or the structure is increasingly random and monotonous.
When writing phrases on the mind map, one should avoid using negative phrases or phrases which have negative sound. Therefore, a positive attitude is recommended. One can state that a ‘messy’ Mind Map is not good. However, it can reflect a state of mind at certain time or a received input. The final danger area is a negative emotional reaction to any Mind Map. A created Mind Map is seldom the final one but it needs revision. (Buzan & Buzan 1993: 111–113.)

When Mind Map™-technique was developed, maps were made on paper. Afterwards various mind map-software has been designed which aims to follow the given laws. However, the graphical possibilities are not yet as versatile as making maps manually, which provides correcting, changing and redesigning activities. Some of the laws are designed in the software. FreeMind™ is the mind map-software used in this research. It is easy to use and it gives various possibilities such as coloring and making arrow connections between branches, to depict images. It has been of great use when making the research, i.e. creating mind maps from each interview, collecting data from the descriptions and yielding research results. It also helped to see the diversity of the research phenomena.

Mind Map™-technique is used as a description method for the thesis because it gives a visual space to collect and combine data from transcripts. Other software has been developed for analyzing transcripts such as Atlas.IT™ or NVivo™. However, Mind Map™-technique has been used because it gives an opportunity to collect and depict the phenomena diversely and to create a basis for formal descriptions presented later in the thesis.

3.4 Summarizing the research approach, method and techniques

The essential philosophical approach to the research of the thesis is based on hermeneutics. Herein the research process is introduced utilizing a hermeneutic research framework created by Chole & Avison (2007). The aim is to highlight the similarities between the study of the thesis and that of Chole & Avison (2007) to clarify the use of hermeneutics with phenomenography. Chole & Avison (2007) created the framework in the course of their research. They developed the framework on the basis of the structure of understanding and constructivist hermeneutic thought using the key elements from understanding through explanation to interpretation. The elements were discussed logically and they represented one revolution of hermeneutic circle. The discussion is divided into six stages, which are depicted in figure 13. (Chole & Avison 2007.) One of the
essential issue of hermeneutic phenomenography is to describe a phenomenon. Therefore the term ‘explanation’ is replaced by ‘description’ when adapting the framework for the thesis. It changes the approach in this respect: in constructivist hermeneutics explication affects the lines of questionnaires and drives the research process whereas in phenomenography the research is focused on the relationship between the subject and the object.

The aim and the problem of the research of Chole & Avison (2007) are quite similar to the study of the thesis: “The aim … is not to seek out ‘new’ knowledge but to understand existing knowledge better.” (Chole & Avison 2007: 823). In this context the hermeneutic problem “is not to search for one best interpretation but rather the co-emergence of perspectives that result from an active merging of boundaries, or the ‘fusion of horizons’, by researchers and participants.” (Chole & Avison 2007: 823). Thinking and acting in another way has been highlighted in the thesis. Herein it can be taken into account and applied. In other words, thinking and acting in another way does not necessarily increase new knowledge but expands existing knowledge by crossing over the boundaries. If new knowledge emerges, Chole & Avison (2007) use constructivist hermeneutics when combining new knowledge to existing understanding. It is a process from deconstruction (as understanding) to analysis (as explanation, in this thesis as description) and to interpretation (as understanding differently) where hermeneutic circle is used (Chole & Avison 2007). Chole & Avison (2007) emphasize that the hermeneutic framework is a challenge for the practice of interpretive research in the IS field. In this thesis prejudices and hermeneutic circle are used in the hermeneutic phenomenographic research to enhance

Fig. 13. A hermeneutic framework for practical research adapted from Chole & Avison (2007: 824).
knowing and understanding of the phenomena in question and to describe and interpret the phenomena in question.

The stages of the discussion and their meaning used in the research of Chole & Avison (2007) as well as their congruencies and differences with the research process of the thesis are depicted in table 15 as an example of a summary of the research approach, the research method and of the research techniques used in collecting the empirical data for the study of the thesis.

Table 15. The stages and their meaning in the research of Chole and Avison (2007) and their congruencies and differences with the research process of the thesis.

<table>
<thead>
<tr>
<th>Stage of discussion</th>
<th>Meaning of the stage in the study of Chole &amp; Avison (2007)</th>
<th>Congruencies and differences with the study of this thesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>The explication of prejudice</td>
<td>To establish a research focus and to transform data into useful and condensed forms following a two-stage process.</td>
<td></td>
</tr>
<tr>
<td>1) “To clarify one’s position relative to the phenomena of interest, that is, gain an appreciation of ‘the whole’.” (Chole &amp; Avison 2007: 823). Here Chole &amp; Avison (2007: 823) used techniques of cognitive therapy to help participants’ self-reflection and to uncover negative thoughts, i.e. “to identify core attitudes and values, to weight these according to conviction, and to assess the viability of thoughts by outlining alternative perspectives”.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) “To create a level of critical self-awareness, however incomplete, about the researcher’s interpretive horizons.” (Chole &amp; Avison 2007: 824). To create a dialectic with the literature to deconstruct ‘the whole’ into constituent ‘parts’. (Chole &amp; Avison 2007: 824).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NLP is used to attend the first stage of the two-stage process. The aim of the interview is not to uncover negative thoughts but to concentrate on the activities that work well. The interview questions help the leaders with their self-reflection and to create alternative perspective of the use of HRIS.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The second stage is not fully completed because the intention is to confront the situation with minimal prejudices of the literature, i.e. to avoid ready-defined concepts and ready-imagined theories, which could disturb to listen to what the interviewees are telling well and truly.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

127
Stage of discussion | Meaning of the stage in the study of Chole & Avison (2007) | Congruencies and differences with the study of this thesis
--- | --- | ---
Formulating lines of enquiry | To create a richer appreciation of a researcher’s interpretative position (relative to the whole) and associated research horizons (relative to the parts). (Chole & Avison 2007: 824). ‘Parts’ are key elements of the ‘whole’ and used as themes in discussion while collecting data during an active interview. (Chole & Avison 2007: 824). “New information is assessed relative to what was understood before, and what can be explained now, in terms of what this means for the future.” (Chole & Avison 2007: 824–825). | Unlike in constructivist hermeneutics in hermeneutic phenomenography a phenomenon is described as it is by the interviewees. The relationship between the subject and the object is essential when creating conceptions and understanding.
Conducting the active interview | - interviewee and interviewer are equal partners
- is theme oriented
- to understand the meaning offered by interviewees
- “the key is to focus on nuanced descriptions that depict the many differences and varieties of a phenomenon” (Chole & Avison 2007: 825). | Using the ideas of NLP includes similar issues as the active interview. The key is to discover tacit knowledge.
Analyzing a priori codes | “To categorize data and identify connections as a means of explanation.” (Chole & Avison 2007: 825)
“To produce a thick description of the phenomenon and its constituent parts rather than an explanation of how those parts are connected.” (Chole & Avison 2007: 825). | Describing phenomena is similar to phenomenography. Tables and mind maps are used to categorize and code data.
Analyze of two types of data | 1) feelings surrounding the interview event
2) the transcribed interviews (Chole & Avison 2007: 825).
“The researcher decides which elements are significant.” (Chole & Avison 2007: 825). The conversational rounds of interviews can be held to verify the codes (Chole & Avison 2007: 825). | The analysis of leadership is divided into two parts to discover tacit knowledge and EI:
- behavior, actions, reactions, abilities, knowledge and skills
- important factors, beliefs and values.
The author decides on the significance of the elements. NLP emphasizes interview rounds to verify data.
<table>
<thead>
<tr>
<th>Stage of discussion</th>
<th>Meaning of the stage in the study of Chole &amp; Avison (2007)</th>
<th>Congruencies and differences with the study of this thesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakdown in prejudices</td>
<td>&quot;Refers to the discrepant experiences, or theoretical anomalies, that may appear during data analysis.&quot; (Chole &amp; Avison 2007: 826). The researcher has to make sense of the new information before continuing interpretation. This involves reductionist approach: &quot;phenomena are (artificially) restricted to a finite set of occurrences or issues that can be explained, and subsequently, understood&quot; (Chole &amp; Avison 2007: 826). To understand new information within the context of what is already known. (Chole &amp; Avison 2007: 826). &quot;The researcher may 'borrow' preconceptions used to explain other phenomena as a bootstrapping exercise or highlight additional sources of literature for review.&quot; (Chole &amp; Avison 2007: 826). &quot;The researcher seeks to verify their partial explanations and develop their incomplete understanding about some previously taken-for-granted aspect of the phenomena.&quot; (Chole &amp; Avison 2007: 826).</td>
<td>The use of HRIS in leadership comparing the conception of its use in the organization. The descriptions of phenomena are restricted to a finite set of occurrences and issues. It is succeeded in the study of the thesis. Combination of leadership, HRM, tacit knowledge and EI. The meaning of knowledge and its 'processing' in IS.</td>
</tr>
<tr>
<td>Fusion of horizons</td>
<td>&quot;The aim is to create, through shared meanings, new conceptions that transcend originally held meanings.&quot; (Chole &amp; Avison 2007: 826). &quot;The researcher needs to be able to distinguish between partial fusions (as they relate to specific themes or issues) and Verstehen (an understanding of the complexity of issues as a whole).&quot; (Chole &amp; Avison 2007: 826). &quot;The researcher begins to combine elements of the research process into a story. Weaving this story involves large amounts of intuitive decision-making regarding elements of emphasis. In presenting the story to the reader, the researcher-as-author continues to refine, reject, and highlight different elements into a coherent whole.&quot; (Chole &amp; Avison 2007: 826).</td>
<td>The aim of the thesis is to produce other viewpoints to existing conceptions. This is essential also in the study of the thesis. The intention is to combine a story of the research process. It tells the path from methodological research choices to concrete studies ending to implications and contributions.</td>
</tr>
</tbody>
</table>
3.5 Conclusion of chapter 3

In this chapter the methodological framework of the thesis is introduced. The framework is based on hermeneutics from the philosophical viewpoint and on qualitative and interpretative approach as a research methodology. Hermeneutic phenomenography is used as a research method, and NLP and Mind Map™ technique are utilized to execute, examine and describe the interviews. According to the introduction of the research method, the empirical data is not explained but described to understand the research phenomena and to enhance the awareness of the map (confer NLP) of the research phenomena to contribute to the development work of HRIS in the research context. Qualitative and interpretative research approach enables more diverse studies than just numeric and statistical. Although interpretative researches are criticized not to be valid, they offer human and sensitive ways to approach the research subject and the people involved. With the research method of hermeneutic phenomenography the empirical data can be examined, understood and described in a way that the inner meaning of the research subject can be revealed. The idea of NLP, emphasizing that the map is not the same as the territory, enables the idea that the map is constructed individually and therefore can be revised if wanted. The map offers a diverse and meaningful way of thinking when interpretative and hermeneutic studies are executed. Mind maps, for their part, give a visual technique to describe issues which are connected to each other. When using mind maps it is possible to remember and recall the issues included in the maps.

Practically speaking, research approach, method and techniques create and can be called “research tools” which help to execute the study in question and to make the best possible contribution to the science as well as to the research area. However, it is always the researcher’s personal interpretation and choice which of the “research tools” s/he regards as the best for the study, because qualitative research challenges the researcher with its multiple research methods. To execute reliable and valid study requires him/her to explore the different aspects of the research method in depth. This could lead to a situation where the researcher starts to utilize the familiar method mostly rather than using or spending time to get to know other research methods better, although they could open new viewpoints and ideas to the research as a whole. Still, it can be stated that the qualitative researchers produce significant knowledge and contribution to a large number of researches.
In the course of the study of the thesis I have familiarized myself with different qualitative research methods to find the best possible method to execute the research tasks and to highlight research results which are significant as well as to give new viewpoints and contribution to the research subject. I can admit that the choice of the method has been influenced both by the knowledge of the research methods and the intuition. Still, I am convinced that the qualitative and interpretative research approach, hermeneutic phenomenography, NLP and Mind Map™-technique utilized in the study of the thesis form a useful and usable research methodology in the context of the thesis. They have helped to examine, understand and to describe the research phenomena. In addition, it can be stated that the research results can be benefitted both in science (IS, HRM and leadership) and in practice, i.e. in IS companies and in organizations which develop their HRIS, HR and leadership activities.
4 Conduct of the study of the thesis

In this chapter the conduct of the study of the thesis is presented. First, the selection of the interviewees is introduced. Then, the interviewees’ careers and backgrounds are described to highlight their long and diverse work experiences. After that it is clarified how the interviewing process was executed and how hermeneutic circle was applied after the transcribed material had been examined. Finally, the chapter concludes with the issues of the fourth chapter.

Herein, it is crucial to discuss the importance of the ethical clearance of the thesis. Both in quantitative and qualitative researches the ethical clearance is taken seriously. In general, the ethical clearance consists of animal welfare and human ethics in the course of the research. Universities and research institutes around the world have ethical regulations and guidelines for their researchers. They contain information about how the researchers should undertake to execute appropriate research, to utilize and store the empirical data and its results in an agreed and secured manner and to inform the participants of the research about the regulations.

In this research the participating companies were contacted and explained about the study of the thesis. In addition, both the companies and the interviewees were confirmed that the interviews would be confidential and any individualizing information would not be revealed. The documents of the transcripts as well as of the other research materials and the results have been named in a way that they do not have information which could be linked to the companies or the interviewees. Their anonymity has been appreciated and protected. The following sections conduct the readers to the study of the thesis.

4.1 Selection criteria of the interviewees

Three ICT companies with twelve good leaders (four women and eight men) provided the research context in which the interviews were carried out. The interviewees were renamed in a way that the names would not reveal their identity. In table 16 the first column expresses the interviewees’ invented names, the next column is for gender and the third column informs the duration of interview session, in minutes.
Table 16. Interviewees and the durations of interviews.

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Gender</th>
<th>Interview duration in minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mauri</td>
<td>Male</td>
<td>64</td>
</tr>
<tr>
<td>Lassi</td>
<td>Male</td>
<td>95</td>
</tr>
<tr>
<td>Anssi</td>
<td>Male</td>
<td>81</td>
</tr>
<tr>
<td>Ismo</td>
<td>Male</td>
<td>71</td>
</tr>
<tr>
<td>Irene</td>
<td>Female</td>
<td>64</td>
</tr>
<tr>
<td>Roope</td>
<td>Male</td>
<td>63</td>
</tr>
<tr>
<td>Helena</td>
<td>Female</td>
<td>62</td>
</tr>
<tr>
<td>Rami</td>
<td>Male</td>
<td>72</td>
</tr>
<tr>
<td>Pilvi</td>
<td>Female</td>
<td>69</td>
</tr>
<tr>
<td>Pertti</td>
<td>Male</td>
<td>58</td>
</tr>
<tr>
<td>Vilma</td>
<td>Female</td>
<td>83</td>
</tr>
<tr>
<td>Jaakko</td>
<td>Male</td>
<td>73</td>
</tr>
</tbody>
</table>

In the introduction chapter the term ‘good’ was determined in the context of the thesis. Also, the reason to interview good leaders was clarified. Concretely it meant that the grounds of choosing the good leaders were based on the companies’ feedback systems for employees, by which they were able to give numeric appraisal and verbal feedback to their superiors. The feedback systems included issues which were connected to management and leadership actions. The appraisal scale was from 1 to 5, where 1 meant the least satisfied appraisal and 5 the most satisfied appraisal. In one system zero was also a possible choice if the respondent could not give the appraisal for one reason or another. The mean of each subject was calculated from given appraisals. Although the numbers showed only statistical figures for individual and human actions in leadership and management, it was possible to interpret them as right indicatives in long-term follow-up periods. In addition, the verbal feedback supported the good appraisals. Yet, the important aspect here was that the results were the employees’ opinions of their superiors.

The management of the companies chose the persons from the leaders who had received both good appraisals and good verbal feedback for several years so that the validity and reliability of the study were ensured. As to scales this meant that the means of the leaders’ appraisals were higher than 3.5. Even though these appraisals were classified ‘secret’ outside the companies, I was able to verify the summaries. As mentioned in the previous paragraph, the appraisals consisted of several subjects which were assessed by the employees. Some of the appraised subjects of the feedback systems had been listed:
coordination ability
- target-orientation
- performance management
- human resource management
- ability to motivate
- ability to coordinate
- availability
- interaction
- ability to communicate
- ability to share information and knowledge
- ability to support personnel
- team work
- encouragement and feedback
- relationship between the employee and superior.

The given verbal feedback of the interviewees were not explored beforehand to avoid the influence of the appraisals on the interviewing process. The goal was to construct a situation which was as neutral as possible for both the interviewer and for the interviewees. Therefore, it can be stated that each interview session started as a blank paper to be filled with the information given by an interviewee.

4.2 Interviewees’ careers and backgrounds

The interviewees had long work experiences and diverse career development (positions and tasks) in their workplaces both at the time of the interviews ans earlier. The experiences are listed in table 17. The left column is a collection of the interviewees’ different work positions and the right column consists of the interviewees’ work tasks in the course of their careers. Not all of them have had all positions or have done all tasks but the table is a collection of them. The line between the columns indicates that although the work positions and the work tasks have a connection with each other, in this table they are listed separately.
Table 17. Lists of the interviewees’ careers.

<table>
<thead>
<tr>
<th>List of work positions in the interviewees’ careers</th>
<th>List of some work tasks in the course of the interviewees’ careers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainee</td>
<td>Different testing tasks</td>
</tr>
<tr>
<td>Programmer</td>
<td>Different guiding tasks</td>
</tr>
<tr>
<td>Software analyst</td>
<td>Support</td>
</tr>
<tr>
<td>Project manager</td>
<td>Tasks of Information technology</td>
</tr>
<tr>
<td>Team leader</td>
<td>Resourcing</td>
</tr>
<tr>
<td>Line manager</td>
<td>Contracts</td>
</tr>
<tr>
<td>Quality manager</td>
<td>Logistic issues</td>
</tr>
<tr>
<td>Human Resource Manager</td>
<td>Quality issues</td>
</tr>
<tr>
<td>Member of the resource executive team</td>
<td>Control functions</td>
</tr>
<tr>
<td>Person in charge of selling</td>
<td>Product responsibility</td>
</tr>
<tr>
<td>Person in charge of clients</td>
<td>- expert tasks</td>
</tr>
<tr>
<td>Person in charge of service function</td>
<td>Responsibility of new product family</td>
</tr>
<tr>
<td>Person in charge of product integration</td>
<td>Client responsibilities</td>
</tr>
<tr>
<td>Person in charge of system product area</td>
<td>Software services for various clients</td>
</tr>
<tr>
<td>Person in charge of business area product development</td>
<td>Responsibility of</td>
</tr>
<tr>
<td></td>
<td>- projects</td>
</tr>
<tr>
<td></td>
<td>- clients</td>
</tr>
<tr>
<td></td>
<td>- client profit center</td>
</tr>
<tr>
<td>Person in charge of business line</td>
<td>Project situations’ follow-up</td>
</tr>
<tr>
<td>Person in charge of business division</td>
<td>- resources</td>
</tr>
<tr>
<td></td>
<td>- needs</td>
</tr>
<tr>
<td></td>
<td>- human resource activities</td>
</tr>
<tr>
<td></td>
<td>- training</td>
</tr>
<tr>
<td></td>
<td>- recruiting</td>
</tr>
<tr>
<td></td>
<td>Tasks of subcontract projects</td>
</tr>
<tr>
<td></td>
<td>Human resource management tasks</td>
</tr>
<tr>
<td></td>
<td>HRM consulting</td>
</tr>
<tr>
<td></td>
<td>Personnel administration</td>
</tr>
<tr>
<td></td>
<td>Economic administration</td>
</tr>
<tr>
<td></td>
<td>Tasks in executive teams</td>
</tr>
<tr>
<td></td>
<td>Managerial tasks</td>
</tr>
<tr>
<td></td>
<td>Company unit management</td>
</tr>
<tr>
<td></td>
<td>Knowledge management</td>
</tr>
<tr>
<td></td>
<td>Tasks of business area management</td>
</tr>
<tr>
<td></td>
<td>Business management consulting</td>
</tr>
<tr>
<td></td>
<td>Organizational development</td>
</tr>
<tr>
<td></td>
<td>Strategy issues</td>
</tr>
</tbody>
</table>
According to the interviewees, progress and responsibilities in their careers had meant changes and development in the interviewees’ managerial and leading competencies. They stated that often a higher position in the company management had alienated them from leadership and HRM responsibilities and they operated more with business issues. However, all the professional knowledge and experience acquired from previous work tasks were applied to their leadership. This indicated the interviewees’ tacit knowledge.

Five of the 12 interviewees had received companywide responsibilities among HRM activities taking part in a special HR team where internal and external HR had been organized and evaluated. Two of the 12 interviewees had been in charge of the company’s HRM. Some other work experiences were also discussed during the interviews, such as working years, previous workplaces, work and one’s own development. The interviewees valued all the experiences they had had during their entire career. Some interviewees even mentioned the importance and influence of leadership experiences dating back all the way to their schooldays. Also, the meaning of their childhood environment – how they accomplished housework as children – was emphasized in a couple of discussions. Here are two examples of the comments from the interviewees’ experiences at work which had influenced their leadership activities:

“I have experience of superiors whose behavior was very unreliable and who were not listening to their employees. Therefore, as a superior, I want to do things differently.” (Anssi 10.8.2005: 6).

“I can imagine employees’ feelings and problems concerning work situations because I have been through the same / ... I have collaborated with a specific client for a longer time / ... I am more familiar with this project.” (Helena 18.8.2005: 7-8).

4.3 Interviewing process

After the interviewees’ were named, they were contacted to arrange the interviewing schedule and place. One interview session took place at the university and all the others in the interviewees’ workplaces. At the beginning of the sessions the interviewees were explained why HRIS were studied together with the activities of good leadership and how the interviewees were chosen. Also, the basic conceptions and assumptions of NLP were described, because the interviewees were not familiar with NLP and because the questions and the style
to have an interview using NLP might at first have confused them. Next the interviewees were asked to describe their work experiences and career development. Then the interview session continued by asking about their leadership actions, because the target was to find out the activities they executed when leading the employees. Herein, NLP and Dilts’ (1990) logical levels as an interviewing method were used to highlight the activities that worked well and the issues that were important to the leaders. When opening the well-working and important issues, it enabled to reveal the interviewees’ tacit knowledge and EI. Then the interviewees were asked to define in which activities and how they used HRIS, i.e. the role of HRIS in their leadership. In the course of the interview session the basic questions were:

1. What do you do when you lead people?
2. How do you do what you are telling you do?
3. Why do you do it?
4. What is important?
5. What works well?

According to Dilts (1990), the first question led the interviewees to describe the work process, i.e. what were their actions, behavior and responses in a leadership situation. In many cases the answer for the first question was, “I do not know.” The interviewees had worked for a long time and their actions were part of their everyday leadership. Therefore, it was difficult for them to perceive the leadership actions. The sentence “I do not know” also expressed that the leadership behavior and actions were in their subconscious mind and therefore not immediately conscious information. It could be called tacit knowledge (Polanyi 1966). In addition, behavior was defined by NLP researchers “as all sensory representations experienced and expressed internally and/or externally for which evidence is available from a subject and/or from a human observer of the subject” Dilts et. al. (1980: 4). Therefore, to help the interviewees to describe their behavior and actions in leadership, they were asked to give an example of prevailing leading situation or to imagine that the interviewer was the one executing the leadership. The questions were: “What have you been doing lately? What would I be doing if I were a leader like you? How would you advise me to do the task or to lead a person?” The questions made the situation easier for the interviewees to recall and describe the actions.

The second question indicated the interviewees’ strategy of actions and thinking in leadership: abilities, knowledge and skills (Dilts 1990). It helped the
interviewees to remember how they acted in different leadership situations. To this question the answers were basically very concrete. The main points of one of the answers is as follows:

“I go to the employee and I may sit on his/her desk. First I talk this and that. I may ask how the day has started, if the kids are ok et cetera. After an appropriate small talk, I explain what I had in mind. I also consider his/her mood and personality before I do it. Sometimes I go for a talk just without a relevant work subject.” (Ismo 1.6.2005: 2)

The third question was used the least in the course of the interview sessions. It was replaced with questions four and five mostly. However, using them correctly, they all showed the interviewees’ overall learning process which included beliefs and values. The questions also indicated how work and life experiences had affected the leaders, how they had constructed the set of values and what kind of behavior could be regarded as suitable in leadership. Ordinarily, the beliefs and values were hidden behind the interviewees’ actions and ways of expressing themselves. However, several interesting beliefs and values came up during the interview sessions. The answers to those questions helped to interpret and clarify the interviewees’ EI and their abilities to use EI.

In addition to the basic questions, some open questions regarding the issue in question were made to clarify and specify the given answers. Also, syntheses of the discussed issues and answers were drawn to help to keep the essential in mind because, occasionally, the discourse extended to other issues – something that is quite normal during interview sessions. Overall, drawing the syntheses helped the interviewees to remember more about their leadership. They also had a possibility to verify if the interviewer had understood the answer right. A synthesis could start:

– “If I have understood right, when you lead people you…”
– “If I have understood right, the important issues for you are…”

The same formula of the questions was used when asking about the usage of HRIS in the interviewees’ leadership. Related to HRIS, it was notable how IT professionals expressed themselves when talking about the usage, design, development, new ideas and the significance of IS and HRIS in the application area of leadership. How the IT professionalism had affected their ways of thinking, will be discussed later.
When describing the interview situations, at first they were somewhat formal. The questions, however, helped to relax both the interviewer and the interviewee. The interviewer let the interviewees speak as much as they liked about the subject in question. Many of the interviewees were extrovert people and also committed to the interview session, so the discussions progressed well, in general. However, in a couple of sessions the atmosphere stayed official most of the time and the answers were short. On one hand, the interviewer interpreted it as if the interviewees had prejudice against the session or as if they were afraid or just playing cautious. On the other hand, it may have been their way to participate in work-related meetings in general. Still, in the end the discourse satisfied both.

Although it was presumed that the interview sessions included a continuous discussion, a list of issues for the interview session had been prepared in case of a knotty situation. However, many of the issues came out spontaneously from the answers and pondering of the interviewees. The list was also useful in a situation when it was necessary to change the discussion subject or to break a silent moment. Notes were also taken during the sessions to keep track of the discourse. The list of the main subjects discussed was as follows:

- daily leadership work: tasks and actions
- ways to execute their own leadership
- leadership versus management / human resource management
- handling a new employee
- handling a new superior
- to know the old fellow workers and employees
- problematic situations
- communication
- information
- development discussion with an employee
- roles in organization and leadership
- internationality
- gender
- project group
- team work
- content of the company’s own HR information system
- use and utilization of the HR information system
- meaning of the HR information system.
After the interview sessions many of the interviewees were excited about having been able to take part in the research and thus to reflect on their daily behaviors as a leader. The interviewer felt the same. Lastly, the interviewees’ honest answers were given appreciation and they were thanked for the participation. Also permission was given to contact the interviewer if something important should come to mind afterwards.

4.4 Examination of the interviews as hermeneutic circles

Hermeneutics and hermeneutic circles have been utilized in the examination of the empirical data. The four different circles, introduced next, will indicate the hermeneutic method of researching data to interpret and understand the data in great depth.

In the course of the interview process the interviews were recorded and stored for the transcriptions. The transcriptions were not made until all of the interviews were accomplished. The reason for that was not to let the previous interviews to influence the next session. The transcription work was an unexpectedly slow process for the interviewer as a newcomer in the research field because sometimes the voices were quiet, speeches incoherent and also there occurred mixed thoughts or emotions by the interviewees. They could start a sentence, cut it short in the middle, perhaps start it again using other words or start a new sentence altogether. But because the transcriptions have to be accurate, the recordings were listened as many times as needed to get it right. As the results of the transcription work there are 131 pages of the text. It can be regarded as the first hermeneutic circle of the study because it was the first interpretation of the empirical material as a relationship between parts and wholeness.

After having transcribed the interviews, they were examined to indicate how the interviewees executed their own leadership, i.e. what their activities as leaders were, what they thought about leadership, what their opinions of leadership were and what the leadership meant to them. Also other related issues which had emerged during the interview sessions were taken into account. When the printed versions of the transcriptions were read, the parts considered significant were underlined. Here the colored marker pens were used. Blue color was for the career experience information. With green color the subjects concerning leadership were marked. The red pen was used to color the subjects that were important for the interviewee. Yellow color was for the HRIS subjects. In addition, ideas and interpretations were marked and written on the paper next to
the text. That was the second hermeneutic circle through the data to understand how the activities of good leadership were executed by the interviewees.

The third hermeneutic circle of the research process occurred when mind maps were made out of the transcriptions. FreeMind™ software was used to enable many kinds of drawing. For example, it was possible to color the nodes, to make links between them and to remark them with different icons. The software was easy to use and helped to create adequate mind maps. Two mind maps were constructed from each interview: one described the information of leadership actions whereas the other described the use of HRIS and the development ideas or comments of HRIS which could support leadership.

The fourth research circle was the writing process itself, where the interviews and mind maps were examined together and the results were constructed. Herein, the construct of hermeneutic phenomenography was used. As stated earlier, in phenomenographic research descriptions of conceptions are used to study various phenomena, and the target of phenomenographic research is people’s different conceptions of the same phenomenon and how the conceptions vary between people as well as in a person’s mind depending on the situation or on the way the question has been formed (Marton 1981, 1986). Categories of descriptions in phenomenographic research present the main results of the research, represent relationship between the theory and empirical data, and they select and organize the material. Fundamental similarities and differences are also shown and argued in categories. In other words, categories of descriptions can be used as abstract instruments to analyze concrete cases as well as people’s thinking in relation to common ways of thinking. The category-systems of description vary depending on the problem field of a phenomenon. They differ because, first, they represent different ways to perceive the reality and, secondly, how structures of categories are linked to each other. (Uljens 1991, Häkkinen 1996, Järvinen 2004.)

4.5 Conclusion of chapter 4

The idea of the fourth chapter has been to clarify and describe

- what have been the grounds of choosing the interviewees
- how the interviewees have been selected
- what are the interviewees’ career backgrounds and work experiences
- how the interview process has been executed
how hermeneutic circles have been applied in the examination of the empirical data.

In the course of the interview process an important issue has been to perceive the ethical clearance. It has influenced how the information of the interviewees, the interviews and the results have been processed. The descriptions of choosing and selecting the interviewees as well as of listing their careers and work experiences give a basic picture of the interviewees’ backgrounds. It helps to understand the meaning of using the concepts of tacit knowledge and EI together with the activities of leadership. The interview process has been depicted to clarify how NLP and the logical levels have been utilized in the interview sessions, whereas the use of hermeneutic circles have been introduced to highlight how the transcriptions have been examined and the empirical data has been interpreted and understood as parts and as a whole. In the next chapter the activities of good leadership will be summarized as conversational themes and important issues. Utilizing the summaries, the phenomenon of good leadership will be described adapting the construct of hermeneutic phenomenography.
5 Interviewees as leaders and good leadership activities

In the introduction chapter of the thesis four research tasks have been listed. In this chapter the first research task, to understand how the good leaders exercise their leadership and its activities, is examined and described. Hence, the interviewees as leaders and the interviewees’ leadership activities are described. The first descriptions consist of the summaries of the interviewees themselves, their beliefs and values as well as of their reflections and self-evaluation as leaders. Secondly the interviewees’ activities and their essential issues in leadership are depicted. It has also been pointed out that tacit knowledge and EI are utilized to characterize the activities of leadership. This does not mean that exact actions are named as tacit knowledge or EI, but the descriptions of the activities represent the leaders’ tacit knowing and emotional awareness. Thus, they should be taken into account when designing to develop HRIS for the activities of leadership.

According to the logical levels the different descriptions of the interviewees indicate the interviewees’ conceptions of their environment (external limitations, influences and possibilities), identity (Who am I? For what do I live?) and spirituality (connection to a larger system) which construct the ground for the leadership activities the interviewees exercise as a whole and parts. The descriptions also highlight the interviewees’ behaviors (What do I concretely do?), capabilities and skills (How do I go about doing things? What skills do I use?) as well as beliefs and values (Why do I do something? What is important?), which express the interviewees’ concrete acts and the background conceptions of the acts. Although it takes space to introduce the descriptions of the interviewees, they are significant because they give a concrete and, at the same time, diverse picture of the interviewees as leaders and their leadership activities, which have a strong effect on the interviewees’ conceptions of what is the role of HRIS in their leadership activities. Furthermore, the conceptions affect how the leaders regard the use and the development work of HRIS. That is the context in which the research has carried out and the role of HRIS has been examined. Hence, the leaders are let to speak for themselves and for the research. Chapter 5 can also be regarded as an example of the HRIS design work being conducted in depth. In other words, not only the formal and official data is examined and coded in the system but the human knowledge is examined and perceived as well.
The content of chapter 5 is created utilizing the ideas of hermeneutic phenomenography and of the logical levels. According to the logical levels, section 5.1 is for the descriptions of interviewees’ identity as well as for their beliefs and values as leaders. Section 5.2 presents the environmental subject, i.e. the organization, which concerns the leaders’ activities, whereas the interviewees’ thoughts of the IT line of business include parts of spirituality. The section also presents the descriptions of the interviewees’ behaviors, capabilities and skills when executing the leadership activities. The essential issues introduce things that work well in successful leadership. The sub-sections represent the categories created utilizing the idea of categorization in phenomenography.

In section 5.3 the construct of the phenomenon of the interviewees’ leadership activities and the construct of the phenomenon of good leadership in the organizational context are introduced applying the construct of hermeneutic phenomenography. On the contentual level, the former construct combines together the most essential issues and actions of good leadership. On the conceptual level, the latter construct connects together the concepts of leadership, tacit knowledge and EI as well as of good leadership in the context of the study of the thesis. The constructs are utilized when the results are introduced, i.e. how the role of HRIS could be developed in the context of the thesis. Lastly, the conclusion of the fifth chapter is presented.

5.1 Descriptions of the interviewees and their leadership

In this section the interviewees as leaders are introduced. As a background for the interviewees’ descriptions a noteworthy discovery is presented first. It appeared during the process of examining the interviews. Even though, the interviewees would have regarded the same subjects and activities as important matters in leadership (listening, caring, goals, trust etc.), at the same time each of them looked at the subjects and activities of leadership from their own viewpoints, which were constructed on the bases of their earlier experiences in life and at work. In other words, the experiences they had had in life and at work led their thinking and actions in leadership to emphasize the subjects and activities in their own ways (compare the article by Wright et al. (2007) in sub-section 3.2.4). For example, if someone thought that caring was an important subject in leadership, s/he justified almost every action with caring. For other person the important thing was learning. Therefore, s/he observed what could be learned in different situations, how learning could be developed and how learning had developed
actions. The discovery of the interviewees’ characters was meaningful, because it highlighted the individual aspect of their activities. Yet, it is important to add that all interviewees had similar features in their actions and opinions in one way or another, but it was noteworthy that each of them had his/her own strong personal approach to leadership and its activities, which became apparent in the interviewees’ talks and discourses. This can be compared to the previous quotation of Grinder & Bandler (1976: 194), “We wished to demonstrate, not that any particular approach to therapy is any more potent than any other approach, but that all forms of therapy assist their clients in changing. So the question is no longer which approach is the best: it is how such seemingly different approaches all can work.” Following the discovery, each interviewee is named with his/her own characterization.

**Mauri – Importance of understanding the whole organization and of learning and sparring**

The organizational goals, employees’ motivation and leader’s own role create the starting points in the activities of Mauri’s leadership. What is important to him is that the whole system including the organization, the work and all the actions of employees serve the organizational goals. The employees are experts and they have to be credible in others’ eyes. At the same time they have to be independent and be aware why they do the tasks. In this connection Mauri uses the verb ‘spar’ to motivate and encourage people to develop themselves. He also acts with one person differently than with another. He knows the people and their characteristics, and consequently is able to discuss with them and make them understand their positions and responsibilities in the organization. In addition, in every organizational and working stage Mauri emphasizes learning and its meaning in the developmental work. An example of Mauri’s conceptions of being a leader:

“No-one is irreplaceable in any task. You have to keep humble. If necessary, you dip your nose into the mud puddle. You make mistakes but you have to learn from them. When you achieve more experience, you learn to approach mistakes in a different way. Also, you aim to avoid mistakes made by yourself or by others. Risk control has to be taken care of in one way or another. However, I hope I will never lose humility whatever work I do. That is how, I
believe, the preconditions for success are better than with the logic of an army marshal. Leadership comes out of you.” (Mauri 17.6.2005: 11).

Lassi – Eager conversationalist and interactive team worker

Lassi describes himself as a conversationalist. He has always been working in a team or in a group with one or more people. He cannot imagine to develop or to design software all by himself or to perform other duties on his own. Still, he does take responsibility for his own tasks. Sometimes he works alone even for a long period of time. However, it is vital for him to have conversations with people, change thoughts and ideas. He values discussions and talks with people and as a part of the team work. Thus, it is not important if the person is the most brilliant, the most capable and the smartest in the group. The important feature is that the person is communicative and fits into the team profile.

Discussions are not important only to work situations but they are Lassi’s way to execute leadership. For example, when someone asks for advice, Lassi aims to seek for solution by talking and considering with the team members or with the person who made the question. He also uses his own experience to find an answer. As a leader he values all abilities team work gives to a team member. In addition, for Lassi, as a superior, nothing is personal. He believes in honest, objective and human leadership, which he self executes, and he values honest, straightforward and objective interaction as he describes:

“Although, we argue or sometimes we even shout, and we give negative feedback, after the scene we must be able to ask peacefully in the next sentence ‘Have you been fishing?’ What is important is that you do not indulge in personalities. Without this skill the attitude to the subject turns to a personal issue, and the superior might pick on somebody. The actions have always been aimed at the issues and problems which have to be taken care of, not at the insult of the personal self. The personal self-esteem has to be preserved.” (Lassi 29.8.2005: 7).

Anssi – Honest and fair communicator with clear goals and tasks and with sensitive employee knowledge

For Anssi leadership implicates communication. He feels to be like a baton between people, which can be exhausting sometimes. Therefore it is important
that employees learn to communicate with each other. Reporting and informing are the main requirements for the employees. Daily contacts and weekly meetings are the situations where people change information. It is important that all sub-areas and sub-tasks have a responsible person. This course of action provides the employees with information about their own and each others’ responsibilities and tasks. According to Anssi’s experience satisfied people have clear assignments, working areas and goals. That is how the tasks will be taken care of considerably better, which Anssi appreciates. If a person does not have anything to do or s/he does not know exactly what to do, some stress behavior appears. In this case Anssi goes to the employee and asks if the work has been done or if there is a problem to solve. If the employee does not have anything to do, Anssi gives a new task immediately, and if there is a problem, he gives advice or directs the employee to a person who can help to solve the problem. He shows interest in the employee’s working situation.

The most important subjects for Anssi are honesty and fairness in leadership. No one should ever lie, at least not deliberately. If a liar gets caught, credibility is gone for a very long time. In addition, in Anssi’s opinion, if someone lies, s/he is incompetent to work as a superior. He bases this opinion on his own earlier experience as an employee.

Ismo – Informal, caring, understanding and work supporting listener

Listening and caring are important to Ismo. Work has to be done and therefore it is essential that people feel well when they work. In addition, it is important that in the organization there is someone or something to ease pressure and stress in the close contacts. These activities culminate in the superiors, project managers and other managers, who work daily with employees. The whole organization must support people and their working. Herein, however, Ismo stresses that not all can become superiors. The leadership work does not succeed by anybody who wants to be in a leader’s position.

In addition, responsibility is significant in a sense of the common good. This means that when the leader makes a promise s/he will keep it. Then caring for the whole group comes out, things will be done and employees will trust their superiors. Ismo states that trust is based on the knowledge that the employees can work and get the work done in a cozy environment. These actions also support the feeling of security, which is part of well-being of an employee. Ismo appreciates working as a normal straightforward action. He also states that though the
organization offers gyms, sauna and other fitness training facilities to people, it is essential that people’s spiritual and emotional reactions and activities will be noticed. The employees need to be heard and taken care of so that they have good feelings and they enjoy working.

**Irene – To be individually oneself and to get the work done**

For Irene the basic starting point in leadership is to be oneself. In her case it means that, for example, when people are engaged with their work, there is no need for lurking, in other words, being nosy if the work is done or not. Irene can trust that people do their work. Certain goals and schedules and plans create the basis how the work will be carried out. She also talks with the employees so that they know the situation where they are and why. This is the way to reach the schedule. Devoting to work is important. In addition, Irene states that leadership is normal communication with people. She describes herself as follows:

“*I am a manager to a great extent. My main business and duty is to take care of the issues and to see that the work will be done on schedule. However, it is important that people are happy and they are committed to the job. Then they are involved all the time.*” (Irene 15.6.2005: 3).

**Roope – Motivation-oriented leader with direct actions and mutual understanding**

Roope performs leadership by discussing, delegating and listening. Through these activities issues are furthered, agreements are made and tasks are delegated. The optimal situation for him would consist of making coffee and promoting everyone’s well-being. Motivation is important to Roope in many activities. In his opinion good leadership includes motivation, goal-orientation and informality, which are also the cornerstones for future leadership. The elements support understanding as well as reaching mutual understanding with all the interested parties. It means that they talk the same language and they understand the subjects in the same way. It is important that everyone knows what to do and why to do. It motivates Roope, and therefore he believes that it motivates other people, too. Based on his experiences of the motivation, he argues that in this way leadership can be successful and work will be done properly.
Roope characterizes himself as a calm, discussing and systematic superior, who gets along with people. He hopes that there would not be any threshold for employees to come to talk with him. The door is always open. Also, he tries to participate in different events because they are usually unofficial, informal and relaxed situations where it is an opportunity to make questions and have discussions with people. Roope stresses that without people there is no organization, and he continues that in the company all the employees are, in one way or another, experts. He also states that it is his duty to keep employees satisfied and activities working.

**Helena – To know and accept others, to be present and be accepted by others**

Helena emphasizes that leadership starts with learning to know people, which has grounds in daily communication. Therefore, she argues that leadership is the most important activity in the organization, especially in the companies where all the income comes through employees’ actions. She also underlines that people are the most important resources of the company, and continues that through people’s well-being the company makes money. Therefore, the working conditions should be improved to maintain motivation and good spirit in the group. Herein, crap messages and dictating policy from the top management is not a sensile idea.

Helena does not use the words to ‘manage’ or to ‘lead’ willingly. Still, if an employee needs some background support, it is the leader’s responsibility to give it. She argues that the physical presence is of great importance in leadership. The human being is a social animal and hence it is much easier to talk face to face with a person than on phone. Helena cannot imagine herself carrying out duties on phone; her way is to be present. In addition, she claims that people have a habit of accepting their leader through his/her actions and knowledge. Therefore she, for example, maintains her technological abilities. Furthermore, she continues that if the leader has too many issues to handle in a project and s/he tends to control everything, s/he is considered a boss in a negative sense only. The leader is also a member of the team and therefore it is vital that the leader does not working his/her own poky hole but in the same space or room with the employees. Then s/he has a possibility to hear and see what is going on, how people communicate, to participate in their tasks, to ask informally how they are doing and to become an accepted member of the team. Even though Helena wants
to work with her employees and to know them, she emphasizes that it is not good to make friends with the subordinates.

*Rami – ‘We-spirit’, fairness and meaning of metaphors at work*

Rami does not feel that he is leading people but he sees himself as a human being among other human beings. He tries to be the genuine self and does not want to hide himself behind any role because people sense it. He also states that leadership includes acceptance and group spirit, both of which are essential and mean: It is not ‘me’ who is coming to meet you but we are here together. This approach Rami describes as ‘we-spirit’. In practice, leadership work is sometimes direct and determined actions in crises when the leader is forced to command the group to act and the employees have to obey. Rami hopes that the ‘we-spirit’ will awaken trust that carries the employee in his/her working life, private life and everywhere the person goes to. The working places should take more human and social responsibility than they do nowadays. Rami states that all of us, especially superiors, are responsible for the fellow men and neighbors.

Rami emphasizes that the most important issue in the working life and life in general is fairness. Rami believes that people do almost anything when they are treated fairly. Therefore, what is of importance is an honest approach concerning issues. He also believes that good leadership can be taught but it is a different matter who can learn it. People who are not interested in leadership or who are not capable of executing leadership should be placed in other positions to support their best abilities. Rami states that the right person as a leader supports the group and its work progresses efficiently and with good quality. It will have an effect on the employees’ quality of life and on their work motivation. People feel safe and secure, they can concentrate on working and the results are better in all measures. Still, Rami states that work is a small part of life and people should not live for work only.

*Pilvi – To have a positive attitude and to give rewarding feedback*

Pilvi sees herself as a servant to the employees. It means that her duty is to create preconditions to make the work positive so that the employees can concentrate on working. It includes taking care that each team member has such work conditions and tasks that do not distress although the schedules can be tight and work difficult. Herein Pilvi argues that the most important aspect is to lead individuals,
because the team consists of individuals, who behave differently in different situations. Pilvi’s leading style is based on communication. This means that all knowledge that can be shared must be shared. It is her duty to take care that knowledge will be and is shared in a right way, in a right place and as soon as possible. She states that the organizations usually have too many gatekeepers, who are not interested in sharing knowledge and consequently do not see its importance.

Pilvi believes that it is easy for her employees to come to discuss with her because they know each other well. However, in a tough situation she is the one who says the last word. The economical and financial goals and results are important to the company, still she never talks about money with her employees, only if they have succeeded in getting better returns than written in the budget. First and foremost she values people’s work and their achievements. Herein, Pilvi continues that it would be good if the managers and leaders had tools to help and develop their job. Yearly checkups of their leadership skills would be needed. Also she states that she does not want to execute leadership in the same way as her previous superiors, who did not care about the employees but only excel tables, money and minus points. In her opinion it is a wrong leading style. Pilvi states that the superior’s presence and participation is important.

**Pertti – Leading by example to obtain committed employees and to achieve good work atmosphere**

Pertti describes himself as a real manager, who works in practice probably too much. Because he is involved with business and clients in a great quantity, his management and leadership are shown in his own actions. He leads and manages through examples and actions, in other words, what he does is an example how to lead and manage people. However, he claims that his examples are not authoritarian actions but they base on getting people involved. For Pertti ‘to lead by example’ means that all issues and actions are carried out ethically right and honestly. Still, in the same breath Pertti admits that he has not been a very good example of balancing work and private life.

In Pertti’s opinion leading people is very complicated work because it can be done in so many different ways and still the result can be good. It depends on the leader. Herein he speaks in favor of the network organization because it works even without a head leader. The network organization has its base on actions and everyone knows what should be done. He takes examples of actions from ant
communities. People have invented the authoritarian management, commanding and top-down planning. Pertti argues that the authority works best in the army, where one has to act very effectively. But because the world changes fast, also the organization has to learn to react fast. In addition, Pertti wonders if the outside qualities of a person have any effect on leadership. He mentions tall Finnish politicians and wonders if their outside appearance makes a difference as to their authority. However, in the history of the world there have been short leaders, such as Napoleon, who have had great power.

**Vilma – Crucial points: actions, collaboration, company and results**

Vilma’s leadership style is not to dictate but to maintain understanding so that people know what they are supposed to do, what is their part in the wholeness and how to value the job they are doing. She is ‘at the helm’ and makes sure that employees know what their tasks are. It is continuous communication from her point of view. Therefore, Vilma values communication in leadership. It is a way to work together and to take into consideration the other members of the team. No one should be left alone.

Vilma considers herself as a jovial person. She laughs a lot and values if people are happy and work progresses. She believes that if employees feel happy and smile, they will be motivated. People really benefit from the positive and optimistic attitude. Also, she wants to be treated equal and therefore she treats her employees equally. In addition, she believes that the superior-employee relationship works on honest principles.

Vilma believes that the work experiences in the previous working places and in her youth have taught her to work in the way she is working as a leader. Certain work moral is ‘learned at the breast’: when things are to be done they will be done. It is important for her in leadership that the work issues will be accomplished. Vilma also states that leadership in an expert organization is very challenging. People are talented and have different personalities. One never knows if an employee wants to ‘fly on his/her back or on his/her stomach’, as she describes the situation. Therefore she emphasizes the importance of leadership training of both the old and new superiors. She also values collegial collaboration and exchange of thoughts.
Jaakko – Emphatic leader emphasizing relaxed atmosphere and well-being

Jaakko emphasizes communication more than leading in his leadership. He does not want to dictate but to listen to and find out a suitable solution. It is important to him that the employees are treated humanely at work so that they will not be caused mental or physical sicknesses or traumas. Those are issues which have an influence on the whole group as well as on him as a leader. In addition, to him the important subjects in leadership are a trustworthy and discussing atmosphere and the skill to listen.

Jaakko values collaboration between various superiors. Still he cannot imagine himself to be separated from the employees being just a part of the organizational matrix. He likes to develop the leadership model he has started in the course of his superior work. It tells that he believes in his way to lead people, which he describes as a leadership which neglects the official process management. This idea is not based on any literature, yet he has got great faith in it and it feels natural.

Drawing the conclusion of the interviewees’ leadership

The interviewees had a collection of experiences relating to both work and life in general, which they thought would help them succeed in leadership. For example, some interviewees commented that they were not executing leadership in the way their former leaders did, or they would not make the same mistakes that they had experienced as employees or they would not treat the employees in the way they were treated. In addition to the work experiences, the leaders and their leadership were affected by their childhood and by the school and student years. The experiences of the school and study years were usually connected with favoritism. The leaders still recall those situations where teachers favored some pupils and students. The interviewees considered them not having been equally fair to everyone. Therefore they had a negative attitude towards favoritism. Living and working in the countryside as a child had taught to value work and working together. In the young age they had got responsible tasks and learned the meaning of work. The agricultural background was appreciated even in the recruiting process.
“I am a country boy. I have worked in a cowshed and done other tasks on a farm. ... We have several employees from an agricultural environment. They understand the wholeness and cycles of life. I will be happy to recruit more people with the rural background.” (Mauri 17.6.2005: 4, 8).

It can be interpreted that using their life experiences the interviewees had created their own ways to be and act as leaders. Still, in addition to the experiences, the leaders wanted to learn and develop themselves all the time by keeping themselves active and sensitive when they collaborate with different people: employees, colleagues, clients, management. Yet, they were not manipulative. On the contrary, they paid careful attention to different situations and relationships. What they were able to give to people and how they communicated with them was important to them. Therefore, appraised as good by their employees, their skills to behave with the employees can be interpreted to be emotionally intelligent. In addition, in the course of the interviewees’ careers together with their experiences all concrete knowledge they had got as leaders had changed and strengthened their tacit knowledge and their ways to execute leadership. Next the interviewees’ beliefs and values as well as their reflections and self-evaluations of good leadership are introduced to confirm the role of tacit knowledge and EI in their leadership.

5.1.1 Interviewees’ beliefs and values in leadership

It has been stressed by the logical levels (Dilts 1990) that people’s beliefs and values have an essential effect on their activities. In the context of the thesis the interpretation is that the interviewees’ beliefs and values have an effect on their conceptions of the activities of good leaders and through them on the role of HRIS in their leadership. The interviewees’ beliefs and values are summarized as follows:

The good leader believes in

– humility because then the preconditions for the success are better
– credibility which supports success
– honest, objective and human leadership
– normal and simple working which produces results
– his/her own way to lead employees.

The good leader believes that
knowing what to do motivates employees
leadership is the most important activity in the organization
employees do almost anything when they are treated fairly
good leadership can be taught
it is easy for employees to come and discuss when they know each other well
different tools can help leaders and managers to develop their job
it is motivating if employees look happy and they smile
if the superior-employee relationship works on honest principles, the superior acts equally
work experiences in previous working places and in youth have taught working.

The good leader values
what a unit or a person is doing and how well the work is done
direction they have taken
discussions and talks with employees
honest, straightforward and objective interaction
customers and how to make business with them
team work and all the abilities it gives to the team members
employees’ work and their achievements
company’s values which lead to high quality of work
communication in leadership
employees’ will to develop their work
employees being happy and working successfully
collegial collaboration and exchange of thoughts
collaboration between different superiors.

The good leaders believe that honest, objective and human leadership comes from the leader and has an effect on the employees. Credibility and trust belong closely together and they support belief in successful group work. Therefore, falsehood is an unforgivable deed. Matters expressed honestly are significant. Leadership is not only maintaining external facilities but also considering employees’ spiritual and emotional reactions and activities. Some interviewees believe that good leadership or some tools of good leadership can be taught to help leaders to develop their job. Still, they underline that not all people can learn leadership and become good leaders. Those people should be placed in some other positions.
Incomes of the company come through people’s work, and the working conditions engage motivation and good spirit. Thus several interviewees emphasize the meaning of the work and the joy of working. Communication is a way to work together and to develop working. In interaction and discussion situations employees have to appreciate each other and leaders have to listen to what employees say.

### 5.1.2 Interviewees’ reflections on and self-evaluations of their leadership

The interview sessions gave the good leaders an opportunity to reflect on their leadership practice. At first it seemed that the leaders did not know what they did when they led employees, but when giving examples of leading they were able to find their courses of actions. Still, in some cases they sat quietly for a long time thinking and pondering before giving any answers or telling their thoughts. In some other cases they kept on talking and talking. Regardless of the presentation (quiet or talkative) they all showed certainty and contentment with the job they were doing. Thus the leaders were pleased to have a chance to reflect on their leadership. Two interviewees summarized their emotions and observations at the end of the interview as follows:

“Interesting discussion. Seldom have I got a chance to reflect on myself.” (Mauri 17.6.2005: 12).

“Now my thoughts move on and I will also pay attention to my work. This is the way I do my job and I did not realize it earlier at all.” (Irene 15.6.2005: 9).

The leaders’ reflections and self-evaluations occurred when they had to describe themselves as leaders and why they were doing the action in the way they did. Here are some examples. Mauri favored to spar because, in his opinion, sparing stimulated the work and helped the employees to learn different ways to work. Lassi liked to work and to discuss with someone all the time because he thought that working alone did not give good results. Anssi highlighted the meaning of his experiences as a leader because he knew when a person got stressed. He stated that he profiled the employees subconsciously because he believed that profiling helped him to delegate assignments to everyone. Ismo also liked to observe people and to create images of the employees because it helped him to behave
situationally, i.e. to pay attention to the employees’ moods and emotions. Irene characterized herself more as a manager than a leader. Still, she paid attention to the employees’ well-being and actions at work. In addition, she claimed that the unsolved affairs disturbed her the most. Roope preferred to discuss only work issues with his employees. He emphasized delegation which he regarded as a result of the discussion. Helena liked to work in the open office because it enabled a possibility to give feedback immediately. For her the acceptance was important. The most important issue for her was that she did not carry out leadership or management on the phone but face-to-face with the employee to show her appreciation to the employees.

Rami stated that visualization was his prevailing way to work. He used metaphors at work but he did not regard himself to be good with direct analytical observations. He had created a coffee break culture which the project members participated in, because it was his opportunity to observe the project group, to talk about light issues and to have fun. Pilvi emphasized her own self-control, i.e. to keep her angry emotions hidden because when behaving calmly, she was able to make everything understandable. The meaning of her leadership was to take care of the employees’ well-being, and not to do it in the ways her previous superiors did. Pertti did not consider himself merely a leader because he was so involved in practical work in the organization. He led by example saying that after all, leaders showed the example at work. Leadership meant to him deeds which were ethically right and honest. He also stated that commitment is part of leadership.

Vilma, for her part, liked to give clear feedback. She appreciated collaboration and took care of her employees. She also led by example, i.e. showed the good way to work, helped others and stuck her neck out whenever needed. She preferred working with the team emphasizing that no one was left alone. Interaction was the key issue for her. Jaakko did not inform any issue by email but discussing because he believed in informal activity, i.e. he ignored the formal managerial processes. He had created his own ways to collaborate with his team, because he wanted to learn to know the employees and their thoughts better.

Long work experiences and daily work seemed to guarantee the basis to execute leadership work well. Leadership expertise of each interviewee emerged from their answers and their pondering. Some of the leaders stressed that discussions with colleagues were important to share knowledge. They intensively concentrated on their work and regarded themselves as servants who created an environment suitable for employees to work. They wanted to succeed and to do their best in leadership. Some quotations of the interviewees’ self-evaluations:
“I try to help employees to reach goals because it is a superior’s duty. However, I am quite tough. I do not understand whining. One can complain for a reason but unnecessary weeping does not help anyone. ... I have strong authority. I am independent and I do not inform much; that is what the employees say.” (Lassi 29.8.2005: 7, 13).

“I get pleasure working in practice and knowing that I cannot do the work alone but with the help of others it is possible. I believe that I have managed to handle project tasks very successfully with employees. In my own opinion, I can delegate tasks to exactly right employees in the right way to get results.” (Anssi 10.8.2005: 11–12).

“I am quite calm and I do not lose my temper easily. I discuss issues and I generally get along with people. I am systematic and hopefully there is not any threshold for people to come to talk with me. The door is always open. I also try to participate in common events.” (Roope 1.9.2005: 8).

“I am a calm person, I do not lose my temper easily and I do not shout. Neither do I have any troubles with my employees. ... I am a very cheerful person and I laugh a lot. The positive and optimistic attitude is grist to the mill. ... I am a very work-oriented person, which I have learned from my family.” (Vilma 25.8.2005: 2, 6, 7).

“I like to have a confidential and discussing atmosphere. I do not provoke and I do not let my prejudices influence my behavior. I also have the skill to listen. I do not foist my own thoughts on employees.” (Jaakko 24.8.2005: 8).

As a conclusion, at the beginning of section 5.1 a discovery is introduced. It indicates that each interviewee discusses leadership actions with specific words and expressions which are meaningful and important to each of them. The discovery has been utilized when the interviewees have been characterized. Using the interviewees’ characterization, a summary can be made. Thus, as a person, a good leader is:

- an eager conversationalist and an interactive team worker
- an honest and fair communicator with clear goals and tasks and with sensitive employee knowledge
- an informal, caring, understanding and work supporting listener
- a motivation-oriented leader with direct actions and mutual understanding
- an emphatic leader emphasizing relaxed atmosphere and well-being.
A good leader is also a person who emphasizes that it is important:
- to understand the whole organization, to learn and to spar
- to be individually oneself and to get work done
- to know and to accept others, to be present and to be accepted among others
- to have a positive attitude and to give rewarding feedback.

In addition, a good leader understands that:
- actions, collaboration, company and results are crucial points in an organization.

Therefore s/he:
- maintains we-spirit, fairness and meaning of metaphors at work
- leads by example to obtain committed employees and to achieve a good work atmosphere.

Next the interviewees’ activities and essential issues in leadership are described to reveal the leaders’ general courses of actions and important subjects which help them to maintain good leadership and to be good leaders. At the same time, as a background activity, the descriptions are reflected on the design work of HRIS.

5.2 Interviewees’ activities and essential issues in good leadership

When examining the transcripts, the logical levels have been applied. It means that two viewpoints have been used to divide the interviews into the good leadership activities and into the essential issues of successful leadership. The viewpoints are: 1) leadership as behavior, actions, reactions, abilities, knowledge and skills, and 2) leadership as important subjects, beliefs and values. The subjects in the first viewpoint mainly concern the answers to the first and second interview questions, i.e. the activities in leadership and how the leaders execute them. In the second viewpoint the issues the leaders consider important and essential in their leadership actions are examined. They can be considered answers to the interview questions 3 to 5. Although the activities and the important issues are divided in the presentation, they cannot be totally separated from each other. A leader makes an action because it is important and actions produce important meanings. In addition, beliefs and values lead and control both the activities and important issues, and they have their base on life and work experiences. They can be considered the deep levels of the interviewees’ minds, i.e. their tacit knowledge and abilities to utilize EI. Mind Map™-technique has
been used in this process, i.e. from each interview a separate mind map has been created. The work has been challenging but rewarding.

When examining the first viewpoint, the ideas of hermeneutic phenomenography have been utilized to categorize the activities of leadership into six conversational themes which are introduced in table 18. The left column indicates the conversational themes and the right column consists of the subjects which expand the meaning of each theme. The conversational themes and subjects are opened up as texts using the interviewees’ thoughts, ideas and opinions.

The conversational themes partly overlap, which is understandable because the leaders execute their work according to the situations they meet with teams and employees, not according to the themes. For example, when giving an assignment, one needs communication and listening skills. Still, from the point of view of HRIS design dividing the interviews into conversational themes is essential because with the help of the themes and subjects development work of HRIS design can be started. The conversational themes and subjects can be regarded as the invisible ‘variables’ of the leaders’ good leadership activities to be utilized when designing and implementing HRIS to support the work of any leader. Still, it is significant to notice that here the word ‘variable’ is seen a wider context than as part of a coding process of a HR information system only.
<table>
<thead>
<tr>
<th>Conversational theme</th>
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<td>Future as a leader</td>
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<td>Employee</td>
<td>To learn to know employees by getting and creating knowledge of</td>
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<td>- new and present employees</td>
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<td>Development discussion and work development</td>
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<td>Listening and discussing</td>
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<td>Atmosphere and well-being</td>
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<td>Informal contact and caring</td>
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<td>Other areas</td>
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<td>- gender</td>
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<td>- internationality</td>
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In the second viewpoint the essential issues of the leaders’ activities are highlighted. The essential issues express the subjects the leaders consider important, often repeat and underline highly. Thus, they indicate subjects which are linked to the activities and the situations where the leaders have succeeded well. As stated earlier, the subjects are more or less straight answers to the questions what is important and what works well in the leaders’ activities as well as why the interviewees execute the actions they say they do in their leadership. The essential issues and their extended meanings are summarized using the Mind Map™-technique. The use of the mind maps supports well the idea of the differences between the map and the territory in NLP.
The essential issues are classified in five categories and each of them has its own node in the mind map (see figure 14): the organization node, the work node, the leader node, the employee node and the node of mutual activities. Referring to the study of the essential issues, it can be concluded that the central essential issue in leadership is the wholeness, including the issues to understand the meaning ‘how the system works’ and how ‘everybody works together’. Hence, the wholeness is placed in the centre of the mind map and it can be regarded as a part of the spirituality of the logical levels. The organization and work nodes are placed on the right side of the map whereas the leader, employee and mutual activities nodes are situated on the left side. In the next sub-sections the conversational themes and the essential issues are discussed together. In addition, in sub-section 5.2.8 the mind map of the essential issues is depicted as a whole picture to highlight the importance of the subjects in the study of the thesis.

Fig. 14. Main nodes of the essential issues of good and excellent leadership.

In section 5.1 the activities of leadership have been approached describing the interviewees’ identity and their beliefs and values. In the next sub-sections the leadership activities are described beginning with the descriptions of the environment and then continuing to depict the interviewees’ behaviors, capabilities and skills utilizing the conversational themes.

5.2.1 The essential organizational subjects affecting the activities of leadership

The organizations create the environments where the leaders execute their activities. Therefore the meaning of the organization is presented first. When talking about the good leadership, Pertti argues that it depends on the organization what kind of features and actions belong to good leadership. When the business lies on expert knowledge, the important issues are method systems, assertiveness, to keep promises and creativity as well as enthusiasm for new activities. Pertti
emphasizes that the wholeness, which includes people and all parts of the company’s actions and existence, creates the basis for good leadership and for a successful company.

The leaders also discuss the IT line of business in general and whether it differs from other businesses. Mauri presents the differences which he has noticed:

“The tools are different. There is not any mechanism of production, i.e. machines. The processes are common, and they create a certain frame. They also lead doings and doings lead to certain behavior, follow-up and documentation logic. Because there are not any big items to move, it leads to the situation where subjects can be changed fast. This requires talent to think fast.” (Mauri 17.6.2005: 8).

In Irene’s opinion, the culture in IT business produces subject-matter-oriented work. People do not gossip or say bad things about each other. Envy and other similar issues are minor subjects and do not fit in an IT environment. People are not asking personal questions, and they let others work in peace. IT business creates a placid atmosphere, where it is easy to act and work. People are motivated by constantly meaningful work.

The organization node (see figure 15) presents the essential issues and their extended meanings in the organization which, according to the interviewees affect the leadership activities. Thus, the organization includes three essential issues: values, events as well as goals and targets. The values are organization-specific and they are created in the work communities to guide the organizational policy. Here the importance is that everyone knows the values and especially their meaning in the organization. Different kinds of events are important in creating formal and informal acquaintances between leaders and employees. They all learn to know and to value each other when they discuss different issues together. The values and events are connected to construct the basis for the relationships in the
organizations. As Roope underlined: “The events bring the groups and employees closer to each other. Information spreads better, the employees achieve courage to pose issues and pondering may increase.” (Roope 1.9.2005: 6).

**Goals and targets** are important in creating systematic and focused work. They support work so that the work is progressing and the work will be done. In addition, the leaders emphasize that the goals and targets should be sensible, i.e. they are easy to reach for the employees to get the possibility to experience the success. Goals and targets have links to the subjects of the employee node (to know what to do) and to the work node (missions, visions and directions).

### 5.2.2 Leadership activities and the essential issues of a good leader

The purpose of this sub-section is to highlight the activities and subjects which make the interviewees good as leaders. The task is highly challenging because the interviews as a whole represent descriptions of diverse and multidimensional leadership. It feels like doing the leaders an injustice when their stories are summarized because then the subjects become superficial and cursory generalizations easily which leads to misunderstandings and misinterpretations. Still, the activities and the essential issues are presented by valuing the content of the stories as much as possible. The activities of a good leader are described from three viewpoints: meaning of leadership, management in leadership, new leader and future as a leader. Lastly, the essential issues as a good leader are introduced.

**Meaning of leadership**

In the course of the interviews the activities of leadership have been unfolded by examining how the leaders describe and talk about their relationship, interaction and about their overall communication with the employees. The leaders’ ultimate outcome is to learn to know their own employees. The leaders emphasize that the ways they treat their employees directly affect the employees’ effective work and results, i.e. how the work will be done. Therefore the leaders take their duties seriously and they are committed to their work. They also say that a good leader maintains work motivation and solves problems and arguments. Here, the interviewees underline the role of a leader in an organization. According to the leaders the employees’ well-being, good spirit and emotions are essential issues at work. Therefore, in leadership it is a leader’s role to influence and take care of those elements which have an effect on the employees’ negative or positive
attitudes and actions at work. On one hand, the leader encourages the employees, gives them good feedback, listens to them and discusses with them to support positive atmosphere. On the other hand, the leader takes care of the employees’ burdens, their working environment and all possible negative subjects, which can prevent them from working efficiently and enjoying working. In the leaders’ opinion the role of a leader is highly human.

The interviewees underline the human aspect in leadership, i.e. how a leader takes care of his/her employees. Because leadership takes place face to face, the leader has to learn to know the employees: how they act and react, how they behave and what their interests are. In other words, the leader has to learn to know them as individual human beings. Here the abilities to listen and to discuss are central. The leader him/herself has to execute honest and fair communication to maintain his/her credibility and the employees’ trust. The interviewees also underline the significance of work. When the tasks are planned fairly and equally, it motivates people. The goals and targets as well as the assignments must be clear and concrete. The work has to support the employees’ learning and development.

The possibilities to exchange ideas, to discuss difficult and problematic situations, to learn from each other and to share experiences are seen as significant activities for the leaders. The interviewees state that, for example, the knowledge exchange of the employees’ development in their work updates the whole organizational competence knowledge. Overall the leaders like their duties and accomplish tasks with their subordinates, but still sometimes the work of a leader can also be tough. As Rami states, the leader’s responsibility has to be very rigorous, and s/he has to know it in his/her heart. It is not acceptable if the responsibility is neglected. For instance, if the leader gets tired of his/her work and s/he is not capable to carry the employees’ burden, it should be taken under serious consideration if the leader is able to continue in that position. Rami continues:

“It would be a very bold and fine deed from a leader to withdraw from the leader’s task in those circumstances, except that in our culture s/he would be shot down at dawn as a loser. With this expression I want to describe how I perceive and think about this issue because a leader of the middle level is the loneliest person in the organization. It would be good if the leader had some close persons whom to lean on when needed. Although our organization seems to have a flexible atmosphere, I cannot stop thinking how the leaders feel.” (Rami 7.6.2005: 7).
Management in leadership

As stated above, as leaders the interviewees take care of the employees’ well-being as well as their emotions and enthusiasm to work, but as managers the interviewees give instructions, assignments and follow up how the work has been done. For the interviewees the managerial activities are easier to describe because of the concrete features of the activities of management. Yet, they emphasize that the leadership and managerial tasks cannot be separated, on the contrary, they are mixed and linked with each other in their daily work. When the leader takes the role of a manager, s/he focuses on the formal project and team work, i.e. introduces the goals and schedules, tells what has to be done, follows that the work has been done and, overall, makes it sure that the work in the project progresses. The idea is that from the managerial viewpoint the leader and the employees discuss together, everyone knows what should be done and they all are aware of their responsibilities. It is important that as a manager the leader informs as much as possible what is happening in the project, with the client and in the organization.

According to the interviewees, from the viewpoint of leadership management is a pattern to deal with work and HR. They argue that everyone who is doing management has to like it if s/he wants to succeed because management includes both nice and unpleasant sides. If management work is seen as hard labor, the leader does not want to communicate with employees or s/he executes management following certain fixed pattern. In that case management will not succeed. As a manager the leader is responsible for knowing what is done in the organization and what capabilities the employees have. S/he takes care of work plans, recruiting and commitment. S/he has to know the direction where the organization is heading and how well the work is done. HRM, for its part, is seen as a process-oriented activity which includes yearly development discussions, personnel evaluations, official discussions and financial information.

Ismo describes his opinions of management as follows:

“Big part of the management takes place rather formally. In meetings we go through the agenda together, the responsibilities of different tasks, schedules and others. This is formal and written on the paper.” (Ismo 1.6.2005: 3).

Yet, Ismo states that leadership and management are mixed elegantly with each other in daily situations. As a manger Ismo can affect what kind of new
assignments he can give to an employee to support his/her competencies, and as a leader he takes care of the employee’s needs and good feelings.

New leader

The interviewees’ advice and information to a new superior reflect their conceptions of good leadership. Therefore the results of this part are important and worth discussing. The interviewees tell how they advice a newcomer who starts as a superior and who likes to develop him/herself to become a good and excellent leader. Here are lists from Lassi, Anssi, Helena and Jaakko. Lassi underlines that the new superior

- should share the burden of worries with an employee or a colleague, i.e. s/he should take care that the other person will not be exhausted
- should have good visioning and outlining skills
- has to get along with all types of people
- has to know the position and tasks within the team. It means that s/he has the ability to grease the team like a rack wheel. Considering the team’s preconditions, the superior will manage the situations with the best possible ways, such as defining the position and competition factors, knowing the vision and direction, identifying the strength and the weaknesses of the team and team members, and how they complement each other.
- should give responsibilities in small pieces so that the employee can prove a new responsibility, and then the superior follows the employee’s reactions
- must keep in mind and figure out him/her own weaknesses and strengths by him/herself or with the help of others
- has to have psychological skills: an ability to listen and to be emphatic and in the meantime be strong enough in difficult situations, such as the lay-offs.

The issues Anssi likes to teach to a new superior are as follows:

- to learn to know one’s own employees at professional level
- ability to act and work with people at individual level
- not to be friends at any personal level
- clear work targets
- clear task lists on the individual basis
- open and honest attitude right from the beginning
to encourage to ask and discuss with people to perceive the wholeness (basic communication is the most effective way to clear up issues and situations).

Helena lists the good characteristics of a new superior:

- to be natural
- to show one’s human side
- to tell about one’s experiences
- not to keep silent
- not to talk too much
- not to concentrate on oneself
- to take care of other people
- to accept people as they are with their differences.

Jaakko stresses that it is important if the new superior:

- already enjoys the confidence of other employees in the group
- has certain ambition for the position
- is clearly interested in executing the job.

Similar subjects are repeated in other interviewees’ discussions as well. Ismo likes to support the new superior in increasing his/her knowledge of human nature. Irene concretizes Ismo’s idea by adding what kinds of tasks are suitable for each project member and what kind of people there are in the project group. However, they both state that it is important to realize that everyone has a way of his/her own to manage and lead situations. The final result might be the same but the emphasis and the handling of rules could be different. Everyone creates the images in their own way, and people behave differently with different people. Still, the different kinds of approaches and activities cannot be interpreted neither good nor bad. Herein Ismo underlines the importance of value discussions, which enable the new superiors to observe and identify the issues approved in common, because the most important thing is to create a good atmosphere.

Roope emphasizes that in the case of a new superior it is vital to aspire to the position and its tasks to bring and keep motivation. Helena stresses that the new superior should like his/her work as a manager and as a leader. The new superior does not succeed if s/he is forced to be in the manager’s position or if s/he executes leadership following a certain pattern. Helena also states that no one should be treated unequally. That is how trust is created. Jaakko adds that the new superiors must not cause any troubles in the group but they must be reachable,
have possibilities to influence issues, have the reputation of being trustworthy (to
do what one has promised), and be able to talk openly (open atmosphere) and
have talents for also unofficial communication.

**Future as a leader**

Regardless of the multidimensional, busy and occasionally hard work of a leader,
the interviewees are looking forward to the future. For example, in the future
Anssi wants to have an opportunity to be a leader of good managers who will be
capable of leading their teams successfully. Included in the management trainings,
he has already had meetings with some managers. They have changed opinions,
have given and received feedback on their management work, and have
transferred information to each other. In general, learning and developing oneself
and teaching the importance of learning and development at work are significant
for the interviewees when executing their leadership. The leaders also introduced
the importance of different means or concepts they use when executing leadership
at that moment and in the future. For example, Mauri used the expressions ‘the
systematic viewpoint’ when thinking how the whole organization, the work and
the employees serve the organizational goals.

**The essential issues as a good leader**

In the leader node (figure 16) the essential issues of succeeding as a good leader
are introduced. As stated several times, the most essential issue in good leadership
is **to learn to know an employee**, which means that the leader knows what kind
of a person the employee is, what s/he does, what s/he wants to do and will do.
The leader follows how the employees survive and s/he is aware of the
employees’ needs, nature, mentality, attitudes and reactions. Because they spend
plenty of time to get acquainted with the employees and because of their long
work experience, the leaders have the ability to sense and identify the employees’
features and ways of actions. Learning to know employees is linked to several
other essential subjects such as understanding, work, work styles, task awareness,
communication, acceptance, responsibility and trust.
By knowing the employees the leader also **takes care of them**. It takes place through presence, i.e. the leader stays among people, follows their reactions and, when needed, helps them and the employees help each other. No one is left alone. The leader encourages employees to succeed, which increases effectiveness. S/he also creates good relationships with employees. Still, the interviewees emphasized strongly that a leader can never be friends with his/her employees. Lastly, all interviewees characterized the good leader as an honest, fair and credible person. These **characteristics** show to the employees that the leader speaks the truth and thus the employees can trust in the leader. The most essential issue of a leader, to learn to know the employee, leads his/her focus on the activities with employees. The discussion of the second conversational theme, the employee, describes how the leader does the activities.

### 5.2.3 Leadership activities and the essential issues with employees

To learn to know an employee begins with a recruiting process by interviewing candidates and continues with a get-acquainted phase after the engagement. When the employee’s position is permanent, the relationship is more as to maintain and update the existing knowledge. However, to learn to know the employees does
not mean to get to know only the factual issues, i.e. the knowledge, competencies or professional abilities of the employees but, most of all, to learn to know how the employees act and react as well as their moods and temperament. Next, the conversational subjects will be discussed dividing them into three categories: recruiting and interviewing activity, to learn to know a new employee and to learn to know present employees. Finally, the essential issues concerning the employees are introduced.

**Recruiting and interviewing activity**

The companies do not start recruiting without the needed position. Neither the company nor the employee will get any benefits if the process has been started without precise plans. The leaders know what kind of a person they need to engage because they are aware of the present team members. Also the tasks are known so that the needed competencies will fit in with the position, and the new employee will have assignments to do from the very beginning. The same formal pattern is applied if the position is filled outside or inside the company, but there are some differences in the interviewing activity.

Even though the interviewees mention to go through the applicant’s official papers in the recruiting and interviewing activity first, their main purpose is to get to know the applicant’s personality and suitability to be a part of the work and team. Herein the significant meaning of an informal interview session is emphasized by the leaders. Next, there are some examples of the recruiting and interviewing activity. Pertti explains that the recruiting process of the company includes exact procedures. First the applicant references and substance knowledge are checked. Then the applicant has to take personality tests and has to have two long interviews. All employees are present in the interviews and they have a chance to ask questions. Vilma emphasizes that the recruiting process is very important for her. When she is recruiting a new person to her team, she pays special attention to the impression she gets of the applicant and if the newcomer brings any positive features into the team or not. Vilma claims that continuous change is a typical feature in the company. Therefore, when she goes through the applicants’ papers, she considers if the applicant has been doing the same tasks for years. She sees a problem if the employee does not accept a changing environment. Roope also goes through the competencies and know-how qualifications with the employee, but the person's manners, characteristics and the way to talk and perform are reflected in respect of the other employees. Here, the
meaning is to evaluate a suitable person for the team. Clear performance and explanation skills indicate analytical mind and fast understanding, which are good characteristics for a system analyst.

In the case of a new employee Lassi interviews the person in a very informal interview meeting. He primarily aims to clear up the candidate’s nature, mentality, attitudes and his/her ability to take responsibilities. Papers and diplomas show how the person has got work and degrees done, but Lassi values the verbal delivery and close personal contact. Accordingly Lassi states, “The interview situation is difficult for me because I can never hire a quiet person. This field of industry does not need genius people. We need team players.” (Lassi 29.8.2005: 7–8). Still, Lassi examines the candidate’s papers and diplomas carefully, because they show how the candidate has got her work and degrees done. Diplomas also tell about concentration abilities and motivation. In addition, he finds potentiality in candidate’s different behavior: how s/he sits, how s/he answers the questions, if s/he is insecure and gets annoyed at the subject in question. Lassi describes all this as follows:

“If the degrees of the candidate have mainly been good and then there is a period with a few low numbers, something can be interpreted. I begin to ask, what his/her attitude is if s/he has been given a not so interesting task. The candidate starts to dodge the issue and s/he gives school answers, such as ‘work has to be done and that is it’. Then I continue asking if the job has to be meaningful and if it has to interest him/her. I do not have any question chart but I just look at the papers and how the person answers, how s/he reacts and what kind of answers s/he gives. Then I get a feeling how s/he would act in a job situation.” (Lassi 29.8.2005: 8).

Although Lassi describes widely how he executes the interviews, he states that he does not know the way he performs them, but usually he does not make many mistakes. He relies on instinct which is also important when Lassi learns to know the employees in general. Consequently he states, “Instinct makes me notice how a person behaves, how s/he talks, how s/he makes a face, what kind of issues s/he is talking about, how s/he talks about the issues, how s/he reacts, what kind of tone of voice s/he uses. That is how you learn to know a person.” (Lassi 29.8.2005: 7). At the same time Lassi is pondering if one is able to learn the process of observing, i.e. how to learn to know a person.

It is already highlighted that the leader’s first impression of the applicant and how the leader makes his/her picture of the applicant also have a significant
meaning in recruiting and interviewing activity. Jaakko, for example, gets the first impression of the applicant when the applicant enters the room. After a few lines he knows if the communication works or not. He describes:

“Maybe I try to find something natural in the applicant. Then I check some other things, such as background, work experience and other things that have values of their own. Still, the natural behavior of an applicant is a great factor when hiring people.” (Jaakko 24.8.2005: 4).

In her previous working place Pilvi’s job involved person analyses of applicants. She emphasizes that there are literature and opinions of the person analyses whether they are good or bad, but she lists the four styles that she prefers in her work: a programmer type who is not very talkative, does not make contacts voluntarily and has to be checked from time to time if everything is ok; a ‘plodding on with a job’ type who solves problems alone and gets easily stuck in details, is effective and has to be guided but also checked from time to time; a social type who does not fit in programming, accomplishes his/her tasks very fast and is “rocketing” around; a manager type who is difficult as an employee because s/he should be allowed to decide on everything, negotiation tactics are needed to obtain mutual understanding with him/her and s/he needs good and exact grounds to accomplish the tasks. Herein Pilvi claims that the manager types are not necessarily good leaders but they can be found in working life. When Pilvi meets a new person it takes only a few minutes for her to find the type, and very seldom does she have to change it. However, she reminds that people have many nuances in their behavior and people do change, so these types should not be taken too seriously but seen as tools when communicating with employees. For example, the project manager must realize that it will be almost a disaster to let a programmer to communicate with a client.

To learn to know a new employee

When the new employee is engaged, there are some organizational routines (to introduce the new employee for others, to introduce the company to him/her, to clarify the tasks, et cetera) which the leaders execute, but the first priority is to continue communication with him/her to learn to know him/her better and how s/he thinks. S/he also needs guidance and leading in daily work. In the meantime the leader checks how the newcomer starts to fit in the group or a team. If the superior and the project manager are two different persons, the superior will have
a talk about the new person with the project manager. They both have responsibilities in leading and managing the employee. In addition, different formal and informal meetings and discussions play a meaningful role when the newcomer is introduced both to the team and the whole work community. The fellow workers sense very fast if the new employee fits in the group and how to act with him/her. The second priority is to follow how the basic routines and tasks start to roll. Here the idea is that the new employee will get smaller parts of tasks to learn little by little to understand how the system works. The leader discusses with him/her about the tasks and together they agree what will be done. The assignments must be concrete so that the work will be done and the employee will get the feeling of success. Therefore the leader’s duty is to follow that the new employee understands what s/he is doing and what is his/her role and part in the wholeness. Here are some examples of the interviews.

Mauri emphasizes the daily conversations to learn to know the person and how s/he thinks, and how the basic work routines have started to roll. His goal is to understand people and to learn to know them, i.e. their suitability, their limits, and how to treat, manage and spar them. The knowledge of human nature is relevant. The following quotation by Mauri describes the process:

“The organization and people in it are like big machinery. We are doing a constant renovation when assignments and processes transform, people change and change places and learn new things. My aim is to observe how people evolve and what their talents are. You have to know how to communicate and socially evaluate people.” (Mauri 17.6.2005: 4).

To create a picture of a candidate in the recruiting process has already been described. Still, it is also used when learning to know a new employee. For example, Anssi begins automatically and instinctively to create a picture of a newcomer. Long work experience and collaboration with the employees have taught Anssi to identify people’s behavior and learning styles. Anssi describes:

“It is some kind of mechanism. Usually, I create the first impression in five minutes. After a couple of sentences I make a profile of him/her, although I do not know his/her background or anything else but his/her name, what s/he looks like, what his/her voice sound like and what cloths s/he wears. However, I have clearly formed a certain profile and placed him/her in appropriate ‘lockers’. The lockers help me to perceive this person’s attitudes towards certain issues. Probably these processes are subconscious. I make a
quick analysis among the people I know and I compare the new person with the others clearing what similarities there might be. When I talk with the person, I recreate and update my quick analysis: other lockers, hobbies, probably a spouse and children. You may call it a profile modelling. All of that is important when creating the ways to communicate with different persons." (Anssi 10.8.2005: 4).

It is important for Anssi to give guidance, leading and encouragement to the new employee. Credibility is also an important feature according to Anssi. The actions he is performing to create credibility support his own and project group’s beliefs about success, i.e. the work will be done. In Anssi’s opinion the credibility and the trust belong closely together.

Ismo also creates an image of the new employee by maintaining certain contact with everyone. Discussions include such topics as how the new employee has adjusted him/herself to the group, how s/he is getting through with the job, what kind of tasks s/he has and how s/he fits in the group in the sense of professionalism and sociability. Ismo follows the newcomer’s efficiency and the suitability in the group. For him listening and communication are the essential ways to learn to know the employee and, in general, his way to execute his activities as a leader. Whether the new employee comes from outside of the company or from inside of another team, Helena tries to sort out what kind of person s/he is. She spends some time on learning to know the person, for example, she places herself – actually she sits – near the newcomer so that she can observe how the new person communicates with other employees. That provides Helena with a chance to talk about different subjects and to have collaboration with the new employee also at very normal level, which is important for Helena. In Pilvi’s case, when a newcomer has arrived, she makes a visit to ask how things are going. It is not a good thing or advantage for a newcomer to be left alone. Vilma also has a lot to discuss with the newcomer because she wants to get familiar with the new person. Jaakko claims that a new person, from another group or outside the company, has an enormous influence on the group. If s/he is an extrovert person, it improves communication. Jaakko assumes that people are curious and they want to make acquaintance with a newcomer. He argues that when people work together for a long time, they tend to work, learn and to move as a mass. When somebody comes from outside, s/he does not know the rules of behavior and changes routines. The whole group realizes that things can be done differently.
As the conclusion, the interviewees’ long working experiences have proved the importance of introducing and caring of a newcomer at the beginning of the work. Also, the experiences have taught them to sense the honest and natural behavior of an employee. Many of the interviewees tell that right in the beginning they start to make a picture of a new employee: how s/he acts and reacts, thinks and learns. They stress that the first impression is significant and meaningful. Also they claim that seldom do they have misinterpretations or totally wrong evaluations. Many of the interviewees emphasize the significance of discussions, talks, chats, listening and all kind of formal and informal collaboration and communication with the new employees to learn to know them better and to follow the working conditions.

**To learn to know present employees**

Collaboration and communication habits do not cease to be valid after becoming acquainted with the new employee. A good leader takes care of constant interaction with the employees. The procedures vary according to the leader. In an everyday situation, Irene sees at a glance what is going on and what the atmosphere is among employees. It appears from greetings: how people say ‘Good Morning!’, and what looks they have on their faces. Through working together she has learned to know people and has created a certain image of every employee. When Irene senses the situation, she goes and asks what is going on to intervene in the situation with the discussion. In addition, how the work is done and how people react tells Irene about different working styles. She confesses that it is not generally discussed by leaders what an employee’s face, gesture and behavior tell about his/her working style, but every leader does it and is aware of it. Therefore, knowledge of employees’ actions is important to Irene because that is how she learns to know the wholeness: that the work will be done, the project group has a good spirit and it is nice to come to work in the morning. She states that generally in leadership it is important to understand different life phases of an employee. Roope, for his part, is not interested in if the employee is in a good or bad mood. The employee may sing or swear but what counts is that the work will be done. If something is wrong, the employees will make well-founded complaints. When giving an assignment, Roope only considers if the employee has time. In addition, in his opinion, a working project group needs a suitable combination of experts (all experts do not fit in the same project group), workers, analysts and managerial people. Then tasks will be accomplished and work will
be done. Still, sense of humor is of significance in teamwork and also in other formal and informal events where people are together.

For Helena it is of importance to know an employee well enough. She has the style to deal with a couple of people simultaneously because there is not enough time to work and act with all of them all the time. It is also important for her to discuss with people to find out what they want to do and what they are going to do. In addition, Helena’s habit is to immediately tell to the whole team when the work is done well and they have got good feedback from a customer. If there are failures or problems or if the client acts impolitely, she ponders reasons for that with the employees. If the negative feedback is unnecessary after all, Helena talks with the customer and defends her employees asking the customer to change his attitudes. Rami creates a picture of a person in his mind when he meets him/her. He states that the first impression seldom fails, but the picture can be sharpened. When he describes employees’ moods, he uses a metaphor ‘emotional cloud’. It means that a person might be in a great hurry, or s/he is willing to do something together, or s/he wants to be alone, or s/he has something to say or s/he needs support. Whereas when Rami evaluates employees’ moods, he uses a metaphor ‘mental barometer’. This means, for example, that some people may swear much and others are quiet. All people get angry from time to time but if swearing continues, he clears it up as a superior. Rami also uses the expression ‘we’-spirit when he talks about being together with the employees. In his opinion, ‘we’-spirit is a feature which is constructed inside a human being and includes emotions. He continues that five senses are a limited number when the issues of ‘we’-spirit are studied. The sixth sense, intuition, is there too. This means that when he goes to a room, he immediately senses what kind of people there are. He also knows what kind of issues he is supposed to talk with each of them.

As noticed from the previous, it is important for the leaders to see and experience employees’ different moods. The knowledge if the people cheer when they have succeeded or if they are disappointed due to a failure tells how to proceed with the situation. If nothing happens or nothing is heard, it is also a sign of something. The leader has to react immediately. Vilma has been working in expert organizations for years. She thinks that she recognizes the personalities and moods very well. After exchanging a few words, she knows if the person has a good or bad morning. If the person is in a bad mood, Vilma takes a cup of coffee and goes to have a chat about this and that. She might ask if everything is okay at home and leads the discussion slowly to the work trying to find out if there is something wrong. Vilma also prefers open conversations and mutual trust. She
does not personalize the problems or criticize people in meetings. To quote Vilma, “It does not lead to anywhere if you start to be friends with your employees. I think that in that respect I cannot act equally with them. I believe that this is a challenge to many superiors.” (Vilma 25.8.2005: 7). When Jaakko is talking about learning to know the employees, he ponders that the employees themselves might know each other well enough but it is he who should learn to know them better. “I should more often walk around in the employees’ rooms, but too often I am so busy that I only have time to take care of my own tasks”, (Jaakko 24.8.2005: 7) Jaakko continues.

Knowing the employees also means that the leaders are familiar with the different interaction styles and habits the employees have. Pilvi describes how she wants to take into consideration the employees’ different styles and how they understand various ways to give tasks.

“To one employee I have to repeat the issues over and over again and still the employee might ask something. Sometimes it makes me angry but I must realize that the way I explained the issue was not the right one. Instead of drawing lines on the paper I have to choose boxes because the employee understands boxes better. It is important to be understood. When everybody understands, we have got to the point. Then it is much easier to act and to be effective. Understanding diminishes people’s uncertainty, insecurity and distress. Everything is clear and visible and everyone knows what it is all about.” (Pilvi 28.6.2005: 3–4).

The interviewees also argue that the employees act differently at work and outside the work. Therefore, the different formal and informal events are good situations to learn to know the employees better. The events also strengthen the common work spirit, when the employees learn to know each other.

The interviewees also want to be aware of the competences, talent and skills at work. Therefore, they want to give assignments which satisfy employees’ current professional know-how as well as their will to develop new skills. However, people’s will to improve their know-how differ from each other. Some employees are satisfied when they are given the same kind of assignments over and over again. They are not eager to learn new things but to know that they are good in the current position. The leaders know that it would be a disaster for those employees to make big changes or transfers from a project group to another. Yet, the good leader knows when to develop the employees unnoticed or when openly to talk with them and encourage them to develop themselves. Other employees,
instead, are so eager to learn new things and to get new assignments that the leaders have to calm them down or slow their enthusiasm. Here the leaders have to be sensitive again. If these employees get too much drag on their work, they will resign. These people challenge the leader to create possibilities and situations to develop and to learn at work. They need constant change and movement or they will be bored and become frustrated by the routines at work.

As a conclusion, regardless of the company’s quality handbook or its advice of HR processes or other managerial tools, the interviewees exercise their leadership in their own ways, which have the base on their experiences. The good leader does almost anything to succeed with a highly important task: to get the work done. Therefore, good leaders’ main interest is to support employees in every turn. Their antennas are very sensitive for any oral, silent, visible and especially invisible information or message the employees send consciously or subconsciously.

The essential issues with employees

As emphasized several times, to make the acquaintance with the employees and to learn to know them, is the first and the most significant subject and activity for the interviewees in leadership. In figure 17 the employee node depicts the essential issues which are connected to the activities when the interviewees succeed in leading the employees.

According to the interviewees, the first essential issue and the red line for the employees is to understand the wholeness, in other words, how the system works and what is the employees’ roles in the whole system. When the employees know
why they are working and what they are supposed to do, it is easier to work together and they know where to start working. Descriptively speaking, the employees talk the same language, learn from each other and they create the mutual understanding together and with the leader. Understanding also increases communication and responsibility.

When people are satisfied, they work more effectively and get results, i.e. the work will be done. This leads to motivation, which becomes evident from the employees’ way to perform the tasks, how they appreciate their work and if they enjoy coming to work. Motivated employees are satisfied with their work and the tasks will be done. This increases well-being, which diminishes distress and strengthens mutual trust. Understanding, satisfaction and motivation have strong linkages to the work node and especially to being a member of a team and a project group.

5.2.4 Leadership activities and the essential issues at work

The interviewees have worked as leaders for long periods of time. Anssi describes what leadership work means to him and how he has succeeded in his work.

“First, this is work only. However, I get some kind of pleasure when I am able to work in practice. This means, that you cannot work alone but together with other people you get the work done. I have succeeded best as a project manager. I believe that my management has been successful and I have taken care of the issues together with the employees. In other words, I have been able to delegate assignments efficiently to right people in a right way, and through that I have got results.” (Anssi 10.8.2005: 11–12).

The activities at work are described from the following viewpoints: leaders’ role and employees’ styles at work, assignment giving, work development and development discussions. Lastly, the essential issues at work are described.

Leaders’ roles and employees’ styles at work

The leaders have different roles at work. The roles include certain obligations and commitments. Usually, one person has several roles, which are good to know so that s/he is aware of how to act and communicate with employees, company management and clients. The leaders depict their roles and activities at work in the following ways. Mauri takes different roles depending on the situation. He is a
policeman, a coach to spar, sometimes even a judge. But most of all he is a person to whom everyone can tell their worries, who solves the problems, helps forward with matters and gives both good and negative feedback to employees and to other managers. He arranges people into different projects in order to make them know each other better and to learn from each other. Mauri states that the role includes part of himself and also has parts that belong to the role as such, i.e. some parts are natural and some parts have been learnt. Rami also talks about the roles. When he meets a client, he has a role of trade making, but if he goes to a project room, he takes a different role. The interviewees emphasize that the employees have roles as well. When everyone knows the roles, they know their responsibilities, which affects the common progress. The employees also have different styles to work. The employees’ different working styles have been touched on in the previous sub-section but, in short, the leaders divide employees into two categories: those who like routines and those who like changes. Some people like routines which means that they know their tasks for today, for tomorrow, for the next year and so on. Small changes in their tasks or small differences in their task targets are variations enough for them. Work field change or moving to other tasks are radical changes and would devastate them. However, these employees are good experts indisputably. Some other employees want to do new assignments almost every month. Usually, those people are also interested in working abroad. New efforts keep them in the company. These employees are good at clearing up urgent situations and at prompt actions. Still, the interviewees claim that both routine and radical persons create certain stability in the organization.

Assignment giving

Giving assignments is not an insignificant situation for the interviewees. They have prepared themselves beforehand by defining the tasks and getting information about an employee. The information concerns both work and private life situations, for instance background, prevailing work situation, competencies, availability, stress and family matters. Giving an assignment should be done in a certain schedule and therefore information plays a significant role. The leader discusses the assignment with the employee and also in the project meeting to make the decision. Everyone in the project group has to be aware of the assignment because it affects the whole group, not just the chosen employee. Thus an important task for the leader is to follow all the project activities and
situations, which are discussed in project meetings. The interviewees describe their assignment giving as follows.

Mauri gives the entire task as a whole including responsibility and some vagueness. Power and responsibility enable learning, and the vagueness makes the person look for information. Mauri values that the employees are capable to accomplish many kinds of tasks. In addition, it is relevant to secure the individual’s self-respect and self-confidence as far as it is possible. Anssi believes that he can delegate tasks to everyone. He knows the abilities of the employees. Also, he knows what kind of situations he can send a person to. Some are better in rush hours than others. In addition, there are differences in the ways how persons receive assignments. Some of them stop to think why s/he got the particular task, why s/he must do it. Others are pleased to get the task and think they are the best employees. In weekly meetings some people take tasks immediately without questioning although they already have a great deal to do. Some other people do not say a word although they know that the task in question belongs to them. Despite the fact that Anssi considers different ways to communicate, he has a basic logic when giving assignments so that the project members do not get an impression that they are treated unequally or that some of them are favored. It is also important to find the right person for the right task to minimize problematic situations. If the employee is capable to perform the task, s/he is motivated and the work will be done. Roope describes that he tries to fit a new assignment in with the employee’s other duties and capabilities.

The leaders emphasize that giving assignments is not a situation where the leader just goes to the employee and says what has to be done. Although the leaders know who are capable of doing the task and who could deal with the situation, they think carefully how they formulate the assignment to the employee. Also they consider the employee’s prevailing mood before they say anything. As one leader said, giving assignments is a good example of the wide range of variety of communication. Rami describes his assignment giving as follows:

“You have to bring the issue in a right way that is correctly and individually stressed for each person, although the words and the letters are the same. We do not have very difficult people here. I have not even met many of the kind during my life. Still, those situations have forced me to develop communication skills. But let’s say, if someone sits with a cloud on his/her forehead, I approach him/her by saying something funny, or if I recollect
something that makes him/her laugh, we talk about those topics for a while to find the balance, the levelling situation of the energies. I have to try to abolish the anger and to lift him/her up. Mentally it is very hard work for me but this is the way how I give the assignment. ” (Rami 7.6.2005: 3).

Work development and development discussions

All interviewees emphasize the significance of the development at work, which can take the form of job rotation, training or of career development. As Pertti argues, the most important issue for the employees is the possibility to develop the work and to be developed by the work. He also states that if the company cannot offer new possibilities or development at work, employees look for new jobs. That is why the development discussions are in the key position.

In each of the three companies yearly development discussions are held. The companies have official forms which help to construct the discussions. The forms include important issues, which have to be checked, and in this way they serve as a reminder. The companies’ quality systems and HRIS also offer guidelines and advice if needed. The interviewees stated that they are aware of all this help and guidance. Nevertheless, most of them do not use any official forms or run the discussions according to the systems. The interviewees argue that following the formal procedure of the development discussion, not all sensitive but highly important issues will come up. Instead, they state that the unique development discussion methods they have created through their individual experiences work well. The leaders emphasize that the development discussion is a tool to learn to know the employee, to talk about different issues and to make the employee motivated for the next season. Although the development discussion is an official and confidential situation, the leaders want to hold discussion on an informal level. Usually they start the situation by talking this and that to create a relaxed atmosphere. Then it depends on the situation how the discussion proceeds. Here the leader senses how to continue with the employee in question. The significant meaning of the development discussion is to convince the employee that s/he is taken care of, s/he is appreciated, and s/he will get the feeling that his/her opinions and problems are heard and considered.

The development discussion is also a highly important situation to create knowledge from a new employee and to design training for him/her. Therefore, when a new employee is in question, the discussion will be held a couple of months after hiring. In the case of the old employees, the employees are usually
prepared for the discussion. They have plans and suggestions how they want to
develop their careers. The development discussion is the situation where the
leader and the employee decide on and approve of the next career phase officially.
After the discussion the employee writes and delivers a memo which includes the
content of the discussion as well as the decisions. The leader checks it before it is
approved fully. The interviewees describe their experiences of development
discussions as follows.

Lassi argues that it is the superior’s responsibility to perceive which tasks a
person is capable of and which not, in other words the right person in the right
position. The superior should know people so well that s/he can perceive their
weaknesses and strengths. Therefore Lassi’s development discussion with an
employee lasts, almost without exception, 4 to 6 hours. He goes through the
official issues in the situation, but he does not follow the official organizational
forms. He forms the knowledge of people by discussing with them in different
ways. He follows what they do and how they manage. He also discusses their
needs and other meaningful things. For Lassi the main issue is to learn to know
the employees. In Anssi’s opinion the development discussion is another
opportunity to get some further knowledge of an employee and his/her career. The
development discussion is also the phase where development, training and career
issues are officially decided on and approved of. The newcomers and permanent
employees have different development plans. Anssi appreciates their plans and
together they create the plans for the future. Unfortunately, some employees do
not care to develop themselves and are stuck at their work despite the fact that
they are not entirely satisfied. Irene, for her part, argues that trust is the base for
open discussion. It is important to both her and the employee to know that the
conversation is confidential and nothing comes out into open. One has to be
trustworthy because when the trust is lost, it is forever no matter what will be
done. Roope takes care that the date for the development discussion has been
arranged beforehand. In the situation itself he uses a certain agenda as the base for
the discussion. In practice, it means that Roope makes questions and asks the
employee’s opinions on the issues of the agenda. Yet, he does not just list jerky
headlines but also talks about the issues more comprehensively. It is important to
see what the employee has done and what should be the next tasks. Roope tries to
make concrete plans and agreements so that they are simple, goal-oriented and
easier to remember. Helena’s style is to let the employee talk and explain what
s/he has done and how things are going. The employee writes a memo after the
discussion. Since they talk about many issues, Helena takes notes to be able to
check that all important and central issues are written in the memo. She describes her conception of the development discussion as follows:

“An important indicator in the development discussions is that if we do not have them, people will be neglected. In the discussion situation an employee should have a feeling that his/her opinions and problems are heard and taken into consideration and professional skills are tried to develop. Mutual feedback is important, not only evaluation. Yet, the development discussion should not be the only way to take care of employees. Still, it is one method to ensure that the employee is taken care of. It is more individual than having a daily chat in an open office. The development discussion is a private matter between the two of us, and all issues have to be confidential. It is one way to show trust.” (Helena 18.8.2005: 6).

In Rami’s opinion the development discussion should be planned genuinely because it is a good opportunity to take an employee away from the working desk and to brick the basic stones of the superior-employee relationship. In other words, an employee can feel that the superior takes him/her seriously and the superior can use the development discussion to improve the employee’s working life. One practical example of the situation: when discussing, Rami and the employee are not sitting face to face but side by side turning their eyes to the employee’s future. Rami describes that in the development discussion he sees the person concretely, and therefore, it is a good situation to shut out the whole environment; even shut down the lights, if needed. Rami continues pondering:

“If we were just sitting together quietly in a room for two hours and then the employee would write a memo. … Thinking concretely, issues should be so simple and understandable that a human being could understand them even though sitting quietly. Failures in understanding derive from too complicated issues and communication. Due to that they may be understood in various ways. It is extremely important to be understood right.” (Rami 7.6.2005: 9).

Jaakko describes the approach of the development discussion as a talk without any written instruction. A too formal situation would not serve anyone. He also emphasizes that the development discussion should not be limited only to the career, i.e. what the employee has done, how s/he has reached the goals and what his/her goals are for the future. For him it is important to ask about emotions: what the employee’s needs are, how the work is going on and if the employee
feels happy at work. He stresses that the development discussion is an important opportunity to get necessary knowledge that he needs about an employee.

The essential issues at work

According to the interviewees, to be successful, the work consists of three core subjects (see figure 18): planning, development and team. Planning is connected to the employees’ commitment. The leader knows that commitment depends on how much or little the employee knows about the new tasks or methods in use. If the work is too demanding or too easy, the employee will not be committed. Also if the person has already a lot of work due to the previous assignments, the pressure and stress of new tasks will diminish commitment. Therefore, when planning, the leader must know the competencies of the employees. The leaders also know that if there are conflicts, the employees will not be committed enough. Therefore the leader must make very concrete working plans so that everyone knows their roles. It means to plan simple and clearly described tasks because they are easier to remember. People know what they have to do and what the expectations are. In the meantime the leader wants to develop the employees’ competencies and career paths, for example, by rotating the jobs. Still, the most important activity in developing the employee’s work is the development discussion which the leaders highly appreciate.
The **team** work is an extremely central way to work in all the case organizations. Therefore, the next sub-section is devoted to its activities. Still, a short description of the essential issues of the team work is presented. The first priority for the team members is to know the group’s mission, vision and direction. They have the base on the company’s goals. Secondly, collaboration is an essential issue in the team work. To be successful, collaboration includes working in the same space and it needs various skills, for example, sense of humor, ability to perform tasks, to be able to work together and to achieve results. A project manager’s main job in the team is to find a right person to the right position. Therefore, s/he has to be aware of the employees’ know-how profiles, i.e. the employees’ capabilities, work situations, working styles and the ways they act. When the right and capable employees are performing the tasks, there will be fewer problems and the work will be done. To be aware of the tasks means that the team members clearly know the expectations and what they ought to do. In addition, as team members the employees should be able to make up their minds in work. It will increase job satisfaction, good spirit and prevents the possibility to fall ill or to suffer from
insomnia. Also problematic situations may occur because of difficult situations or matters. Therefore, with the help of challenges the team members learn new things, to think wide, to take and give feedback, and to filter and proportion feedback. People also learn from each other and from mistakes. Both written and oral information, given in the course of the project work, keeps everyone up-to-date.

5.2.5 Leadership activities in teams / groups / projects

The words ‘team’, ‘group’ and ‘project’ represent different compositions to the leaders. Yet, they mix the words in their discussions depending on the situation. A team can include different project groups or the team is a project group itself or the team includes employees who are producing a product but they do not form a project. Still, the main idea is that leading many people together is different from leading only one person. Here, the activities are described from two viewpoints: team work and working team as well as problematic situations.

Team work and working team

According to the interviewees a team and its members are responsible for the results of the work they do. Constant communication and learning are significant in the team work as well as good team spirit. The team works when it has clear goals and plans and concrete schedules. In addition, the leaders spend a great deal of time to find suitable people for the team or project. They explore the employees’ backgrounds, competences, prevailing situation at work, discuss with other superiors and do everything that helps them to form a working team for the work in question.

Mauri argues that the functioning team work is significant for the organization. He prioritizes three important points. The first priority in the team work is to gain financial results. The second priority is to enjoy working and to get good feelings through fair team spirit. Those two go hand in hand. The third priority is a possibility to learn. The IT business is a highly knowledge intensive field. Therefore, information and knowledge and how a person and an organization construct them are crucial issues. Team work is vital to Lassi. He emphasizes: “We shall always have teams and a team has a purpose, a reason for existing. It is the superior’s duty to secure that the team has its operational preconditions now and in the future.” (Lassi 29.8.2005: 4). So, the mission, vision
and direction lead the team work. Clear task descriptions, targets and work roles show the responsibilities where people can act and develop. Lassi also states that it is significant to realize that all people do not fit in every team and each team needs a special type of a superior. Because for Lassi it is important to be among other people, he seldom sits behind his desk.

“It is important to know what is the matter, how things are going on with people, if they have worries and sorrows, if I can help somehow, if something is lacking, if something has caused distress, if they need guidelines, and if we are going forward. The superior’s work is a service occupation.” (Lassi 29.8.2005: 4).

In Lassi’s opinion, the essential and central issues in team work are: 1) communication, i.e. ability to talk, to express freely, and to justify one’s own viewpoints, ability to act in any situation (even scream if nothing else is possible), ability to discuss, design and follow the common decisions; 2) to do the tasks as agreed and have ability to change plans if the task goes wrong; 3) ability to take responsibility, i.e. ability to use one’s own initiative and ability to take care of the given tasks.

Vilma states that it is important to realize why people are working in the company, how things are going and how the company is doing. It is important that all team members know why the group has been established and what its position and tasks are in the whole organization. Goals must be concrete and reachable and tasks as clear as possible. In a successful project group everyone knows their own roles. Here the project meetings are in the key position. They are opportunities to discuss and inform about common issues, previous, present and future tasks and it is also an opportunity to give thanks to the employees. Vilma lists the features of a good working team: the work is good in quality, schedules are kept, plans are executed, development work is progressing and goals are reached. Pertti continues that people really help each other in teams. If they see a fellow worker in an impossible situation, someone comes and helps straight away. He finds it as fully spontaneous participating. What counts here is that no one is ever left alone.

Although the leaders partly mix the words ‘team’, ‘group’ and ‘project’, for them the work in a project group has the most concrete features. Irene explains that the project planning starts by making an increment for a specific period. The increment includes tasks and resources needed to execute the tasks. Herein, different project meetings with the project members and the client play a significant role. When things are working with clients, they give reliable
information to transmit to the project group. But if the project manager swings and sways all the time with the client, she also swings with the group with the result that the whole system swings. Helena states that the most important issue is that the group consists of different kind of people who are able to work together. Two technological gurus who argue with each other is not a good solution for the team. Another risk is caused by a totally strange employee. Rami emphasizes that when a working project group has been formed, it should be crystal clear for everyone why the group has been established, what it does, what its position is, and how fairly the tasks have been shared. When people know their roles and the tasks are fairly given then the group’s emotional values are in condition, the group is able to act, the group is united and the group’s meaning increases. In addition, he recalls that when he was a newcomer, he would have needed a few hints how to survive with an angry client. In addition to concrete matters in the project group, Rami has created a coffee break culture. This means that every working day the whole group goes for a cup of coffee. They sit together talking about everyday issues so that everyone is able to have fun in one way or another. This is a good moment to observe the group and, above all, it is a good habit to learn to know a new group because it is a situation where employees are themselves and the roles are thrown away for a while. Rami states that the group is more than the sum of its parts. Good spirit and well-being will show everywhere and to everyone inside the whole company and to the client as well as at home. Rami stresses that the good working project group creates trust among the project members. They feel that they have been taken care of and they all are part of the group.

Problematic situations

Although the leaders use all their efforts to get together working teams or projects and they lead them with their best abilities, problematic situations occur. They can concern one person or several persons. According to the interviewees, despite the number of people in the problematic situation and despite of the quality of the problem, the problem always has an effect on the existence of the project. The interviewees have their own ways to solve the situations, but on one thing they all agree: the problem must be solved as soon as possible. The issues concerning the problem will be clarified and the participants will be heard. How the solving process starts and proceeds, depends on the leaders’ characteristics. Some of them are analytic. They use methods to divide the problem into its parts, or they use
charts or different figures to make sense of a problem. Some others go to ask what is going on and try to solve the problem together. Regardless of the method, the purpose is to get as a detailed picture of the situation as possible before starting to act. Next some descriptions are introduced how the interviewees act in problematic situations and solve them.

Mauri uses a triangle measuring method to clarify a problematic situation. He tries to divide the problematic course of action or situation and then construct it all over again from the beginning to the end. This is his way to outline how to solve the problem. In addition, he draws figures, such as tables, different chains, process models or others, to show logically which issues are linked to each other. Mauri says that he is inclined to visualize since it is the fastest way to express the issues. Here he uses the common phrase: ‘A figure tells more than a thousand words’. In the case of Lassi, if any problems, troubles or mistakes occur, it is time for pondering. He talks with people about what has happened, and how to fix the situation with minimum damages. Lassi appreciates honesty, in other words he values that people confess if they have messed up. If they do not admit the mistake and it is exposed, it is time for a serious talk. However, if the employee gets off the situation by him/herself, Lassi gives advice. If the situation is out of the employee’s authority, Lassi takes responsibility and tries to find solutions by himself or with other people. Anssi, for his part, spurs the project members in a problematic situation. He explores the situation carefully beforehand so that he can shed light on the problem. It makes it possible to discuss the issue together. Here credibility is an important issue. When the problem is solved, the whole project group is happy about all the success because it proves that the employees are able to take care of the situation, the work is going on and they maintain their goals. When they strain a little more, they manage the next challenge as well.

In a problematic situation Ismo goes straight to the subject. He discusses with people and makes questions: What is it all about? How could the situation be worked off? What kind of efforts and support are needed to resolve the situation? He examines and analyzes the situation how to make it better. Roope also sorts out the situation immediately when a problem occurs. He arranges a meeting where he and the person or people involved are present. They discuss the problem: what it is, what the reasons are and how to proceed. They write down the possible activities, they agree what to do and when the issue will be checked. Risk analysis is a method often used and applied in problematic situations. Roope claims that in the problematic situation two or more alternative solutions motivate employees more than no solution at all. Which alternative will be chosen is a
result of the common discussion and decision making. The chosen alternative does not have to be the best one but the one which supports understanding. Helena says that the problem may concern work or private matters, which always have an effect on working. When a problem occurs, Helena discusses personally with the employee to dig out the reason for the problem. She takes it as an expression of trust if an employee lets her get closer. She describes the discussion in a problematic situation:

“You cannot prepare for the discussion. You just go for it and take the situation as it is. In my opinion, it is not a good starting point for the discussion if I begin to suggest if the employee has this or that kind of problem. While discussing with the employee, I try to discover the way that helps the employee to tell the problem him/herself. I try to dig the problem out because, in my opinion, whatever the employee says or does, it is important to be and feel accepted. No-one tells matters which will immediately be rejected or disagreed by the superior.” (Helena 18.8.2005: 2).

Pilvi tries to calm down the employee convincing that something will be done when a problematic situation comes up. She tries to bring positive aspects into the situation. She discusses different viewpoints with the employee and, depending on the situation, summarizes the previous occurrences and how the situation could be solved. It depends on the person how the process goes on. Thus, in a problematic situation every person has to be taken as an individual and each problem should be taken seriously. Pilvi also describes that if some work situation is very tight and it looks impossible to keep to the timetable, she does not discuss it with employees straight away but she talks with the client who has ordered the work. After that Pilvi discusses with her team how to proceed. She stresses that often delays are caused by pure planning procedures, especially by failures in planning schedules. Pertti tries to solve a problematic situation as soon and rationally as possible. When Pertti starts to solve a problem, he tries to give reasons for his actions very fast and to get people to come along. If the situation is hectic, he uses the principle of management in crises, in other words he says what has to be done and the employees must obey. If the private life includes some problems, Pertti sees that it is good to have a nice work environment which can help to solve the problems in private life. A human being forms a whole.

Vilma describes herself as a calm person, who does not easily get upset about small affairs. If the work shared by two employees concerns a problematic situation, she discusses with the employees privately and together, and if
necessary also with the team to find out what is wrong. Vilma claims that in her team everyone is allowed to make mistakes. It is important for her to make the employee understand the problem rather than to emphasize the failure. If Vilma notices that somebody is not doing his/her work, she clears up if it is because of the work itself, fellow workers or something else. She will not interfere in the employees’ private lives but she is there if someone wants to tell about a nice weekend or a sick child. However she regards the working itself as an important subject and therefore she uses a lot of time discussing the work with the employees to avoid also the problematic situations.

As a conclusion, several interviewees believe that in a problematic situation they act instinctively. They also appreciate honesty in problematic situations. They want the employees to tell the truth even though the employees have caused the problem. They argue that it is easier to continue solving the problem when they have all the information and knowledge of the problem. Also they stress that the problematic situation and the solving process also offer a learning process. In other words, if the problem is discussed in a larger group, i.e. with fellow workers or with the team, it will create understanding and satisfaction to all parties as well as an opportunity to learn. The solving process shows the employees their abilities to take care of the situation. They also get a picture that they have knowledge and skills to solve difficult situations in the future. When the team succeeds, everything works and the team members are doing well, i.e. employees are joking and they enjoy working.

5.2.6 Communication activity and other essential issues in the leaders’ and employees’ mutual activities

Communication is essential in the work community and in the activities of good leadership from several viewpoints. It has a central role in the team work, in the work itself and in giving assignments. It includes verbal and speechless as well as official and informal communication. The interviewees underline that especially informal discussions may awake or highlight issues which otherwise could have remained unnoticed. The employee may look unhappy or s/he may say something with a tone which indicates a problem or harm at work or in private life. The employee may also show satisfaction with his/her work by cheering ‘Yes, I did it!’. In any case, it is important that the leader realizes immediately to react in an appropriate way.
Communication between the leader and the employee is confidential unless otherwise stated. It creates a good relationship and a feeling that the employees are taken care of. Therefore the interviewees connect the communication also with creating and maintaining the atmosphere and well-being. Their habit is to go and talk with the employees whenever it is needed or just to check that everything is okay. In addition, the employees’ various ways to communicate challenge the leaders all the time. They have to know how to talk to an employee or how to approach him/her. For example, when giving an assignment to some employee, it must be offered as a challenge to improve his/her skills, and to another employee it must be given as an exact task for his/her talents. Even though the leaders can describe various ways to communicate with the employees, they still act in the contact situation upon intuition. This can be interpreted as their tacit knowledge. Next some examples of the interviewees’ different ways to communicate are introduced.

When communicating with people in different situations, Mauri uses the term ‘clock frequency’ which he applies also in his self-leadership. It means:

“When you are entering a situation, first you have to stop yourself completely and forget everything around you. Then follow the speed of the situation. When you are relaxed and ready, you may enter. For example, I come from a meeting with the managers and I am in a certain mood. So, I go to have a cup of coffee and sit for a while. When I am no longer in the earlier mood, I continue to the next appointment. Another example, when I enter a meeting in another organization, I slow down my motions and follow how people move there. Then I start to move with the same frequency. With these courses of actions I show my respect to the forthcoming situation.” (Mauri 17.6.2005: 8–9).

Mauri argues that, in principle, the biggest difference between the lines of business is produced by the clock frequency. In his opinion the basic HR issues are the same in all organizations but the clock frequency changes.

Ways to communicate are important to Anssi. Although he knows quite well how to communicate with people, he appreciates individual and varying courses of actions. He must talk in different ways with different people. For example, when he gives an assignment to one employee, it must be given as a challenge, whereas to another person he must justify that this task is exactly for him/her because s/he can handle and perform it. It is also important that employees learn to communicate with each other. Reporting and informing are the main
requirements for the employees. Daily contacts and weekly meetings are the situations where people change information. Ismo argues that in his case leadership begins with listening. His habit is to walk among people and chat with them just for fun. He sits down and asks how the person is doing or how the house building is going on or if the child is still ill. His reactions to the answers depend on the situation. Sometimes he makes comments but what is essential is to concentrate on listening in the beginning. This is a better way to get in touch with people, with their thoughts and to understand what they are doing than just running around giving affairs and assignments or asking if the previous task has been done. It is difficult for Ismo to explain why he acts in the way he does in contact situations and how he creates communication. Rather, the situation leads the action:

“If I have something to talk with someone and s/he is absent, I may stay with other people and have a chat with them. It is important for me to hear an answer to the question ‘How are you?’ Answers vary but they help me to sense the person’s state of mind and I know how to proceed to the next subject. In other words, I ponder if I have to wait for a while until I deliver the actual issue and I try to figure out how I have to express it. This is the way my leadership basically works.” (Ismo 1.6.2005: 6).

Informal contact with the team without interrupting their work is important to Ismo because everything affects everything. Sometimes an employee may have private or occupational issues which bother him/her and the work will not get done. Ismo learns to know the moods and dispositions of the employees rather well due to informal discussions and listening. He observes talks and expressions of the employees and quickly draws conclusions. He does not always know what to answer or how to react, but if there is a need for some reply, he will make it. However, that is not a systematic behavior for Ismo, rather an important way to find out if people are feeling well. In Ismo’s opinion listening and caring are close to each other.

Roope states that collaboration skills facilitate achieving final outcomes, in other words, minimize problems and rethinking. He also points out that communication and collaboration with superiors is significant. In practice, it means discussions in employees’ evaluation situations and in HR planning situations. An outside opinion from the same experience level confirms the planning. In addition, in Roope's opinion, informal meetings bring the project members closer to each other, information spreads better, pondering may increase
and skills to bring up issues are gained. Communication, atmosphere and employees’ well-being are also connected together in Jaakko’s leadership. He likes to discuss and have conversations with people. Therefore, for example, he does not inform about any issue, no matter how difficult or private it might be, by sending an e-mail but face to face. He does not always know people’s feelings or what they think afterwards. That is why he makes personal contacts and creates mutual understanding. Jaakko underlines that the discussions are always confidential. All of that creates the atmosphere of open communication and gives an impression that if he promises to take care of something he will do it. His door is always open and it is a sign for the employees to come in and to have a talk about anything. However, it depends on an employee who is willing to use that chance. Some will never come and others come often. In any case, the discussing atmosphere is very important to Jaakko.

**Essential issues in the leaders’ and employees’ mutual activities**

**Communication** is one of the essential mutual activities (see figure 19) when the leaders and employees create a successful working environment. As a conclusion, the leaders and the employees have different kinds of communication skills. How they verbally produce talk and expressions varies and depends on their individual ways of communicating, which have an effect on various discussion situations the leader and employees execute during a working day. The leader’s ability of listening and of having situational and face to face discussions is significant in communication. The leaders also emphasize informal contacts, i.e. to ask and to know what is happening among employees. Although the leader and the employee may sometimes have troubled discussions, the leader can never hurt the employee but preserve his/her self-esteem. This means that anything the leader says should not be personal to the employee. In addition to the communication, the interviewees brought up other subjects which can be interpreted as mutual activities of the leaders and the employees: atmosphere, ‘we’-spirit, acceptance, responsibility and trust. Even though a good and relaxed atmosphere, ‘we-spirit’ and acceptance are based on the leader’s way to exercise leadership, the employees also have responsibility to maintain them. The atmosphere reflects the employees’ emotions and actions, and the we-spirit strengthens security. If the leader and the employees accept each other, they also accept different abilities and mistakes, which increases the overall acceptance. The common good is maintained by responsibility, which is linked to trust. Trust, in turn, is affected
by work and has an influence on private and confidential discussion between the leader and the employee.

![Diagram of mutual activities]

**Fig. 19. Node of mutual activities.**

**5.2.7 Other noteworthy activity areas in good leadership**

In addition to the described activities other noteworthy activities were discussed in the course of the interviews, such as motivation, using metaphors, gender and internationality. They are also introduced briefly.

**Motivation**

In this thesis motivation or its theories (Miner 2005) are not the core issues. However, it can be stated that in the organizations the word ‘motivation’ is often used unclearly, in other words it is not always clarified if the question is about the leader trying to motivate the employees or the leader making the employees motivate themselves. In the former question the idea is that, associated with leadership, the leader tries to motivate the employees and therefore takes responsibility for the motivation. In the latter question the idea is that the leader takes the employees into consideration and creates environments and circumstances where the employees take responsibility for their own motivation. In the former question the focus is on matters and in the latter question on people

For the employees motivation is the desire to do things they like and enjoy, which is multiplied with the expectation of success. Here motivation is a consequence of action (belief and value) rather than the primary matter. (Maddock & Fulton 1998: 75–88, Adair 2006: 89–116.) Therefore the good leaders have first described what they have done with the employees and only after that they have mentioned motivation. The key issue is not motivation but how people react (talk together, laugh, get results), which shows motivation. Some interviewees also claim that the motivation is not a central issue in ICT organizations because the constantly meaningful work challenges the employees’ skills and talents. Here are some examples how the interviewees include motivation in their work.

Lassi emphasizes that all people have their own strengths. The main thing is that the person is motivated by his/her work, s/he values it and feels pleasure of it. It is the joy of working. Bonuses are also important, in other words, reaching the goals is worth monetary awarding, which motivates in the guidance of the development targets of the company or the special unit. Without motivation work is mostly grumbling. In unmotivated situations Lassi helps the team members to reach the goals. It is one of the superior’s duties. For Anssi enthusiasm and motivation are significant for working. Enthusiasm is sustained by learning and success. He states that motivation is manifested a) in the common interest in issues where the indicators are taking care of one’s own tasks, how other people work, what is happening around and voluntariness; b) in the characteristics to learn fast, to adopt new issues and to want new challenges; and c) in the challenge to offer employees new tasks so that they will not get bored. Irene creates motivation by her own example. She behaves normally and, in addition, she highlights goals and tasks which have to be done on schedule. She takes care of people to create trust. For Roope motivation is essential and important part in his leadership activities. Knowing what to do and why to do motivates Roope, therefore he believes that it motivates other people too when they know more about the work that has to be done. Also the employees’ capabilities to perform tasks motivate them and the work will be done. In addition, unprompted actions increase employees’ motivation. In Roope’s opinion good leadership includes motivation, goal-orientation and informality which support understanding. People know what they are doing and why they are doing it. When leadership is
successful, work will be done properly. The same elements are also the cornerstones for future leadership.

Helena admits that working is greatly affected by motivation. Some people tell straight if they are motivated or not and others express it in a more reserved way. She also emphasizes that in a group there are always so called ‘trust backs’ (people one can trust; in Finnish luottopakkeja) who can do any tasks and always with the same good touch. Their motivation works correctly all the time. In her opinion, the working conditions should also be improved to maintain motivation and good spirit in the group. In Pertti’s opinion motivation includes several issues. He describes what motivation in itself, motivation factors and the job satisfaction mean in the company.

“Motivation factors can be classified so that certain factors under the norm value decrease the job satisfaction, whereas they do not increase the job satisfaction no matter how good the factors are. Then if other factors are increased, they really increase job satisfaction, but if they do not exist they do not necessarily decrease anything. We use this model of thinking and we develop it all the time. Based on this model economical issues, benefits and good salaries are motivation factors and increase job satisfaction when they are in order. Motivation affects the brainwork and the way of thinking. If an employee has not got a spark in his/her work, it may take a week and nothing has been done. On the other hand, if motivation is good, the results may be hundredfold.” (Pertti 30.8.2005: 5).

To conclude, according to the interviewees enthusiasm and motivation are significant for working. Motivation is manifested in how the employees are interested in their own tasks, in their fellow workers’ tasks and in everything happening around. Motivated employees want new challenges and they are eager to learn new things. They do not get bored or unsatisfied with their work. They enjoy working and they get the work done. In addition, when employees are motivated, they voluntarily participate in the work of the whole project to support and ensure the success and results. They also help each other willingly to get the work done. Motivated employees are essential in an organization. However, it was not motivation the leaders started their discussion by but how they communicate with their employees to get them motivated.
Metaphors

Some people tend to tell metaphors if they want others to understand the matter in question or if they want to stress their expressions. In addition, some people are more familiar with metaphors than others, and they use metaphors in a natural way. Lakoff (1987: 388) presents two senses of metaphor:

- “A metaphor is the expression of an understanding of one concept in terms of another concept, where there is some similarity or correlation between the two.
- A metaphor is the understanding itself of one concept in terms of another.”

Morgan (1997) wrote about metaphors to contribute to the understanding of organizations. He compared organizations to machines, organisms, brains, cultures, political systems, psychic prisons, flux and transformation as well as to instruments of domination. Morgan (1997: 348) claimed that “All theories of organization and management are based on implicit images or metaphors that persuade us to see, understand and imagine situations in partial ways. Metaphors create insight. But they also distort. They have strengths. But they also have limitations. In creating ways of seeing, they create ways of not seeing. Hence there can be no single theory of metaphor that gives an all-purpose point of view.”

Kövecses (2002) draws a distinction between conceptual metaphors and metaphorical linguistic expressions. He states that “a conceptual metaphor consists of two conceptual domains, in which one domain is understood in terms of another” (Kövecses 2002: 4). Metaphorical linguistic expressions are “words or other linguistic expressions that come from the language or terminology of the more concrete conceptual domain” (Kövecses 2002: 4). He explains the metaphorical understanding of two items with the set of systematic correspondences between the source and the target. They are also referred as mappings. He gives an example of mapping describing the correspondence between social organizations and plants, as for example: branches of business; company is growing; to prune the workforce. Kövecses (2002: 8) characterizes the mapping as follows:
“Source: plant       Target: social organization

(a) the whole plant    ⇒  the entire organization
(b) a part of the plant ⇒  a part of the organization
(c) growth of the plant ⇒  development of the organization
(d) removing a part of the plant ⇒  reducing the organization
(e) the root of the plant ⇒  the origin of the organization
(f) the flowering stage ⇒  the best stage, the most successful
(g) the fruits or crops  ⇒  the beneficial consequences”.

Metaphors are useful for leaders when clarifying, untangling and defining one’s own work and position as well as employees’ tasks and positions in the team and organization. In the communication the interviewees use metaphors, some more others less. Still, four leaders out of the twelve interviewees clearly used metaphors when describing their leadership actions. Lassi and Rami expressed their actions with metaphors, and Mauri and Pilvi used metaphors to underline specific situations. One metaphor from each of the four leaders is introduced. The metaphors resemble Kövecses’ (2002) mappings in making up conceptual metaphors. They can also be considered significant from leadership’s point of view.

The first metaphor: Family in the hayfield – Working in an organization

“It is like us as children in the hayfield. There we were the whole family, parents and brothers working together. Everyone knew exactly what had to be done and everyone did their own tasks. Some specialization and every now and then we changed the tasks. Task rotation and target-orientation worked out in the field and everyone saw the result. It was motivating and fun, and we all had some work to do.” (Mauri 17.6.2005: 8).

The second metaphor: The creature in an ecological locker – The meaning and the place of a team

“In my opinion we always have a team and it has a certain meaning, a ground of existence. It has an ecological locker where it survives with certain competitive factors. If the environmental factors change, the whole creature in the locker has to be able to change. Someone is its liver, someone is the mouth, someone produces the movements and someone takes care of the information. The superior has a certain task in this ecological locker. The
The task is to secure the creature’s operational preconditions now and in the future.” (Lassi 29.8.2005: 4).

The third metaphor: To observe the black hole – To get information about a person

“To observe a person is like to observe the black hole. You cannot observe the hole itself but the reality around it. Often in people’s evaluation observing the activities around the black hole is extremely rewarding. It gives me a huge amount of information. For example, how other people behave around the person or how their appearances change or how the person has placed the icons on the desktop. All of that gives me images and impressions.” (Rami 7.6.2005: 5).

The fourth metaphor: To make a ping-call in a hardware environment – To take care of an employee’s well-being

“I make ping-calls to employees from time to time. It means that I go to see if somebody is at the place. There are people who just do their own tasks but never automatically come to tell about any disadvantages, problems or anything. I take care of those people’s well-being making ping-calls to them at regular intervals.” (Pilvi 28.6.2005: 10).

Gender

In each of the three companies there were male and female employees. Three leaders gave viewpoints on gender. When the gender is taken into the consideration, Pertti presumes that it has a specific meaning in leadership. He says that because of the family-centric attitudes and women’s different source of motivation, there are so few female leaders in organizations. He argues that, on average, work centrality does not play as great a role in women’s as men’s life. However, he states that women leaders are very competent people. Jaakko sees that people have preconceptions about gender in the ICT field, which is more or less considered a manly line of business. Still, in time the genders have got more equal, e.g. the number of women employees has increased. He argues that women want responsibility in projects and leadership but not with clients, sales or business. Yet, he also states that there are only a few women in the management groups. Vilma argues that there are certain differences if you lead men and women. She states that women experience issues more emotionally than men do.
For instance, with mistakes men are more flexible but women can keep the negative feelings inside for a long time and vent themselves in some other situation. However, Vilma would lead men and women alike.

**Internationality**

Internationality can pitch leadership into another level. Some of the interviewees claim that the leadership work is the same regardless of the employees’ ethnic background. Yet, the cultural differences have to be taken into consideration when leading foreigners in Finland or abroad. Here the language skill is a crucial point but it is not. Two of the ICT companies had offices abroad and five interviewees gave viewpoints on internationality. Vilma had been working abroad and argued that the working cultures are different in different countries because people are different and they act differently. It is important to negotiate and agree on work issues, schedules, and certain methods when working together with foreigners. She states that the leadership executed in Finland would not be successful in some other country. However, regardless of the country, some of her leadership actions Vilma would execute in her own way. In addition, she states that the attitudes to different countries affect behavior. Therefore, she would learn and become familiar with the aspects of the foreign country before leaving. In the current job Vilma has to visit the other offices of the company at home and abroad. She thinks that it is smarter to take into the consideration different cultures to understand the working manners than just to walk in without changing anything.

Anssi also has international work experience. Characteristic of his project group has been to share tasks between employees in different continents and at the end of the project to summarize them. It has been a very successful way of action. Pilvi has one foreign employee who does not bring any special features for communication. She states that regardless of the nationality, people’s reactions correspond to the way they have been treated. That is why Pilvi behaves similarly with all employees. On the other hand, Roope and Jaakko agree that the only addition to their international leadership is brought by the adequate language skills. Probably the cultural differences might also be considered if needed.

**5.2.8 The essential issues of good leadership as a whole picture**

Figure 20 presents the whole picture of the main nodes and sub nodes of the mind map of the good leaders’ essential issues. The picture is positioned vertically to

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get the best view. Because the nodes are introduced in the previous sub-sections, the purpose of the mind map, however, is not to see the texts clearly but to observe how the essential issues are situated in the entire mind map. The left side represents the human part of the essential issues of the good leadership and the right side is for the essential issues from the organizational and work point of view. As seen in figure 20, there are more nodes on the left than on the right side even though they all represent the essential issues of the interviewees’ activities in leadership. As that it shows that the essential issues are emphasized in the human part of the activities of good leadership, i.e. nodes of leader, employee and their mutual activities. Here it is important to notice that HRIS are designed to support the activities of managerial HR, i.e. mostly the work node, which will be discussed in chapter 6.
Fig. 20. Mind map of the essential issues of the good leadership.
Fig. 21. Mind map of the connections of the essential issues in the good leadership.
With the help of the interviewees’ separate mind maps the connections of the essential issues have been formed to diversify the previous mind map (see figure 21). The connections are described using arrows between the nodes. The arrows have different colors which depict the connections as follows:

- **red**: the most essential linkages, which are determined by the leaders’ repeated speaking
- **blue**: linkages mostly include factual elements and aspects
- **green**: linkages mostly include human elements and aspects.

With the help of the arrows it looks like if the mind map comes to life. The mind map does not present the essential issues as facts only, but how the issues are connected to each other humanly according to the interviewees’ descriptions. Again the main reason is not to see the text clearly but visually express the connections between the nodes to highlight the humanity of the activities of good leadership. As seen in figure 21, the connections vary on the left and on the right side of the mind map. There are a lot more connections between the nodes and sub-nodes on the left than on the right side. Moreover, the arrows show more connections from the left to the right than from the right to the left. This can be interpreted that good leadership includes more human issues, such as communications, relationships and interactions, than factual issues, such as knowledge or technical issues of the employees’ work. Also it can be seen that several issues must be considered when examining good leadership. According to the interviewees the wholeness consists of issues manifested in the organization and at work. It also includes the aspects of the employee and leader functions as well as the mutual activities, which both of them are responsible for.

When interpreting the mind map (figure 21), it can be concluded that leadership is a highly complicated phenomenon. Besides the managerial issues the leader has an enormous task in taking care of the employees’ human, individual and professional matters. The interviewees know that to be a good leader, they must take into consideration both human and managerial aspects. When planning work issues, it is the employee and his/her activation at work that is the leader’s top priority. Also, when taking care of the employee as a whole person, knowing the employee and his/her well-being is the leader’s top priority. As an important notification, the mind map represents the essential issues of the good leadership, which can be interpreted to be the interviewees’ first priority at their leadership work. If other priorities are included in the mind map, everyone could imagine the diversity and multidimensionality of the subjects and linkages,
i.e. the activities the good leaders execute in their leadership. Therefore it is a huge challenge for IS professionals to design an activity-supporting HR information system for leadership.

As a conclusion it can be stated that even if the employee had a great deal of work to do but if s/he had not been taken good care, the results of the work would not fulfill requirements and the employee would not feel satisfaction at work. Also, even though the employee is known and paid attention to but s/he has not enough work to do, s/he will be frustrated. In this case the employee may consider changing the working place. The good leader is capable of balancing the situation to meet all needs and requirements. They also emphasize that it is their duty to find proper tasks for the employees and to listen to and discuss with them to constantly learn to know them better. Leadership is a service occupation.

5.3 Describing the phenomenon of the interviewees’ good leadership

The phenomenon of the activities of the good leaders has been studied using hermeneutic phenomenography as the research approach and the logical levels to understand the activities of the good leadership more profoundly. The descriptions of the interviewees, the conversational themes and the mind maps of the essential issues describe the phenomenon and manifest the diversity of good leadership.

A good leader executes leadership which includes the superior’s work and HRM tasks emphasizing goals and interaction as well as the role of employees. The conversational themes describe what s/he does, how s/he behaves and acts as well as his/her abilities, knowledge and skills in leadership. The essential issues provide the basis for the way the leader is executing his/her leadership successfully. The activities of the good leader create relationship with the employees to understand their actions, reactions and behavior. S/he is aware that communication consists of discussions, listening and interaction, which are important in leadership. S/he is aware of his/her values and beliefs, which ethically lead his/her actions in leadership. S/he wants to execute actions which respect the employees and show them his/her appreciation. The leader examines his/her work as well as his/her employees’ work to develop the whole leadership process. In the course of the interviews it has come obvious that the long work experience influences the leaders’ way to exercise leadership. Still, the leaders stress that they do not concretely think about their actions anymore. Their leadership is, to great extent, intuitive behavior among the people they know. The
actions are automatic and have become tacit as Polanyi (1966) has described. In addition, the interviewees emphasize the understanding of constructions and principles of an organization, i.e. how the system works and what is the responsibility of each employee to get the work done. The whole research and the description of the activities of the good leaders justify the statement made in the course of the study that leadership is not merely the actions the leader is executing but a dialogic process where the leader, the employee and the situation define the relationship of the leadership.

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**Fig. 22. Construct of the phenomenon of the interviewees’ leadership activities.**

The statement leads to describe the phenomenon of the interviewees’ leadership activities applying the construct of hermeneutic phenomenography created in subsection 3.2.3. In this construct the leader, the employee and the situation form the active triangle of the phenomenon (figure 22). The result of the interpretation, i.e. the main activity of the phenomenon, is the will of learning to know the employees. Planning, communication and management combine all the activities the leaders have discussed. They are bidirectional and describe the continuous interaction between the actors. The construct of the interviewees’ leadership with its elements can be described as follows. The leader makes plans for a situation, which can concern an employee, a team or a project group. Planning means to make official work plans and having informal meetings with the employees. The situation could also be interpreted in a diverse way. It can be an assignment giving, a development discussion, tutoring a new employee, a project meeting, a coffee break or an informal event. The situation may arise from a need to make the acquaintance of a person or some other occasion where the leader meets an employee or employees for some reason. Then the leader communicates with the employee or with the team or the project members to arrange human resources for the planned situation. It means that the leader listens to how the employees are doing, or agrees on the schedule with them, or aims to make the employees
understand the various elements of the situation. The leader taps all his/her concrete, sensible and sensitive knowledge of the employees to create a suitable atmosphere to talk, to listen, to negotiate or to make agreements with them. After the discussions the leader starts his/her managerial duties.

Management is also interpreted extensively. It can be the management of giving assignments, checking that the facilities are satisfactory, giving needed help and taking responsibility, being there for the employees or it can be anything that supports the employees so that the leader learns to know his/her employees, which is interpreted to be the ultimate result of the good leadership. Organizationally the relationship between the leader and the employee is influenced by the values, events, goals and targets of the company which are included in the situation as an environment. In addition, the situation consists of individual and communal well-being and ethics. Different firm-, employment-, organization-, and individual-wide laws have also an effect on the situation. The competencies, skills and abilities of the whole organization, leaders and employees affect the relationship and the situation as well. The conversational themes describe the relationship between the leaders and the employees as a whole.

In the study of the thesis tacit knowledge and EI are used together with leadership to characterize the abilities and behavior of the interviewees, i.e. the good leaders. In phenomenography experiences and interactions affect how the subject sees the relationship with the object. According to the study of the thesis, it can be interpreted that the experiences have formed the leaders’ tacit knowledge of the leadership, and interactions show how they use their EI in the leadership, i.e. in the relationship between them and the employees. In figure 23 the construct of the good leadership in the case organizations is described adapting the construct of the interviewees’ leadership activities and including the concepts of tacit knowledge and EI.
5.4 Conclusion of chapter 5

It can be argued that the fifth chapter is considerably long when taken into account that it presents the results of the leadership. As underlined earlier, the study of the thesis is a context- and human-oriented research which emphasizes the significant meaning of the application area in the development work of the role of HRIS in leadership activities. In other words, the focus is on the good leaders and their activities when considering developing HRIS which could support the leaders’ work, i.e. leading people successfully in an organization. It can also be argued that the fifth chapter can be characterized as captivating, when reading it. The chapter creates a picture which looks as if the thesis had been written for some other discipline than IS. If that is the conclusion the reader comes to, the purpose has been accomplished. This is stated for a reason. It means, that when the IT/IS professionals are creating or developing an information system, they should investigate the application area thoroughly. They should go inside the activities of the application area concretely. They should find out what is done, how it is done and why it is done, i.e. what is important and what works well. Otherwise, only part of the application area is supported by the information system. Therefore, when considering human-oriented applications, not only the used factual or numeric data, which can be codified and processed for an information system, are utilized in the design and development work but also all other subjects the users’ concrete activities bring into the system.

The idea of the fifth chapter has been to highlight and open the eyes to see for what kind of context HRIS should be designed. In the next chapter the interviewees’ conceptions of the role of HRIS in their leadership activities are described to give their opinions of HRIS and their development.
6 Role of human resource information systems 
in the interviewees’ leadership activities

In the previous chapter the activities of the good leaders have been studied and described based on the twelve interviews. The survey produces the application area for the development work of the role of HRIS in leadership and gives answers to the first research task. In this chapter the second research task, to understand the role of HRIS in the good leaders’ leadership activities, is accomplished. In addition, a part of the third research task, to discuss the development of the role of HRIS in the sensitive and human-oriented application area, will be commenced in the conclusion section of this chapter.

In this chapter, when creating the contents of the sections and sub-sections from the interviews, the ideas of the phenomenographic categorization are utilized. Several issues have been discussed concerning HRIS and their role are discussed and the highlighted issues are presented according to the logical levels so that they describe what kind of environment the leaders use HRIS in, what they do with HRIS, how they go about their activities with HRIS and why they execute or why they do not execute the activities with HRIS, i.e. what is important or unnecessary and what works well or not. With the help of these questions both the role of HRIS in the interviewees’ activities and their connection to a larger system are described. Using the HRIS discussions of the interviews, the interviewees’ descriptions and opinions of the usage and the role of HRIS in leadership activities are depicted as follows. Section 6.1 and its sub-sections introduce how the interviewees discussed HRIS. First, in section 6.1 the grounds for the conversational themes of the role of HRIS are clarified. Then sub-section 6.1.1 introduces how HRIS are seen in the case organizations and sub-section 6.1.2 depicts how the leaders describe the HRIS of the companies. These sub-sections present the environmental issues of HRIS and their connection to larger systems in the organizations. They also include what the leaders do with the systems and how they use them. Sub-section 6.1.3 describes the interviewees’ opinions and thoughts concerning the use of the companies’ HRIS. The interviewees’ ideas how to develop HRIS are introduced in sub-section 6.1.4. In sub-section 6.1.5 the interviewees’ conceptions of HRIS from the ICT leaders’ viewpoints are introduced. These sub-sections discuss more what the leaders do with HRIS, how they work with HRIS and why they use or why they do not use or utilize HRIS. Section 6.2 includes the description of the phenomenon of HRIS in the research context and it introduces the construct of the role of HRIS in the case
organizations. Finally, in section 6.3 the conclusion of the sixth chapter is presented.

6.1 The role of human resource information systems as conversational themes

The interviewees were asked about the information system they were using in the activities of their leadership. All of them told about the companies’ HRIS and explained how they had acted with the systems to manage the human resources. As the results of chapter 5 indicated, the interviewees’ activities in leadership focused on learning to know the employees and taking care of the employees, whereas their HR activities focused on organizing the human resources so that the work would be done. In this section conversational themes have been formed to go through the phenomenon using the interviewees’ descriptions of the role of HRIS in their leadership activities. The conversational themes indicate the subjects which had the central meaning in the leaders’ discussion of the role of HRIS: organization, the systems itself, the opinions of the role of HRIS, the development ideas, and the conceptions of HRIS as ICT leaders. As the conversational themes of the activities of the good leadership in chapter 5 overlapped each other, also the five themes of HRIS have common subjects. Still they can be introduced separately. Again, the Mind Map™-technique has been used to collect and to study the interview data from different viewpoints of the emerged essential issues. The essential issues of the themes concerning the role of HRIS in the activities of the interviewees’ leadership are written bold in the text. Next the descriptions of the role of HRIS as conversational themes and essential issues are introduced.

6.1.1 The role of human resource information systems in the case organizations

As mentioned before, each case organization is involved with a HR information system in one way or another. The systems have been designed and implemented inside the companies or provided outside. According to the interviewees, HRIS have connections to the companies’ HRM, quality systems and to the companies’ technological investments. The connections are depicted in figure 24.
The interviewees state that HRIS have been constructed to support HRM and HR activities in the organization. HRIS have an important role to systematize the employees’ data and to support the procedures in HRM. The interviewees described how HRIS are used in their organizations. The systems consist of the basic information of the employees, i.e. their names, contact information and the current position in the organization. The memos of the development discussions are also stored in the systems to be reread afterwards. Issues, which have to be taken into consideration when developing the employee’s career or work situation, can be found in the memos. Know-how matrixes are maintained to cover the experiences from previous and current working places, such as project experiences, tool experiences, trainings and various courses. Also personnel appraisals can be stored in the systems. The appraisals consist of verbal parts and scoring. The leaders can form different know-how levels and make comments. They are also able to print tables that describe the group’s know-how profile or give information if there are too many or too few of certain capabilities. The knowledge the HRIS give to the managers helps and manages the development of the employees’ know-how.

The companies’ quality systems have links to HRIS. The quality systems include process descriptions for the organizations’ different functions including HR processes. The descriptions may consist of procedures, such as recruiting, tutoring, different support issues, training materials and instructions. Human resource development (HRD) concerns employees’ competencies and equivalent compensations. The qualitative systems also include instructions on initiation procedures, which help new managers to learn the company’s ways of actions. All these features can also be stored in HRIS.

If HRIS are designed inside of the company, technologies used with the HRIS are typically the internet, intranet, office tools (word documents, excel tables et cetera), email and some databases. If the system is provided outside, it could necessitate new technological investments. In any case, technologies have an important role when HRIS are implemented in the organizations. As an example, the internet has become one of the most common media where
companies introduce their activities, publish their open work positions and advertise themselves, which can be seen as part of their recruiting process to tempt good and suitable people to apply for job. On the intranet one can find the organization’s structure, mission, visions, strategies, values and basic documents. Intranet is also the information channel for the employees to avoid unnecessary emailing. Still, email is used in situations where some actions and information need to be signed or some specific instructions to be given. In the case organizations all the above mentioned technologies are utilized when developing and using HRIS in various HR activities as well as when managing and organizing HR.

6.1.2 Interviewees’ descriptions of the companies’ human resource information systems

The interviewees did not directly use the concept of HRIS in their discussions. However, without hesitation each of them classified the company’s information system, which collects and processes the basic and professional data of their employees, as a HR information system. Figure 25 includes four parts of the descriptions of HRIS that were discussed by the interviewees: development, content, tool and ERP as an example of a HR system. Next the parts are introduced following the interviews.

Fig. 25. Description of human resource information systems in the case organizations.

Development and content

Pertti described how, in general, the design of the HR information system had developed “starting from the centralized operative payroll computation and the control over personnel data to become an information system for management and human resource planning where mobile systems have brought a support for everyday tasks in management” (Pertti 30.8.2005: 9). In his opinion it could be possible that leadership is one of the application levels of designing and developing HRIS in the future. In addition, the interviewees gave three different
options how a HR information system can be designed and developed for an organization.

1. The organization has developed its own HR information system, which
   - has the base on the organization’s own processes
   - is often constructed with office automation, such as word documents, excel tables, different slides or simple database systems
   - has links to financial and payroll administration.

2. Design of the HR information system has been based on an official process planning,
   - for example, ERP information systems.

3. Package of the HR information system, which
   - has been developed and provided on the basis of the organization’s HR needs.

Regardless of the design and implementation, the content of the HR information system in the case organizations involved the basic information on employees, such as names, addresses, phone numbers, educational data and some other information that was earlier stored in manual maps. When HRIS were used more, the need of the information increased. Today HRIS also include employees’ tasks, know-how and different trainings the employees have participated in. The employees’ tasks consist of earlier and present work titles and assignments as well as of different task engagements. Know-how is usually stored in two parts: technical and methodical skills. Technical skills include technological knowledge, which is useful in resourcing the projects, whereas methodical skills consist of different system or software design talents. Technical skills are mechanical and quantitative. For example, the employee can program with C programming language or can use office automation. Some of the interviewees described these skills as machinelike talents. To know Rose modelling method can be one of the methodical skills that is listed and followed on the employee’s know-how database. When the superior needs an expert to do a certain task, s/he can search for all available employees who have the needed talent for the job.
Tool

The HR information system is seen as a tool for HRM in the case organizations. Documentations of development discussions can be stored in a system which serves as a follow-up or as an award system in know-how development. Various reports are useful and important in different managerial and organizational meetings where overall planning or following are executed. Reports may describe situations in HR activities, training, know-how or yearly planning. In addition, systematic features are significant in HRIS. They include practices and patterns to model and perceive different working issues. According to the interviewees, the system keeps the things in order at work, i.e. it gives information on how the things are and what the situation is. This helps to carry out the matters as planned.

An example of human resource information systems

Large information systems have been implemented to support organizations’ HRM. ERP is a systematic and process-oriented method to design and construct the functions in an organization. HR process is one of them. According to Hedman & Borell (2003: 2) “ERP systems are in most cases implemented with the goal to improve some aspect of the organization, e.g. strategic, organizational, business, management, operational, or IT-infrastructure”. They have evaluated an ERP system SAP R/3 Enterprise, which consists of three general business areas: 1) accounting, dealing with information of planning, controlling and value representation of business processes, functions and business units in an enterprise, 2) logistics, including all functionality for the design of material and information and information flow from the vendors, through production, to the customer, 3) human resource management, consisting of Personal Planning and Development, Personal Administration and Payroll Accounting (Hedman & Borell 2003: 10). As a result they state that “ERP systems support effectiveness criteria, related to internal and rational goals of organizations. The evaluation also points out weaknesses in ERP systems, especially in areas related to human resource management and organizational flexibility” (Hedman & Borell 2003: 1).

Table 19 shows an example from a case organization where the purpose of ERP system is to collect and store employee data for HR activities that the managers execute. According to the interviewees this knowledge is important.
when they search for certain skills or when they need calculations or reports. Nevertheless, this is only part of reality when they lead people.

Table 19. Features and activities of an ERP system in the case organization.

<table>
<thead>
<tr>
<th>Organizational functions</th>
<th>Information system features and activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel administration</td>
<td>Essential HR process description</td>
</tr>
<tr>
<td></td>
<td>Employee search on the grounds of know-how</td>
</tr>
<tr>
<td>Project control</td>
<td>To follow progress of product development projects</td>
</tr>
<tr>
<td></td>
<td>To follow invested expenses</td>
</tr>
<tr>
<td></td>
<td>To follow cost account</td>
</tr>
<tr>
<td>Financial administration</td>
<td>Functionality is important</td>
</tr>
<tr>
<td></td>
<td>To maintain transparency for all functions in the company</td>
</tr>
<tr>
<td></td>
<td>Meaning of numbers</td>
</tr>
<tr>
<td></td>
<td>Accounting systems</td>
</tr>
<tr>
<td></td>
<td>- number facts, abbreviations, do not support leadership</td>
</tr>
<tr>
<td>Logistics</td>
<td>Buying goods</td>
</tr>
<tr>
<td></td>
<td>Billing in real time</td>
</tr>
<tr>
<td></td>
<td>Delivery of goods</td>
</tr>
<tr>
<td></td>
<td>Transfer to cost accountings and bookkeeping</td>
</tr>
<tr>
<td></td>
<td>Follow-up of selling</td>
</tr>
<tr>
<td>Report tool</td>
<td>Budgets</td>
</tr>
<tr>
<td></td>
<td>Employees’ work time</td>
</tr>
<tr>
<td></td>
<td>- vacations, overtime work</td>
</tr>
<tr>
<td></td>
<td>o system informs when working hours are more than 40</td>
</tr>
<tr>
<td></td>
<td>o then action taking</td>
</tr>
</tbody>
</table>

Sub-sections 6.1.1 and 6.1.2 give general information and knowledge of the HRIS in the case organizations. Next the interviewees’ descriptions of their opinions of HRIS and its use in the activities of leadership are presented.

6.1.3 Interviewees’ opinions of human resource information systems and their use in the activities of their leadership

When asking the interviewees what their stand was on HRIS in the activities of leadership, all of them doubted, in one way or another, the possibilities of HRIS to support leadership activities or even to be part of leadership activities. They argued that leadership and its activities are an entirely different playground compared to the other organizational activities where knowledge can be described as processes and stored as data in databases. They emphasized that leadership has
various characteristics and it can be exercised in many different ways. In addition, the ways to inform of activities are highly complicated and difficult to describe in leadership. Therefore, in the interviewees’ opinion, an information system cannot be designed for leadership perfectly, because it cannot be created in a way where interdependence or different discussions, which the leaders highly appreciate, are taken into account. However, some interviewees stated that it would not be an impossible idea that, one way or another, an information system could benefit and support the activities of leadership.

In Finland the Act on the Protection of Privacy in Working Life and the Person Register Law define what kind of personal information can be stored in an information system and in what form. All interviewees pondered what kind of employee data could be stored in databases. They agreed that substance know-how and competencies can be stored but employees cannot be classified by types. The leaders also argued that information emerged in sensitive discussions cannot be written in the system. Besides the data, also the system should be secured, in other words, the usernames should be defined according to the user. For example, an employee can operate his/her own data but not other employees’ data, or a team manager can operate all his/her employees’ data but not other managers’ data. Furthermore the leaders discussed validity and reliability of written appraisals and descriptions of the employees. They argued that data is not the whole truth but only the superior’s opinion through his/her experiences and conceptions.

It was surprising to notice that the leaders’ opinions of technical solutions of HRIS varied. Some of them were still for a manual system and others for an electronic system. Those who supported the manual solution underlined that everything is written on the papers, such as memos of development discussions. They said that all employee knowledge comes from one’s own planning. They also claimed that there is hardly a need for restudying the papers because the employees are familiar, i.e. the leader knows what the employees want to do or how they want to develop themselves. In consequence of several long discussions, the leader learns to know the employees and their personalities. There is no need for a system to maintain that knowledge. Those who supported the electronic solution talked about the use of data in team meetings, where all team members could study together tables, figures and charts either printed or on screen. They could see what and when some work should be done, or they could see their own as well as the group’s situations or results. Here the bad side is that the situations and results could be seen only as financial issues, i.e. money.
ERP information systems (ERPIs), which are already discussed in subsection 6.1.2, divided opinions. The leaders who were for ERPIs argued that the system is the backbone of HRM and it controls that everyone is acting in an agreed way. Everything has an effect on everyone. The organization cannot manage without the system. The leaders who were against ERPIs, claimed that the system was a curse word in the organization and it was an expensive misinvestment. It took hours and nerves to work with the system, which was quite frustrating. They did not favor the system any longer. In addition, they argued that it had planning parts which promised everything but did not support their actions properly.

The interviewees claimed that the companies’ HRIS had been implemented for managerial activities. The existing HRIS were seen as car parks for the employees’ data where the work and career issues could be checked or some routines made. Yet, they argued that no one could manage or have discussions with employees based on that knowledge only. Some leaders actually said that basic data stored in the HR information system is completely useless and insignificant, because the system lacks important data which they valued. For instance, they needed calendar information on development discussions or on personnel appraisals, i.e. when they had been held or would be held. Another example: the company’s HR information system has templates for work planning when a right person is searched for a right position. However, the technical characteristics do not tell the person’s abilities to do the work. Qualitative descriptions are totally left away. For instance, the goal is to get a C programmer for a project. The HR information system gives information of two similar experts but does not tell who is more suitable for the job. Also, if a person with Rose skills is needed, the system does not tell how the employee can do Rose designing. Still, some interviewees claimed that the way to write data in the system would give solutions to this kind of problems. The qualitative information, such as appraisals or characterizations, can be stored in free form fields. Yet they wondered if the appraisal grounds are commensurable when superiors make verbal or numeric appraisals based on their own frameworks.

The list of the employees’ qualitative and soft values preferred by the interviewees to be found in HRIS is as follows:

- employee’s capabilities to become a superior
- required levels of tasks an employee is suited for
- employee’s intellectual capacity
– how an employee acts
– how an employee thinks
– employee’s character
– employee’s ability to adopt knowledge and skills
  – how an employee learns design methods
  – if an employee has internalized design methods
– employees’ potentiality
– employees’ skills to compromise
– to map employees’ psychological profiles.

In the interviewees’ opinion, when the HR information system is regarded as a tool for work processes, it is important that the stored data is correct and fast available in the right time. Data operations should be made with minor efforts so that time is spared for data analyzing. When the HR information system works well, it makes correct calculations and gives data which can be trusted. It supports various important phases in management as well as the effective use of time. If the HR information system does not exist, it will require administrative work more as well as personnel to deal with manual data. Still, some leaders feel frustrated when using the HR information system. As an example, if they have many development discussions, all forms have to be checked every time. Development discussions are essential for the interviewees when executing leadership. Therefore, the leaders do not want to waste time with unnecessary and time-consuming activities. In their opinion, HRIS together with development discussions form technical and informational basis on knowing employees but still the most important issues are communication and various conversations with employees.

6.1.4 Interviewees’ development ideas concerning human resource information systems

Although the HRIS supported the HRM activities relatively well according to the interviewees, their attitudes towards the HRIS of the organizations were more or less negative. In spite of the criticism the interviewees presented, they were able to ideate features and functions which could improve HRIS to serve and support the activities of their leadership better. At first, for some of the interviewees the question what the information system should be like to help and support their leadership was difficult. However, after thinking for a while, they described how
the system could give boost, encouragement, tools and even pats when needed as Rami described a twinkle in his eyes.

"Because the system does not get tired it could give various pats. When I or an employee have done something right, for example a good code, a little Nelson would jump from behind the computer and say ‘Great!’ Or on the contrary, ‘Now you made a mistake. Shame on you!’ If we had a system like that, wouldn’t it be something.” (Rami 7.6.2005: 10).

All the presented development ideas are drawn from the interviews. Figure 26 introduces the main conversational themes of the development ideas the leaders proposed.

![Fig. 26. Development ideas of human resource information systems.](image)

**Features and content**

An important **feature** of HRIS should be to give a transparent image of HR in an organization. People must know what each of them has to do and where the company is heading to. The system should give a vision of the wholeness, i.e. what deeds are reasonable and what is best for personnel so that working proceeds fast and efficiently with as small amount of energy as possible. The employees should be able to write in the system about their own project and work experiences, how they have succeeded and what they would like to do next, in real time and truthfully. This kind of information would be good for planning and for discussions. However, the leaders wonder if the employees write honestly and how the data can be used.

The leaders also ideate targets for development of the **content** of HRIS. Some of the development ideas the leaders presented already exist in HRIS and others can be considered interesting. Partly the ideas were quite strong but not surprising when taking into account the descriptions of their activities in leadership. Here is the list that includes what the leaders suggest the HRIS should give answers to and show:
which of the employees are active performers
- to whom it is easy to give assignments
  - work will get started
- reliability
  - trustworthy employees
- how an employee is able to do different things
  - interaction skills
- risk of conflicts
- ability to be responsible for work
  - affects work schedules
  - affects rapidity or slowness of working
- stress tolerance
- skill to be stretchy
  - emergency tasks
  - longer working days
- number one player
- employee’s potential
  - what s/he is capable of
- employee’s values
- how the employee works
- employee’s personality
- skill to take responsibility
- what direction an employee wants to develop to
- employee’s working styles
- employee’s work history
- employee’s know-how
- employee’s line managers
  - knowledge helps when a change of a task is under discussion
- in which project an employee is working
  - for how long s/he is occupied
  - what is the employee’s share of the project.

The listed characteristics could be used in resource planning and making timetables for various stages. They could also be useful for a new leader when s/he learns to know his/her employees.

In addition, the interviewees considered the meaning of storing the memos of the development discussions in HRIS. They wondered how the memos could be
analyzed and if they would serve the current social situation. The leaders argued that it would be enough to write the essential issues of a development discussion in the system, in other words what the leader and the employee had talked about and what they had agreed on. Also an employee’s own development could be described, i.e. his/her starting situation, for what kind of tasks s/he is suitable and how s/he has developed and s/he wants to develop.

**Functions**

Compilations of statistics are important **functions** for management because the top managers do not know the employees well. Working styles, for their part, could give knowledge for company’s know-how profile. For example, if the HR information system includes data of the employees’ development or if a need to get such information arises, statistics could bring out this information. Statistics could also tell if the company has, for example, enough programmers or personnel for marketing. In addition, statistics could give information about the direction the employees want to develop to and if some progress has occurred.

Different questionnaires and weekly questions for the employees and the leaders were functions some of the leaders wanted to develop. They argued that there was a need for anonymous questionnaires similar to the ones they had established for clients to use. Graphs, tables and other statistical information of the questionnaires could be useful for them. If a weekly question exists, it should be short and be answered by yes or no. For example, one question for the employees could be: ‘Have your superior listened to you this week?’ This kind of data could be important knowledge for the leaders and they could react to a sign of growing disinterest. The system could also include different checklists to brush up the leaders’ memory. For example, every Friday at noon the system sends ten questions and the leaders have to give yes or no -answers to as many questions as possible. One question could be: ‘Have I dealt with all the needed information?’.

However, in a hurry this kind of system may also be annoying.

The case organizations have developed their own systems to manage some permanent activities and legal issues, such as well-being, which is taken care of with a yearly atmosphere questionnaire. Some of the interviewees would like to develop them further because one year is a long time between two questionnaires. Executed changes may shrink away up to nothing or be forgotten so that people rather continue with their customary habits (compare to the transgression). The leaders also wonder if top management reads the employees’ anonymous
propositions. The employees, for their part, are afraid to be revealed in small organizations, where people know each other well. The leaders believed that, in some cases, an outside actor should make and analyze the questionnaires to produce objective results. Still, the employees’ well-being is an important issue for the interviewees. Here Ismo describes an idea of an application for HRIS.

“The information system may include mathematical quantities or probably some simple phrases but it could also include such a variable which could help or support drawing a curve of vexation to indicate the tinderbox.” (Ismo 1.6.2005: 8).

In the interviewees’ opinion, HRIS could help the leaders with project planning. For example, the leader could store the overall work load and the needed tasks on a sheet of the system. S/he could also store work periods and make preliminary dividing of tasks. The system should make the calculation and enable changes. The employee data could be stored on another sheet, where they would be placed according to the tasks. The system should suggest changes concerning the stored periods and the leader would create the balance making the needed moves. Overall, HRIS could enable the leader to tell him/her the way to plan assignments and resources.

**Guidelines and information**

HRIS could include guidelines and information for leaders about the activities of leadership. For example, an instruction manual or regulations about what is or what is not good in leadership. A new superior could familiarize him/herself with them. Also, instead of filling in forms, a new superior needs to be trained and to learn the organization’s ways of actions, for instance how to share knowledge. HRIS could also offer more extensive information about the activities of leadership for those who need it. In general, the leaders think that reading books or other material would not support or develop leadership but some web-links with short texts, hints or notes might be helpful in difficult and vague situations. Still, some of the interviewees believe that some issues of leadership can be learned by literature or internet links which discuss leadership and psychology. At least the leaders could get better preparedness for their job with the help of the literature and the links. In addition, the system could collect leader’s experiences, i.e. how they have executed their duties, what cases they have succeeded in and which their strengths are. The ability classifications and statistics could be made
out of the data, i.e. what the average processes are and what a leader’s own prowess is, for example, in delegating and in decision-making. The system could also include the aim profile of the company’s leadership – a vision of leadership skills. The leaders’ skills would be measured situation-specifically and the system would inform where the biggest deviations are. Thus, the company would get information about the skills to be developed. Here the challenge is produced by the measurement. Altogether, it should be studied what these kinds of activities require of a HR information system.

The activities of the HR information system could also support the leaders’ need of access to the source of information and help them to process the activities of leadership in their own mind, for instance, in which the disastrous failings or the greatest strengths are. If failings cause problems in practice, an effective allocation will be focused on that area. When the strengths are in question, the leader can consider how they could be improved to get more benefit. The system could give hints and advice how to execute an activity, for example delegation, or how to act in a certain situation. Overall, the interviewees claimed that there is a need for an information system that supports and helps them in their leadership activities. Herein, it should not be forgotten that legislation and its implementation provide a great challenge for a system.

6.1.5 Interviewees’ conceptions of human resource information systems as ICT leaders

It was surprising to notice how strong opinions some interviewees had for or against the HRIS. Those who were against, argued that the HR information system was mechanical and formal. It restricted and even hindered their execution of leadership. It did not include useful information. On the contrary, the important information they appreciated in their leadership, could not be stored. Some of the interviewees also claimed that an information system, for such a human and sensitive action as leadership was, could never be implemented. Those leaders who were for the HR information system, argued that it provided a systematic way to execute leadership. It controlled and standardized activities and made them easier to implement with an information system. When discussing HRIS, the leaders were more focused on HRM or on management, in general, in leadership. Still, there were a group of leaders who had a neutral attitude towards HRIS. They stated that some issues could already be operated with the system even though the system needed improvements. They stated that without the HR information
system some activities would require more time and personnel to execute. However, they claimed that some leadership actions could never be automated or should not be automated.

Another interesting observation was that when starting to ask and talk about HRIS issues in the course of the interviews, the leaders’ approach to the interview subject changed. Even their outward appearance changed. They became IS professionals and it seemed that they began to formulate the system with codes, databases and techniques in their minds. When they discussed the activities of leadership, they were relaxed and comfortable with the situation but when they talked about HRIS, it was as if all enthusiasm, humanity and natural creativity had gone. For example, they did not want an information system to support their leadership activities or they stated that it was difficult to design an information system to support their leadership activities or they said that none of the issues of their leadership activities could be written anywhere. They impugned and even rejected the possibilities of HRIS to support their leadership activities. They saw a HR information system as a technical system of control and follow-up. The leaders’ thinking commenced from the system itself not from their leadership activities. They stated that the system consisted of the employees’ technical and mechanical knowledge. They also listed the activities which the companies’ HRIS included. The leaders stressed that as a system the HR information system worked but it did not support their leadership activities.

When the interviewees were asked to imagine a system that would help and support their activities in leadership, as IS professionals they interpreted everything technically and in a system-oriented way. When asking them to imagine a fairy that fulfills all the wishes regardless of the method of implementation, they were able to describe and create other options for a HR information system that had a meaningful role in their activities in leadership. When they freed their thoughts with the fairy question, their approaches changed back and also their thinking changed. They were able to imagine what kind of HRIS could be created when thinking in an alternative way. In addition, it was interesting that despite there IS/IT professionalism, competences and experiences, they evaluated the usage and the usability of HRIS as an ordinary end-user which was useful for the research. Yet, it could also be interpreted that because of there IS/IT skills and knowledge, they were more critical than an average user.

When the interviewees were asked to think about leadership actions they had discussed and what the role of a HR information system would be with those actions, Rami gave a descriptive answer:
“I see a HR information system easily as a scheme that cannot bend to all those complicated antics which will be needed in certain situations. If the system is flexible and bends with all the frills, it will be like that. However, I do not know if that kind of system exists if we think about it on this (leadership) ground. The HR information system is okay in the form that we have. It is one of the tools. It is like a shovel to dig the ditches with.” (Rami 7.6.2005: 10).

6.2 Describing the phenomenon of the role of human resource information systems in the case organizations

The construct of the role of HRIS is also made on the basis of the outcome of the thesis (see figure 27). The construct of hermeneutic phenomenography is applied again. The main actors are the leader, employee and HRIS. Reports, tables and memos for HRM can be interpreted to be the adequate outcome of HRIS. The activities – usage, communication and data storage – consist of the activities the leaders have discussed. The activities are bidirectional and they are depicted not only between the actors but also as a flow of information and data.

![Fig. 27. The construct of the role of human resource information systems in the case organizations.](image)

The construct of the role of HRIS with its elements can be described as follows. The leader uses the technology and the system. The system can be a word document, a table or an information system especially designed for HRM. The system has been implemented in different methodical and technological ways and various data of employees have been stored. The contents of the employees’ data vary depending on the company’s size and on the meaning and the diversity of the system. Both the leader and the employee use the system but here the leader’s usage means utilization of technology and data of HRIS, and the employee’s
usage is seen more as data maintenance. It includes updating one’s own data as well as storing new information, for example, a document of a development discussion. Data are used in different situations between the leader and the employee, such as in work planning or giving assignments. A variety of reports, tables and memos, i.e. documentation for HRM, are interpreted to be the results of the role of HRIS. Here the relationship between the leader and the employee is more managerial-oriented than concerning the leadership as a whole. As environmental issues, organizations may have some rules of their own but mainly official laws and even moral laws define data content. Data security is a significant issue, which has usually been taken care of with different limitations and rights of the users. The organization as well as the leader and the employee have their own responsibilities for maintaining the stored data.

6.3 Conclusion of chapter 6

As the conclusion for the sixth chapter, sub-sections 6.1.1, 6.1.2 and 6.1.4 describe HRIS as discussed by the interviewees, the issues connected to HRIS in the case organizations and the leaders’ development ideas for HRIS. The interviewees have extensively depicted the types and properties of the HRIS that are in use in the organizations, and their connections with the other systems of the organizations. They have also developed interesting ideas to improve the companies’ HRIS. Sub-sections 6.1.3 and 6.1.5 depict the leaders’ opinions of HRIS and their use in the activities of leadership as well as the leaders’ conceptions of HRIS as ICT leaders. The interviewees have given honest and frank opinions of the usability and usefulness of HRIS. In addition, they have also described the benefits of HRIS quite objectively. As a whole, the chapter gives practical descriptions and everyday examples of the role of HRIS in the case organizations as well as significant feedback of the use of HRIS and interesting development ideas.

It has been stated that, according to the interviewees, HRM and its activities are part of the leadership activities which the leaders execute. The work node indicates that part. The statement is confirmed by the conversational subjects which the chapter has highlighted and discussed. From the managerial point of view the existing HRIS in the case organizations have such data of the employees which can be processed, analyzed and collected as prints and statistics. For some of the interviewees it is adequate to their managerial activities but for others the data has no meaning at all because they know their employees’ history and work
background well. Furthermore, some of the leaders utilize HRIS but for some leaders the use of HRIS is a burden and even a curse word. All the leaders assess that for the work of top management the HR information system gives suitable compiled data but they state that the information is not adequate to the leaders’ daily work. Most of the interviewees’ criticism has been focused on the data of the system which they already know. They are more interested in having system features which support their leadership work and activities than in processing well-known data. In this respect the interviewees have described what qualitative and soft values of employees they prefer to find in HRIS. They have also given ideas for the development work of HRIS to improve the system which could serve their leadership work better than the current one. Although the leaders have pondered if a HR information system can be developed for the leadership activities or even if it is necessary to develop such a system at all, they have also agreed that in one way or another a HR information system should be developed to support the leadership activities to make them visible. The information the HR information system could offer to the new leaders or for the future, in general, could help the organization to succeed well.

As a key issue for the development work of HRIS, when it is about to be designed and implemented in an organization, it would be useful to discuss what the system is designed for and what activities the system is supposed to support. Also the benefits of the system for leaders, employees and for the organization should be taken into account. IS professionals should perceive the meaning of HRIS in an organization more extensively than purely serving the actions of HRM, because all the knowledge of the systems derives from the activities of the leaders. It could be data which can be coded but it also concerns individual and human knowledge, experiences, talents and skills. The conversational themes and the essential issues of the activities of good leadership as well as the summaries of the leaders’ opinions, conceptions and development ideas concerning the role of HRIS offer grounds for development work of HRIS design.

In chapters 5 and 6 the diverse and multidimensional descriptions of the activities of good leadership as well as the role of HRIS in those activities are formulated as conversational themes and essential issues. Also, the descriptions are formed as separate constructs to clarify the activities of good leadership and the role of HRIS in the case organizations. In chapters 7 and 8 the research results are introduced and concluded utilizing the results of the empirical material and the theoretical framework.
7 Leadership activities and human resource information systems

In chapter 5 the first research task has been accomplished and in chapter 6 the second. In addition, in chapter 6 the research task three has been studied partly when the interviewees’ development ideas have been discussed. The purpose of this chapter is to perform and accomplish the research task three, i.e. to discuss the role and the development of HRIS in sensitive and human-oriented application area, and commences to accomplish the research task four, to connect the research results and the research concepts to contribute to the development of the role of HRIS for the activities of good leadership. First, a summary of the research process is presented. Secondly, the theoretical inspection of the results of the activities of good leadership and the theoretical inspection of the role of HRIS are introduced. Thirdly, the empirical inspection of the results of the activities of good leadership and the role of HRIS is discussed. Here the conversational themes and the essential issues of the activities of good leadership are connected with the construct of HRIS as well as with the conversational themes and the essential issues of HRIS. After that, the seventh chapter is concluded.

7.1 Research summary

Because of the context-oriented approach of the thesis, the application area of the empirical study (the activities of the good leaders) was introduced and described first. From the contextual viewpoint the main interest of the study was to find out what the good leaders did when they executed their leadership. In other words, how they did the things they said they did, how they did the activities they said they did and why they did the things and behaved the way they said they did, i.e. what was important and what worked well in their activities of leadership. The structure of the interview came from Dilts’ (1990) logical levels where ‘what’ stood for behavior, i.e. what people concretely did; ‘how’ implicated capabilities and skills, i.e. the way people did things and used their skills; and ‘why’ or ‘what is important’ or ‘what works well’ were for beliefs and values, i.e. what were important issues in the activities of successful leadership and what were the leaders’ conceptions, values and meanings of the activities of leadership. In hermeneutics, especially with hermeneutic circle the questions ‘how’ and ‘why’ were used to construct knowledge and understanding between parts and wholeness and to see the incompleteness in interpretation and defining
conceptions (Siljander 1988). Also in phenomenographic research the same questions emerged when phenomena were described, as Bowden’s (2000) model of Phenomenographic Research Process showed. In general, the questions ‘what’, ‘how’ and ‘why’ are typical when doing scientific work but in this study the deep meanings of the answers for the questions ‘what is important’ and ‘what works well’, which indicate beliefs, values and important issues, have been underlined and highlighted. Thoughts and conceptions behind the answers have not been covered merely by the words the interviewees said, but also interpreting and understanding tacit signals and emotional messages of the interviewees have been highly important. The idea behind studying the activities of good leadership utilizing the logical levels has been to awaken the leaders’ tacit knowledge of their leadership actions and to bring out the importance of emotional intelligence of the actions.

When studying the interview data, it was categorized into two parts:

- leadership: behavior, actions, reactions, abilities, knowledge and skills
  - representing the questions ‘what’ and ‘how’
- leadership: important issues, beliefs and values
  - representing the question ‘why’ together with the questions ‘what is important’ and ‘what works well’.

When summarizing the results, first the interviewees and their reflections and self-evaluation as well as their beliefs and values as leaders were discussed. Then the conversational themes and the essential issues of the leaders’ activities were described. Although the interviewees’ introductions as well as the themes and essential issues were described separately, they also overlapped, which indicated that not only actions and knowledge but also thoughts, emotions, behaviors and skills are connected to the activities of leadership. Therefore, an important implication of the research is that actions, knowledge, thoughts, emotions, behaviors and skills are not separable although the organizational activities are often depicted as process charts which indicate formulaic performance and schematic accomplishments only.

In the thesis the managerial activities of leadership have been described from the HRM point of view and the human activities of leadership have been characterized by tacit knowledge and EI. Still, the emphasis of the study is not on categorizing leadership but on describing leadership as a diverse application area for the development work of HRIS. Therefore, it can be stated that it will be quite
a challenge for IS professionals to design a workable system for the activities of leadership. The words by Gregor & Jones (2007: 331), however, are encouraging:

“Design activities include elements of creativity and imagination. Given many components for a system, all of which could be combined in myriad ways, all theoretically sound, an experienced designer will likely employ some ”art” in transforming the components into a novel and workable system.”

Thus, from the IS research point of view the purpose of the study has been to understand and develop the role of HRIS for the activities of good leadership. HRIS have been a novel research area in the IS field and their theoretical investigations have not accelerated until in the new millennium. Also in practice, the utilization of HRIS is still under development and HRIS are searching for their place among other organizational information systems, as the results of the interviews confirm.

When studying the empirical material of HRIS, the mind maps were used to collect the interviewees’ experiences, thoughts and opinions of the organizations’ HRIS and of the use of the systems, such as the different meanings of HRIS in the case organizations, the leaders’ descriptions of HRIS in their leadership and the interviewees’ development ideas concerning HRIS. In addition, the leaders’ opinions of HRIS and their use in leadership as well as their conceptions of HRIS were depicted. Finally, the conversational themes and the multidimensional mind map descriptions of the activities of the good leadership as well as the role of HRIS in the leaders’ activities were simplified using a construct of hermeneutic phenomenography to understand the phenomenon as parts and as a whole.

**Implications for leadership**

In the course of the study some implications for leadership have been provided. In the thesis the qualifier ‘good’ has not been defined using the leadership literature but the employees’ appraisals of their leaders, i.e. the interviewees. According to the study, the empirical data and the results indicate that good leadership is a relationship between a leader and an employee as well as activities which occur when the relationship is maintained. The stored employees’ data as such played a minor role in this context but human activities were emphasized when the interviewees depicted their leadership activities. Some leaders described
themselves as servants who created the best possible working environment for their employees, and others stressed that taking care of the employees’ emotional and psychological well-being was their main responsibility. An interesting finding was that the leaders had similar opinions and conceptions on leadership activities and, at the same time, each of them had their own ways to confront and execute leadership work. Here the significant point was that regardless of the interviewees’ different leadership behaviors, they evoked good appraisal results by the employees. In addition, there were both men and women among the interviewees. Still, the gender did not seem to affect the way the leaders executed their leadership. For example, caring is considered to be a feminine feature but it was found in every leader’s course of actions regardless of the gender, whereas managing has a masculine image but every leader talked about managerial issues. There were also both extrovert and introvert personalities as well as talkative and reserved leaders. Still, they all were regarded as good when leading people.

The interviewees emphasized three highly important issues in their leadership:

1. the whole organizational system, how it works and how all people are working together
2. learning to know the employees to help to collaborate with them
3. the employees have to understand how the organizational system works.

The issues can be seen as a circle where the good leading activities produce successful results for both the leaders and the employees. Two common features of the good leaders strengthen the positive continuity of the circle: 1) enthusiasm to work together with people and 2) emotionally and physically taking care of people in the organization. The features represent the importance of the leaders’ tacit knowing and EI when communicating with the employees. In addition, according to the interviewees to be a leader is not a native talent although some leaders may behave and act like born to be a ‘natural leader’ and others do not. Good leadership activities can be taught and learned if the environment allows it. Still, to give a precise definition of a good leader or leadership is difficult, maybe even impossible. According to the study of the thesis, to be and to become a good leader needs the will to learn to know employees, to work with and to take care of them. Here, the experiences, tacit knowledge and EI play a central role. De Pree (1990: 128) writes about leadership in the postscript of his book aptly:
“Leadership is more a skill, a belief, a conviction of heart than a group of certain matters which have to be done. In the end, the visible signs of skilful leadership are manifested how it is practiced.”

7.2 Theoretical results of the activities of good leadership and of the role of human resource information systems

The research of the thesis has two key-concepts, HRIS and leadership, and three supporting concepts, HRM, tacit knowledge and EI. HRIS are the key-concept from the viewpoint of IS research. Although some literature is available from the 1980s, HRIS can be regarded as a novel research area because most of the active research has been done at the end of the 1990s and in the new millennium. As such HRIS offer an interesting research area in the IS field. HRIS are defined highly operationally and it is emphasized that HRIS are designed for the activities of HRM mostly. The definitions describe that HRIS collect and store data of employees in databases, and they manipulate, analyze, validate and distribute information of HR and its activities for organizational use (Walker 1982, Kavanagh et al. 1990, Broderick & Boudreau 1992, Kossek et al. 1994, Kovach & Cathcart Jr. 1999, Haines & Petit 1997, Ball 2001). However, in practice it is expected that HRIS are used by the whole organization and they benefit the whole organization.

In this thesis HRM is used to clarify the role of HRIS in organizations. It is also utilized when the descriptions of HRM are used to determine the activities of good leadership which appear to be managerial in the leaders’ work. HRM is defined, for example, by its job description (Targowski & Deshpande 2001, Ball 2001) or by its processes (Townley 1994) or by its strategic approach (Fombrun et al. 1984, Bratton & Gold 2003). The leaders’ work activities and the work node introduce subjects which can be included in the leaders’ managerial work. Still, their main target, to learn to know the employees, helps them to accomplish the managerial tasks and to work sensitively and humanly in managerial activities.

The purpose of the study has been to find out the role of HRIS in leaders’ work, i.e. if leaders use HRIS in their leadership activities, and if they do, how they use them in their work with employees. The research results have indicated that the usage of HRIS is exiguous. It does not serve or support the work of the leaders properly. The study of the thesis has not been focused on examining the reasons for the lack of the use directly nor do the results give straight design ideas for HRIS, but it gives an alternative viewpoint to develop HRIS in organizations.
This means that despite the common conception that HRIS are designed for managerial HR activities, in the study of the thesis the role of HRIS is examined in the context of good leadership. It offers an empirical example to examine the role and the design of HRIS in the organization and, in general, to ponder the design of IS in the human-oriented context.

From the contextual viewpoint leadership is the key-concept in this study. Northouse (2004: 3) has defined the leadership to be “a process whereby an individual influences a group of individuals to achieve a common goal”. According to the study of the thesis, it can be interpreted that the good leaders use their abilities and skills of learning to know their employees as well as their knowledge of organizational goals to influence their employees to achieve their common goals. Still their actions and activities with the employees are neither calculating nor manipulative but sensitive and human focusing on the employees’ well-being and appreciation. Rost (1991: 102) has outlined the definition of leadership to be “an influence relationship among leaders and followers who intend real changes that reflect their mutual purposes”. The definition allows a viewpoint to see the work of leadership alternatively, i.e. sensitively and humanly. In the 2000s the studies of leadership have emphasized managerial and business issues. Still, Yukl (2006) underlined the importance of the empirical studies of rational and emotional processes in leadership. According to the study of the thesis, it can be interpreted that the conversational themes and the essential issues of good leadership discuss the leaders’ rational activities but, at the same time, they underline the importance and utility of emotions and intuition. Therefore, both the conversational themes and the mind maps are essential in this study because they strengthen the meaning and the role of tacit knowledge and EI in the interviewees’ leadership activities. Contextually they are regarded as key-results in this study.

The ‘what’- and ‘how’-questions have led the interviewees to describe their behavior, actions, reactions, abilities, knowledge and skills of their leadership activities. The descriptions are significant from the research point of view because they highlight the leaders’ diverse work. Still, the answers to the questions ‘why’, ‘what is important’ and ‘what works well’ are more significant because the answers describe the leaders’ important and essential issues as well as their beliefs and values behind their leadership activities. In other words, why they do the deeds they say they do, what deeds are important and work well at work. The answers are interpreted to be the basic issues which make the interviewees’ activities in leadership good.
In the study of the thesis the concepts of tacit knowledge and EI are used to understand the meaning of the important issues, beliefs and values of the good leadership, i.e. the sensitive and human activities of the good leaders. Tacit knowledge has been defined as knowledge which is personal and context-specific and which people carry in their mind (Nonaka & Takeuchi 1995). In this thesis tacit knowledge underlines the meaning of experiences. The conversational themes and the mind maps of the essential issues collect and visualize the leaders’ experiences. Mayer et al. (2008: 511) define EI to be an ability “to carry out accurate reasoning about emotions and the ability to use emotions and emotional knowledge to enhance thought”. The leaders emphasize the importance to perceive and to follow the employees’ moods and emotions and to react to them situationally. It is important for the leaders to balance the work and the tasks with the emotions to keep the employees satisfied and healthy and to get the work done. In this study EI highlights the importance to sense one’s own and others’ emotions in different leading situations.

When reflecting the concepts of tacit knowledge and EI with the main nodes of the mind map (figure 20), the following implications can be made. As the results of the thesis indicate, issues which can be linked to the ideas of tacit knowledge and EI are highlighted by the conversational themes concerning the leaders’ activities, the leaders’ communicational activities with employees as well as by the subjects in the leader and employee node and in the node of mutual activities. Nonaka & Takeuchi (1995) define tacit knowledge to be difficult to access, formalize and to communicate. Still, the descriptions of the activities of good leadership give material to the empirical depictions and discussions. The four aspects of tacit knowing (functional structure, phenomenal aspect, semantic aspect and ontological aspect) introduced by Polanyi (1966) are on view in the research summaries as well. The functional structure emphasizes the inability to specify acts. The interviewees repeated several times how they could not describe why they did the things in a way they did. Phenomenal aspect “We may say, in general, that we are aware of the proximal term of an act of tacit knowing in the appearance of its distal term; we are aware of that from which we are attending to another thing, in the appearance of that thing.” (Polanyi 1966: 11). Semantic aspect “We are attending to the meaning of its (tool) impact on our hands in terms of its effect on the things to which we are applying it.” (Polanyi 1966: 13). Ontological aspect “Since tacit knowing establishes a meaningful relation between two terms, we may identify it with the understanding of the comprehensive entity which these two terms jointly constitute. Thus the proximal
term represents the particulars of this entity, and we can say, accordingly, that we comprehend the entity by relying on our awareness of its particulars for attending to their joint meaning.” (Polanyi 1966: 13).

Emotions are involved both in tacit knowledge and especially in self-awareness in EI. When a person is applying EI, s/he is aware of his/her emotions and how to use them. S/he also knows that emotional knowledge enhances his/her thinking. (Goleman 2000, Goleman et al. 2002.) As described in the conversational themes, the interviewees illustrated their emotions and the importance of being empathic. In addition, the results of the thesis evidence that to learn to know an employee does not concern only the written facts but first of all the employee’s mental and psychological sides as well as well-being. Thus, using the research results, in a situation where tacit knowledge and EI emerge and several actions of good leadership are executed simultaneously, it is difficult to imagine the existence of a HR information system, or an information system in general which deals with all that knowledge. It provides IS design with a challenge but it is, however, worth developing and designing in a sense of supporting the work of leaders.

Phenomenographic research emphasizes conceptions through which the world becomes evident for a person (Marton 1981, 1986, Svensson 1997). The conversational themes and the mind map of all essential issues describe the leaders’ activities from the viewpoint of the research context, i.e. their combined conceptions of being a good leader. Consequently, an interesting observation was made in the course of the study: When the themes and the connections between the nodes are illustrated together, one can easily realize how complicated the phenomenon of good leadership is even at its simplest. Thus, one can imagine how including more subjects and connections will make the phenomenon of good leadership much more complicated and stratified. How could an information system rise to the challenge?

7.3 Empirical results of the activities of good leadership and the role of human resource information systems

In the previous sections the activities of good leadership and the role of HRIS were examined by categorizing the emerged subject into the conversational themes and describing the essential issues with the mind maps. The conversational themes of the activities of good leadership described how the interviewees acted as leaders, with employees, at work and in
teams/groups/projects, what they thought about communication and what other areas had to be taken into account when leading people. The essential issues consisted of issues concerning the organization, work, employee, leader and the mutual activities of them both. The themes and subjects highlighted a highly human nature of the activities of leadership. The interviewees did not make a fuss about their work as leaders but still they were confident of their actions. In addition, even though they underlined the importance of the knowledge of the managerial activities, the most important activity in their leadership was to learn to know the employees. The idea behind the activity was the conception of the wholeness of the organization where everyone knew how the system worked and everyone worked together. Therefore, they spent a lot of time by learning to know and taking care of the employees. Here, the skill to vary the ways of communication with the employees had an essential role.

The conversational themes of the role of HRIS involved the subjects of HRIS in the case organization, the interviewees’ descriptions of the companies’ HRIS, their opinions of HRIS in their leadership activities, their development ideas related to HRIS and of their conceptions of HRIS. The themes and subjects brought out what the interviewees thought about HRIS and the use of HRIS, and how HRIS could be developed. The interviewees had opinions for and against the system. Those who spoke for the system underlined how the system spared time and stored needed information of the employees. Those who were against the system did not see anything good in it and the HR information system was a burden for them. In general, it could be interpreted that HRIS do not serve the interviewees’ leadership activities. In addition, their development ideas consisted of issues which could not be included in the system because of the moral or legal issues.

In sub-section 2.1.2 the construct of the six viewpoints of HRIS was introduced in table 2. The content of the table was created from the six theoretical viewpoints discussed in sub-section 2.1.1: 1) history and background, 2) HRIS and data, 3) effects of HRIS on organizations, 4) HR and IS professionals and HRIS design, 5) use and exploitation of HRIS, and 6) HRIS and management work. Table 2 (sub-section 2.1.2) represents the central issues of the six viewpoints which have mainly been discussed in this research of HRIS. Now the theoretical and empirical summary of the issues of HRIS is presented in table 20.
Table 20. Theoretical and empirical summary of the issues of HRIS in the organization.

<table>
<thead>
<tr>
<th>History and background</th>
<th>The interviewees were neither aware of nor interested in the history or the background of HRIS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRIS and data</td>
<td>The interviewees admitted that basically HRIS served the activities of HRM and had not any connections to their leadership activities.</td>
</tr>
<tr>
<td>Effects of HRIS on organizations</td>
<td>The interviewees argued that the benefits of the systems were marginal compared to money spent on them.</td>
</tr>
<tr>
<td></td>
<td>The interviewees were aware of the legal issues which affected the stored data.</td>
</tr>
<tr>
<td></td>
<td>The interviewees discussed neither the training nor the overall use and reforming of HRIS nationally or internationally.</td>
</tr>
<tr>
<td></td>
<td>The interviewees did not like the changes HRIS had brought.</td>
</tr>
<tr>
<td></td>
<td>The use of HRIS was almost a burden for the employees.</td>
</tr>
<tr>
<td>HR and IS professionals and HRIS design</td>
<td>The interviewees did not mention any form of collaboration between management, employees, HR and IS professionals in the HRIS issues.</td>
</tr>
<tr>
<td></td>
<td>The interviewees were not interested in developing the companies’ HRIS or the role of HRIS in the organization, or they did not consider the development important.</td>
</tr>
<tr>
<td>Use and exploitation of HRIS</td>
<td>The interviewees underlined that HRIS were effective in storing and manipulating the data of the employees.</td>
</tr>
<tr>
<td></td>
<td>The interviewees doubted about the validity and reliability of stored data.</td>
</tr>
<tr>
<td></td>
<td>The interviewees did not discuss the benefits on a larger scale.</td>
</tr>
<tr>
<td></td>
<td>The interviewees did not discuss if HRIS had added new modules to the whole system or if HRIS had brought out hidden features of HRM.</td>
</tr>
<tr>
<td></td>
<td>The interviewees did not talk about the greater role of HRIS or HRM in the organization.</td>
</tr>
<tr>
<td>HRIS and management work</td>
<td>The interviewees stated that the companies’ HRIS were designed for HRM and its activities and the systems were responsible to take care of the employee data.</td>
</tr>
</tbody>
</table>

The purpose is to examine how the results of the role of HRIS are linked and complement the central issues of the six viewpoints. Each viewpoint has its own row and beneath the rows the interviewees’ opinions of each of the viewpoints are summarized.

According to the empirical research results it can be interpreted that the leaders have not been satisfied with the use and the benefits of HRIS for a long time. Still, it was surprising that they did not express any interest to develop the company’s HR information system or the role of HRIS in the organization although they knew that a HR information system existed in the organization.
Regardless of the strong negative attitudes towards HRIS, they also underlined some positive features. According to them, the amount of employee data had grown large and therefore the use of HRIS saved the time spent on managing the data. In addition, the interviewees stated that in the future HRIS could be developed to meet and cover the sensitive and human activities in the organization.

7.4 Conclusion of chapter 7

According to the results of the thesis, it can be interpreted that HRIS are a challenge for the organization. Various investments are done concerning the existence of HRIS in organizations. Still, the benefits are contradictory. The empirical findings show that although HRIS are bought for everyone to use, their use is centred around HR managerial activities mostly. The leaders are not eager to spend their time on a system which does not give anything to them. They already know the content. In fact, the system lacks information which could be useful for them as leaders. Some of the interviewees are inclined to give up the whole system. They can manage their leadership activities without HRIS. Yet, the interviewees are not interested in developing HRIS to meet their needs as leaders. The reason for the lack of the interest was not given directly in the course of the interviews but, according to the results, it could be interpreted that, in general, the human actions cannot be taken into account when an information system is designed for the organization. To be credible, the information system should consist of factual data which can be processed and manipulated and which provide statistical calculations and prints. Yet, there are several communal IS which benefit users in various ways. How could the ideas of those systems be taken advantage of in the development work of HRIS where human-oriented activities, such as leadership, are perceived?

Theoretically, IS researchers are interested in studying the use and usability of HRIS. These are the common ways to study IS. Some HR researchers have created the concept of e-HRM, which focuses more on the employees’ use of the system than that of HR staff. In their opinion, HRIS and e-HRM are two different systems. However, it can be stated that both of them are information systems. What separates them is the difference of the technical implementation.

Regardless of the practical or theoretical challenges, this thesis aims to offer alternative approaches and ideas to develop HRIS. The activities of leadership are seen as actions which produce information for the system, not only employee data.
but also other information which could be useful when utilizing the system in leadership as a whole. In addition, when the activities are regarded as good, the information of the activities can be considered well-working and successful for the organization to use. Therefore, the study of the thesis has focused on the activities of good leadership to highlight different viewpoints and possibilities to create new and human features for HRIS design work in practice. At the same time, it is offering alternative research approaches to HRIS. In addition, it would be beneficial both for IS and leadership disciplines to find mutual research areas. Next the research results are summarized to contribute to the development work of the role of HRIS for the activities of good leadership.
8 Conclusions

In this chapter the accomplishments of the third research task, to discuss the role and the development of HRIS in the sensitive and human-oriented application area, and of the fourth, to connect the research results and the research concepts to contribute to the development of the role of HRIS for the activities of good leadership, are completed. This means that the contribution as well as the findings and observations are described and discussed. The essential finding is that the role of HRIS is partly unclear and even non-specific in organizations. It is known that HRIS are purchased for HRM activities but it is not known well enough what it means to maintain HRIS in organizations, i.e. what is the role of HRIS in organizations. The interviewees of the study of the thesis have emphasized that HRIS do not support their activities as leaders. Also, it is questionable whether that HRIS support the leaders’ managerial activities sufficiently.

The activities of good leadership consist of highly sensitive and human actions concerning the employees. The employees’ factual competencies play a minor role when the leaders want to learn to know their employees. First and foremost, the good leaders want to learn what kinds of persons the employees are and how they behave as individuals and in teams. In work situations the leaders want to know how the employees utilize their competencies, knowledge and skills. The leaders’ main goal is to serve the employees by taking care of their physical and mental well-being as well as their working conditions, which has a decisive impact on the positive working atmosphere and motivation among the employees. All of that leads to the situation where everyone understands the wholeness, i.e. everyone knows what to do, all work together and the work will be accomplished.

In the thesis tacit knowledge and EI are used to highlight and describe the interviewees’ skills and talents to learn to know the employees and to communicate with them, i.e. how the interviewees act, react and behave with their employees and how they empathize with and sense the employees. The leaders lean on their experiences, which usually appear throughout their intuitive functions. The emotions are essential for the leaders. Metaphorically speaking, the leaders scent and taste the employees’ moods and emotions in daily encounters. They do not act before they are aware of how to act and react in the situation. Still, they do not execute this behavior on the conscious level but intuitively. Therefore, instead of the factual knowledge of the employees, the leaders
appreciate the knowledge of their employees’ behavior and mental skills honesty being of the greatest value.

The content of chapter 8 provides the final discussion of the thesis. Section 8.1 utilizes the construct of hermeneutic phenomenography to develop elements for the contribution. Then it introduces how the role of HRIS could be developed in the research context. Also, some research findings and observations are discussed. In section 8.2 the suggestions for future studies are discussed. Section 8.3 presents the researcher’s reflections on the study of the thesis and how other options could have been used in carrying out the research. Finally, in section 8.4 the author’s experiences and self-evaluations are described closing the chapter with a passage of The Little Prince by de Saint-Exupéry (1962).

8.1 Contribution of the research

The research context of the thesis has extensively been described in chapter 5. From the contextual viewpoint, the purpose has been to highlight the activities of good leadership to indicate the diverse and multidimensional application area the HRIS have to cover. Tacit knowledge and EI are utilized to depict the human characteristics which have made the leaders’ activities good and their leadership work successful. In general, HRIS are designed to support HR managerial activities which concern the employees’ basic and know-how data in the organization. It is expected that everyone uses the system. Yet, the results of the thesis show that regardless of the high investments of HRIS, they are not utilized even sufficiently by the leaders although their activities should produce information for the system. The interviewees state that HRIS do not benefit their activities and therefore they do not use HRIS willingly. Chapter 6 describes the role of HRIS in the case organisations, the interviewees’ descriptions of the companies’ HRIS and their opinions of the use of HRIS in leadership activities. In addition, their development ideas related to HRIS and their conceptions of HRIS as ICT leaders are introduced.

From the IS point of view, the purpose has been to find out how HRIS could be developed in the research context. The activities of the good leaders are highly human and the knowledge they need about their employees is not the factual data but, more or less, the knowledge of their behaviors, emotions, well-being, reactions and other activities, which speaks for the humanity in the leadership situation. The leaders want to learn to know their employees as individual human beings with the aim of making everyone understand the wholeness where
everyone knows what to do and where everyone works together. Then the work will be done and the leaders’ activities are successful.

In the following two sub-sections the contribution of the thesis is made. First, the construct of hermeneutic phenomenography is utilized to develop the constructs for the development work of the role of HRIS in the research context. The constructs of the phenomena of the thesis developed in section 5.3 (the phenomenon of the interviewees’ leadership activities and the phenomenon of good leadership in the case organizations) and in section 6.2 (the role of HRIS in the case organizations) are benefitted. Then the contribution is introduced using these constructs. In addition, the summary of the research results, the reflections on the research and results with regard to the research concepts, and the main research findings and observations are discussed.

8.1.1 Construct of hermeneutic phenomenography and the development of the role of human resource information systems

The main aim of this sub-section is to introduce the constructs which are used in the following sub-section 8.1.2 to contribute to the development work of the role of HRIS. In this thesis good leadership is characterized by utilizing the concepts of tacit knowledge and EI. It means that good leadership includes knowledge which is difficult to perceive and manifest. Therefore, this sub-section starts with introducing the idea of the mediating artifact by Alterman (2000) to help articulating tacit knowledge and EI as important parts in the development work of HRIS for leadership activities. The mediating artifact is depicted with the help of the construct of hermeneutic phenomenography. Then the construct of mediating artifact has been utilized to describe the activity of good leadership as a whole and to present the construct of HRM using the definition and description by Brewster & Larsen (2000). Finally the combined construct of the constructs of leadership activities (figure 23 from section 5.3) and the role of HRIS (figure 27 from section 6.2) is formed to see the research phenomenon as a whole. The construct of the mediating artifact is utilized to clarify the combination. The idea is to create a description of the activities which are in connection with each other when HRIS are developed for leadership activities. In other words, how the activities should be taken into account when HRIS are designed to support the good leaders’ work. The combined construct of the activities has connections with and effects on the activities involved in the development work of HRIS.
Construct of mediating artifact

In this study the activities of good leadership have been examined to provide guidelines for the development work of HRIS. The concept of the mediating artifact by Alterman (2000) is used to clarify the research work. The idea of artifacts has been created by Simon (1969) and it has also been used in IS research. For example, Gregor & Jones (2007) have examined and developed the concept of information systems design theory (ISDT) and in that context they have depicted the schema of the relationships of material and abstract artifacts. They have stated that a design theory consists of abstract artifacts and of instantiated physical forms depending on the phase of the design. Instantiations of material artifacts have physical existence in the real world, such as hardware, software, IS or processes, whereas theories of abstract artifacts do not have a concrete form but other means of representation such as words, pictures or diagrams. Also constructs, methods and models belong to this category. Human understanding of artifacts consists of created abstract conceptualization and theorization whereby human beings construct understanding of instantiations and the real world around them. (Gregor & Jones 2007.)

![Diagram of mediating artifact](image)

**Fig. 28. Construct of mediating artifact.**

Alterman (2000: 22) describes that the mediating artifact is "an artifact that mediates the interaction between a subject and an object" and is seen either as a tool function or as a sign function. The tool function serves the object and the sign function is oriented to the subject to be internalized into an individual’s mental function (Alterman 2000). A construct of the mediating artifact is developed in figure 28 applying the construct of hermeneutic phenomenography. When benefitting the construct of a mediating artifact in the thesis, the idea is to perceive the role of HRIS in the human research context. In other words, when a
HR information system is regarded as an artifact, what conceptions the leaders could have of HRIS and of their role in the interviewees’ work and in their organizations. According to the research results of the thesis, the leaders’ experiences and interactions with the employees and HRIS have greatly influenced their conceptions of the role of HRIS in the organization.

**Construct of good leadership**

In section 5.3 (figure 23) the construct of the phenomenon of good leadership in the case organizations has been created. Utilizing the construct of mediating artifact, the activity of good leadership is formed again in figure 29. In the construct tacit knowledge is seen as a tool function and EI is seen as a sign function which work as instruments in a relationship between a leader and an employee. Tacit knowledge implies that good leaders are not aware of how they use and apply their experiences in their leadership but at the same time tacit knowing indicates that the leaders have knowledge to communicate with the employees well. Thus, making good use of their experiences is more their way of life than a compulsive need to practise leadership. The will to continuously learn and to be curious are functions which develop their work as leaders. Emotions are also taken into account. They follow employees’ moods and actions and adapt their own actions as well as their expressions to each situation. This means that non-verbally but clearly the employees are given signs to understand the limits of their actions and behavior by the leaders. Still, the leaders do not forget themselves and their position in the organization.

![Fig. 29. Construct of the activity of good leadership.](image)
According to the study of the thesis, the leaders’ HR activities and the concept of HRM can be interpreted to mean the managerial work where HRIS help to store, process and manipulate employees’ working knowledge. Still, HRM cannot be considered a loose activity in an organization but, as the interviewees underlined, part of their activities in leadership and the application area of HRIS in the organizations. HRM is already introduced theoretically in sub-section 2.2.2 where the definition of HRM by Brewster & Larsen (2000) is discussed. Still, in this sub-section with the help of their definition the construct of the activities of HRM is developed because herein the construct of mediating artifact can be utilized. In figure 30 the organization is regarded as an active player with leaders and employees where HRM is not merely an external framework. According to Brewster & Larsen (2000) it can be interpreted that people, tasks and an organization form an active area of operation where individual and organizational learning is seen as instruments to develop both people and the organization. This way the activity of HRM enhances more educated and competent tasks. Mutual expectation and potential sanctions of the work manifest themselves in a psychological contract between an employer and employees. HR work itself is divided between line managers and HR professionals. Adapting the idea of the constructs of the thesis, the outcome of HRM is the job or the work which people are performing. (Brewster & Larsen 2000.)

Fig. 30. Construct of HRM adapting the definition of Brewster & Larsen (2000).

Combined construct of good leadership and HRIS

According to the empirical study, the construct of the phenomenon of good leadership (figure 23 in section 5.3) and the construct of the phenomenon of the
role of HRIS (figure 27 in section 6.2) are combined together in figure 31. The leaders’ main goal is to learn to know the employees but, as stated in the results, HRIS do not support that goal. The outcome of the construct consists of reports, tables or memos for HRM to control and maintain explicit data of employees’ working data, such as education, work history, different trainings at work, competencies or project data. They mainly serve the issues of managerial work and, as such, do not serve the whole leadership.

Fig. 31. A combined construct of good leadership and the role of HRIS.

When the concept of mediating artifact is applied, the situation can be regarded as a sign function and the HR information system as a tool function. Together they can be interpreted to be the instruments between the leader (the subject) and human resources (the object). As a tool function the HR information system communicates together with the information of HR and as a sign function the situation works as an indicator for the leader’s actions, reactions and behavior. Applying hermeneutic phenomenography in the research context, it means that experiences and interactions between the leader (the subject) and the employee (the object) have an effect, i.e. give sense and meaning, on the documents of HRM. Still, the leaders are not satisfied with that situation. The reports, tables and memos do not serve their leadership activities enough. Therefore, an essential question is how the role of HRIS could be developed so that they would support the leaders’ activities sufficiently.

The research tasks have been used to describe how the good leaders discuss their leadership activities and what kind of role the HRIS have in those activities. As a mediating artifact figure 31 gives a description of the starting point of the development work of the role of HRIS. In the following sub-section the constructs of mediating artifact, good leadership and HRM as well as the
combined construct of leadership and HRIS are utilized to contribute to and to give proposals for the development of the role of HRIS in the research context.

### 8.1.2 Developing the role of human resource information systems in the research context

In the previous sub-section three constructs are developed to be utilized for the contribution. They are the construct of the activity of good leadership, that of HRM and the combined construct of good leadership and the role of HRIS. The combined construct of good leadership and of the role of HRIS creates the basis for the contribution. First, in this sub-section the empirical results are listed and they are reflected on with regard to research concepts to support the contribution. Then, figure 31 is divided into two constructs to see in which construct, either in good leadership or in HRIS, problems exist which restrain the development work of the role of HRIS in the organizations. Some of the possible reasons are discussed based on the research concepts and the research results. After that the design construct for the development of the role of HRIS in the context of good leadership is introduced. The contribution is made using the empirical research results, the created constructs and the research concepts. Finally, a list of findings and observations are presented as an addition to the list of the empirical results.

### Listing the empirical results

When summarizing the empirical results, following issues can be listed:

- good leadership is a human and sensitive activity
- good leadership is a diverse and multidimensional activity
- good leadership includes abilities to use tacit knowledge and EI
- good leadership includes managerial HR functions
- good leadership aims to get the work done
- good leaders emphasize learning to know the employees
- good leaders take care of the employees and their well-being
- good leaders emphasize the meaning of communication and interaction
- good leaders underline the importance of working in the employees’ daily job
- good leaders use HRIS marginally
- HR information system as a system supports the activities of good leadership marginally

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HRIS are designed to support managerial HR functions
use of HRIS is almost a burden to the good leaders
technically HRIS include relevant knowledge of employees for HRM, which also has links to other systems in the organization
information of HRIS does not serve the activities of good leadership and not always the leaders’ HR work
legislation and moral issues restrict storing data, which has to be taken into account when the good leaders execute their leadership
innovative development ideas emerged in the course of the interviews
advanced expansive HRIS can be developed for leadership when the context is investigated well and the system is designed considering the activities involved
it is a challenge to design sensitive and human-oriented IS in general.

Reflecting on the research and results with regard to the research concepts

In the course of the study of the thesis it seemed as if two different worlds existed in the organization, when good leadership and HRIS were discussed with the interviewees. When the leaders described their leadership activities, the leaders were sensitive and emotional. Everything they said came from the inside. They talked about their leadership actions, reactions, behaviors, skills and abilities with enthusiasm. They introduced their values and beliefs respecting the employees and themselves. For them, to be a leader and to accomplish the activities was important but not because being a leader was “cool” but as leaders they had a chance to take care of and to serve their employees. In other words, the leaders did not focus attention on themselves but they acted so that their employees were able to feel good and the employees enjoyed working. The position of being a leader was not a position of arrogant behavior but a position of taking care of the employees as a fair leader. When the subject of the discussion turned to HRIS, the tone of the conversation became impersonal and the employees became human resources. The leaders understood the meaning of HR in the organizational context and how a HR information system could help to operate HR in the organization. Herein they became ICT professionals who discussed the application area and its technical solutions. For the leaders the HRM activities also changed to technical performances though for them the employees were individuals whose needs and emotions were more important than purely resources.
or data in a system. Nevertheless, they had to use HRIS even though the system
did not serve their activities as leaders sufficiently. Thus, regardless of the
obligatoriness, they used the system marginally and as little as possible. Here, an
interesting observation was that the leaders' ICT professionalism did not bring out
sympathy for the role of HRIS or the use of HRIS.

In the thesis, for all those reasons, tacit knowledge and EI were perceived to
give understanding and base for leadership activities and to give new viewpoints
for developing the role of HRIS in the organization. The organizations had
invested large amounts of money in HRIS and in the organizational development
work of HRIS, but the benefits were linked to the calculative HRM, mostly. It had
not been understood that the leaders did not merely need numbers of the
employees or lists of the employees’ competences when they worked with their
teams and projects but support to learn to know and to take care of the employees
to succeed and to get the work done. In those situations they needed sensitive and
human knowledge on their employees which was not available in HRIS. The
leaders also knew that because of some laws and moral issues, the data they
needed on the employees could not perfectly be stored in HRIS. Anyway, they
believed that it could be possible to design and implement a HR information
system which would support leadership and leaders’ activities satisfactorily. Here
the information of tacit knowing and EI should be taken into account.

When investigating the situation of HRM in the organization, it was regarded
as a separate activity which took care of the organization’s HR. The definitions of
HRM supported that idea for a long time. In the new millennium the conception
and the role of HRM changed to become an active player in the organization.
Individual and organizational learning had an effect on the situation as figure 30
depicts. Also the interviewees underlined that some of the activities of HRM were
part of their leadership activities. According to the interviews, the activities of
HRM could be accomplished either by one or more HR professionals as a full-
time job, or by one or more leaders along with other daily responsibilities of
theirs. There could also be situations where the HR operations were performed by
an outside organization. In the case organizations HR activities were performed
by the leaders or by a separate HR department. In this study it was neither
examined nor taken into account whether the activities of HRM were similar or
different if they were performed by a leader or a HR professional. The results of
the study showed, however, that the opinions against or for the use of HRIS did
not depend on who were doing the leadership and HR activities but on how the
use of HRIS supported and served the activities of leadership and HR.
HRIS are defined supporting the job descriptions and activities of HRM. They store, manipulate, retrieve, analyze and collect data of employees and their outcomes are reports, tables, memos and charts of the stored data for the organizational and managerial use. It is interesting, however, that according to the construct of HRM (figure 30), the target of HRM is the job or the work the people do and accomplish. Thus, one can question if HRIS are even designed and implemented to support HRM sufficiently. After all, are HRIS designed for administrative calculations and summaries only? What research results could emerge, if the activities of HRM were studied thoroughly and compared with the functions of HRIS?

Herein one can ask if, in general, IS are designed for the application area in a correct way. Another question is if IS are designed to produce material for the activity but are not for the activity itself. One can also ask if the people involved with the design work and with the application area are aware of what it is all about. In other words, what is required of the system to produce the right information and/or to provide the right activities. Using the empirical material of the thesis, it can be interpreted that in the organizational context there is a conception that the purpose of IS and, especially, of its outputs is to produce and print concrete material which is used in decision making. It has been forgotten that prior to the printed results people have done activities which have led to the results. In addition, people are executing activities continually. Therefore, the printed results are not the main outcome but how they affect the activities. According to the thesis, the HR information system is a system which produces results but does not support the work and the activities of the leaders. Thus, as questioned above, does it support the activities of HRM either.

The contribution

As Alterman (2000) has depicted, mediating artifacts mediate the interaction between the subject and the object and are seen as tool function or sign function depending on whether the artifact is functioning with the subject or the object. Gregor (2006) states that in the IS field artifacts are used in human-machine systems. She has created taxonomy of theory types where the theory of ‘Design and action’ “gives explicit prescriptions (e.g., methods, techniques, principles of form and function) for constructing an artifact” (Gregor 2006: 620). Avison & Elliot (2006), for their part, underline the distinction between IS and other fields, i.e. a concern of the use of artifacts in human-machine systems. Thus, in the IS
field the idea of an artifact starts from the conception of human-machine systems whereas the idea of a mediating artifact begins with the interaction between the subject and the object. The meaning of tool function and sign function depends on whether the artifact concerns the subject or the object.

In this thesis the idea of a mediating artifact can be applied when designing IS for sensitive and human-oriented application areas in the organization. An information system can be seen as the mediating artifact which mediates between the subject and the object, i.e. the user and the application area. The tool function is used in producing concrete material for decision making or other administrative activities. The sign function is used when it is expected that the system works as an assisting and supporting function in the activities of the application area. The study and the results of the thesis give an example and an alternative viewpoint to approach the design work and the role of IS in the organization in human-oriented context.

As a context-oriented research the activities of leadership have been examined extensively in this thesis. They are connected with the activities of HRM, EI and tacit knowledge, and the fundamental outcome of the good leadership is that the leaders want to learn to know their employees. The mind map in figure 21 (sub-section 5.2.8) indicates that the factual elements of the leadership activities are located on the nodes of organization and work, whereas the human elements are basically on the nodes of employee, leader and mutual activities. The arrows of the mind map show that the factual elements have an influence on the human factors and vice versa. The leaders also emphasized that leading people includes both factual management and human interactions. Still, the emphasis of the activities is situated on the human elements. As discussed earlier, EI includes the leader’s awareness of both his/her own emotions as well as his/her employees’ emotions. How to balance these two things in practice is a result of a long process of learning by experiences, which the conversational themes indicate. The whole activity can be called a creation of tacit knowing. Hence, it can be asked, if and how HRIS could be developed so that they would support both the activities of leadership and the role of HRIS?

In figure 31 the combined construct of leadership and HRIS is depicted. Now it is divided into two constructs in figure 32. The construct of good leadership is on the left and the construct of the current state of the role of HRIS is on the right side of the figure. As stated earlier, according to the study of the thesis good leadership is the relationship between the leader and the employee and it occurs in various situations. The outcome of good leadership is to learn to know the
employees. HRIS are designed for HRM to store and process employees’ data. The outputs are different reports, tables and memos.

![Diagram](image)

**Fig. 32. Constructs of good leadership and of the role of HRIS.**

As the interviewees commented several times, HRIS consist of basic knowledge of employees’ data such as training, career and work situation. But when that knowledge is connected with a larger context such as leadership in an organization, the benefit gained by HRIS is marginal. Even the tasks of HRM do not tempt the leaders to use HRIS. Therefore, the leaders neither feel comfortable with the use of HRIS nor get any benefit from HRIS. Thus, according to the research results, problems exist between the leader and HRIS as well as between HR and HRIS, which the dashed lines in figure 32 indicate. The problems mean that HRIS include the employee data which the leaders already know but they do not include the important employee data which the interviewees need when leading the employees. Because of the lack of needed information, the leaders do not use HRIS willingly. In addition, HRIS consist of features and activities which the leaders do not need or they experience burdensome and therefore they refuse to use the system or they use it only to some extent.

Leadership and HRM are important activities in organizations when assessing the importance of personnel. It has been repeated in organizations that people are the most important resources in the organization. Hence, so are the activities which are executed when leading and managing people. Information systems, which have been designed to serve and support these activities, benefit the whole organization. Hussain et al. (2007) argue that because HRIS are designed for HRM, the design limits the use of HRIS to HR professionals only. HR professionals are eager to acquire and to use HRIS because, in their opinion, it helps and supports their work. However, HRIS include data of all people of the organization, i.e. data of leaders, managers and employees. Therefore not only HR staff but all people should benefit from and use HRIS in the organization. HRIS should be seen in a larger context than in HRM only.
As a contribution, to meet the challenge the thesis has evoked, the constructs of leadership and of the role of HRIS are combined again into a design construct for the development of the role of HRIS in the organization (figure 33). As a whole the construct represents the development of HRIS in the organization when both the application areas of HRIS and the role of HRIS are taken into account when HRIS are designed to benefit the whole organization. Good leadership including tacit knowledge and EI as well as HRM activities are linked to the leader’s activities. According to the mediating artifact, the situation plays the role of the sign function and the HR information system is the tool function. They both support the leader’s activities as well as the information of employees and HR so that the leaders learn to know their employees better. Also the needed reports, tables and memos for various organizational and administrative situations are produced to support the activities. In this study neither employees nor HR professionals are interviewed to find out their opinions and experiences of HRIS, the role and use of HRIS in the organization. Still, the outcome of HRM, i.e. the employee’s job or work, is taken into account to complement the whole phenomenon.

The design construct also has more in common with the issues of the mind map in figure 21 (sub-section 5.2.8). What produces a challenge is to be able to combine the activities of leadership and HRIS so that the fundamental problems will be solved. Herein an alternative way to consider HRIS and the role of HRIS
in the organizational activities helps to create an environment where the development work of HRIS is possible. This means that the activities which are involved in leadership, in HRM and management in general should not be separated due to technical IS design but their linkages should be perceived to make it possible to design IS for sensitive and human activities of leaders, managers and employees. In other words, when designing IS for sensitive and human activities, it is good to pay less attention to the conventional ways to design IS, which have their base on designing IS for quantitative purposes mostly. Based on the results of the study, to concentrate on the human activity itself and its background information, i.e. what is important and what works well, various information for IS design will be available. The qualitative investigation highlights experiences and interactions (tacit knowledge) as well as emotional awareness (EI) of the application area. They give a diverse and multidimensional picture of the human activity which the IS are supposed to support.

A metaphor of circuit board design can be applied when an information system for a multidimensional human activity is designed. A circuit board consists of a certain number of layers depending on the situation. Data runs on and between the layers. It is important to know in which phase data is an input or an output. In the context of the thesis good leadership represents the application area for which HRIS are developed, i.e. here metaphorically the circuit board. The conversational themes of leadership can be regarded as layers where information and various activities exist. The mind map in figure 21 can represent the connections between the activities which occur on and between the layers. Although the metaphor of the circuit board is technically emphasized, it formulates a multidimensional description of HRIS design and development for the human application area.

**Main research findings and observations**

In the thesis the activities of good leaders have been studied, i.e. what are their concrete deeds in leadership, how they execute their leadership and, especially, what is important and what works well in their leadership, which underline the leaders’ tacit knowledge and EI. Through the reflective discussions of the interviews and as a complement of the list of the empirical results presented at the beginning of this sub-section, following findings and observations have been made:
the leaders have been able to find their tacit knowledge as well as EI in their leadership activities
the leaders use their tacit knowledge and EI when executing their leadership
tacit knowledge and EI have helped the leaders
to succeed in creating well-working teams
to make employees work effectively
to solve problematic situations
the leaders approach their work with enthusiasm
the leaders focus on developing the employees’ abilities to create the wholeness that works well and where the work will be done
the leaders’ goal is to learn to know the employees and to expand their own knowing of the employees in an appreciative way
the leaders do not underline or highlight problems although they know problems exist
when the leaders want to develop something, they get new ideas and innovations through their good working methods
successful activities have a positive effect on work development
concentrating on the positive side and the success of the work rather than purely on problems, releases energy
to be open for diverse possibilities
to solve problematic situations
to get innovative ideas
to see the employees’ successful accomplishments
to give supporting feedback.

Due to the observations listed above, the idea of well-working activities is underlined in this study. It can be argued that concentrating on the well-working actions helps everyone to develop their work in the organization, not only the good ones, who typically are, as the interviewees indicated, positively curious and willing to learn more all the time. For those who are novice or average workers the supportive feedback and sparring as well as the examples of well-working activities are resources to develop their work. In the leaders’ opinion, the will to develop one’s own activities and to learn new things also enhances the abilities to learn to know other people.

The research concepts of the thesis which are included in leadership are also regarded as activities that work well both separately and together. The activities of
tacit knowledge and EI are depicted as positive activities for the good leadership. Finding tacit knowing has helped the leaders to realize which experiences have affected their growth as good leaders as described next:

- more or less unbeknown the leaders have utilized their childhood and earlier working experiences when they have formed their conceptions of leadership and how to execute their leadership
- the leaders have realized the strong meaning of emotions in the relationship with their employees
- by learning to know their employees, the leaders have succeeded in encouraging the employees and in solving problematic situations
- the leaders’ EI is clearly detectable in their activities.

HRM is also a supportive activity when it is executed as Brewster and Larsen (2000) have described it. Individual and organizational learning does not support only the employees but also the whole organization so that HR activities are accomplished well. An information system can be a supportive activity for leadership when it is designed in the way that it takes the context into consideration as a whole. In other words, leadership is the relationship between the leader and the employees which consists of sensitive and human activities as well as of managerial HR activities. It can be highlighted that if HRIS are designed and developed to support learning to know the employees, to support the work the employees are performing and producing, doing and accomplishing as well as to produce the needed reports, tables and memos for the leaders and for the administrative units, the whole activity of leadership as well as the whole organization have a chance to work well.

This study includes reasoning and discussion if a HR information system for the activities of good leadership can be designed and implemented. Is it possible to design an information system for a human-oriented context where activities are considered sensitive, diverse, multidimensional or even tacit and emotional. On the one hand, the interviewees underlined that HRIS can hardly ever serve the activities of their leadership as a whole because the activities involve human and sensitive knowledge which cannot be structured in HRIS. In addition, storing employee information which is considered private is restricted by legislation. On the other hand, they stated that in one way or another HRIS could be developed to support the leadership activities partly. Here the important issue is how the leaders see the HRIS in the organization. In other words, what their conceptions of the role of HRIS and the content of HRIS in the organization are. The
following findings of the leaders’ conceptions of and attitudes towards HRIS and the role of HRIS in the organization are presented:

- HRIS are regarded as storage of the employees’ data
- the leaders already know the data and they feel frustrated when using the system
- the content and usage of HRIS serve the leaders’ activities only partly
- HRIS are regarded more as burdens than as benefits.

When considering the development of HRIS, as ICT leaders the interviewees could abandon the conventional attitude towards the system, i.e. the system as a technical construct with its databases, data flows or inputs and outputs, only. They could study the role of the system in their activities together with the design and the development of the system and have discussions with other interest groups in the organization. According to the study of the thesis and its results, it is possible to design and develop a HR information system which serves and supports the activities of leadership and HRM sufficiently and, at the same time, produces data for administrative activities in the organization. Table 20 (section 7.3) shows where the challenging situations exist when considering the development of HRIS. The development work requires will and open minds of top management, leaders as well as HR and IS professionals to engage in a mission where the fair collaboration is essential. If they do, they will show they appreciate the employees who are the most important resource in the organization.

As a conclusion, the construct of good leadership and of the role of HRIS (figure 32) as well as the design construct for the development of the role of HRIS (figure 33) include simplified information on how a HR information system in a diverse and multidimensional application area can be described as well as designed and developed. The figures help both researchers and practitioners to concentrate on the important and significant issues of the human and sensitive activities together with technical ones. When developing the application area of the thesis and HRIS together, it is important to find out which activities are connected to each other, how they are connected and what works well. The complex reality also causes problems for the design work. It depends on researchers’ and practitioners’ abilities how the situation is met, discussed and solved. As a metaphor, the map is not directly the territory, which challenges everyone when designing IS for sensitive human-oriented context. Still, when accepting the whole challenge, one shows the will to improve the role of human-oriented IS and especially the human activities in the organization.
8.2 Future study suggestions

One purpose of the thesis has been to integrate the application area of good leadership and HRIS into a human- and context-oriented research. At the same time the thesis has tried to highlight alternative thinking and acting as an opportunity to find and create alternative knowing and understanding. As a proposal for further study, it will be beneficial for researchers to extend research subjects within and between disciplines as well as to combine research methods and data gathering tools to produce diverse knowledge.

When considering future studies of leadership and HRIS, according to the interviewees the emphasis should be placed on understanding the wholeness where people work together knowing how the whole system works. It means successful mutual communication, collaboration and interaction between different parties, which the leaders have underlined. In practice these issues are vital if an organization wants to be successful, effective and to get profit. The mutual communication, collaboration and interaction could also be considered to benefit the collaboration between disciplines. Here a good example is provided by the common interest in e-HRM among both HRM and IS researchers. Moreover, Avolio et al. (2000) have already raised issues which could have an effect on developing HRIS to support leadership work better and to increase mutual research of IS and leadership. Development between different disciplines enhances knowledge and understanding both in science and in practice. It enables researchers to reference another discipline to enrich their own one. At the same time new ideas may emerge when studying issues from another discipline.

In this thesis unorthodox and unconventional research tools have been utilized, i.e. NLP and Mind Map™-technique. When considering future findings and new viewpoints, the IS researchers should be more courageous to apply different research methods and should use different data gathering tools for IS studies more innovatively. Myers & Newman (2007), for example, have examined qualitative interview in IS research. They offer a dramaturgical model to conceptualize the qualitative interview. They describe it as a drama using the concepts of theatre. This new viewpoint of the qualitative interview enables alternative viewpoints to study interview data and it is highly recommended. In addition, positive thinking and acting as well as EI, tacit knowledge and NLP can be regarded as alternative ways to execute research. Scholars are taught to be very serious and accurate with their studies. However, positive effect, positive cognition and process of affirmative interaction play an important role in
organizations as Srivastva, Cooperrider & Associates (1990) have emphasized. Therefore, in the future it would be interesting to use appreciative inquiry to confirm positive thinking and attitudes when confronting interviewees.

The context of the study of the thesis is ICT companies. In the future also other lines of business could be studied and even compared, i.e. if good leadership turns out to be more or less similar or different in different lines of business. The case organizations have offices abroad. An international aspect could be included if leaders from foreign offices are interviewed. In addition, if leaders from totally foreign companies are interviewed, the study would widen to cover also cultural aspects. Gender issues were under discussion when starting the studies but they were discussed only briefly. In the future, however, the gender aspects and their effects on leadership and HRIS could be an interesting subject to carry out both nationally and internationally.

The study and the results of the thesis have evoked several questions which are not yet studied sufficiently in the HRIS field:

- For whom and for which activities are HRIS actually designed?
- What is the role of HRIS in an organization?
- What benefits are pursued by HRIS in an organization?

In addition, questions such as which systems can be considered as HRIS or who are and who should be the users of HRIS are still waiting to be studied. The studies of HRIS as a system and the studies of their use together with the studies of the role of HRIS in an organization also offer interesting research areas. The thesis underlines the importance of studying further how the system is seen in an organization and what are the attitudes to the system, which affect the use and the development of the system especially in the human-oriented context. Also technological solutions and innovations offer research possibilities as regards HRIS. E-systems and mobile techniques give interesting platforms to design HRIS. There are organizations where leaders travel much and mobile solutions enable real time connections to HRIS. In addition, the study of the thesis highlights the importance of investigating how, in general, human-oriented activities can be supported by IS in organizations. As a summary, when discussing HRIS, a great deal of research is undone. The study of HRIS field is an interesting new research area which offers various possibilities to examine the system from various viewpoints. Lately, new studies have been introduced, for example, by Ruël & Magalhaes (2008) and Delorme (2008).
In the future, to clarify the human activities as application areas and to justify the use of information of tacit knowledge and EI in human IS design, they should be included in IS studies as an alternative way to approach the context of human-oriented IS. As research subjects, tacit knowledge and EI are regarded as non-explicit and emotional human knowledge. Tacit knowledge has been defined as knowledge which is personal and context-specific and which people carry in their minds and is, therefore, difficult to access, formalize and communicate (Nonaka & Takeuchi 1995: 59). EI is defined as an ability "to carry out accurate reasoning about emotions and the ability to use emotions and emotional knowledge to enhance thought." (Mayer et al. 2008: 511). According to the study of the thesis, it is a challenge for IS practitioners to imagine how an IS can be designed and implemented in the human-oriented context. Also, the IS researchers have discussed and argued about explicit and tacit knowledge and its meaning in IS research. Herein, ISDT could offer ways to enhance IS studies into sensitive and human-oriented application areas.

In addition, the word ‘system’ can create an image of logic and order, which leads the design of a system. People’s activities, however, are not always quite systematic. On the contrary, people may carry out their work or other activities in various ways. The purpose of the thesis has been to study the role of HRI systems. When considering how hermeneutic phenomenography has been used to describe and to connect the research results and the research concepts of the thesis and how an alternative way as an approach can produce new innovations, one can consider how activities could also be investigated in the development of IS research. In other words, how the study of the real activities of the applications area could affect the development work of IS.

8.3 Researcher’s reflections

When doing research work, a researcher’s ambition is to produce the best possible results for a research community. The aim is to find and choose research methods and tools in a way that research questions will be answered or research tasks will be accomplished so that contribution is made. This has also been the sincere aim of this thesis. However, in the course of the study new and alternative ways to accomplish the research may emerge and the chosen theoretical and methodological means must be reassessed.

Due to the lack of the scientific competencies and to the insecurity as a novice researcher, I turned to some senior researchers for help and they kindly
offered me advice both on research methods and research area. Still, I am highly satisfied that I also kept to my own original plans to study HRIS as well as the activities of good leadership. Methodologically other plans could have been made. Grounded theory was one of the options as a research method. In the future, when more studies and information on HRIS exist, grounded theory may offer a possibility to expand the theoretical work. In the study of the thesis, however, hermeneutic phenomenography was a good choice.

Twelve individual interviews were executed. One of the purposes of the thesis was to bring out more information about the leaders’ tacit knowledge and EI. It would have required more than one interview session to highlight them sufficiently because the first session is typically slightly official and to a certain extent a warm-up round such as in formula races. Thus, only 4–6 leaders could have been an adequate number to be interviewed two or three times to define issues which now remain inarticulate. Hence, after studying the first interview round, I could have concentrated on issues which had remained unsolved. Then I could have interviewed the 4–6 leaders again, which would have enhanced both the interviewees’ and my conceptions of their leadership actions and opinions of HRIS. From the contextual viewpoint, leaders from some other business areas than ICT could also have been chosen. It might have given both alternative viewpoints of executing leadership and alternative opinions of using HRIS. Moreover, IT professionals have their own attitudes towards IS design and development. People from other lines of business could have been more innovative when discussing the development of HRIS.

The phrase “people are the most important resources in the organization” is often used in practice by leaders and managers. The study of the thesis confirms the credibility of the phrase in the context of good leadership. HRIS are designed to support managing human resources. When examining the use and benefits of HRIS from the viewpoint of the activities of good leadership, the design work is challenging but at the same time it could be diverse, sensitive and also rewarding when completing it successfully. Therefore the enthusiasm and will to highlight the meaning of well-working actions and to demonstrate how they can affect and benefit the design work of IS have been the driving forces in executing and accomplishing the study of the thesis.
8.4 In conclusion

Writing a thesis is a highly individual process and accomplishment. The candidate puts all his/her heart and soul and human efforts into succeeding in it. Simultaneously, writing a thesis is work for a scientific community. The thesis should contribute to the discipline in question. In addition, there are rewarding situations when writing the thesis, and sometimes, in the course of the research work, also contradictions may appear, which educate both the candidate and the scientific community. On those occasions it is challenging to find constructive approaches and solutions. The situation could be compared with the situation of good leadership where learning to know personalities is the most essential activity, which leads to successful outcomes.

When reflecting on my research work with all its aspects, i.e. with knowledge creation, constructing a research subject, executing studies and with writing, the thesis has been a great learning opportunity for me and an important part of the development of my academic competence. I have learned that creating and enhancing skills and competencies is not a linear process but it includes going forth and back in the space of information and actions as well as pondering about alternatives and solutions. I could simplify my learning process and depict my postgraduate years as follows: As a postgraduate student my object has been to write a doctoral thesis and to become a PhD. To reach my goal I have studied the academic facilities – philosophies, research methods, research tools, theories of the research concepts – which enable the growth of scientific knowledge in pursuance of being able to apply them to research acts and empirical material. The relationship between me and the doctoral thesis has been multi-faced and can be considered more abstract than concrete. In other words, although the reading and writing are concrete deeds, the various mental activities and communications with other people as well as my experiences and emotions have influenced the relationship strongly. In addition, by studying and writing I have learned a great deal and got more knowledge and understanding than ever. For me the wholeness of the research work has been highly important issue when writing the thesis, i.e. to know how the activities work well, to work both with the people involved and with the subjects concerned, and above all to understand what it has been all about.
In the conclusion of my master’s thesis I quoted some passages from the book ‘The Little Prince’ by Antoine de Saint-Exupéry (1962) adequate for that moment, over twenty years ago. Thereafter I have had an abundant mixture of experiences, I have learned a great deal, and still I am willing to learn more. The quotation at the beginning of this thesis and the following quotation are significant passages now and relevant to my doctoral thesis.

“He laughed again.
‘Ah, little prince, dear little prince! I love to hear that laughter!’
‘That is my present. Just that. It will be as it was when we drank the water ...’
‘What are you trying to say?’
‘All men have stars,’ he answered, ‘but they are not the same things for different people. For some, who are travellers, the stars are guides. For others they are no more than little lights in the sky. For others, who are scholars, they are problems. For my businessman they are wealth. But all these stars are silent. You – you alone – will have the stars as no one else has them –’
‘What are you trying to say?’
‘In one of the stars I shall be living. In one of them I shall be laughing, when you look at the sky at night ... You – only you – will have stars that can laugh!’
And he laughed again.” (de Saint-Exupéry 1962: 100).
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