MASTER'S THESIS

Tarja Moilanen 2013

Lappeenranta University of Technology
LUT, School of Business
Management and Organisation
Tarja Moilanen

The consequences of e-HRM on line managers

Examiners Pia Heilmann and Mika Vanhala

ABSTRACT

Author: Moilanen, Tarja

Title: The consequences of e-HRM on line managers

Faculty: LUT, School of Business
Major: Management and organisation

Year: 2013

Master's Thesis: Lappeenranta University of Technology

116 pages, 5 figures, 11 tables and 3 appendices

Examiners: prof. Pia Heilmann

post-doctoral researcher Mika Vanhala

Keywords: e-HRM, consequences, line managers

The purpose of this research was to provide a deeper insight into the consequences of electronic human resource management (e-HRM) for line managers. The consequences are viewed as used information system (IS) potentials pertaining to the moderate voluntaristic category of consequences. Due to the need to contextualize the research and draw on line managers' personal experiences, a qualitative approach in a case study setting was selected. The empirical part of the research is loosely based on literature on HRM and e-HRM and it was conducted in an industrial private sector company. In this thesis, method triangulation was utilized, as nine semi-structured interviews, conducted in a European setting, created the main method for data collection and analysis. Other complementary data such as HRM documentation and statistics of e-HRM system usage were utilized as background information to help to put the results into context.

E-HRM has partly been taken into use in the case study company. Line managers tend to use e-HRM when a particular task requires it, but they are not familiar with all the features and possibilities which e-HRM has to offer. The advantages of e-HRM are in line with the company's goals. The advantages are e.g. an transparency of data, process consistency, and having an efficient and easy-to-use tool at one's disposal. However, several unintended, even contradictory, and mainly negative outcomes can also be identified, such as over-complicated processes, insecurity in use of the tool, and the lack of co-operation with HR professionals.

The use of e-HRM and managers' perceptions regarding e-HRM affect the way in which managers perceive the consequences of e-HRM on their work. Overall, the consequences of e-HRM are divergent, even contradictory. The managers who considered e-HRM mostly beneficial to their work found that e-HRM affects their work by providing information and increasing efficiency. Those managers who mostly perceived challenges in e-HRM did not think that e-HRM had affected their role or their work. Even though the perceptions regarding e-HRM and its consequences might reflect the strategies, the distribution of work, and the ways of working in all HRM in general and can't be generalized as such, this research contributed tothe field of e-HRM and it provides new perspectives to e-HRM in the case study organization and in the academic field in general.

TIIVISTELMÄ

Tekijä: Moilanen, Tarja

Tutkielman nimi: Elektronisen henkilöstöjohtamisen vaikutukset esimie-

hiin

Tiedekunta: Kauppatieteellinen tiedekunta Pääaine: Johtaminen ja organisaatiot

Vuosi: 2013

Pro gradu -tutkielma: Lappeenrannan teknillinen yliopisto

116 sivua, 5 kuvaa, 11 taulukkoa ja 3 liitettä

Tarkastajat: prof. Pia Heilmann

tutkijatohtori Mika Vanhala

Hakusanat: elektroninen henkilöstöjohtaminen, seuraamukset, esi-

miehet

Tutkimuksen tavoitteena on luoda näkökulmia elektronisen henkilöstöjohtamisen vaikutuksista esimiehiin. Teoreettisena viitekehyksenä toimi käytettyjen informaatiojärjestelmien mahdollisuuksien näkökulma. Tutkimuksen empiirinen osio nojaa henkilöstöjohtamisen ja elektronisen henkilöstöjohtamisen teoriaan ja se toteutettiin laadullisena tapaustutkimuksena eräässä teollisessa yrityksessä. Pääaineistona toimi yhdeksän puolistrukturoitua haastattelua Euroopasta, joiden lisäksi yrityksen henkilöstöjohtamisen dokumentaatiota sekä henkilöstöjärjestelmän raportteja hyödynnettiin täydentävinä menetelminä oikean kontekstin varmistamiseksi.

Tulokset näyttävät, että elektroninen henkilöstöjohtaminen on otettu osittain käyttöön organisaatiossa. Esimiehet käyttävät sitä silloin, kun jokin konkreettinen toimenpide sitä edellyttää, mutta kaikki mahdollisuudet eivät ole heidän tiedossaan. Esimiesten kokemat edut, kuten henkilöstötietojen läpinäkyvyys, yhtenäiset prosessit ja tehokkaat työkalut, ovat linjassa organisaation tavoittelemien etujen kanssa. Lisäksi voidaan kuitenkin havaita useita tarkoituksettomia, negatiivisia ja ristiriitaisia vaikutuksia. Tällaisia ovat mm. monimutkaiset prosessit, epävarmuus tietojärjestelmän käytössä ja puutteellinen yhteistyö henkilöstöammattilaisten kanssa.

Elektronisen henkilöstöjohtamisen käyttö ja siihen liittyvät havainnot rakentavat esimiesten käsitystä sen vaikutuksista heidän työhönsä ollen moninaisia ja joskus ristiriidassa keskenään. Ne esimiehet, joiden mielestä henkilöstötietojärjestelmän käytössä on enemmän etuja, näkevät sen vaikuttavan heidän rooliinsa ja vastuihinsa tuottamalla lisätietoa ja tehostamalla toimintaa. Ne esimiehet, jotka puolestaan näkevät käytössä enemmän haasteita, eivät huomanneet vaikutuksia työhönsä tai rooliinsa. Vaikka vaikutukset saattavat viitata laajemmin henkilöstöjohtamisen strategiaan, työnjakoon ja toimintatapoihin, eivätkö tulokset ole suoranaisesti yleistettävissä, onnistui tutkimus tuottamaan uusia näkökulmia ja käytännön ehdotuksia sekä tapaustutkimuksen yritykselle että akateemiseen tutkimuskenttään.

Acknowledgments

Studying in addition to regular, full-time work requires strong motivation, an organized way of working and self-discipline on the student's part, but it also requires support from several other parties. This work would not have reached this stage without encouragement from family, colleagues and closest friends. Special thanks I want to give to examiner and Professor Pia Heilmann. Even though the beginning of the work took longer than originally planned and there were some deviations in the schedule, she remained positive and encouraging and she always had understanding for the balancing of different angles in life. The whole co-operation was even more valuable due to the nature of the work: all contacts were taken care of in virtual manner, which also fits the research topic of electronic human resource management very well. Thank you all for your help, guidance, advices, for listening, and being silent when needed, all of which together made this possible!

Helsinki, 26th of November 2013,

Tarja Moilanen

Table of Contents

1.	INTRODUCTION	7
	1.1 Background	7
	1.2 Research problem, objectives and delimitations	9
	1.3 Central terminology	. 12
	1.4 Research methodology and organization	. 16
2.	HUMAN RESOURCE MANAGEMENT AND ROLES IN IT	. 19
	2.1 The strategy literature and strategic HRM	. 19
	2.2 Role of manager and HR professional in HRM	. 22
	2.3 Role of manager in e-HRM	. 27
3.	ELECTRONIC HUMAN RESOURCE MANAGEMENT	. 32
	3.1 Research in e-HRM and its future directions	. 32
	3.2 Modeling and adopting e-HRM in an organization	. 36
	3.3 Consequences of e-HRM	. 44
4.	RESEARCH METHODOLOGY AND DATA	. 56
	4.1 The concept of consequences as theoretical framework	. 56
	4.2 Methodology	. 57
	4.3 Research data and its collection	. 60
	4.4 Techniques in data handling and analysis	. 64
	4.5 Research ethics	. 65
5.	ANALYSIS OF RESULTS	. 70
	5.1 Case study company	. 70
	5.2 State of HRM and e-HRM in case study organization	. 71
	5.3 The background of interviewees	76

	5.4 Perception of HR strategy, processes and function	77
	5.5 Usage of e-HRM	83
	5.6 Perception and consequences of e-HRM	87
6.	DISCUSSION AND CONCLUSIONS	96
	6.1 The purpose and implementation of the research	96
	6.2 Discussion on the findings	98
	6.3 Practical implications	.102
	6.4 Proposals for future research	.105
R	EFERENCES	.107
Α	PPENDICES	.112
	APPENDIX 1. Interview framework	.112
	APPENDIX 2. Interview summary	.115
	APPENDIX 3. Summary of background information of interviewees	116

1. INTRODUCTION

This chapter gives some background information on the field of electronic human resources management (e-HRM) and finds justification for research by identifying a research gap in the field and by explaining the need for this research from the perspective of the case study organization and the practitioners. Moreover, the central terminology will be defined and the methodological decisions will be introduced, in addition to describing the structure of this research.

1.1 Background

Human resources (HR) tasks, especially payroll and benefits administration and keeping employee records, was seen as an early candidate for office work automation in the 1970s (Hennessey 1979, Tomeski and Lasarus 1974, Ref. Strohmeier et. al. 2012, 215). Moving toward 1990s, the majority of organizations recognized the need to reduce labor intensive administration by automating personnel affairs (Strohmeier et al. 2012, 215) and the migration of web-enabled systems began toward the end of the 1990s (Stone and Dulebohn 2013, 2). Recent studies on electronic human resource management (e-HRM) applications have suggested that e-HRM is pushing human resource management (HRM) toward strategic transformation in which HR related decisions are supported by adequate, descriptive, and prognostic information. Different e-HRM solutions in several HRM areas provide the era of e-HRM with new opportunities by introducing new actors to HRM, by involving line managers in people management, by supporting a range of sourcing arrangements, and by offering greater flexibility in HRM. (Strohmeier et al. 2012, 215-216.)

E-HRM is common practice throughout Europe, as two-thirds of organizations already have adopted it. However, there are major cross-national differences and, surprisingly, Eastern post-communist countries seem to have a leading position in the adoption of e-HRM. In most countries, it seems that there is a correspondence between the stage of national economic development and the adoption of e-HRM. The size of the organization, the organization of work (e.g. telecommuting), and the configuration of HRM (such as institutionalization, comprehensiveness, and strategic orientation of HRM) are the main determinants for the adoption. Bigger organizations have traditionally benefited from automation, information, and collaboration, but markets of packaged software and outsourcing provide smaller organizations with opportunities to implement e-HRM without heavy investments in the future. (Strohmeier and Kabst 2009.)

The human resource executive's 15th annual HR technology conference and exposition in October 2012 focused on the two most topical areas in the HR technology: the cloud and social networking in the enterprise (HR Technology Conference and Expo 19.11.2012). As a participant, the main impression of the event was for me that all major HR IT vendors want to provide cloud solutions and full packages of services for their customers. And who would want to ignore the opportunities provided by social networking for a place of business? With more than 250 exhibiting companies, the event demonstrates that e-HRM has become an important industry and the importance of the conference has grown, too. The event was a strong signal that e-HRM is a burning topic, and most companies are at least considering, and most often implementing or using it, as practitioners and academic literature evidence..

IT systems are widely spread in organizations but, surprisingly, comprehensive theory and research on the topic seem to be missing. Stone and Dulebohn (2013,

1) claim that human resources (HR) scholars regard the topic as quite technical instead of recognizing its significance for HR professionals who prefer to view the topic more critically and focus on strategic processes. They also feel that HR scholars may doubt their ability to control or change IT systems due to the alleged inflexibility of the systems. Whatever the reason is, contributions to e-HRM are in plenty in the academic field, but the whole field seems to be a big mosaic lacking central theoretical paradigms (Strohmeier 2012).

There is some empirical evidence that a multi-stakeholder approach is needed in e-HRM studies. It has been noticed that managers and employees have different, sometimes conflicting viewpoints which result in their different perceptions regarding the usefulness and value of e-HRM. Unfortunately, these differences have not always been taken into consideration when designing and implementing e-HRM applications. (Bondarouk et al. 2009b, 578-590.) Therefore a deeper understanding of different stakeholders' perspectives is needed. Despite the fact that HRM was among the first area in which IT systems were utilized, and even though there is a certain body of conceptual and empirical studies addressing consequences, this area has not, at least yet, constituted a major research topic because the concept of consequences seems to be unclear (Strohmeier 2009, 534-535) and the findings seem to be mixed (Strohmeier 2007).

1.2 Research problem, objectives and delimitations

This research aims to contribute to the academic field and to practitioners' work from several angles. Firstly, the academic field of e-HRM has been lacking a systematic focus on line managers (Strohmeier 2007, 24). Secondly, the concept of consequences has not been defined clearly. The theoretical framework in this re-

search relies on Strohmeier's (2009) view of consequences as used Information Systems (IS) potentials pertaining to the the concept of consequences in the moderate voluntaristic category.

The need for this research is evident also from the practical point of view. The decision to study this topic and the selection of Konecranes (KC from now on) as the case study company was based on the fact that KC has started its journey toward the adoption of e-HRM only relatively recently. The organization is now proceeding to the stage of evaluation and the development of their practices, a phase to which research can contribute. Thus, the benefits for the case study company play a central role in this thesis, the aim of which is to provide an insight into the current situation and to give ideas for future development. Since this is a case study, the results may not be generalized, but it can yield some ideas for future research and it can provide the practitioners in the case study company and, to a certain extent, practitioners in general, with some practical recommendations regarding their work.

The research objective of this study is to provide an insight into the consequences of e-HRM on line managers. The main research question is:

 How do managers perceive the consequences of e-HRM for their role and work?

Sub-questions to complement the main research question are:

- How do managers use and utilize e-HRM?
- How do managers perceive e-HRM?
- What type of benefits and/or disadvantages do managers perceive in e-HRM?

Only few studies concentrate on a particular group of managers- instead, they typically focus on first line managers or supervisors. Line managers are not, however, a homogeneous group, but they can be regrouped at least into top managers, middle managers and first-tier managers. This study focuses on line managers who are situated in the middle level of an organization and mainly lead employees who are in managerial roles. This focus on middle managers makes it possible to concentrate on a level below the board of management and on how middle managers perceive the impact of e-HRM on them. The middle manager is typically the position which enforces changes in an organization and can have a great effect on how management intentions are implemented in the organization. This group can be seen as one of the most important clients for HR professionals because they are considered a key factor in a company's transformation through managerial style and discourse (Guiderdoni-Jourdain and Oiry 2009, 90). Thus, this study focuses on middle managers' perceptions regarding e-HRM and its consequences for their role and work as line managers. Different groups of managers can perceive e-HRM differently, and that is why the results cannot be generalized widely.

There are some important limitations regarding this study and its results which have to be taken into consideration. According to Panayotopoulou et. al. (2010),socio-cultural and organizational factors have prominent roles in different geographical areas with similar socio-cultural characteristics and, as Heikkilä and Smale (2011) have found out, language standardization has effects on the acceptance and use of e-HRM systems in foreign subsidiaries. However, for the sake of simplicity and due to limited resources, such aspects as culture, language, and economic or technological conditions will not be taken into consideration in this study. Therefore, this thesis is not intended to provide a wide insight into the adoption of e-HRM and its consequences for line managers on a global scale.

In order to acquire an understanding of managerial implications, it is important to investigate and discuss the role of a manager in relation to HR professionals. However, the function of HR and the roles and responsibilities of HR professionals will not be discussed in detail in this study, Instead, those issues will be looked at from the point of view of line managers and as they are relevant to the role of line managers.

1.3 Central terminology

There are multiple definitions of HRM available and they can be divided into subfields, such as micro HRM, strategic HRM (SHRM) or international HRM (e.g. Boxell et al. 2007). Strategic HRM seems to cover the field of HRM most widely since it takes account of general HR strategies and their impacts on performance, design and execution while also involving the international aspect, in the case of, for example, organizations operating across national boundaries (see Lengnick-Hall et al. 2009, 64). For these reasons, the definition of strategic HRM is applied in this research. One of the earliest attempts to define HRM was made by Wright and McMahan (1992, 298): "the pattern of planned human resource deployments and activities intended to enable an organization to achieve its goals". This definition is the widest accepted definition of HRM. Another definition which is rather similar but broader and more recent, by Marler and Fisher (2013, 23), is applied in this research as suitable. According to that definition, strategic HRM contains an interdependent bundle of planned or emergent human resource activities which aim for positive organizational outcomes.

As for e-HRM a generally accepted definition or even the basic aspects of it are still missing or unclear in e-HRM research according to researchers (e.g. Bondarouk and Rüel 2009, 506, Strohmeier 2012, 283). There exists no standardized termi-

nology even when different perspectives, such as IT and HR, are included. Such terminology is needed to create and test ideas, constructs or concepts (Bondarouk and Rüel 2009, 507).

The term HR information systems (HRIS), in common use previously, differs from e-HRM by its target group. The term HRIS is meant for HR department meaning that users are HR professionals. These types of systems focus on improving the processes of the HR function's even though the ultimate goal then would be to improve the services to the business. With e-HRM (sometimes the shorter form e-HR is used), the target groups are outside the HR function: employees, managers, applicants etc. The switch from traditional HR to HRIS and the automation of HR services has lead to the technological management of information through intranet. (Ruël et. all 2004, 365.) HRIS can be seen as a part of e-HRM, and yet, e-HRM is a broader concept, not limited merely to HR professionals, processes and the function of HR within an organization (Marler and Fisher 2013, 21).

Other fairly common terms, such as virtual HR(M), web-based HR(M) or business-to-employee (B2E), concentrate on different aspects. The first one refers to a technologically mediated network of different actors providing the firm's HR services without the physical existence of a HR department. The second one refers specifically to internet-based IT solutions, while the third one involves categories, such as business (line managers and HR professionals) and employees. (Strohmeier 2007, 20.) Often researchers (e.g. Parry and Tyson 2011) choose the definition of e-HRM by Rüel et. al. (2004, 365-366) as a way of implementing the concept of HRM strategies, policies and practices in organizations through conscious and directed support of, and/or with the full use of web-technology based channels. In this definition, e-HRM is seen as a concept — a way of doing HRM. More broadly and in contrast to all of these definitions, Strohmeier (2007, 20) sees e-HRM as a wider and more comprehensive definition which is not narrowed down to virtual co-

operation, but includes also less-developed varieties of technology applications, web-based solutions and other technologies, such as ERP-systems, and involves other relevant actors , such as applicants or consultants. For these reasons, Strohmeier (2007, 20) has concretized e-HRM as the (planning, provision, implementation, operation and) application of information technology for both supporting and networking at least two (individual and/or collective) actors in their shared performing of HR tasks. However, Bondarouk and Rüel (2009, 506) consider the term "networking" problematic in Strohmeier's definition. What if e-HRM applications do not support networking but provide only an administrative facility? Should those be excluded from the studies?

In addition to purely HR related electronic terminologies, web 2.0 can also be used in the context of HR. web 2.0 is different from one-way online communication and its 'read-write' element provides a democratic architecture for participation, encouraging people to share ideas, discuss, and feel a sense of community. By conversations, interpersonal networking, personalization, authentic voice, and individualism, web 2.0 supports several elements of the modern HR and people management. The most commonly known technologies related to HR are blogs, social networking sites (e.g. Facebook, LindedIn) and virtual worlds (e.g. Second Life). (Martin et. al. 2009, 1-2.)

Some of the researchers see the installation of HRM technology as a form of innovation in terms of HRM. Firstly, it allows employee-management relationships to be managed by the employees and line managers, and secondly, it provides possibilities to formulate e-HRM tools that would not be possible without IT (Rüel et. al. 2004).

In this research, e-HRM is seen as the most appropriate and useful term and it is defined according to Bondarouk and Rüel (2009, 507):

"An umbrella term covering all possible integration mechanism and contents between HRM and information technologies aiming at creating value within and across organizations for targeted employees and management."

This definition integrates four aspects. Content-wise it covers any type of HR practices that can be supported with IT. It involves the process of adoption and appropriation of e-HRM by organizational members and it involves the aspect of implementation. It also takes account of the needs of all stakeholders, since modern technology is not only in the hands of HR professionals, as was the case with previous HRIS systems. It also involves the consequences of e-HRM by introducing value creation which can be realized subjectively, meaning that either an individual employee, HR professional, HR department, organization, or a net of several organizations are willing to exchange money for the value received from e-HRM.

As Strohmeier (2009) points out, despite the existence of various papers which concentrate on the elicitation of certain consequences of e-HRM (e.g. Parry 2011, Rüel et. al. 2006, Boundarouk and Rüel 2009), there is no consistent terminology for this particular area. It seems that, even though the focus and the angle might vary, fairly similar phenomena are discussed with the help of different terms, for example consequences (e.g. Strohmeier 2009), outcomes (e.g. Martin & Reddington 2010), value creation (e.g. Rüel and van der Kaap 2012), or achievement of goals (e.g. Parry and Tyson 2011). There is no definition for consequence(s) in the studies which concentrate on consequences, not even in Strohmeier's (2009) study regarding the concepts of consequences. Due to the lack of available definitions, *consequence*, in this research, is defined as effect, result, and outcome of phenomenon or matter (in this case e-HRM) on a certain body or party (in this case line managers).

In this research, line manager (from now on manager) is defined according to CIPD's (The Chartered Institute of Personnel and Development .2012) definition in which "line managers are those managers to whom individual employees or teams directly report and who have responsibility to a higher level of management for those employees or teams." Typically, line managers take care of day-to-day people management, managing operational costs, providing technical expertise, organization of work allocation, monitoring work processes, checking quality, dealing with customers/clients, and measuring operational performance. As for people matters, managers in many organizations carry out HR activities such as providing coaching and guidance, undertaking performance appraisals and dealing with discipline and grievances. Tasks such as recruitment, selection or pastoral care may be provided in conjunction with HR professionals. Line managers can be divided into further categories, such as top managers, middle managers or frosttier/front-end managers and, in this study, special focus will be given to middle management in which managers are leading employees who have line managers' role and responsibilities.

1.4 Research methodology and organization

Since the field of e-HRM has been lacking a systematic concept of consequences, in this research consequences are seen as used IS potentials based on Strohmeier's (2009) concept of consequences which relies on moderate voluntarism. Due to the need to contextualize the study and to draw from the line managers' personal experiences, a qualitative approach was selected.

A qualitative case study methodology was adopted (in the case of KC) since a comprehensive, interpretative, and well-established approach supports the research questions well. There are several definitions of "case study" available but in this research, the definition by Piekkari et al. (2009, 569) will be adhered to since it allows great flexibility as to how theory can be combined with the empirical element. The definition is as follows: "A case study is a research strategy that examines, through the use of a variety of data sources, a phenomenon in its naturalistic context, with the purpose of 'confronting' theory with the empirical world." Semi-structured interviews are the main method for acquiring a comprehensive view on the research topic but other complementary techniques are used as well. As Strohmeier (2007, 30-34) points out, the review of HR processes, practices and policies might provide valuable information, and self-service systems and portals provide good material for further analyses. Both are sources which have not been utilized to their maximum extent.

The interview data from nine interviews with middle managers in a European setting is supplemented with data triangulation by using other methods, such as reviewing company materials and analyzing the usage of the e-HRM tool, in order to place the results to context. e-HRM studies are utilized to some extent for the creation of the interview protocol and the analysis of the results. The most important theoretical sources utilized are the model of e-HRM for understanding the current state of e-HRM in the organization, found in Rüel et al. (2004), and Strohmeier's (2009) concepts of e-HRM consequences for the categorization of consequences.

The case study company Konecranes is a commercial, private sector company which operates in the lifting equipment and services business. It has 12 100 employees in 48 countries in all continents (Konecranes 4.10.2013). KC is in an interesting phase at the moment since e-HRM was introduced to the organization rela-

tively recently. Its current state provides a fruitful research area. KC is also the current employer of the author of this research, which brings better access to research data, helps to design the research properly, and put the findings into context. However, this also creates challenges which should be taken into consideration.

The timeframe for conducting this study was from autumn 2012 until autumn 2013. A broad time frame was given in order to overcome challenges with time management when combining full-time work and studies, even when some parts of the research were integrated into daily work. The research plan and the theoretical background were formulated during autumn and winter 2012 and the methodological part was defined during the first months of the year 2013. A pilot study of the empirical part was conducted during the spring. This was succeeded by the collection of data over summer 2013 which gave enough time to collect the results and the central conclusions during autumn 2013. The thesis was finalized and returned during November 2013.

2. HUMAN RESOURCE MANAGEMENT AND ROLES IN IT

Both strategic HRM and e-HRM are relatively new research areas. There is literature available on the role of managers and HR professionals and on how HRM connects these two but the role of managers in an e-HRM context seems to be only a minor focus area in the field. In order to gain an understanding of this topic, one first needs to take a look at strategic human resource management in relation to strategy literature, its general division of responsibilities between line managers and HR professionals, and recent development of this division of responsibilities, before proceeding towards e-HRM.

2.1 The strategy literature and strategic HRM

There are numerous perspectives, theories and associated theories in strategy research that offer some kind of rationale to account for performance differences across organizations or for differences that affect organizational performance (Marler and Fisher 2013, 21). Marler and Fisher (2013, 21-22) group them into three categories:

- 1) The industrial organizational economic perspective (five forces model, strategic positioning and contingency theory)
- 2) The resource-based view (human and social resources, organizational capabilities)
- 3) Evolutionary or dynamic perspectives on strategy (strategic search/formulation, dynamic capabilities, path dependence, strategic variation and selection).

Marler and Fisher (2013, 21-22) combine and map their strategy research categories on three chronological stages in strategic HRM research identified by Lengnick-Hall et al. (2009). The economic perspective seems to be similar to the first stage of strategic HRM research since it is focused on finding the fit between HR practices and business strategy. In order to achieve a competitive advantage, the HR activities should be designed to fit the firm's business strategy in this perspective. The second stage of strategic HRM, rather than focusing on the fit, looks at the development of human capital as a source of important strategic contributions. Focusing on which HR resources lead to positive organizational performance outcomes and why is parallel to the resource-based view. Recently, the focus of strategic HRM research has been on the effective execution of HR practices and policies and on ensuring that strategic intentions are achieved. This focus is similar to the evolution perspective because it concentrates on explaining and understanding how the expected outcomes of strategic HRM may vary depending on the choices made in all stages of HRM, from design to the implementation of activities. Organizations should be able to adjust to changing environmental conditions in order to maintain their competitive advantage. Complex organizational systems are interdependent on each other and develop dynamically.

In addition to the chronological perspective, Lengnick-Hall et al. (2009, 64-85) have reviewed the development of strategic HRM literature from an evolutionary point of view. They categorize the trends found in the research of the past 30 years or so by dividing them into seven themes. The first theme is similar to much of the organization sciences and it is focused on explaining **contingency perspectives and the fit** between HR activities and desired strategic company outcomes. This view evolved as scholars began to investigate the differences which existed in different settings, such as in different fields of industry. In the second theme, the **focus shifted from managing people to creating strategic contributions**. Such terms

as *strategic capabilities* and *organizational competitive performance* originate from this focus area. The third major theme in SHRM **elaborates on HR systems or architecture components and structure.** In this theme HR systems have been divided into elements which can be examined in detail and grouped and blended into unique configurations and integrated HR systems. **Expanding the scope of SHRM** can be seen as the fourth theme which explains how the emphasis on strategic capabilities and competitive contributions has forced to expand the focus beyond a single business unit, company. or a group of stakeholders.

Companies' growing concern of their ability to achieve the intended HRM practices shifted the focus to **HR implementation and execution** which is the fifth theme. The sixth theme, **measuring the outcomes of SHRM**, is a logical continuation of the fifth theme. As the field matured and the theory became better established, **methodological issues** were put under scrutiny as the seventh theme. To some extent, all of these themes are still visible in the field but current trends focus on investigating the relationship between HR systems and organizational performance, SHRM in emerging markets, corporate level HR strategy and its connection to subsidiaries in multinational companies, implementation issues, the role of SHRM in knowledge-based competition, and human capital issues. General strategic HRM is not a new idea but originates from the 1920s and has evolved since, providing important and useful perspectives on the role of HR. (Lengnick-Hall et al. 2009, 64-85.)

As for a future research agenda, Lengnick-Hall et al. (2009, 64, 80-82) propose to continue to elaborate on the existing research trends such as implementation issues, corporate level strategies, leveraging human capital and relationships with knowledge management, but they also mean to investigate the ethical implications of SHRM, a fairly neglected area of research in the field. As a whole, strategic HRM has developed rich conceptual foundations and justifies well its position in the

HR and related management disciplines, unlike, perhaps, some other concepts (e.g. total quality management, business process re-engineering).

2.2 Role of manager and HR professional in HRM

The basic tasks of human resource management have been grouped into four areas by Ulrich (1997, 47-48): strategy execution, administrative efficiency, employee commitment, and transformation & change. These targets can be seen as a shared responsibility between line managers and HR professionals (including also other stakeholders, such as employees and external partners). In each of these targets, Ulrich has identified four roles of HR professionals: strategic partner, administrative expert, employee champion, and change agent. Due to these common targets and roles of HR professionals, it is required that line managers' targets for HRM and responsibilities are clarified, and results are measured and utilized.

Criticism concerning HR professionals' contribution to organizational performance often comes from the line manager level and provides convenient rationale for HR professionals to take even greater responsibility for people management activities. HR practitioners are considered by some to be far removed from the business reality and to constrain the autonomy of managers to make decisions that they feel are the best to support their businesses. HR practitioners are also criticized of bringing up policies that may be fine in theory but difficult to put into practice. (Whittaker and Marchington 2003, 248-249.) Cunningham and Hyman (1999, 17) have claimed that HR managers are unresponsive and slow to act, and want to check everything several times before acting (Ref. Whittaker and Marchington 2003, 248). Based on this criticism and on the fact that line managers operate at the workplace alongside the people they manage, it is quite natural that their reaction is more immediate and better suited to each situation. Thus, it is more likely that line managers' deci-

sions tie in better with the business reality, focus on customers, and therefore have a stronger connection to the organization's goals. Thus, ownership through ultimate responsibility rises and increases line managers' commitment to integrate HR matters with other matters. (Whittaker and Marchington 2003, 248-249.)

With their longitudinal studies, Holt Larsen and Brewster (2003, 228-244) have demonstrated that an extensive and European-wide movement toward greater devolvement of HR tasks for line managers is taking place. They have, however, stated that this trend is not straightforward, unambiguous, or trouble-free. Besides leading indicators for devolvement, there are also practical problems. In their study, Whittaker and Marchington (2003, 250) have placed particular focus on two problems: firstly, managers have many other responsibilities besides leading and developing the skills of their employees, which might lead to a situation where people management issues are be taken less seriously than other problems more related to business. Secondly, it has been argued that line managers do not have the sufficient competence and skills without strong support from HR professionals. In addition, Holt Larsen and Brewster (2003, 229) have listed other challenges: managers may not want to take responsibility for or may not have time to properly deal with HRM, or are ignorant of recent development in the field of HRM, and they may not have a comprehensive and long-term view on the issue. They also mention the increasingly complex organizational structure in which the need for virtual co-operation and networking is growing. For these reasons, the role of line managers may not be as easily defined as they used to be in traditional, hierarchical organization. Moreover, the HR function itself may cause additional challenges. Unfortunately, not all organizations provide sufficient training for managers in order to prepare them for their HR responsibilities. HR professionals are not always eager to give HR tasks to line managers because they may feel threatened by the devolution strategy and fear that it will diminish their role. (See Perry and Kulik 2008, 264.)

The general view is that the most common way to allocate tasks between line managers and HR professionals is to do them in co-operation. However, there are great variations between subjects and national contexts. Subjects related to workforce planning, recruitment, and selections are more likely to be assigned to line managers. Other tasks, such as payroll services and benefits, training and development, and industrial relations seem to remain HR professionals' responsibility area; however, line managers are often involved in these areas to some extent. In terms of national differences within Europe, it seems that the Nordic countries, particularly Finland, show a greater degree of devolvement, as opposed to countries such as France, Spain and Portugal, in which line managers are assigned the least responsibility of HRM matters. (Holt Larsen and Brewster 2003, 228-244.) Fairly similar results were found in a case study in which senior line managers felt that certain issues, especially those with wider legal or policy-setting significance, should continue to be made primarily by HR professionals. Also such issues as health and safety framework, employee relations, job evaluation, benefit plans, and contracts were strongly connected to HR professionals' function. However, with a large number of issues, it was acknowledged that line managers and HR professionals need to co-operate closely. (Whittaker and Marchington 2003, 256-257.)

Perry and Kulik (2008, 262-273) have noticed that there is not much evidence to support the claim that devolving people management activities to the line management results in better and more efficient management of an organization's employees. They also remark that even when such studies exist, they have been mainly conducted with case study methodology, without the possibility to generalize the results. Perry and Kulik conducted a survey among American HR managers in order to achieve an understanding of the effect of devolution on HR managers' perceptions of people management effectiveness in their organizations. The results suggest that devolution has a positive effect on HR respondents' perceptions of

people management effectiveness because HR respondents ranked effectiveness more positively in those organizations in which devolution had increased during the past years, as compared to those in which devolution had not been promoted. Contrary to expectations, the results suggested that line management support and devolution may compensate for one another in ensuring effective people management. Interestingly, line management support was considered more necessary in organizations in which devolvement had not taken place. Perry and Kulik assume that, when an organization truly has devolved the responsibility for HR to the managers, access to internal support might be needed less and managers would find their own way of developing their HR skills and tool package. Managers in non-devolved organizations might have only little motivation to develop their skills. The researchers conclude that, in organizations where managers are expected to execute HR policies without asking them to take full responsibility over people management, HR support for line management is more crucial.

One interesting finding in study of Perry and Kulik (2008, 262-273) concerns the HR respondents' evaluations of people management efficiency in their organizations. When the HR respondents were asked to evaluate the overall efficiency of people management, and not the efficiency of the HR function, they responded that it was more efficient when HR staff were less personally responsible for people management activities. Thus, this research indicated that people management benefits from devolution practices, but more research is still needed. Even though this research has its limitations (e.g. whether HR professionals perceptions are enough to give overall view on the topic, what are the overall factors and consequences of devolution, how does the implementation of devolution effects on the efficiency etc.), it clearly addresses the need to investigate further which activities should be shifted to the line management and when, and to identify those organizational strategies which ensure the commitment to the devolution initiative of both HR professionals and line managers.

Lawler and Mohrman (2003) have studied what is required to make HR professionals a strategic business partner. As other studies, this study proves that HR is more likely to act as a full partner, e.g. in the strategy process, when there are fully integrated e-HRM systems in place. However, it does not guarantee this development. The study also confirms that improving transactional operation of HR can help HR in becoming a strategic business partner. This is particularly related to managers who prefer performing tasks through self-service. This has the potential of freeing up HR professionals' time and, more importantly, its greatest impact is a wider line management involvement in HR processes. This can help line managers appreciate the importance of HR practices. When line management is more actively involved in HR activities, they might potentially perform the activities without needing to consult HR professionals. Such HR activities include, for example, accessing relevant information, conducting overviews and analysis of personnel data, making decisions, and communicating with employees. Further, employees can actually become part of HRM activities and benefit from using e-HRM e.g. by controlling their own personnel information, updating and contributing to records, making decisions, and participating in on-line training. All of this can facilitate the transformation of HRM. (Strohmeier et. al. 2012, 216.)

Placing senior executives without strong HR competence in charge of HR may, however, work against strategic partner role and the effectiveness of the HR function. The partnership also requires building the trust of HR professionals in line managers and transferring HR accountability to them in many areas in which the HR function has traditionally played a more central role. This can of course create knowledge barriers: HR professionals need a good understanding of business, line management, people management, and leadership. Researchers have proposed the establishment of forums, such as teams in which knowledge can be both

shared and combined to address complex business and people matters. (Lawler and Mohrman 2003.)

When studying how much time the HR function spends on various activities, Lawler and Mohrman (2003) found out that there was no evidence of a correlation between the actual practices of HR organization and time allocation during 1995-2001. This is surprising, considering that the adoption of e-HRM is typically justified by the claim that it frees the time of HR professionals for matters more critical for the business.

2.3 Role of manager in e-HRM

Measuring value creation for diverse groups of e-HRM users, Bondarouk and Rüel (2009, 508-511) underline that different users have different views on e-HRM's relevance concerning their HR tasks. The division into managers, employees, and HR professionals has only limited significance and within these groups several subgroups (e.g. top managers, line managers, HR managers) can be recognized. The scope can be broadened further to vendors, consultants, the society, and all of these different stakeholders should receive attention from researchers. They suggest that among these subgroups there exist conflicting interpretations and levels of appreciation of e-HRM which might be important and useful to understand indepth. There seems to be some empirical evidence that e-HRM practices vary according to the extent in which they involve managers and/or employees (Rüel, Bondarouk and Van Der Velde 2007) and that HR-line management collaboration and managing the e-HRM process requires changes in the whole structure of work and relationships (Reddington and Hyde 2008) (Ref. Bondarouk and Rüel 2009, 510).

As Strohmeier (2007) observes, consequences of e-HRM on managers have been neglected in the academic field and there is no research available dedicated to this topic. In order to be able to place the role of the manager into the context of e-HRM and to retrieve some information on the consequences of e-HRM for line managers, one must look at findings of minor importance which are related to the topic. There are more studies concerning the effects of e-HRM on the HR function but these can be used to gain an understanding of the consequences of e-HRM for managers since HR matters are often managed in co-operation of HR professionals and managers. However, this means that such information must be approached critically because it does not include the managers' point of view.

Whittaker and Marchington (2003, 245-261) have investigated the devolution of HR responsibilities to senior line management within a large food manufacturing company. Interestingly, the findings show that senior line managers were satisfied with the HR responsibilities being devolved to them and were keen to perform activities that relate to their teams' development. The main concern among the senior line managers was the lack of support from the HR function which had a negative effect on the efficiency of HR matters. The increased usage of IT & self-help had made the managers feel that the HR function is too remote, both in terms of location and style. There were concerns about HR being in an "ivory tower", out of touch with commercial realities, anonymous, and lacking visibility in the organization. However, the HR function was valued and seen as paramount for senior management's performance and development. The researchers conclude that although e-HRM may be a vital and necessary ingredient of modern people management, the value of personal touch and well-established interpersonal relationships should not be forgotten. Since line managers are the ones who put HRM into action, more attention needs to be paid to how they are recruited, inducted, appraised, rewarded, and trained to manage the HR aspects of their jobs. Whittaker and Marchington conclude their findings with the statement that the HR function is needed to provide the organization with expertise in this domain. Similarly and in addition to this, Holt Larsen and Brewster (2003, 241-242) feel that focus should be placed on an awareness of new developments and opportunities in the people management area and in this both the HR function and the line managers are needed.

Interestingly, Parry's (2011, 1146-1162) findings do not support her hypothesis that e-HRM is used to facilitate the devolving of HR tasks to line managers even though e-HRM tools are are typically built on a managerial self-service base. Her findings seem to suggest that e-HRM is rather used as an alternative to devolve HR tasks to managers. She proposes that further research is needed since also the relationship between e-HRM use and devolution to line management was negative. Parry and Tyson (2011, 335-354) were able to find some evidence of HR tasks having been devolved to line management, but this evidence was ambiguous. Six of the organizations in their study had as a goal the empowering of managers to conduct HR activities, such as recruitment, performance management and updating information, but only half of goals had been realized.

The competence of HR professionals in the area of general HRM seems to have an effect on the wider usage of e-HRM. This might be related to the fact that those HR professionals who utilize e-HRM more widely are performing more strategic tasks and therefore their competence must be on a more advanced level. Another reason for this might be that introducing e-HRM requires a certain degree of knowledge and experience in itself, e.g. in managing the transition to e-HRM efficiently. (Parry 2011, 1150-1158.) HR professionals must be able to utilize the most suitable models and approaches to transition (e.g. top-down v. bottom up, the pace of change, incrementalism vs. 'big-bang) in order to achieve buy-in from managers and employees who are actually supposed to implement the new systems and

tools. According to Martin et al. (2008), factors based on recent case studies that have a negative effect on HR's competence to effectively manage the transition to e-HRM are:

- 1. The inability/unwillingness to consult line managers on the need for e-HRM
- 2. A lack of clarity in the division of responsibilities between HR staff and line managers for data entry
- 3. Perceptions of increased workload among managers
- 4. The training of line managers for new systems and tools
- 5. The lack of on-going support from HR
- 6. The problems line managers have in dealing with virtual rather than face-to-face relationships (see Martin and Reddington 2010, 1561.)

Due to managers and HR professionals' shared responsibility of HRM, the role of the line manager in e-HRM should be viewed also from the point of view of the HR function and consider the consequences of e-HRM for the HR function. Based on Ruël et. al. (2004, 369-371) the consequences of e-HRM for the HR department are obvious and "cannot be left untouched". In terms of administrative work, e-HRM requires more activity from line managers and employees in general, and therefore, there is less demand for HR professionals to perform these similar operational activities. when HRM focus is relational HR professionals are needed even less if managers and employees begin to fully utilize the tools prepared for them. Specialized expertise is required, nevertheless, to develop such tools and practices. The more transactional e-HRM becomes, the greater the need for expertise of strategic HRM will be, in order that adequate strategic HRM plans may be formulated.

According to Foster (2009, 9-19) HR managers expect the investment in e-HRM to to result in the improved capabilities of managers, technology acting as the "symbolic" representation of a new way of working. However, his study also demonstrated that HR managers and line managers have very different views of technology in terms of its day-to-day use, possibilities, and strategic value. As a consequence, HR managers and line managers lack a common language or frame of reference for discussing technology. Perhaps the most important finding in Foster's study relates to the context of groups of actors and their power relations, and to the mutual opinions of HR teams and line managers. The power relations between HR and line managers affect their attitudes towards technology. For example, the HR professionals may doubt the managers' ability to manage their staffor the line managers may be doubtful of whether the HR professionals know how to make the most of technology, and this will determine the expectations of what technology can provide. As a conclusion, Foster states that it is important to continue to analyze different, often polarized attitudes of line managers and HR teams toward technology, in order to find out what kinds of frames of reference are shared within and across groups and with what consequences.

As a conclusion, there is very little evidence of how e-HRM is perceived by managers and what the consequences are for their role and work. However, some benefits and disadvantages have been found as minor findings in studies.

3. ELECTRONIC HUMAN RESOURCE MANAGEMENT

In the light of literature, Strohmeier (2012, 284, 293) compares e-HRM books to a mosaic: chapters in books present smaller pieces or insights, but it is difficult to get the "big picture" of e-HRM. Insights into e-HRM are offered in plenty in academic books, but there are still numerous gaps in the understanding of both general and detailed aspects of e-HRM. Thus, more pieces are needed to put the mosaic together.

In order to give a general understanding of the field of e-HRM, this chapter begins with a review of the current state of e-HRM research. After that, frameworks for the modeling and adoption of e-HRM in the organizational setting are described. Finally, the existing knowledge of the consequences of e-HRM will be introduced.

3.1 Research in e-HRM and its future directions

In the academic field, there are numerous contributions to e-HRM within several disciplines, the most attention having been given to it within the disciplines of information system, human resource management, and psychology. The research approach has been mainly positivist or else interpretive and the theories applied have been micro-level oriented since leading theoretical paradigms are missing. E-HRM research lacks endogenous theories and therefore it is criticized of being done without theoretical foundations or that the theory has been borrowed from scattered sources, mostly from behaviorally oriented-theories within different disciplines. The research seems to employ diverse empirical methods where surveys and case studies provide the majority of the results. (Strohmeier 2007, 19-37.)

E-HRM research focuses on diverse and specific topics rather than general ones. Strohmeier (2007, 2012), who seems to have accomplished the most research in the field, has identified six topic areas. The central topic is the actors around the e-HRM and their preferences, perceptions, acceptance, or satisfaction. Typical actors studied are applicants, HR professionals, and employees, but other stakeholders, such as line managers and consultants are neglected. The second most important theme relates to certain consequences of e-HRM. Individual consequences seem to be the main subject of interest (e.g. single actors' reactions to e-HRM). Moreover, operational consequences, such as efficiency and effectiveness, have been a point of interest, but the findings related to them seem to be limited and mixed. The existence of e-HRM strategies and their implementation can be seen as another object of research, but the current knowledge concerning it is scarce and ambiguous. There is also a body of research concerning the diffusion of e-HRM. The technology aspect is analyzed on a fairly general level and a systematic categorization and consideration of relevant technologies are missing. Another topic area concentrates on **contextual aspects**, such as the cultural, (inter)national, sectoral, or organizational context, but here the objective is rather to explain or moderate the configuration and consequences of e-HRM.

Bondarouk and Ruël (2009, 508-511) have been critical of duplicate studies focusing on cost reductions or a 'magic' transformation of an HR department into a strategic unit due to the introduction of e-HRM. Since cost containment has been the main focus of past research, it can be assumed that there is not much more to be achieved in this area. Therefore Bondarouk and Ruël encourage researchers to focus on the integrative consequences of deploying e-HRM. They also point out that organizations tend to withhold information on whether their HR departments have become more strategic by implementing e-HRM application. Therefore, they propose that it is time to look at e-HRM as an investment in the professionalization

of the organization. Similarly, Marler and Fisher (2013) have found out that studies have not actually provided empirical evidence of the connection of e-HRM to strategic HRM.

With potential future research in mind, Strohmeier (2007, 31-34) underlines the patchiness of the topics covered and aims for a more systematic approach to context, configuration, and consequences. Besides knowledge of general organizational features, such as the size, culture, technology landscape, an understanding of the context of HRM is needed. Here, a review of HR processes, practices, and policies provides valuable information. From the actors' point of view, it is useful to take all relevant actors into consideration. The formulation and implementation of a functional e-HRM strategy also seems to be a neglected research area. When considering the different activities, a wider approach might be needed in which the focus is not only on single actions (e.g. recruitments) but on how activities influence one another. Another important step is to systematically consider the relevant technologies (e.g. front-end and back-end solutions). When studying consequences, the primary object of study, that is actors' reactions, can be supplemented by examining changing requirements and working conditions (e.g. changes in qualification profiles, work contents, work and information load). Also, a positive approach to e-HRM should consider potential downsides, as well.

Lawler and Mohrman (2003) recommend that companies expand their vision and application of e-HRM possibilities beyond process improvement and efficiency, to include a focus on strategic analyses that can turn data into strategically valuable information. The development of the era of e-HRM provides many opportunities to examine which factors make a difference in business performance, but here is a risk that this is unused potential if it is not given special attention. Also Martin and Reddington (2010, 1568) call for the linking of e-HRM, HR strategy and business

strategy to each other more carefully in the future and for the need to elaborate on the relevant context.

Among different methodological approaches, Strohmeier (2007, 30) recommends the use of longitudinal and multiple respondents approaches. In addition, he notes that self-service systems and portals provide useful material for further analyses – material which has not been utilized sufficiently in the past. There are many data traces which provide valuable information, for example occurred interactions, time spent with technology, functions used, decisions made etc. He also challenges the traditional sequence of research and practice in favor of supporting more innovative approaches by proactive solutions (rather than reactive questionnaires etc). Future research could also profit from explicitly distinguishing different levels of information technology.

To sum up the suggestions for future research, many proposals have been made in the academic field: some of them (e.g. Strohmeier 2007; Bondarouk and Rüel 2009; Marler and Fisher 2013) pointing out the main challenge of the field, i.e. its non-theoretical character and the need for a theoretical grounding, while others concentrate on smaller aspects of the field. Strohmeier (2007, 28-34) proposes that, since a comprehensive or integrative multi-level theory of e-HRM does not currently exist, an alternative could be to check the possibility of applying three groups of existing theories. Firstly, the further utilization of common micro-level theories that provide individual phenomena could be fruitful. Secondly, applying recognized macro-level theories in the field of HRM, such as the new institutional theory, transaction cost theory, or resource based theory of can be beneficial. Thirdly, theoretical perspectives of information technology research can be promising in the field of e-HRM, as well. Apart from Strohmeier's review of the literature which provided the broadest array of critique in the existing research of that time,

most studies seem to focus on examining the effectiveness of e-HRM after that (Stone and Dulebohn 2013, 3).

Boundarouk and Rüel (2009, 506-511) have a similar view on the issue: they call for an integration of diverse expertise, interdisciplinary comprehension, and the modernization of the HR profession. They created criteria for good e-HRM research, for example the need for multidisciplinary studies which integrate the domains of HRM and IT knowledge. Such studies should concentrate on e-HRM discourse that is to become instrumental in constructing the thinking, symbols, language, and other boundaries of this research area. Besides these, studies should contribute to building theory but they should also help practitioners with e-HRM projects. The following is their summary of the biggest challenges in the research field of e-HRM, with a proposal for a new focus area for each of them: 1) clarifying strategic ambiguity of e-HRM, 2) conceptualizing relationships between e-HRM and human capital development 3) the e-HRM web of delivery channels and perceptions of e-HRM and 4) measurement of value creation for diverse groups of users. Sadly, still some years later, Marler and Fisher (2013) came to conclusions similar to Strohmeier's review in 2007 concerning the state of e-HRM research.

3.2 Modeling and adopting e-HRM in an organization

There have not been many attempts to provide an overall theoretical framework for explaining diffusion of e-HRM (Florkowski and Olivas-Lujan 2006, 689-693). Among them is a fairly comprehensive e-HRM research model, created by Ruël et al. (2004) (figure 1), which they utilized when investigating e-HRM in five large companies. In this model, they begin with an initial HRM strategy and policy and define e-HRM, its types, goals, and outcomes based on a review of literature. They also take into consideration the surrounding environment, i.e. context.

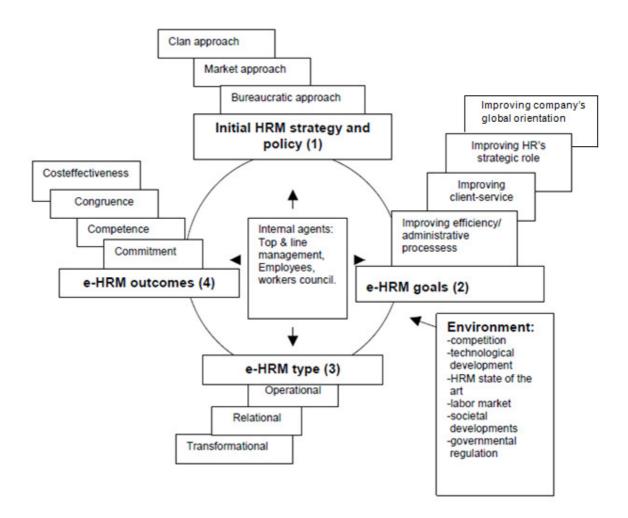


Figure 1. The e-HRM model (Ruël et al. 2004).

The model begins with the organizations' implicit or explicit HRM policy assumptions or practices in use before they take the first step toward e-HRM. To be precise, all management decisions contain some kind of a HRM component and e-HRM can be seen as an alternative approach to HRM, not as a specific stage in the development of HRM. Therefore, all of the decision which organizations make about their e-HRM utilization are purpose-driven and related to a context. (Ruël et al. 2004, 366-368.) Based on Beer et al. (1984) policy choices Ruël et al. (2004, 366) divide the initial HR strategies and policies into three categories: the bureaucratic policy, the market policy, and the clan policy. The first one is typically ob-

served in organizations of a stable environment, while the second one is typical of organizations that need to be able to rapidly change their approaches according to market changes, and the third one is most often seen in organizations that rely on high quality delivery and innovations. Each type of strategy has more detailed and specific characteristics regarding different HR policy areas such as employees' influence, rewards, and work systems.

The goals of e-HRM, according to Ruël et al. (2004, 367, 368-369, 373) are as follows: 1) improving the strategic orientation of HRM, 2) cost reduction/efficiency gains and 3) client service improvement/facilitating management and employees. In the context of five large companies, Ruël et al. found out that all three types of e-HRM goals were set in organizations, but there were no clear priorities between them. There is also a fourth aspect not noticed in their theoretical model: the decision to adopt e-HRM seems to be connected to the globalization ambitions of the companies and therefore, one goal is to improve a company's global orientation. Rüel et al. do underline, however, that these goals need to be told apart from the actual outcomes of e-HRM. Besides these anticipated outcomes, a number of so-called "overall" organizational goals can be recognized, as suggested by Beer et al. (1984). These goals are higher commitment, higher competence, cost effectiveness, and higher congruence. Outcomes can emerge based on the way in which individuals and parties want to be affected by e-HRM in line with defined goals. These outcomes, in turn, may result to a new HRM state in the organization.

Ruël at. all (2004, 368) have categorized the types of e-HRM according to Lepak's and Snell's (1998) areas of HRM: operational, relational, and transformational HRM. Operational HRM concentrates on basic HR activities, such as payroll or personnel data management. Choices to be made in operational HRM are, for example, whether employees are expected to update their personal data through

web-based solution or whether an HR or administrative function will be in place to perform this. The second type, relational HRM, concerns more advanced HR practices, such as recruiting, selection, training, and performance management. In this area, activities can be arranged into web-based applications, HRIS, or using a paper-based approach. Transformational HRM concerns more strategic aspects relating to activities around organizational change processes, strategic re-orientation, strategic competence development, and strategic knowledge management. In this option, activities are supported by integrated IT tools which allow the workforce to develop in line with the company's strategic choices or to have paper based materials.

Despite the fairly comprehensive attempt by Rüel et al. (2004) to model e-HRM, also some criticism has been given concerning it. The model seems to have a slight pre-assumption of positive outcomes of e-HRM, a downside not unique to e-HRM studies. Martin and Reddington (2010) have criticized the e-HRM frameworks of lacking a full range of e-HRM variables which contribute to the delivery of important HR outcomes and transformational uses of technology, especially the newer web-based social media. Martin and Reddington (2010) have further developed previous e-HRM models and created one that explains the links between HR strategies, e-HRM strategic drivers, e-HRM technologies, and e-HRM outcomes (figure 2). Compared to previous models, they place a strong emphasis on the HR function and moderating variables, such as competences and the preferred style of HR departments, the organization and resources of HR department, the absorptive capacity of HR, their change models and competences and, most importantly, user acceptance by line managers and employees, which links the HR strategy to the e-HRM outcomes. Thus, the researchers suggest a complete range of potential factors and their interrelationships in the effective implementation of e-HRM and its positive and negative consequences.

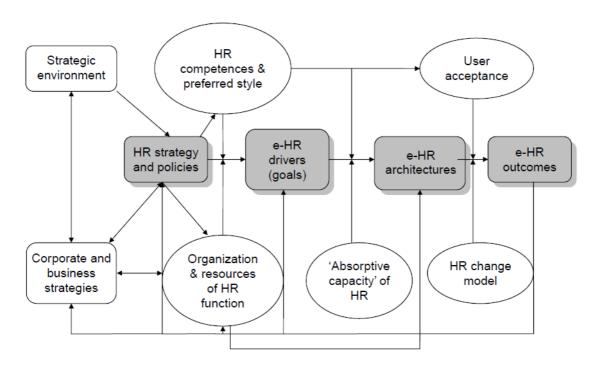


Figure 2. A model of HRM (Martin and Reddington 2010, 1555).

Compared to previous e-HRM models, Stone and Lukaszewski's (2009) model emphasizes the understanding of communication processes which will help organizations accept e-HRM and increase the effectiveness of e-HRM. In this model, communication processes are seen as the central part since e-HRM systems influence communication flows through the effects of media and message characteristics. These communication flows effect on individuals' attention, comprehension and attitudes which can lead to a change in opinion, perception, affect, or action.

There has been some criticism of linear models of organizational change (Ref. Martin and Reddington 2010, 1569), and therefore, a more dynamic model for e-HRM implementation, based on reflecting a series of cycles of e-HR implementation over time, has been proposed by Martin and Reddington (2010, 1569-1570). In the five cycles model (figure 3), the initial stage is to theorize the need for change,

continuing with promotion to achieve buy-in from relevant stakeholders. Involving a wide range of managers and employees is needed for the implementation of and integration of the change into existing practices, before proceeding to the evaluation of the vision, to the e-HR architecture and, finally, to refining stakeholders' needs for subsequent e-HRM technology implementation.

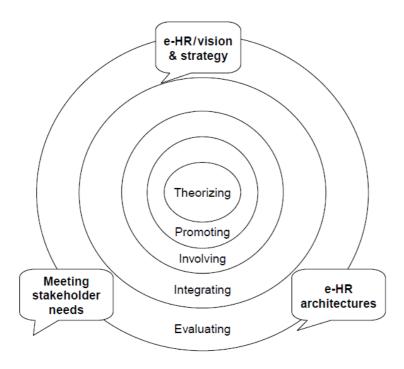


Figure 3. E-HR as the implementation of cycles (Martin and Reddington 2010, 1579).

Information technology acceptance research has yielded many competing models of IT acceptance and the one which is referred to the most is the Technology Acceptance Model (TAM), created by Davis (1989) and Davis et al. (1992), with its further modifications and integrations with other models (e.g. Unified Theory of Acceptance and Use of Technology, UTAUT) (Venhatesh 2003, 425). Research in the field of IT has been criticized of focusing on system usage as the primary outcome of the interest while unintended reactions of users to such systems should

also be taken into consideration. Since reactions to system features effect the implementation of the system, attention should be paid to the actual development process instead of the narrower implementation process. Design-related decisions, such as purpose, control, accessibility, and perceived innovativeness send signals to the employees who interpret and react to these signals and thus influence the success of system implementation. (Fisher and Howell 2004, 243-252.).

Fisher and Howell (2004) developed a process model, based on theories related to organizational sensemaking and socialization, to help understand employees' reactions to IT systems and take them into consideration from the very beginning of any system implementation plan. In this model (figure 4), system design decisions and factors affecting reaction formation, such as individual (personality, values) and situational (strategic alignment, trust, employee involvement) factors, affect user reactions. This, in turn, defines the final implementation outcomes. Fisher and Howell propose that positive reactions from employees are more likely to result in favorable implementation outcomes than negative reactions. Even though this approach succeeds in taking into consideration the employees' reactions to IT systems, it can be questioned whether a wider approach could be more sensible when considering reactions. It is likely that reactions do not relate to the systems only, but to all HRM strategies, the distribution of work and the ways of working in the organization which uses theIT tool.

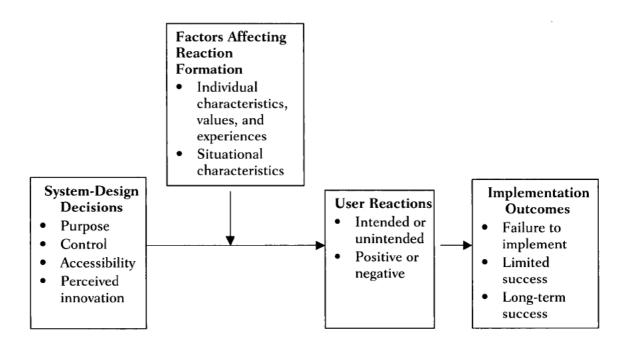


Figure 4. Process model of employee reactions to IT systems (Fisher and Howell 2004, 253).

There are also other aspects to be found in literature which differ slightly from the mainstream view of the effects of e-HRM adoption. One of these interesting aspects concerns the approach in which implementation is seen as a learning process. Bondarouk and Sikkel (2005) propose that the learning-oriented implementation of IT which focused on the interactional process inside a group can be the core factor in adopting a new system. Utilizing theories of collaborative or group learning from educational sciences emphasizes the social aspects in the adoption of IT. In their view, group learning potential either accelerates the implementation or terminates it. As a practical conclusion, they recommend that organizational support for IT implementation should include practices to advance group interactional processes such as seeking feedback, asking for help, talking about errors, discussing failure, critiquing, comparing, evaluating, developing collective vision etc.

Another interesting finding related to e-HRM adoption involves important aspects of the organizational setting. Lin (2009) demonstrated that e-HRM involves two critical cornerstones from the perspective of organization innovation: IT adoption and virtual organization (VO) adoption. Both innovations had a positive effect on employees' creativity and organizational innovation and on the relationship of these two aspects which is the foundation of organizational change and development. IT and VO can then be part of the crucial core competences which build and maintain organizational competitive advantages. As a practical conclusion, virtual teams and flexible structures which emphasize self-management teams, multi-function skills, and network orientation can facilitate the proper adoption of e-HRM tools and support organizational innovation.

3.3 Consequences of e-HRM

Concentrating on the outcomes and consequences of e-HRM is a relatively recent development in the field of e-HRM (Rüel, H. and van der Kaap 2012, 261). As Strohmeier (2007) stated, findings related to the consequences of e-HRM seem to be mixed, even contradictory. In general, findings seem to support the claim that introducing e-HRM does not mean a change in the organization's HRM setting alone, and a better understanding of the effects of e-HRM is needed.

Strohmeier (2009) has been criticizing the existing research on consequences of being based merely on common sense and self-evident orthodoxies, with a low level of awareness for more advanced concepts of consequences instead of employing deeper analysis of the issue. The background concepts being employed are partially ambiguous and incongruous and there seems to be a tendency to-

wards a hidden determinism seeing technology as the origin of all consequences. Strohmeier emphasizes that the concept of consequences is of fundamental concern since it determines the adequate questions, feasible designs and possible results of any research into consequences. As an example, some relevant aspects of e-HRM may be ignored if they are seen as strict determinists consequences which are seen as unmanageable. Strohmeier's concept of consequences appears to be the only attempt to conceptualize the consequences in the field of e-HRM in a systematic manner.

Strohmeier (2009, 540) recommends that organizations try to manage the consequences of e-HRM persistently. Since organizations might be introducing substantial changes to the organization with the e-HRM implementation, the basis of any e-HRM project should be the elaboration of possible consequences, desired and undesired. Initial vigilance can reduce the risk of stumbling into accidental changes. Strohmeier suggests two general starting points: influencing the potentials of an IT system and influencing the kind of usage. The first one can be done by selecting and designing the system with the desired and expected consequences as a starting point and judging whether certain features could cause unexpected or undesired consequences. Possible misuse can also be avoided with the help of technical system design. Clearly, merely presenting the functionalities and operating instructions of a system does not suffice but the focus should be in user training (showing in detail how to use the system), in order to achieve the desired aims of the system. On-going monitoring of usage and of the resulting consequences and corresponding real-time interventions can help reach the desired consequences. However, these suggestions have not been tested in research.

In addition to individual consequences (Strohmeier 2007, 2012), there have been attempts to give a wider view on consequences e.g. in the organizational setting.

Both Fisher and Howell (2004) and Martin and Reddington (2010) have pointed out that, besides intended outcomes, also unintended outcomes and reactions arise, and whether an outcome is positive or negative depends on who is making the judgement. Much of the previous research has focused on the positive sides and benefits of e-HRM, but it has been gradually noticed that there can also be disadvantages and negative sides, especially if change management and technology acceptance have not been taken into consideration (see Martin and Reddington 2010, 1562). In table 1, Fisher and Howell (2004) categorize the reactions into affective, cognitive, and behavioral outcomes.

Table 1. Intended and unintended reactions to IT systems (Fisher and Howell 2004, 247).

Outcomes	Intended reactions	Unintended reactions
Affective outcomes	 Satisfaction Enthusiasm Attitudes toward the system Self-efficacy 	DissatisfactionCynicismFrustration
Cognitive outcomes	 Knowledge of how to use the system Perceived usefulness Perceived control 	 Spillover effects (positive or negative) Interpretation of corporate values and goals
Behavioral outcomes	 Use of the system Increased productivity 	ResistanceDecreased productivitySabotageTurnoverKnowledge sharing

In table 2, Martin and Reddington (2010, 1562-1563) summarize the outcomes of e-HRM based on the existing literature by academics and practitioners. Some of

the outcomes have been evidenced by academic research but others are based on the assumptions of practitioners and researchers. Martin and Reddington's (2010, 1562-1563) model differs from the one by Fisher and Howell (2004) in that they have grouped the intended and unintended outcomes based on positive-negative and transactional - transformational categories. Although the summary seems to be fairly comprehensive and can probably be valuable to practitioners when looked at from the organizational angle, the division into positive – negative outcomes depends on the angle.

Table 2. Classifying the outcomes of e-HRM (Martin and Reddington 2010, 1563).

	Positive	Negative	
In- tended	Transactional	Transactional	
	Reduced costs of HR transactions and HR head count reduction Greater responsiveness to needs of managers and employees' needs for real time information and tailored HR solutions on demand. Increased self-efficacy among managers and employees	HR head count reduction	
	Transformational	Transformational	
	Greater accountability of managers for people management Increased acceptance of self-development by employees Improved talent management through self-selection, self-assessment, performance management etc. Improved two-way communication leading to higher level s of organizational engagement and satisfaction with HR/people management Greater access to individual learning Greater capability to feed forward individual learning into group and organizational learning across distributed organizations Greater sense of corporate identity through uniform HR portals More time for HR to focus on expert/strategic issues Greater ability to work flexibly from home and other workplaces	 Lack of face-to-face contact and remoteness of HR staff from "clients" Intellectual property and data ownership transferred to outsourcing partner 	
Unin- tended	Transactional	Transactional	
tended	Spillover of information from HR into other areas of business Transformational	Displacement of existing HR staff and loss of organizational knowledge Lack of job satisfaction among HR staff working in shared services centers Manager/employee frustration over missing ease of use and value of information Resistance to new ways of working though "benign neglect", opposition or mild forms or sabotage Increased level of cynicism with HR/organizational change programs Increased perception by managers of being responsible for HR's job and work overload Transformational	
	Transformational	Transformational	
	Greater sense of organizational innovative- ness/progress modeled through adoption of sophisticated e-HRM		

Although there is a fair amount of discussion in the academic literature about the potential goals and drivers of e-HRM, only few scholars have studied whether these goals have been realized (Parry and Tyson, 2011, 335). Marler (2009) has focused on building a model to examine how e-HRM fits into strategic HRM, how e-HRM may help a firm achieve competitive advantages, and whether HRM becomes more strategic by implementing e-HRM. She has proposed that the goals of e-HRM depend on the current, role of the HR function in the organization: the administrative HR function focuses on cost savings, the strategic HR function focuses on achieving customized alignment with business strategy, and the capability building HR function focuses on building human capital resources and organizational capabilities. In addition, the attitudes of management have a great effect on the goals: if management skepticism or inertia is high, the likelihood that e-HRM strategic alignment goals or capability building goals are achieved is diminished. Marler has concluded that although e-HRM has the ability to be strategic, its potential to create a competitive advantage for the company is rarely realized. Thinking should be strategic before going to the net, otherwise the currently popular view of e-HRM resulting in strategic HR may be overly optimistic.

Marler and Fisher (2013), in their review on the research of the past 12 years, searched for evidence of a relationship between e-HRM and strategic HRM. They found no evidence which demonstrates that e-HRM provides strategic outcomes and although there is evidence suggesting that strategic HRM predicts e-HRM outcomes, depending on the context, however, the research has not been designed sufficiently to establish a causal direction. As a conclusion, they summarize that e-HRM research is still in a too early phase to be compared to general IT, strategy or HRM literature since e-HRM research still reflects the early stages of strategic HRM perspectives and relies mainly on a deterministic perspective from which other fields have already evolved. Relatedly, no studies have directly examined the relationship between e-HRM adoption and any kind of organizational performance

measures (e.g. competitive advantage, increased human capital, organizational performance etc.). More scientific evidence is needed to support the popular claim that e-HRM makes HRM more strategic. To sum up, there is only weak evidence that e-HRM, as an independent agent, would create a positive change for HR.

Parry and Tyson (2011, 335-354) have studied the goals of e-HRM in 10 UK organizations. Their purpose was to find out whether these goals had been achieved and which factors affected this. These goals seem to be similar to the ones by Rüel et al. (2004) since e-HRM in Parry and Tyson's study was introduced in the organization to improve efficiency, service delivery, standardization and organizational image, to empower managers, and transform HR into a more strategic function. Managers' empowerment was a new aspect in this study, as compared to previously stated goals. The researchers stated that it was somewhat difficult to assess the importance of outcomes or gather evidence of achievements, but the commonly identified goals were efficiency, service delivery, and standardization, with some evidence of a transformational impact of e-HRM since HR professionals had more time and information to support the organization. Interestingly, the research showed no evidence that HR would be more involved in business-related decision making. Basically, the introduction of e-HRM alone is not enough to make the HR function more 'strategic'. Similarly, Parry (2011, 1146-1162) found out, when examining e-HRM as a means to increase the value of the HR function, that e-HRM does not provide HR head count redundancies and cost savings due to efficient transactional activities supported by IT tools (as has been generally suggested), but HR practitioners are being redeployed to other activities.

According to Parry and Tyson's (2011, 349-350) research, factors affecting the realization of e-HRM goals are related to HR skills in the HR function (such as consultancy, strategic thinking, analytical, advanced communication, negotiation, process

engineering, project management, and business writing skills), training in the use of e-HRM, engagement of managers and employees with e-HRM, design of the e-HRM system, and the general acceptance and familiarity with the technology used in the organization. These findings may not be generalized to other organizations, but they provide some support for the argument that engaging managers e.g. with e-HRM design might promote the acceptance and use of e-HRM. In the research, some managers felt that e-HRM is not a good use of their time and it actually increased the amount of administrative tasks of managers. With the managers' engagement to the different phases these issues could be improved upon.

Ruël et. al. (2006, 280-291) have examined whether e-HRM contributes to effectiveness since they felt that the topic had not received enough attention in the academic field. Although their research can be criticized of being limited to only one public organization, it nevertheless presents some interesting findings for future investigation. It was found out that particularly one's assessment of the quality of e-HRM application is positively related both to the technical (=operational) and strategic effectiveness of HRM, but that the relevance for one's job and the ease of use of the e-HRM application do not seem to have a significant impact on the effectiveness. Further analyses include aspects of participation and involvement in development and implementation, greater social support from colleagues and managers, and better information provision which all led to a greater appreciation of the content and design of e-HRM application.

Ruël and van der Kaap (2012, 260-281) have noticed that it is still not known whether e-HRM creates value and how it can create value. Although there is some research on value related aspects, such as consequences and outcomes, they criticize the findings of not being conclusive, either due to a narrow focus on the relationship between e-HRM usage and the outcome variable alone, or due to an over-

ly wide and generic perspective. To contribute to this gap in the academic research they investigated whether e-HRM is the driving force behind HRM value creation, whether this relationship is straightforward or conditional, and whether contextual factors intervene. Although their study has several limitations (e.g. the sample size was very small because they concentrated on service industry), they were able to provide empirical proof that facilitating factors, such as facilitating conditions, data quality, HR technology competence, and HRM policy/practices consistency, do play a role in HRM value creation among e-HRM users. When e-HRM usage is in line with the system's intended purpose and the contextual factors facilitate e-HRM usage, HRM creates value through effectiveness, efficiency, and HR service quality. Facilitating contextual factors are positively related to HRM value creation and they moderate the relationship between e-HRM usage and HRM value creation. In opposition to expectations, high facilitating contextual factors result in a weak relationship between e-HRM usage and HRM value creation. These findings showed, first of all, that contextual factors matter but they are also evidence of the need to clarify the intervening role of contextual factors.

Ruël and van der Kaap (2012, 262) reviewed the literature on e-HRM from 2003-2010 in order to assess the amount of value creation found in each study from the perspectives of use value and exchange value. Surprisingly, most of the literature focuses on use value rather than exchange value. Since organizations invest a considerable amount of money in e-HRM, it would be natural to think that research tends to focus also on the financial outcomes. Ruël and van der Kaap have assumed that companies do not want to share information on their investments and financial results or that they have not tried to measure the financial outcomes of e-HRM. In fact, it has been noticed that it is very difficult for organizations to determine an outcome such as cost reductions (e.g. time used for HRM is not taken into consideration among line managers) or return on investment due to e-HRM (Ruël et. al. 2004).

Based on their research, Ruël et al. (2004, 372-379) underline that e-HRM is an innovation in terms of HRM due to two aspects: firstly, it is a great opportunity to let employees and managers themselves take care of employee-management relationships and secondly, IT provides an opportunity to design HRM practices differently than without information technology. According to their empirical study, a clear gap exists between the e-HRM's available functionality and the use and adoption of it by line managers and employees. As was noticed in one company, it took approximately three years per user to learn to make use of all the technical possibilities. Although it can be said that full utilization always comes after technical implementation, this demonstrates the readiness, ability, and willingness needed among employees and managers. As a central observation, they state that e-HRM is a change in the mindset, not a technological change. Managers and employee need to accept the usefulness of e-HRM tools and begin to utilize them, and HR professionals also need to understand that this development is permanent.

It has been found out that the most important effect of e-HRM is the strategic integration of HRM into the revised company strategy, structure, and culture in which e-HRM is seen as an indispensable instrument to help realize this integration. In practice, cost reduction and reduction of administrative burden are seen as the main outcomes of e-HRM, but it was difficult to find out exact figures regarding the size of these reductions. For example, without a clear and easy structure, employees and line managers may be concerned about having to spend time on exploring web-based HR tools. Also, the availability of PCs on all levels of the company, together with the managers' and employees' sufficient PC skills are important prerequisites for the success of e-HRM. Explicit goals and a good plan on how to achieve them are of major importance in order to achieve employees' and managers' buy-in for e-HRM change which should, first and foremost, be a mindset

change and only after that the chance to introduce new ways of working through IT. (Ruël et al. 2004, 375-377.)

Contextual factors have been investigated especially in the context of explaining e-HRM consequences (Strohmeier 2007). Ruël and van der Kaap (2012, 267-268) have summarized the context variables in e-HRM research (table 3) but, similarly to Strohmeier, they have also criticized the factthat the variables are not treated as context variables in the analysis. Little is known concerning national or cultural differences and similarities and there is no evidence that a sectoral context would create a difference e.g. in the scope of the e-HRM or IT software solution (Strohmeier 2007, 2012). From the point of view of organizational context, the firm's size indicates the scope and the intensity of e-HRM as well as the state of conventional HRM, since the lack of international harmonization and orientation of HR practices seems to promote e-HRM (see Strohmeier 2007, 23-24.).

Table 3. Context variables in e-HRM research as independent variables (Ruël and van der Kaap 2012, 267).

MICRO	MACRO
Support from colleagues and managers	Organization size
Information availability and accessibility	Department size
HRM practices	Duration of existence of HRIS depart-
Employee skills	ment
Employee behavior	Computer experience of the firm
Computer and internet literacy	Cross-functional teams
Personal characteristics of individuals	Nationality of the firm
Characteristics of technology	Multicultural context
Degree of involvement in e-HRM design	National culture
and implementation	
Managerial compulsion to use e-HRM	
Privacy and data security	

One important finding related to the actors and contextual aspects concerns the IT environment and role of employee. Although employees' attitudes towards e-HRM are influenced by multiple factors, there are signs that positive experiences with IT systems, and especially, positive usability experiences and employees' preferences to the role played by HR, especially strategic preference, will affect positively on attitudes. The broader IT environment and its image should be taken into consideration when implementing the e-HRM application. Providing appropriate system support seems to be important to managers in particular. (Vormaens and van Veldhoven 2006, 887-902.)

A new, interesting angle to studying the consequences of e-HRM is introduced in Huang and Martin-Taylor's (2013) study in which they, instead of investigating users' perceptions as a given reality, took one step further and studied how such a reality can be proactively reshaped to create acceptance. They found out that HR professionals can play a more proactive role in shaping and reshaping users' perceptions on HR self-service technology adoption through interventions. Through action research approach they propose that HR professionals can drive and influence the adoption of HR self-service technology, but it requires an understanding of the approach and a different mindset.

4. RESEARCH METHODOLOGY AND DATA

After reviewing the central theoretical framework regarding HRM and e-HRM, this research was designed to meet the research targets and respond to the set research questions. In this chapter, the theoretical framework and research methodology will be described. The process of data collection and the handling principles followed in this research will also be presented in this chapter. Moreover, some ethical aspects and questions related to the quality of the research will be discussed.

4.1 The concept of consequences as theoretical framework

In this research, the consequences of e-HRM for managers will be looked at from the point of view of Strohmeier's (2009) concept of consequences which is the first systematic attempt to conceptualize consequences in the field of e-HRM. Based on a review of previous studies, he created eight categories of consequences and combined them with four philosophical views, thus placing them on a determinismvoluntarism continuum: strict determinism, moderate determinism, strict voluntarism, and moderate voluntarism. Since strict determinism and strict voluntarism provide inadequate, though simpler, possibilities to conceptualize consequences, he chose the category of moderate voluntarism which allows richer and more complex ways to view the consequences. Voluntarism declares that human will, with the subsequent human action, is the origin of occurring consequences and moderate voluntarism still sees the organizational choice and action as the main origin of consequences, but accepts that this is moderated and alternated by further factors. Strohmeier (2009) has suggested a specific concept of consequences, viewing the consequences as used IS potentials relating to the category of moderate voluntarism, summarized in table 4.

Table 4. Strohmeier's (2009) concept of consequences as used IS potentials based on moderate voluntarism.

Category	Definition
Origin of consequences	A wide spectrum of the originators of change combining an organization's usage of technology's potentials explaining a bundle of interrelated e-HRM consequences.
Explanation of consequences	Consequences are not causally evoked but rather produced by individuals and organizations who see IS as a means of achieving set goals.
Divergence of con- sequences	Used IT potentials allow divergent and opposing, yet not arbitrary consequences.
Dynamic change of consequences	There are changes in consequences over a period of time.
(Un-)expectedness and (un-)desirability of consequences	Possible complexity of consequence bundles and unexpected kinds of usage (unintended misuse, intended misuse, intended re-use) lead to unexpected and undesired consequences or to expected and desired consequences.
Manageability of consequences	There is a justified necessity to manage consequences in a persistent manner because both positive and negative consequences can be seen as unstable over a period of time.
Researchability of consequences	The proposed concept adds complexity to the research into consequences but it also provides wider and deeper conceptions. E.g. there is a need for more studies which are longitudinal and focus on a whole bundle of consequences.

4.2 Methodology

Case study has its roots in sociology, but it is widely utilized in international business and organizational science as a qualitative research design (see Piekkari and Welch 2011, 183). As a research strategy, it is flexible and diverse, and can benefit both beginning and experienced researchers. Based on the philosophy of science, case studies can be grouped into traditional, explanatory or interpretative case stu-

dies, or according to the data collection methods, into ethnography or comparisons between two or multiple types of cases. This allows case studies to be used as a research strategy for multiple purposes and in diverse ways (Piekkari and Welch 2011, 183-195). However, a review of its usage reveals that it is very often used in a traditional, positivist way by utilizing interviews as the main method (Piekkari et al. 2009). In this research, interpretative approach will be followed when trying to comprehend and reflect on the phenomenon.

Standards, validity, reliability, and rigor are the main concerns when talking about the quality in qualitative research (See Ridder and Hoon 2009, 99). The quality of the findings depends on the quality of the methods, both in the phases of data collection and data analysis. Focusing on the quality of the data collection and analysis techniques can lead to a better quality in general. Complementary techniques have a central role in providing a better insight into the matter and helping the researcher find out what the most compelling techniques for internal consistency are and why they can help draw and verify conclusions. (Ridder and Hoon 2009, 94, 102). The quality of this research was intended to be covered in careful HRM and e-HRM theory and general methodology familiarization before proceeding to research design, data collection and analysis.

The method triangulation approach was also implemented in this study. The primary method was using semi-structured interviews, but other available complementary data collection methods were also utilized, in order to put the findings in the right context, address different aspects of the issue, and understand e-HRM better in the organization. As Steinke (2007) has pointed out with regard to combining different techniques, a researcher faces the need to better understand different techniques and find the most appropriate one with regard to the purpose of the study (Ridder and Hoon 2009, 102).

Interviews provide an efficient and well-developed way of understanding the line manager's perspective. The interview protocol was developed with literature on e-HRM as its base. Strohmeier's (2009) categorization of the concepts and the models of e-HRM by both Rüel et al. (2004) and Martin and Reddington's (2010) were loosely utilized for the themes and questions in semi-structured interview. Also, the context variables listed by Rüel and van der Kaap (2012, 267) are used as background information. The interview framework was tested in a pilot interview and, based on the experiences and feedback from the interviewee, the last modifications to the framework were made. The pilot interview was utilized for the analysis, since the interview outline seemed to work fairly well and only smaller fine-tuning was needed for it.

In order to put the interviews in the right context and to address different aspects of the issue, complementary methods were also used. Firstly, to acquire a basic understanding of the state of e-HRM in the case study organization, processes and materials related to the HR and IT system were reviewed for background information. This provided complementary data for findings and analysis, for example an overall picture of how e-HRM has been modeled in the organization. Other complementary techniques included analyzing the use of HR IT software among line managers in order to find out how managers are actually using and utilizing e-HRM. These findings did not, however, play a major role in the study but mainly acted as background data to help give a more complete and accurate perspective into the use of e-HRM in the organization. This could not have been achieved with only a single data source (see Ridder and Hoon 2009, 100).

4.3 Research data and its collection

The selection of the target group of this study was based on the managers' positions in the organizational structure, nature of the work, seniority of the managers at KC, cross-national responsibility area, and geographical location. Middle management in this organization was defined according to the line managers' role and position: they report to senior management team members and lead teams which have line managers as direct reports. Interviewees from different organizational and functional units and also from different countries were selected in order to receive a sufficiently rich and comprehensive picture of the organization. It was also expected that a few year's working history in the organization would ensure that they had enough experience in e-HRM. The target group contained 84 people, the most of whom, 61, work in Europe which is one of the geographical regions in which KC operates. In order to keep this study manageable, this was selected as the target group. Since the company operates globally and the results of this study are useful for the company in a global setting, only middle managers leading crossnational teams were taken into consideration which further limited the target group. These managers use English as the corporate language on a daily basis which ensured sufficient language skills for the interview.

The data coverage contains the size of the research data, the saturation point for the data, research delimitations and the possibility for generalization in addition to the successfulness of the analysis, and the interpretation and reporting of the research (Eskola and Suoranta 1999, 61). The middle level line managers were selected by handpick according to chosen criteria and it was decided that ten is a suitable number of interviewees. In the end, the interviews were conducted with only nine line managers since one of the contacted interviewee candidates could not be reached. It appears that the number of interviews was sufficient because

the saturation point was met after the seventh interview, and too much new information were any more achieved. With this number of interviews, the results cannot be extensively generalized to other context but they do allow a detailed initial exploration of the relevant issues, especially when looked at from the theoretical perspective and tighted to previous research and theories. The research delimitations have been described previously in this thesis.

All interviewee candidates were approached by the author of this thesis via mobile phone or email, and the purpose of the study was explained and voluntary participation was emphasized. Most of the interviews were planned to be organized in face-to-face situations, but the possibility of virtual participation was given due to practical challenges, such as the physical distance and time management issues. This included the risk that something would be lost in the communication, but the virtual tools had been quite well adopted by management, so they had previous experience in them. Five of the interviews were personal face-to-face conversations while four were carried out orally over the Lync conference tool due to physical distance.

The interview framework was shared with the interviewees a few days in advance and the interviewees were requested to prepare for the interview by reviewing the themes and questions in advance but any other preparation was not expected. Interviewees were encouraged to actively discuss and share real life experiences in e-HRM and to present their own views instead of the interviewer being a "speaking questionnaire". However, it was clearly stated in the beginning of the interview, that the interviewer's role was to listen and understand the person's point of view and not wind up in a profound conversation of the topic. Moreover, it was expected that one interview would take roughly one hour.

Welch and Piekkari (2006, 417-437) have pointed out that the issue of foreign languages in interviews conducted by researchers doing cross-border fieldwork may present a problem. Linguistic issues are often ignored although language barriers are a potential source of measurement error. Welch and Piekkari have found out that there can be concerns about data accuracy and authenticity of responses, rapport-building between interview participants, and the construction of shared understanding when foreign languages are involved. For example, the use of English may result in "company speak" rather than the interviewee's personal interpretations and insights. Although the main focus of this study is on the content, linguistic issues cannot be completely ignored either.

English was selected as the research and reporting language for several reasons: firstly, the intention was to give practical proposals for the company which operates in a global setting, with English as the corporate language. Also, the target group of middle managers contains people from several countries which made it necessary to consider the language issues. The only practical choice of language was the corporate language. However, the company's headquarters is located in Finland where the company also has its cultural roots. The top management contains mainly Finns and, in a similar manner, many of the target group members in mid management are Finns and work from Finland, as researcher. In these interviews the Finnish language was opted for but all the written communication, such as providing the interview framework for the interviewees, was done in English. Concentrating only on Finland and operating in Finnish would not have yielded a comprehensive enough picture and the benefits needed for the company. As a total, five of the interviews were conducted in English and four in Finnish. This means that, in four of the interviews, both the interviewer and the interviewee used a second language, English, which provided a neutral setting, but in one interview, the interviewee was able to use the mother tongue, English, while the remaining four interviews were conducted in Finnish which is the mother tongue of the interviewer and the interviewees.

Linguistic issues were taken into consideration by focusing on a standard variety of English and observing the case study company's preference for American English. The interview framework was sent to each interviewee in advance, to ensure that they could familiarize themselves with the terminology before the actual interview. Frequently, clarifying questions were used and the interviewees were given time to allow them to find their own way to express themselves. However, since the focus was not in the linguistic aspects but in the content, the interviews were conceived according to a neo-positivist position in which the emphasis is on wording the questions fairly precisely and appropriately to reduce potential misunderstanding and to ensure accurate information retrieval. However, a certain amount of contribution on a personal level is needed to engage with the interviewees which allows open and honest responses (Welch and Piekkari 2006, 420).

Complementary research data included a review of certain documents and statistics on the usage of e-HRM in the organization. Completion of certain activities in the system, initiation of activities by roles and countries, and areas of activities were reviewed in the system statistics. These reports, however, are fairly new, so there is no history or trend data available and they merely provide basic background information on the system usage. In order to achieve a deeper understanding of the system usage in the company, further analyses of the system usage were planned. Unfortunately, statistical information, such as how often different users, for example employees, line managers or HR log into the system, how long they use the system in average in, which system areas/modules are most frequently used etc., was not available.

4.4 Techniques in data handling and analysis

All interviews were recorded and transcribed for further analysis. The process of analyzing the interview data commenced during the interviewing phase and continued throughout the transcription and data handling. In the first phase, the background information of the interview was tabulated, in order to receive a clarified picture of the research data. The main technique in the data handling relied on a data-driven analysis, although the data was analyzed using a categorization and listing process. This process was built on interview framework themes which are based loosely e-HRM literature. In this sense, theory was taken into consideration.

Data handling and analysis were carried out in multiple ways according to a plan before finalizing the data collection period. Firstly, the data was arranged based on themes in the interview framework. The data analysis began with a quantification of listings and categorizations, in order to achieve a rough understanding of the data. The thematization of the data was another method of inspecting the research questions, especially since this is typically helpful for the pragmatic goals of a study (Eskola and Suoranta 1999, 165, 179). The central themes deduced from the data were evaluated based on their usefulness for the analysis, and special focus was given to themes which seemed to provide the most interesting insights. After several rounds of analysis, it was apparent that the categories were sufficient for capturing the main tendencies identifiable in the data, and therefore no additional categories were deemed necessary.

All results were analyzed in English, although part of the transcribed data was in Finnish. There was no need to translate all of the data into English, since linguistic

issues were not the main issue in this study. Only some citations were translated for reporting purposes. The data was regarded as subjective descriptions which can yield a "true" understanding of the line managers' perceptions in the particular interview situation and at the time of the research period.

Reports related to the usage of e-HRM, received from the company's e-HRM system, were analyzed by calculating the amounts and percentages of use from different angles and in a certain time period. Further statistical evaluations were not made, since there was no historical data available and this was not the main focus in this research but rather complementary background information.

4.5 Research ethics

The selection of the research topic and the case study company was based, not only on a general interest in this field, but also on the situation of e-HRM in the case study organization and on the researcher's position. KC has recently finalized an important e-HRM-related change program, and further information on the topic is needed. In addition, the author of this thesis holds a position in KC's global human resources function with responsibilities for employment processes and introducing e-HRM at KC. This will both benefit and present challenges to the research. The advantages are that the researcher will not need to concentrate on getting familiar with the organization, the real need for research will be easier to analyze, and it will be easier to place the results into context and interpret productively, and utilize them afterwards.

As Pietilä (2010, 412-414) observes, the role of the researcher should be taken into consideration, together with his/her limitations with regard to language skills and

cultural knowledge. There was also the obvious concern that a position in the company's headquarters might have an effect on how the interviewees respond during the interview. However, this is not considered a great concern, since the culture of the company encourages trust in people and openness as regards to feedback, and this line of conduct is clearly demonstrated by the top management. There was also the risk of not recognizing all nuances or hidden meanings in the interviewees responses, for example sarcasm or irony, due to cultural or language differences. The positive aspect is that co-operation with all the nationalities in the target group will be natural, due to ten years' experience in the HR function, dealing with international and mainly European level HR positions. Reciprocally, the individuals in the target group are used to working with a Finn.

Gummesson (2006, 173) mentions the concept of persona, representing human aspects, individual personalities, collective consciousness, roles, and research environment which bring a subjective and inter-subjective influences to all areas of the research. All decisions, outcomes, and reporting during a research procedure are based on a mix of facts and judgment calls. It is important to evaluate the role and personality of the researcher, and the environment at KC from the ethical perspective throughout this study, since it is obvious that all these factors affect the research in all phases, not only the results. Gummesson's (2006, 178) recommendations were used to consider the researcher's decisions and actions. According to him, every researcher should ask him or herself the following questions: "If I address pivotal issues, do bureaucratic restrictions and curiosity control the choices that I make, does the research have any impact or add value, and do I believe that the choices are the right ones?".

On a more practical level, basic standards for ethical issues, based on Eskola and Suoranta's (1999, 52-57) views, were implemented, in order to overcome these challenges related to the persona and role of the researcher. The permission for

the research was asked and all was agreed with the head of the HR function in the company who is the direct superior of the researcher. The researcher's role, the purpose of the research, result handling principles, and the possibility to participate on a volunteer basis were clearly explained to the people participating to the research. The need to record the interviews and the private nature of the recordings was always explained to the participants before asking for permission for recording, and it was also promised that the recordings would be destroyed once the master's thesis had been completed. Apart from the interviewer and the interviewee, no one knew who the participants were, and confidentiality and the intention to secure anonymity in the reporting of the results were promised and followed as carefully as possible. For example, the report of the results included only a brief description of the interviewees' background information, as more information would have presented a potential risk of the participants being recognized inside the company.

During the actual interview, emphasis was put on listening, while commenting or giving any background reasoning was avoided. This was also explained to the interviewees. Finding the right balance between being a neutral interviewer without leading to certain responses, and establishing a proper and appreciative relationship with the interviewees required keeping the purpose of the study clearly in mind. This proved difficult, especially when the interviewee seemed to have a limited or even a wrong understanding of topics which the researcher knew well due to her work experience. In some situations, extra information for the interviewee on a certain topic which he had mentioned was arranged afterwards (e.g. a few interviewees were not aware of certain system features which they wished to have in the system). It was also difficult to maintain a neutral attitude in cases where the interviewees asked for the researcher's opinion on certain issues. Giving such opinions was avoided during the interview, or the opportunity to a brief discussion was given after the interview. Also, after finalizing the data collection period, several rounds for the data analysis were required, in order to ensure that the researcher's

pre-assumptions were not leading to conclusions and that the data could be examined from a neutral distance. Even a brief break was taken at the end of the research documentation process, before finalizing the conclusions, in order to handle the results as objectively as possible. Although these tools and ways of working were implemented to ensure objectivity and high ethical standards, it is admitted that the researcher's persona cannot be completely erased from the context, but to a certain degree, it effects the whole study. As Gummesson (2006, 175) has pointed out, all research is interpretative and it combines a systematic approach and objectivity with intuition, emotions, and subjectivity.

Remote working, writing the results in a passive form, selecting interviewees from the middle management level, with whom there had been no daily contact and no regular co-operation, helped to create a sufficient distance from the organization, but it has to be taken into consideration that there was no anonymity for the researcher. Despite the fact that the researcher had not been in the organization more than a few years and not present when the e-HRM process had been designed, which helped to create the needed distance and interpret the results in a more proper manner, the researcher, nevertheless, had an identity in the HR work community. All of the interviewees were known to the researcher in advance, either superficially or otherwise. Taking note of Welch and Piekkari's (2006, 424) findings, this could have had the effect of a heightened "social desirability" among the interviewees, keen to demonstrate high professional standards or to follow the company's rules and policies while believing that the researcher might be reluctant to report the findings critically and objectively. In order to overcome these challenges evaluating the way of working and keeping high ethical standards in mind was constantly required. Moreover, this principal will be maintained once the thesis is handed in, e.g. when utilizing the results in the organization. Someone might also criticize this study for being done for the purpose of advancing the researcher's career, but is not all research done partly for the purpose of personal improvement? All in all, applying academic research standards and personal ethical processing ensured that this study could be conducted in the researcher's own working organization.

5. ANALYSIS OF RESULTS

In this chapter, the case study company and its state of HRM and e-HRM will be described, together with the main features of the research data. After this, the central part of the analysis will be introduced, from observations on the HR strategy, processes, and function to the usage of e-HRM, perceptions regarding it and its consequences.

5.1 Case study company

The case study company is a global corporation in machinery industry. KC is a world-leading group of Lifting Businesses™, serving a broad range of customers, including manufacturing and process industries, shipyards, ports, and terminals. Konecranes have operated for more than 80 years by providing lifting equipment (e.g. cranes, hoists, lift trucs) and services. In 2012, KC's sales were EUR 2,170 million and the company had 12 100 employees in 48 countries, in all continents. The corporation states as its mission: "Not just lifting things, but entire businesses" and, as its vision: "We know in real time how millions of lifting devices and machine tools perform. We use this knowledge around the clock to make our customers' operations safer and more productive." Konecranes relies on three core values: trust in people, total service commitment, and sustained profitability. (Konecranes Plc. 2013, 2-3, 10.) The corporation's strategy is built on world megatrends in people and society, world demographics, technology, and energy & environment, and it relies on three strategic initiatives: the development of industrial internet, building a strong growth in emerging markets through wise offerings, and building a oneKonecranes with harmonized and transparent processes supported by global IT tools (Konecranes 17.9.2013).

In 2007, KC initiated a development program, oneKonecranes (1KC), which focuses on achieving benefits through harmonized processes in three core subjects:

- 1. Improved operational efficiency
- 2. Better customer relationship management
- 3. Transparent data for management decision making

The 1KC program includes process definitions and harmonization by IT tools in almost all areas. The project was in midway at the time when the empirical part of this research was conducted. The IT environment has been fairly fragmented betweeneach legal company and country, and 1KC aims to change the situation. When 1KC was established, also web 2.0 solutions were introduced to the organization, in order to support social networking and working in an international environment, e.g. through wikis, blogs, chats, video and net conferencing. (Konecranes 2011.) All in all, the change program was introducing modern processes and IT tools to the case study organization which had not been used to this harmonized, systematic or data driven approach.

5.2 State of HRM and e-HRM in case study organization

The 1KC program led to the establishment of an HR function in a corporate width for the first time in its history. The HR function was established and the company's HR vision and strategy were defined in 2008–2009. The vision of the HR function was "high quality leadership ensured by professional HR organization, first class people processes and tools". The HR strategy for 2010-2013 relies on the theme "Lifting People", and it focuses on building a great place to work by establishing the foundation for people processes. This includes building a strong company culture, enforcing true leadership, efficient performance management practices to support strategy implementation, and developing and sustaining competencies which make

the company unique on the market. (KC internal materials 12.2.2013.) At the time of beginning the analysis of the results of this study, the company had begun an HR strategy renewal for 2014-2016 to match the recently renewed business strategy. For the strategy work, an analysis of the current state of the HR was made in the organization, and the results demonstrated that during the past five years there had been a significant development in the HR practices: the foundation was establishedbut there was variation between countries in the maturity of the HR processes. HR data management, performance management process, and employee health & safety received the highest maturity ratings opposite to organizational management, talent management, and rewards & recognition. (Konecranes 17.9.2013.)

As part of the 1KC program, the People project was established to support growth and the business strategy. It aimed for improved operational efficiency and transparent data available 24/7 for decision making in the human resources area. The intended improvements and methods are listed in table 5. From the point of view of business case, there was no intention to make actual savings even though the target was general efficiency. In the first phase, the People project developed consistent employment-related processes throughout KC and harmonized administrative employment life cycle processes from hire to exit, supported by common, web based IT system, called the People system. The managers have had a strong role in leading and managing their people fairly independently, supported only by a small number of HR professionals. With this history in mind, the processes and the IT system were designed with high self-service and transparency, both for managers and employees, as their starting point. The People system consists of personal, employment and organizational information, and central employment changes are approved by the one-over-manager principle. In the second phase, a consistent performance appraisal and development discussion practice (called as TPP discussion at KC) was launched, supported by the People system.

Table 5. Intended improvements and methods of People project at KC.

Improvement	Way to get there
High quality information available 24/7 for managers and employees	Through user-friendly Self Service Portals
Standard processes globally, better transparency of the people processes	Through well managed implementation
Effective tools supporting processes	Through modern HR IT applications
Competent HR resources globally	Through effective HR Service model

The People project began in 2009 with a definition phase, and the formal project mode was finished by November 2011. At that time, the processes and common IT tools were introduced to 37 countries which is roughly 78% of the head count and a little less for the performance management. Introducing the processes and tools has continued in "business as usual" mode to the remaining countries during 2012, with a coverage of 96% in October 2012. (Konecranes 14.10.2012.) The processes and systems have been introduced differently to each country, depending on cultural reasons, organizational readiness, and the maturity level of HR professionals/managers, e.g. from the perspective of data input responsibilities (whether this is the role of HR or that of the managers). The company is now moving onto a phase in which they begin measuring the success and the benefits of the project and continue towards constant improvement of ways of working and IT tools. To support this development, a deeper understanding is needed of issues such as the existing stage, how managers see their roles with regard to e-HRM, and what has been the impact of e-HRM on their role and responsibilities.

In addition to the People project, several people processes have been developed and supported by common IT tools, e.g. the recruitment processes are supported by common IT tool for recruitment ads and job application management, assessments are done in one IT platform, trainings are published in one tool, called the training catalog, some compensation programs have dedicated web based systems, and organizational development is supported by an employee satisfaction survey and a standard tool for it. In addition, there are several eLearning programs supported by multiple IT tools. In general, the HR-related IT tool landscape was somewhat fragmented and was lacking a common master data source before the People system was introduced. These processes and systems are not yet connected, and no IT interfaces exist yet.

In order to understand e-HRM in the context of KC, an overall view of e-HRM in the company is needed. The e-HRM model by Rüel et. al (2004) was loosely used to get an overall picture of e-HRM in KC (figure 5). The model lends itself fairly well to this purpose, and especially the goals and types of e-HRM can easily be defined based on this model. The HRM strategy in the company is under renewal, but the business strategy gives good guidelines for the needed clan approach. The goals of e-HRM seem fairly similar to those proposed by Rüel et. al. (2004) and Parry and Tyson (2011, and the company's approach seems to be the relational e-HRM type, focusing on basic and advanced HR processes and supported by IT tools. However, the expected outcomes of e-HRM differ slightly from the model. Although some signs of efficiency were visible, direct cost savings were not possible to define, nor was that included in the original scope of the e-HRM project. As Rüel and van der Kaap (2012, 262) have assumed, neither KC nor other organizations have tried to set or measure their outcomes of e-HRM in economic terms.

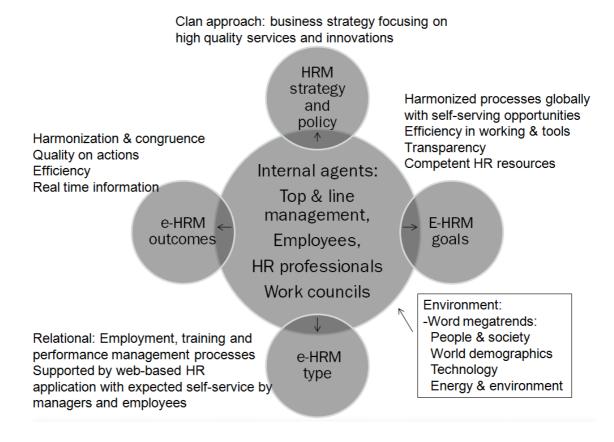


Figure 5. E-HRM model at KC based on Rüel et. al. model (2004).

It is useful to remember that, for this study, only line managers' angle among the mid-management was taken into consideration. A wider approach and other stake-holder's views would have been needed in order to achieve a better understanding of the outcomes. Further criticism of this model regards its positivist nature: in this model, as sometimes in e-HRM research in general, e-HRM is seen in the light of positive effects and benefits. This research demonstrates that there are also disadvantages and negative outcomes. Those results are discussed later in this thesis.

5.3 The background of interviewees

All of the interviewees hold positions on the Director or Vice President level and all of them were males (this is not surprising due to fact that 85% of the employees at KC are male). The interviewees represented six nationalities and they had five different mother tongues. All of them had been in managerial positions over 15 years, having currently ~50–1000 employees in their organizations, in average nine direct reports. The interviewees held middle management positions in sales, supply chain, business development or research, and development organizations. All of them were running cross-country organizations, having employees from two to eight countries.

From the perspective of IT background and experience, the interviewees were mainly using MS office and Unified Business Solution tools in their daily work, with the addition of administrative or additional software, such as travel expense reimbursement tools, People system etc. Only few of the interviewees used dedicated business programs for their responsibility area, such as ERP or CRM systems. Four of the interviewees had experience in similar HR IT tools outside the existing organization, the rest only had experience in them at the existing organization. All of the interviewees evaluated their IT skills as middle/basic level, while feeling "pretty" confident with the new tools. New practices and HR system were implemented in 2010-2012 in the countries in question.

Each manager had some kinds of HR professionals available. However, the resources were not necessarily dedicated to their responsibility area but, for example, to the HR in the countries in which they had employees. Based on the inter-

viewees' location, managers mainly maintain the People system in employment matters in one country, but in the remaining five countries it is mainly maintained by HR. All managers used the People system for approving employment changes and documenting TPP discussions. A summary of the interviews and the background information of interviewees is available in appendices 2 and 3.

5.4 Perception of HR strategy, processes and function

In order to place e-HRM into the context of the company, the interviewees' familiarity with the HR strategy and viewpoints on it, and on the existing HR processes and practices, were discussed. Managers were also asked to define the role of an HR professional, evaluate the services and support available from the HR function, and suggest development ideas and wishes for all of these areas.

Based on the interviews, the managers are not generally familiar with the "lifting people" strategy and/or its meaning in practice. A few of them explained, instead, how they view leadership in the organization from their own angle. All in all, it was brought to attention that there are too many on-going things in the organization, in order to implement these types of things, or the content was considered unclear. Two of the interviewees who were familiar with it, criticized the implementation of the strategy in a similar manner to the others, and one had taken an active role in implementing the strategy to his own organization.

"We have been launching so many things at the same time, and then people get confused about what we are talking about in different business units etc. This has been overwhelming in the last few years, and then people lose focus. When you ask about the "lifting people" strategy, I assume that 95% of the responses will be exactly as mine: what is it all about, what does it mean?" (Interviewee 2)

78

"I am familiar with the term "lifting people" but to be honest, it has always been unclear to me what it means." (Interviewee 8)

"I am familiar with it, but truthfully, I feel that it was more like a slogan than truly our way of working". (Interviewee 7)

"I try to be an ambassador for these things, like mission, vision, strategy, values because I have the impression that, in many countries or in many other organizations, it's mostly the managers who talk about these kinds of things with each other, but they have never really been brought to frontline people". (Interviewee 9)

Managers identify different people-related and administrative practices that are available in the HRM area in the organization. Compared to Ulrich (1997, 47-48) it seems that tasks related to strategy execution or transformation and change are not seen, at least based on the interviews, as directly connected to HRM. Managers were asked to evaluate the existing HR processes and practices in general, mentioning strengths, weaknesses, and development ideas and wishes. All of the managers mention the TPP process, which seems to be a well-known practice related to performance management and seen as part of the KC culture. Furthermore, the training efforts provided by the company seem to be noticed and appreciated. Overall, it seems that only few common practices are otherwise recognized, and although most of the managers recognized positive development due to the processes and were able to find strengths as well, most of the discussion on this topic concerned weaknesses and development ideas and wishes. The noticed progress in practices is similar to the results of the organization's recently made HR current state analysis. The major part of the criticism is related to the weak implementation and follow-up or the quality of the processes. Also, confusion and unclarity about the matrix organization was mentioned which demonstrates the findings of Holt Larsen and Brewster (2003, 229), concerning complex organizational structures which affect the requirements and clarity of managerial roles. The view on the existing HR seems to include fragmented processes and practices and variation in the managers' responses. In table 6, all of the identified strengths, weaknesses, and development ideas are listed. The reasons for this fragmented picture could be related to the current state of the HR function in general, as described earlier, and to the function having been established fairly recently, for which reasons the same services are not necessarily available in all areas.

Table 6. Evaluation of HR processes and practices. <u>Underlined</u> topics were mentioned in two or more interviews.

Strengths	Weaknesses
- Training, specially KC Academy (leadership training program)	- Weak implementation and follow-up on common processes
- <u>TPP discussions</u>	- Poor quality of processes (such as TPP or employee satisfaction survey result
- Employee share savings program	utilization)
- <u>Local HR practices in countries</u> such as communication, induction, well-being,	- Matrix organization causing confusion
and salary recommendations for summer trainees	 Hierarchical processes demonstrating mistrust on managers, such as recruit- ment permission process
- Motivating bonus practices	·
- On-boarding package	- People rotate too fast to new roles
- Smooth management practices	 Internal resources should be utilized more as trainers
	- Global travelling should be avoided in trainings
Development ideas and wishes	

Development ideas and wishes

- Invest more on competence analysis and development/training. Effective training plans for certain positions and using knowledge inside the organization for cross-learning
- Job leveling in order to ensure that roles are defined and salary benchmark data received
- Better coordination of training efforts in order to avoid overlapping work in different organizations and better prioritizations
- Ensuring professional recruitment practices in order to have competent resources globally (e.g. service technicians)
- Simplification of complicated processes, such as TPP process & bonus practices
- Development of leadership skills: ability to evaluate the capability of the organization in order to improve it, and communication skills to ensure proper communication about the right topics in the right way
- Understanding the need to invest in our people in the long run, because this results in to better customer satisfaction
- Onboarding of newcomers through discussions & mentors (not only e-Learnings)

The role of HR professionals and function was discussed with the interviewees, also in correlation to the role of managers and to the distribution of people responsi-

bilities between managers and HR. The descriptions used can be grouped into eight HR roles: expert, consultant, guidelines and rules creator, counselor, service provider, supporter, helper, and challenger. Thus, several roles can be identified, but it seems that Ulrich's (1997, 47-48) "change agent" or "strategic partner" roles are not visible in the managers' talk.

Based on the managers' feedback, the HR function's support has improved over the years which seems to be in line with similar findings in, for example, the organization's own current state analysis made by senior and HR management. The local, e.g. unit or country level, HR support is considered as a strength a few times. Weaknesses providing room for improvement relate to 1) the position of the HR function in the organization, 2) the clarity of the HR function and services available, and 3) the way in which the HR support is provided.

In many of the discussions, the managers described how they see the existing state of the HR function and its future direction in the organization. It seems that the value of the HR function has not yet become/is not yet seen visible but there begins to be room for wider involvement in business activities and more services are expected and appreciated.

"I find that HR should be involved in business from the strategic point of view. It is a support function, but it is still part of the management function within the organization. How others see it, (I don't know,) and I believe that it is not same everywhere... My challenge is to get the rest of the management team to involve HR as well. People have grown up in a world in which they have not seen the value of HR. People do not always see it. Like in all organizations, there is a big focus on sales and profitability. There is nothing wrong with that. But to get there, you need people who are committed. How to find people who are committed, how to make people committed, there the HR people can step in." (Interviewee 1)

"The HR function is underestimated, underdeveloped. I would say that it doesn't get as much recognition from the corporation as it should. The HR could have a more active, a much more dominant role. It seems that man-

agers are taking initiatives, such as hiring a new person, without the HR's knowledge. This is not good." (Interviewee 2)

"HR has a very important role for the company's success. From my perspective, I wanted it to be a very integrated part of any management group. It is very important to understand that we are doing business with people, and our people are doing the business. ... We would actually need more people working in HR. "(Interviewee 7)

"I have also changed my view on the HR function. It was fairly recently that I still saw HR as having an operative role. That is still needed, but it needs widening. Support for line managers' work, development of leadership skills, and support for the development of operating conditions are needed." (Interviewee 8)

The second improvement idea for the HR function was related to the clarity of the HR organization and services available. The feedback evidenced that it is not always clear whom to contact in the HR function. One interviewee was worried about the extra layers in the function which value is not visible for the organization. There is also a wish to create more clarity in the services available, so that managers know what can be expected and what is available. Similarly to Vormaens and van Veldhoven's (2006, 887-902) findings, the managers, also in this study, underlined that the HR IT system support must be available. The third improvement area concerns the way in which support is provided by the HR function. As Whittaker and Marchington (2003) have said, sometimes the HR support is regarded as distant, both physically and mentally, and the co-operation with line managers is underlined.

"They need to understand better what it is when someone who is 500 km away needs help with his TPP discussion now. We are not enough internal customer-oriented. ... They should be much more in the frontline, much more in the land of fire, so that everybody would know that if you need something people-related, just go to them (=HR) before you start acting." (Interviewee 2)

"When you (=HR) implement new things, you should involve the line management more. If you develop something in corporate HR and then you just implement it, and this is not something that has been piloted or made together with line management, then of course it is a problem". (Interviewee 3)

"It is essential that you (=HR) listen to the people who use them (=HR services), and collect honest feedback.... There may be many kinds of wishes, and then, it is important to understand what is relevant and what is not, where we should focus." (Interviewee 5)

The HR function's stronger participation and contribution is requested on varied topics. All of the interviewees said that this is important for such issues as change management activities, employment terms, performance of employees, employee satisfaction survey's result utilization, and spreading the message of the company.

5.5 Usage of e-HRM

Before proceeding to the ultimate research questions, it is useful to understand how e-HRM is used in the organization. This was investigated by employing two methods: through the IT tool, certain aspects of the system use were analyzed, and this topic was also discussed in the interviews. Based on the interviews, it is obvious that managers are familiar with, recognize, and use only one e-HRM tool, the People system, available in the organization, and so this is the system which is referred to in the analysis. Apparently, other available HR IT tools are not familiar to the managers, or managers do not realize that they are e-HRM tools, mainly due to the fact that they are tools used by the HR or by employees, or it can be that they are not used regularly but only when needed.

The usage of the e-HRM tool can be analyzed by looking at the activities taking place in the system. The People system contains basic personal, employment, and organizational data, in addition to performance management data. The performance appraisal and development discussion completion rate in the system for the previous period was 76%. This does not necessarily refer only to tool usage, but

also to process implementation and discipline. However, this gives an idea of how much the system is used. Based on the managers' interviews, there are signs that the documentation of TPP's in the organization is in the hands of managers, not employees, as it could be as well, although this would require further investigations. Out of all the employment life-cycle changes from hire to exit, 57% of changes were initiated by managers and 43% by HR in the second guarter of the year 2013. There exists great variation between countries in the distribution of maintenance; in Finland, managers have the central role in the system maintenance, dominating the figures due to the highest head count in Europe, while in UK, France and Germany, HR is mainly in charge of the maintenance. This reflects the findings of Holt Larsen and Brewster (2003, 228-244) regarding the devolution of the HR activities online in the European setting. The most commonly maintained activities in the system among managers are changes in pay or other employment terms. On the other hand, HR most typically maintains exit situations. Interestingly when looking at punctuality, the changes made by managers are more often done in a timely manner than changes made by HR. It seems fair to ask whether managers have taken a stronger role in leadership and people matters and whether this is visible in these figures as well as in timely maintenance. Or is HR sometimes collecting changes before updating them to the system at the same time, or do they receive the information from the line management too late? And if they do receive it late, is it due to the manager's role, and how have people responsibilities been defined between HR and the managers? It is good to remember, however, that the analysis based on the IT tool does not necessarily refer to the overall role of managers and HR in HRM matters but, more narrowly, to the context of e-HRM.

When discussing the usage of the existing e-HRM tool with the managers, it was obvious that the main reason to log in to the system for mid-management was to approve an employment change, such as the recruitment of a new employee, salary change, exit of an employee, or to document performance appraisal and development discussion. Only few of the managers maintain employment changes for

their employees, since in most countries, HR maintains the data, although approvals by the one-over-manager principle does take place in the system.

Only one manager pointed out that he uses the system for taking out different employee lists, and another manager mentioned that he occasionally checks some employment data of the employee. In general, the tool seems to be used when an explicit action is expected from the manager, such as approval for employment change or documenting performance appraisal and development discussion.

"I don't use the system because I find it helpful, I use it when I have to. I would love to see the tool used more in the everyday work on a daily basis, e.g. regarding one people; let's take a look at what we shall do". (Interviewee 7)

The usage of the e-HRM tool seems to take place mostly on a monthly basis or occasionally, and peak months for the system use relate to the company's performance appraisal and development discussion period, which officially takes place in the first quarter of the year. At such a time, the system is used "heavily" or "intensively". More activities in the system are required also during the summer trainee period, but the tool usage of summer trainees seems to vary from country to country. Three of the managers mentioned that they do approvals in the system on a weekly basis.

The interviewees were also asked how the e-HRM tool maintenance responsibilities should be divided. Four of the managers felt that this is the role of managers, but two of them state this conditionally. For example, one manager sees that, ideally, decentralized system maintenance would work best, but sometimes, due to time constraints, it is easier in practice to do it centrally. Another manager felt that managers could do it, if the system would be more logical and work faster. Interestingly, in these two managers' countries, HR has a central role in the maintenance of the system which raises the question of whether HR professionals are hesitant to give

the responsibility to managers for fear of losing the control or their jobs, as has also been noted in the academic world (see Perry and Kulik 2008, 264). All of the managers were in favor of having a strong managerial role in the system maintenance and emphasized that strong HR support needs to be available in order to be able to conduct this work.

Four of the managers felt that maintaining the system is HR's task. Their reasoning concerned efficient resourcing and cost structure; if all managers are expected to do certain things in the system, they become (expensive) administrators, whereas they should put their effort into tasks to which they have been hired to do, such as visiting customers, selling etc. It is also criticized that, since managers for example rarely hire new employees, they cannot remember or know how to do certain things in the systems. This concern reflects previous findings in the e-HRM research, according to which managers perceive an increased workload due to the e-HRM tools (see Martin and Reddington 2010, 1561).

One of the managers was unsure about how the system maintenance should be organized but wished for different models on how to arrange this. Two of the managers mentioned that sometimes it might be or it is faster to use the system themselves, and thus, HR services are not needed, as Lawrer and Mohrman (2003) have also pointed out.

"I am fortunate because I have HR in the next room. If I need a report of joiners and leavers, HR can pull it out for me, but I can also do it by myself. And sometimes it is quicker to do it myself. If HR arranged me training on how to do it and I knew that it is there, I would honestly print it out and look at it by myself. I think some other senior managers would do it too if they took time for it and knew how to do it, and somebody would not always do it for them. That is not HR's role." (Interviewee 1)

"I found some instructions for how to run employee lists. Since then I have taken it out several times and noticed that I have actually reduced the work needed from HR." (Interviewee 4)

5.6 Perception and consequences of e-HRM

The managers were not familiar with the People project, which was the first one of the 1KC projects introduced to the organization, aiming to harmonize processes and introduce the e-HRM tool, People system. The managers elaborated that they were not familiar with the purpose of the project or that they had not participated in its preparations, but all of them were familiar with the tool, to some extent. Familiarizing oneself with the system has mostly taken place by learning by doing, through trial and error, although four of the managers had participated in some kind of official training. The managers knew whom to contact if they need support using the system. It seems that, if there is a dedicated HR person available for them, physically even, the managers had not participated in training but preferred to ask for support when they need it.

When requested to evaluate the People system and during the interviews as a whole, most of the time the discussion revolved around the weaknesses or the challenges of the e-HRM. The benefits of the e-HRM often had to be asked for separately, but all interviewees were able to name some benefits and strengths, mainly related to the ease of use of the system, the availability of real time information, better data transparency, and guidance on TPP discussions. A list of the stated benefits and strengths including examples is available in table 7.

Table 7. The benefits and strengths of the existing e-HRM tool. <u>Underlined</u> topics mentioned by two or more interviewees.

Benefits and strengths	Examples
 Ease of use of the system (e.g. passwords not being needed in the logging in a great improvement) 	"I think it is relatively easy to use, it is not a big thing, I can't complain." (Inter- viewee 2)
- Real-time information	"Previously, I couldn't trust the data since I had reports on certain data or I
- Better access, visibility, and transparency in employment and	had to ask for the information from HR or payroll. Now I can check the data real-time." (Interviewee 4)
 performance management Guidance to TPP process/discussion 	""I know that I can have structured TPP discussion with people. There are questions, and it is helpful that my direct re-
- Ability to take out the information/reports by him/herself	ports will get bonuses in one way or another." (Interviewee 7)
- All information in one place	"We have a constant flow of TPP's, and documenting it in the system is a bene-
- Time savings	fit, absolutely." (Interviewee 9)
- More efficiency in work	"When my team members come to ask for something from me, I can do it im- mediately (in the system). It has stream- lined activities." (Interviewee 4)

There are some contradictory views on the People system, mainly related to the user-friendliness of the system.

"People are going to shoot me when I say this: I see it is user-friendly. If you know what is there and how to get around, people will remember it". (Interviewee 1)

"I think the intention is good, but the People system is quite cumbersome, quite slow, quite frustrating." (Interviewee 7)

"Nowadays there are iPhones and iPads which work by pressing one button and by dragging and dropping. You take the comparison from these types of tools and it raises the expectations. (Interviewee 8)

It seems that those managers who have begun working according to the new processes and tools in the earlier phases, are or have been more critical of the user-friendliness than those who have begun to use them in the later phases. The explanation for this might be very natural: changes and improvements have been done in the system since its introduction to the first countries.

The weaknesses and disadvantages of e-HRM can be listed according to different categories. The most common issues are related to the system, process, and user. In addition, the division of work, implementation, and support issues were seen as a problem. They are listed with examples in table 8. These results demonstrate a need to criticize the overly optimistic tendency in the field of e-HRM to look only at the benefits and positive contributions which it can give to organizations.

Table 8. Weaknesses / disadvantages of the existing e-HRM tool. <u>Underlined</u> topics mentioned by two or more interviewees

Weaknesses / disadvantages	Examples		
1) <u>System-related issues</u>	- System instability: throwing the user out, system down-time		
	- System speed being slow, it is loading regularly		
	- System not working properly		
	- Navigating in the system not easy		
	- System does not provide data that is be needed		
	- Layout not attempting		
2) <u>Process issues</u>	- Much work with one-over-manager approvals, particular- ly with TPP discussions		
	- Process difficult and theoretical		
	The information on an employee's history cannot necessarily be reached by a new manager		
	- Additional, administrative process added but benefits not visible		
3) <u>User issues</u>	- Since a person does not use the system regularly, they may forget how to use it		
	 Managers in different phases in their learning curve. The first time takes time. 		
4) <u>Support issues</u>	- System manuals not easy to find and are difficult to fol- low		
	 If HR does everything for managers, they do not try to do it by themselves 		
5) Division of work / role issues	- Managers need to maintain information in the system, instead of HR		
6) Implementation issues	Implementation done in unprofessional manner, e.g. difficult process, without local involvement or with unready system		
	- All features in the system not taken into use -> benefits are not visible		

Perceptions regarding the outcomes of the e-HRM from the mid-management perspective at KC are grouped according to intended - unintended and positive negative categories in table 9. This research design, concentrating on mid management, is not suitable to be presented as a full picture of the outcomes as in Fisher and Howell (2004, 247), although some similarities can be noticed in the affective outcomes (satisfaction and frustration) and cognitive outcomes (perceived usefulness, interpretation of corporate values), but behavioral outcomes would have required further investigation. The outcomes demonstrate that, although almost all of the organization's intended outcomes have been identified by the managers as positive, there are still several unintended outcomes that are seen mainly as negative from the managers' point of view. Some of them might be contradictory to each other (e.g. system efficiency - un-efficiency) which demonstrates that the benefits are in the eyes of the beholder. This might be due to individual characteristics, values, experiences, and situational characteristics, as Fisher and Howell (2004, 253) describe employee reactions to IT systems and/or different micro and macro level context variables (e.g. Rüel and van der Kaap 2012, 267). Opposite to Rüel et. al. (2006, 280-291), the ease of use of the e-HRM application seems to have a significant effect on the perceived effectiveness at KC. If it is difficult to find certain features in the system, the tool is not considered efficient. Although the managers mention improvements in the HR practices and support, it can be questioned whether they relate to the introduction of e-HRM or to some other developments which have been done. This research does not, however, investigate the possible existence of a causal connection. Based on these results, it can be assumed that there is a connection between introducing the e-HRM project and overall improvements in HR but that would require further investigations.

Table 9. E-HRM outcomes at KC from the mid-management perspective.

	Positive	Negative
Intended	Real time information Standard processes Transparent and visible data Progress in HR support Effective tool	
Unintended	Progress in HR practices Independency among managers to take care of HRM matters	Un-efficient tool Managers' workload has grown, become more administrative Managers not confident with system use Bad reputation of tool Some processes seen too com- plicated Missing co-operation with HR on new developments

In general, managers had faced difficulties with the system while it had been implemented. Even though almost all of the managers have noticed improvement, the first experiences and reputation of the system seem to play a strong role with the evaluation, and most probably will affect the opinions on future HR processes and tool development.

"Whichever system we use, to have one common system is the right decision, the right direction". (Interviewee 1)

Managers expect some process, content and system-related matters from e-HRM, listed in table 10.

[&]quot;It is all about how we use the tool" (Interviewee 5)

[&]quot;I believe it (system) is okay, and I must also say that we should use the functionalities that we have now, before we develop new ones." (Interviewee 9)

Table 10. E-HRM expectations. <u>Underlined</u> topics mentioned by two or more interviewees.

Processes & ways of working	Content	System
 Firstly, review of process, existing organization structure, and roles to create simplicity and implement it before introducing IT tool Not developing anything new before existing processes & system implemented and benefits received 	 Tracking employee life-cycle TPP discussion Skill-set of employee, incl. training details, development needs and plans. Development methods available in the system. Ability to search, based on skill-set e.g. for recruitment purposes. Job leveling Full picture on employee's compensation and earnings, also in currency 	 Speed User-friendliness, e.g. easiness of finding certain da- ta, such as the sal- ary history of an employee, drilling down some employee data Reducing manual work by automation (e.g. bonus calculations) Using standard features and not creating overcomplicated tools Guidance and tips for processes (e.g. how to discuss in TPP)

The overall expectations and wishes for e-HRM do not seem to be too high or ambitious, but focus on the existing processes and system features. Only few new items were mentioned that might relate to the background of the managers: only four of the managers had experience in HR IT tools outside KC the experiences were made with similar kinds of tools, not more sophisticated ones. Moreover, the HR function, including e-HRM, is a fairly recently established function, so managers do not have much experience in it. Interestingly, not all existing system features

are familiar to the managers, for example, not all interviewees knew that the recording of trainings, reporting exit reasons, or an employee's approval of TPP is possible in the existing tool.

The effect of the People system for the manager's work and responsibilities was also discussed . Five managers see that it has an effect which is mainly related to the benefits of e-HRM, although comments for this question varied, compared to the benefits and strengths described earlier. E-HRM is seen as an information provider which can support and help decision making. Also, time saving and efficiency have increased due having a common tool. Other effects varied depending on the person: one person valued the guidance for processes, such as how many targets should be set for an employee. He felt that the tool can help with the setting of proper policies. Another person valued more the formal and streamlined processes supported by a common tool. The other managers did not perceive a change in their role or responsibilities. This can be explained by the fact that the TPP process has not been altered for some years and, in some of the countries, there has been another tool in use before the existing one. Other reasons could be that IT is not regarded as important, or that there is a preference to rely on persons, not tools, in people matters they want. The following examples describe this:

"If we are doing some massive salary changes and we are not sure where it should be allocated, I give a call to HR and tell what type of information I need. I trust people more than I do IT tools in these kinds of situations." (Interviewee 5)

"When I receive approval requests, I very rarely handle it in the system only even though I am able to find out what the change is, where the employee is rotating etc. Before I approve it in the system I am in contact with the manager to discuss the reasoning. In that sense I haven't changed anything, I will keep these verifications anyway. I do not trust on me and the system that much. In people matters, things should not proceed only in the IT tool, but they should be discussed between people. (Interviewee 6)

All in all, the managers' perceptions on e-HRM and its consequences on them are evolving and cannot be separated from the whole e-HRM design and implementation. This raises the question of HR professionals' competence on subject matters and e-HRM change and implementation. The managers' feedback is a signal of several HR professionals' weaknesses which Martin et al. (2008) have summarized from previous studies: the inability to consult line managers on their need, a lack of the clarity of the division of responsibilities between HR and managers or the unclarity of the role of HR and services available, perceptions of increased workload among managers, and the training of line managers for new tools. However, there were no signals of a lack of on-going support from HR. Furthermore, although there were some signals of the need for the HR professionals to be more familiar with the field and business, there were no explicit problems regarding virtual co-operation. (See Martin and Reddington 2010, 1561).

6. DISCUSSION AND CONCLUSIONS

In this chapter, the research conducted will be discussed and summarized, and its central results will be evaluated. Attention will also be given to certain limitations and the practical implications and proposals for future research will be argued.

6.1 The purpose and implementation of the research

The purpose of this research was to provide an insight into e-HRM and its consequences for line managers. This research can be justified from the perspective of both academic and practical implications. Firstly, the academic field of the consequences of e-HRM has been lacking a focus on line managers. The consequences are viewed from the theoretical perspective of moderate voluntarism and the concept of consequences created by Strohmeier (2009) which adds value to the field of e-HRM, lacking systematic definitions of consequences. Secondly, there are practical reasons for this research which concern the case study company. Konecranes has adopted e-HRM relatively recently and is now moving to the phase of continuous development. In order for KC to navigate the right direction on this future journey, it is useful to understand the existing state of their HRM and how e-HRM has affected the central actors, in this case mid-management. Access to this case study organization was available, since the author of this study works for the organization which brought both benefits and challenges to be taken into consideration throughout the whole process.

A qualitative approach was selected in this case study setting due to the need to contextualize the research and draw from line managers' personal experiences. The empirical part of the research was loosely based on the literature on HRM and

e-HRM. Method triangulation was used whereby nine semi-structured interviews in a European setting created the main method for data collection and analysis. Other complementary data, such as HRM documentation and statistics of IT system usage, was utilized as background information in order to put the results into context. As Strohmeier (2007, 30-34) has pointed out, a review of HR processes, practices, and policies might provide valuable information, and self-service systems and portals provide good material for further analyses, material which has not been utilized sufficiently. As a whole, the research data seemed to be sufficiently extensive for the analysis, and during the data collection process, the saturation point was met after which new information could not be discovered anymore. With this type of qualitative approach in a case study setting, the results cannot perhaps be fully generalized, but when they are viewed from the theoretical perspective and bound closely to other research, they can give hints for wider utilization, at least in a similar type of setting.

There are limitations in this research as well although there has been an effort to overcome them throughout the research process. Content-wise, one aspect which might have had an effect on the results was ignored, namely national variables, such as culture and economic and technological conditions. Another limitation is related to the methodological aspect. The persona and role of the researcher as an employee of KC, and responsible for HRM and for the e-HRM area in particular, cannot be ignored, as this affected the whole research process from design to conclusions. As regards the data collection, the interviews were conducted in two languages which involved the possibility of measurement mistakes. Also, the interview setting (face-to-face or remote) might have affected the results. The third limitation concerns the research data. The research investigates the usage of e-HRM and its consequences for line managers among managers who have begun using the new practices and IT system at different times; some already had a few years of experience while others had adopted the new practices within the previous year.

It is also important to remember that, in this research, the consequences of e-HRM on line managers have been studied from the line managers' own perspective which might have looked different if e.g. HR professionals or employees would have added complementary view. In order to have a comprehensive view on the consequences for the line managers and for different stakeholders or whole organization, further investigations would have been needed. Facilitating conditions, such as the HR technology competence being mainly acquired at KC or from similar kinds of tools in similar areas, might have an effect on the organization and on the consequences, as Rüel and van der Kaap (2012, 260-281) have observed. Other facilitating conditions, such as data quality and the consistency of HRM policy and practices, would have needed more investigations, but they were out of the scope of this research.

6.2 Discussion on the findings

In order to give an overall picture of the findings, the findings for the sub-questions complementing the main research question will be summarized first.

Firstly, the managers' usage and utilization of e-HRM was investigated. The managers are familiar with and recognize the main e-HRM tool of the organization, the People system, even though there are some other tools available, as well. It was clear that the usage of the tool takes place either when an explicit task in the system is expected from the managers (such as approving an employee's employment changes) or when TPP discussions take place in the organization. The tool is used on a monthly basis, at least, with a peak period related to the annual TPP process. Views on the role of managers and opinions on the distribution of respon-

sibilities among HR and managers vary. Contextual factors, such as the national and company culture, can most probably explain these differences.

As a summary of the usage of e-HRM, it can be said that e-HRM has partly been taken into use, but all features and possibilities of the system are not familiar to the managers, and there were even some misunderstanding of the features available. This is in line with previous findings (Rüel et al. 2004, 372-379) according to which real use follows technical implementation. It is likely that this affects how managers perceive e-HRM and its consequences on their role and work.

The case study organization is under a major change. This became clear during the managers' interviews which reflected several new initiatives introduced in the organization recently. In line with Voermans and van Veldhoven's (2006, 887-902) findings, the broader IT environment at KC has most probably affected the implementation of e-HRM, as well. During the research period, the IT environment at KC was in the developing mode in which some common tools had been introduced in the organization but more would follow. The People system has been among the first shared applications introduced at KC globally and might have faced the first reactions which the next applications will not face. Similarly, Lin (2009) has emphasized the adoption of the virtual organization in addition to the adoption of IT as a cornerstone for organizational change and development. Contextual factors were out of the scope of this research, but it is worth of noting that this angle might explain the existing state of the usage of e-HRM in the case study organization.

Secondly, the perceptions on e-HRM and the perceived benefits and disadvantages of e-HRM were analyzed. In general, the managers were not familiar with the corporation's HR strategy or with the 1KC People project's objectives which, most probably, has a direct effect on the perceptions. Most of the feedback concerned

the experienced weaknesses or challenges of the IT tool, but there also arose issues related to processes and users. Interestingly, the realized strengths correlate fairly well to the organization's intended outcomes of e-HRM. However, several, mainly negative unintended outcomes can also be identified. Among the positive, intended outcomes real time information, the transparent access on data, standard processes and efficiency and the ease of use of the tool were mentioned. Managers also gave positive feedback of the improvement both in the HR practices and the HR support available in the organization, but its direct connection to e-HRM cannot be proven in this research setting. As for the unintended outcomes, some of them are contradictory with the intended positive outcomes, such as inefficiency and a perceived increase in the amount of work. Other perceived, unintended outcomes from managers' angle are over-complicated processes, the lack of cooperation with the HR processionals, and insecurity with the tool usage. Frustration with system issues has also caused the tool's bad reputation among managers, at least partly.

The usage of e-HRM and the perceptions regarding it explain and partly respond to the main research question which was: "How do managers perceive the consequences of e-HRM for their role and work?". Viewing this research and the results from the point of view of Strohmeier's (2009) concept of consequences pertaining to moderate voluntarism, it seems that the concept lends itself well to developing a deeper understanding of the consequences of e-HRM. Firstly, the research shows a wide spectrum of consequence originators which, combined with KC's usage of e-HRM, explain a bundle of interrelated consequences of e-HRM. The results also demonstrate that the consequences are divergent, even contradictory to each other, and not causally produced. Although this research was not longitudinal, the managers perceived that there had been progress in the practices and outcomes of e-HRM. The results also evidence that, in addition to expected and desired outcomes and consequences, unexpected and undesired outcomes also exist due to the complex nature of the topic. Furthermore, being able to provide results regard-

ing the consequences of e-HRM for line managers is an evidence of the resear-chability of consequences. Although there is no evidence in this research of the manageability of consequences, it seems reasonable to expect that the consequences are unstable during a period when organizational evolvement is taking place. Despite the fact that this research was not actually designed to test the concept of consequences, it demonstrates that the concept might be successfully used in practice, and in this regard, it can be utilized as a theoretical framework for future research.

As a whole, the managers' perceptions of the consequences of e-HRM for their role and work vary. The perceptions are not fixed and they can be divergent, even contradictory. It appears that those who see more benefits and strengths in e-HRM also recognize that it affects their role and work positively. For them, the e-HRM tool was seen as an information provider to contribute to efficiency and decision making, and it saves time. Individual views concerned the guidance for processes and streamlined practices. Meanwhile, the ones who perhaps concentrated more clearly on the challenges and weaknesses of e-HRM, feel that it has not had an effect on their role and way of working although one might have expected that they would have observed a negative effect on their work and responsibilities since such minor disadvantages were mentioned when talking about the strengths and weaknesses. The reason for this might be the general attitude toward IT tools where they are considered secondary to people and processes. This also raises the question whether behavioral changes have taken place: for example, if managers perceive an increased workload due to the People system, do they accept it or do they ignore the extra work? In general, it is good to ask whether the consequences of e-HRM are always consciously realized or are they perhaps too deeply embedded in the processes? It is likely that the perceptions and reactions are not only related to e-HRM, but to all HRM strategies, distribution of work, and ways of working and originate from all these, instead of being causally evoked by e-HRM.

The research strategy, theoretical framework, and methodological choices seemed to provide a good insight into the consequences of e-HRM for line managers. These choices can be utilized for practical development but they also contribute to academic research, being among the first attempts to analyze consequences with the help of a systematic theoretical framework and from a defined stakeholders' perspective.

6.3 Practical implications

The overall findings of the research can be concluded into several practical recommendations and proposals. As Rüel et. al. (2004, 372-379) point out, e-HRM is not a technological change, but first and foremost a change in the mindset and the acceptance that it is a permanent development. Also at KC, the full benefits have not yet been taken into use; there is still room for developing the technical possibilities. Potentially, more dynamic models, such as implementing e-HRM in cycles might be more effective, as Marin and Reddington (2010) have observed. As Bondarouk and Sikkel (2005) have proposed, the adoption of e-HRM could be more systematic ifseen as a learning process in which systematic and facilitated group interactional processes could advance the organizational learning and benefit different groups, such as managers, HR professionals, employees etc. As Huang and Martin-Taylor (2013) have suggested, HR professionals could take a more proactive role on reshaping the perceptions of managers on e-HRM through interactive interventions. In order to empower managers to adopt e.g. HR self-service technology, they should be allowed time to understand and articulate the requirements set for them.

As Whittaker and Marchington (2003, 245-261) observe, managers are the ones who put HRM (and e-HRM, if applicable) into practice and, accordingly, attention should be paid to this group. This should be taken into consideration in the whole manager lifecycle, from recruitment to exit, and in ensuring that their induction and training, development in general, as well as targets and rewards support these HR aspects belonging to their work. As was noticed in this research, the midmanagement was not very familiar with the company's human resource management's aims and main initiatives.

Managers play a significant role in the organization and its success. Managers wished for more clarity in the HR services and support available, and one might assume that there is some un-clarity about the role of managers since HR matters are often done in close co-operation with the HR professionals. The clarification of the responsibilities leads to the next question of how to ensure the managers' capability. Could e-HRM be (an alternative) way to support and facilitate the development of capability and, in that sense, renew the organization through learning? Or, in the worst case scenario, could e-HRM make it more rigid by harmonizing the ways of working and reducing creativity? Considering such questions can provide access to new data which has not been available previously or which has been ignored. It is also important that the clarification of responsibilities is done also with regard to the company's HRM and e-HRM decisions.

It seems that there might have been a need for informing the organization better about the e-HRM project and its purpose which could have led to greater appreciation of the content and better design of the e-HRM application, as Rüel et. al. (2006, 280-291) have stated. This study gives similar signals as the one by Parry and Tyson (2011, 349-350), regarding the factors which affecting the realization of the goals of e-HRM. Training in the use of e-HRM, the design of the e-HRM sys-

tem, general acceptance, familiarity with technology in the organization, HR skills in the HR function (e.g. project management, process engineering, communication), and especially the managers' engagement to e-HRM could have been taken into consideration better in the case study company. Similarly to Fisher and Howell's study (2004) observations, the wider engagement of the line management in the early phases would probably have affected the design decisions and thus, influenced the success of the system implementation also at KC. Another possibility is that the company has failed to communicate about the design process and decisions in which case the communication could have been the main research topic.

As Foster (2009, 9-19) points out, managers and HR professionals can have very different views on technology in terms of its day-to-day use, capability and strategic value. It might be worthwhile to analyze the angles of different stakeholders, such as employees and HR professionals, in addition to different managerial levels at KC which has adopted e-HRM fairly recently. These probably polarized attitudes could help to navigate the future path of e-HRM in the company. Several recommendations and proposals including practical examples for the case company are listed in table 11 to be considered.

Table 11. Practical proposals for KC regarding e-HRM.

Development item	Practical examples of methods and tools	
Strengthening & further planning e-HRM utiliza-	Review of different stakeholder's e-HRM usage and perceptions on it e.g. through interventions and other interactive methods	
tion	Regular processes on place to collect and review feedback and development ideas for e-HRM	
Managers' competence on HRM matters and re- sponsibilities, including	HR strategy and central focus areas embedded in business strategy communication & managerial training	
practical e-HRM practices	Managers' on-boarding practices	
& tools and introduction of HR function's services	Managers' leadership programs	
	Mentoring for new managers on leadership matters & KC's ways of working	
	Interactive forums among managers to support e-HRM learning	
	HR function's role and support & services communication e.g. through service catalog in intra pages	
HR professionals' competence on HRM responsi-	Induction on HR at KC	
bilities including e-HRM	KC's HR training	
practices and tools	Facilitated virtual networks for problem solving, benchmarking, best practices sharing, and troubleshooting	
	Development program on change management & implementation skills	
	Site visits to learn the business and train the managers	
Performance of managers in e-HRM matters	Leadership & KC's way of conducting HR matters, related targets in annual target setting and their follow-up	
Review and clarification of e-HRM responsibilities	Common forum with different stakeholder representatives to clarify roles regarding processes and People system data input	

6.4 Proposals for future research

In future research, different methods, in addition to the frequently used case study strategies, interviews, and surveys, might yield fruitful results. New methods could

include, for example, action-based approaches. Observing how managers or other stakeholders actually use and utilize the e-HRM application, compared to the intended use, might give insights which cannot be achieved e.g. through interviews.

Foster (2009, 9-19) observes that managers and HR people can have very different views on technology and their power relations can affect the expectations regarding e-HRM. Also in this aspect, the multi-stakeholder perspective might be valuable for the organization. In order to increase the validity and wider implications, future research could benefit from relying on the diverse e-HRM stakeholders.

REFERENCES

Bondarouk, T. and Ruël, H. 2009. Electronic human resource management: challenges in digital era. The International Journal of Human Resource Management, Vol. 20, No. 3: 505-514.

Bondarouk, T., Rüel, H. and van der Heijden, B. 2009a. E-HRM effectiveness in a public sector organization: a multi-stakeholder perspective. The International Journal of Human Resource Management, Vol. 20, No. 3: 578-590.

Bondarouk, T. and Sikkel, K. 2005. Explaining IT implementation through group learning. Information Resources Management Journal, Vol. 18., No. 1: 42-60.

The Chartered Institute of Personnel and Development (CIPD), 2012. The role of manager (web page). (Accessed November 10th 2012). Available at http://www.cipd.co.uk/hr-resources/factsheets/role-line-managers-hr.aspx

Eskola, J. and Suoranta, J.1999. Johdatus laadulliseen tutkimukseen. Vastapaino: Tampere.

Fisher, S. and Howell, A. 2004. Beyond user acceptance: an examination of employee reactions to information technology systems. Human Resource Management, Vol. 43, Nos. 2&3: 243-258.

Florkowski, G. and Olivas-Lujan, M. 2006. The diffusion of human-resource information-technology innovations in US and non-US firms. Personnel Review, Vol. 35, No. 6: 684-710.

Foster, S. 2009. Making sense of e-HRM: transformation, technology and power relations. In Bondarouk, T., Ruël, H., Guiderdoni-Jourdain, K. and Oiry, E. 2009. Handbook of research on E-Transformation and human resource management technologies: organizational outcomes and challenges. IGI Global, p. 1-19.

Guechtouli, M. and Guechtouli, W. 2009. Information technologies' impact on individual learning process: the case study of a community of practice. In Bondarouk, T., Ruël, H., Guiderdoni-Jourdain, K. and Oiry, E. 2009. Handbook of research on E-Transformation and human resource management technologies: organizational outcomes and challenges. IGI Global, p. 352-364.

Guiderdoni-Jourdain, K. and Oiry, E. 2009. Does user centered design, coherent with global corporate strategy, encourage development of human resource intranet use?, In Bondarouk, T., Ruël, H., Guiderdoni-Jourdain, K. and Oiry, E. 2009. Handbook of research on E-Transformation and human resource management technologies: organizational outcomes and challenges. IGI Global, 78-91.

Gummesson, E. 2006. Qualitative research in management: addressing complexity, context and persona. Management Decision, Vol. 44, No: 2, 167-179.

Heikkilä, J. and Smale, A. 2011. The effects of 'language standardization' on the acceptance and use of e-HRM systems in foreign subsidiaries. Journal of World Business, Vol. 46: 305-313.

Holt Larsen, H. and Brewster, C. 2003. Line management responsibility for HRM: what is happening in Europe? Employee Relations, Vol. 25, No: 3, 228-244.

HR Technology Conference and Expo, 2012 (web pages). (Accessed November 19th 2012.) Available at http://www.hrtechconference.com/

Huang, J. and Martin-Taylor, M. 2013. Turnaround user acceptance in the context of HR self-service technology adoption: an action research approach. The International Journal of Human Resource Management, Vol. 24, No. 3: 621-642.

Konecranes Plc, 2013. Company presentation (web-pages) (Accessed October 4th 2013). Available at http://www.konecranes.com/ and http://www.konecranes.com/about-konecranes

Konecranes Plc., 2013. Internal CEO's presentation about company strategy in HR network meeting. (17.9.2013)

Konecranes Plc., 2013. Internal presentation on HR current state analysis in HR network meeting (17.9.2013).

Konecranes Plc., 2013. Annual report 2012: Growing focus on emerging markets.

Konecranes Plc., 2013. Internal presentation of Lifting People strategy (12.2.2013).

Konecranes Pcl. 2011. Internal materials about 1KC program and People project. (14.10.2012).

Lawler, E. and Mohrman, S. 2003. HR as a strategic partner: what does it take to make it happen? Human Resource Planning, Vol. 26, No. 3: 15-24.

Lengnick-Hall, M., Lengnick-Hall, C., Andrade, L. and Drake, B. 2009. Strategic human resource management: The evolution of the field. Human Resource Management Review, Vol. 19, 64-85.

Lin, H. 2011. Electronic human resource management and organizational innovation: the roles of information technology and virtual organizational structure. The International Journal of Human Resource Management, Vol. 22, No. 2: 235-257.

Marler, J. and and Fisher, S. 2013. An evidence-based review of e-HRM and strategic human resource management. Human Resource Management Review, Vol. 23: 18-36.

Marler, J. 2009. Making human resources strategic by going to the Net: reality of myth? The International Journal of Human Resource Management, Vol. 20, No. 3: 515-527.

Martin, G. and Reddington, M. 2010. Theorizing the links between e-HR and strategic HRM: a model, case illustration and reflections. The Internal Journal of Human Resources Management, Vol. 21, No. 10: 1553-1574.

Panayotopoulou, L., Galanaki, E. and Papalexandris, N. 2010. Adoption of electronic systems in HRM: is national background of the firm relevant? New Technology, Work and Employment, Vol. 25, No. 3: 253-269.

Parry, E. 2011. An examination of e-HRM as means to increase the value of the HR function. The International Journal of Human Resource Management, Vol. 22, No. 5: 1146-1162.

Parry, E. and Tyson, S. 2011. Desired goals and actual outcomes of e-HRM. Human Resource Management Journal, Vol. 21, No. 3: 335-354.

Perry, E. and Kulik, C. 2008. The devolution of HR to the line: implications for perceptions of people management effectiveness. The International Journal of Human Resource Management, Vol. 19, No. 2: 262-273.

Piekkari, R. and Welch, C. 2011. Tapaustutkimuksen erilaiset tyypit. In Puusa, A. and Juuti, P. (edit.) Menetelmäviidakon raivaajat. Perusteita laadullisen tutkimustavan valintaan. Johtamistaidon opisto, 183-195.

Piekkari, R., Welch, C. and Paavilainen, E. 2009. The case study as disciplinary convention: evidence from international business journals. Organizational Research Methods, Vol. 12, No. 3: 567-589.

Pietilä, I. 2010. Vieraskielisten haastattelujen analyysi ja raportointi. In Ruusuvuori, J., Nikander, P. and Hyvärinen, M (Eds.), Haastattelun analyysi. Vastapaino: Tampere, 411-423.

Ridder, H-G. and Hoon, C. 2009. Introduction to special issue: qualitative methods in research on human resource management. German Journal of Human Resource Research, Vol. 23, No. 2: 93-106.

Ruël, H. and van der Kaap, H. 2012. E-HRM usage and value creation. Does a facilitating context matter? German Journal of Research in Human Resource Management, Vol. 26, No. 3: 260-281.

Ruël, H., Bondarouk, T. and Van der Velde, M. 2007. The contribution of e-HRM to HRM effectiveness. Results from a quantitative study in a Dutch Ministry. Employee Relations, Vol. 29, No. 3: 280-291.

Ruël, H., Bondarouk, T. and Looise, J. 2004. E-HRM: innovation or irritation. An explorative empirical study in five large companies on web-based HRM. Management revue, Vol. 15, No. 3: 364-380.

Stone, D. and Dulebohn, J. 2013. Emerging issues in theory and research on electronic human resource management (eHRM). Human Resource Management Review, Vol. 23: 1-5.

Stone, D. and Lukaszewski, K. 2009. An expanded model of factors effecting the acceptance and effectiveness of human resource management systems. Human Resource Management Review, Vol. 19: 134-143.

Strohmeier, S. 2012. Assembling a big mosaic – A review of recent books on electronic human resource management (e-HRM). German Journal of Research in Human Resource Management, Vol. 26, No:3: 282-294.

Strohmeier, S., Bondarouk, T. and Konradt, U. 2012. Editorial: Electronic human resource management: transformation of HRM? German Journal of Research in Human Resource Management, Vol. 26, No. 3: 215-217.

Strohmeier, S. 2009. Concepts of e-HRM consequences: a categorization, review and suggestion. The International Journal of Human Resource Management, Vol. 20, No. 3: 528-543.

Strohmeier, S. and Kabst, R. 2009. Organizational adoption of e-HRM in Europe. An empirical exploration of major adoption factors. Journal of Managerial Psychology, Vol. 21, No. 6: 482-501.

Strohmeier, S. 2007. Research in e-HRM: Review and implications. Human Resource Management Review, 17: 19-37.

Ulrich, D. 1997. Human resource champion. The next agenda for adding value and delivering results. Harvard business school press. Boston, Massachusetts.

Venkatesh, V., Morris, M., Davis, G. and Davis, F. 2003. User acceptance of information technology: toward a unified view. MIS Quarterly, Vol. 27, No. 3: 425-478.

Voermans, M. and van Veldhoven, M. 2007. Attitude towards E-HRM: an empirical study at Philips. Personnel Review, Vol. 36, No. 6: 887-902.

Welch, C. and Piekkari, R. 2006. Crossing language boundaries: qualitative interviewing in international business. Management International Review, Vol. 46, No. 4: 417-437.

Whittaker, S. and Marchington, M. 2003. Devolving HR responsibility to the line. Threat, opportunity or partnership? Employee Relations, Vol. 25, No. 3: 245-261.

Wright, P. and McMahan, G. 1992. Theoretical perspectives for strategic human resource management. Journal of Management, Vol. 18, No. 2: 295-320.

APPENDICES

APPENDIX 1. Interview framework

Background information (not to be asked from candidate, to be checked from HR master data)

Job title

Function

Amount of direct reports

Total head count in the organization

Nationality

Running international team having employees in different countries: yes / no

What type of HR support available and does that person participate on management team working

Distribution of employment changes maintained by managers / HR in country of interviewee

Background information as warm up (to be asked from candidate):

Years in managerial position having direct reports

Years in current role

What IT systems you are actively using at work?

How would you describe your IT experience and skills in general?

Do you have experience and what type of experience about HR IT tools outside Konecranes?

BUSINESS ENVIRONMENT AND ITS EFFECTS ON PEOPLE MATTERS

- What type of requirements this business and surrounding environment/competition creates for people matters?

HUMAN RESOURCE MANAGEMENT AT KC

- Are you familiar with Lifting People strategy? How do you see it?
- How would you evaluate KC people processes and practices?
- What HR practices are in good shape in your area and why? Where you have faced difficulties?
- How are you familiar with People project (what was it, why it was done etc)?
- Did you participate on People project e.g. during preparation or implementation phase and if yes, how? How it was introduced to you?

ROLE OF MANAGER AT KC

- How do you see your role as manager leading people?
- Has role of manager changed during past years? If yes, how?
- What type of people related matters do you have on your table in general?
- What motivates you in leading people?
- Where do you face challenges or difficulties in leading people?
- What would you like to develop in yourself as manager?

HR FUNTION'S SERVICES AND CO-OPERATION WITH THEM

- How do you see the role of HR function / professionals?
- What type of support and services do you expect from HR?
- How people related responsibilities should be divided between managers and HR people?
- How would you evaluate the HR support at Konecranes? Strengths and weaknesses?
- What would you develop in the HR services or support provided by HR at KC?
- Are there any particular ways that you would appreciate HR to provide the services and support for managers?

IT TOOLS IN PEOPLE FIELD

- What do you like about KC HR IT tools?
- What HR IT system are you actively using at work? E.g. People system, Artist recruitment tool, Training catalog, UBC Tools, some local HR IT tools.
- What type of HR IT tools would you see beneficial for you as manager in general?
- What should be the distribution of task of those IT tools by HR people and managers?
- What is the distribution of tasks between manager and HR in maintaining People system in your country?

PEOPLE PRACTISES SUPPORTED BY PEOPLE SYSTEM

- How have you been trained / guided / introduced to use People system?
- How often do you use it and for what purposes?
- How do you see People system?
- Have you seen some benefits of using it? What and to whom?
- Have you faced some difficulties when using it? What?
- What type of support do you receive for using the system?
- What type of conditions would help you to more utilize the system?
- Has People system effected on your way of working or your responsibilities?
 If yes, how?
- Do you have some wishes or development ideas for
 - o processes around the system?
 - support available from HR?
 - o system itself?

OTHER TOPICS

- Is there anything else that you would like to raise up?

APPENDIX 2. Interview summary

Amount of	Interview lan-	Interview me-	Interviewing pe-	Duration of in-
interviews	guage	thod	riod	terview
9	English 5	Face to face 5	Pilot in January	50-60 minutes
	J		2013	
	Finnish 4	Lync tool 4		
			Other interviews	
			in spring & summer 2013	
			3011111101 2010	

APPENDIX 3. Summary of background information of interviewees

Background and organizational information of interviewees

Job title	Function	Num- ber of direct reports	Total head count in organiza-tion	Number of nationali- ties	Number of countries in own organization	Years in mana- gerial po- sition
Director or Vice Presi- dent	Sales R&D Supply Chain Business develop- ment	5-12, in av- erage 9	~50 - ~1000, in average 444	6	2-8	15-30

IT related background information of interviewees

IT systems using actively at work	It experience and competence	e-HR maintenance in employment matters in country of interviewee	Experience from e- HR tools outside KC
Daily basis: MS	middle/basic level,	By HR 5	No 5
Office & UBC	feeling "pretty" confident with new	By managers 4	Yes 4
Monthly basis: administrative tools	tools		
Few used: func- tion-related soft- ware such as CRM or ERP tools			