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E-HRM: Innovation or Irritation

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E-HRM: INNOVATION OR IRRITATION

An explorative empirical study in five large companies on web-based HRM

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Abstract

Technological optimistic voices assume that, from a technical perspective, the IT possibilities for HRM are endless: in principal all HR processes can be supported by IT. E-HRM is the relatively new term for this IT supported HRM, especially through the use of web technology. This paper aims at demystifying e-HRM by answering the following questions: what actually is e-HRM?, what are the goals of starting with e-HRM?, what types can be distinguished? and what are the outcomes of e-HRM? Based upon the literature, an e-HRM research model is developed and, guided by this model, five organizations have been studied that have already been on the 'e-HR road' for a number of years. We conclude that the goals of e-HRM are mainly to improve HR's administrative efficiency/to achieve cost reduction. Next to this goals, international companies seem to use the introduction of e-HRM to standardize/harmonize HR policies and processes. Further, there is a 'gap' between e-HRM in a technical sense and e-HRM in a practical sense in the five companies involved in our study. Finally, e-HRM hardly helped to improve employee competences, but resulted in cost reduction and a reduction of the administrative burden.

Keywords: e-HRM, HRM, IT, explorative case studies.

1 INTRODUCTION

Technologically optimistic voices assume that, from a technical perspective, the IT possibilities for HRM are endless: in principal all HR processes can be supported by IT. Words are becoming even more provocative when some say that the question whether HR should become digital already is outdated: HR must become digital! Trapp (2001) warns against the idea that e-commerce is over because the dot.com bubble has burst. He is convinced that the internet will never go away: the use of the internet will keep on increasing as companies look for ways to reduce costs. According to Trapp, HR departments are not immune from such trends, in particular nowadays when they are being pressed to prove their added value to business performance. Jäger (2001) believes that HRM will acquire a new dimension with the emergence of e-business.

Wright and Dyer (2000) present a similar line of reasoning: e-business is emerging, and therefore HR and HR professionals are faced with the challenge of performing in ways that are in line with the business. In their view 'HR functions [can] become critical partners in driving success, but to do so requires that HR changes its focus, its role, and its delivery systems' (Wright and Dyer, p. 52). According to them, in e-business, the application of intranet technology for HR is inevitable.

We will review the literature and present five case studies. Based upon the literature, an e-HR research model is developed and, guided by this model, five organizations have been studied that have already been on the 'e-HR road' for a number of years.

Before starting to define e-HRM, it is important to identify terms that possibly carry similar meanings to the term e-HRM. In the literature, in addition to e-HR and e-HRM, terms are used such as virtual HR(M), HR intranet, web-based HR, computer-based human resource management systems (CHRIS), and HR portals. We are excluding HR information systems (HRIS), which have been discussed extensively (e.g. DeSanctis, 1986; Kavanagh et al., 1990; Cascio and Awad, 1981; Haines and Petit, 1997), since there is a fundamental difference between HRIS and e-HR in that basically HRIS are directed towards the HR department itself. Users of these systems are mainly HR staff. These types of systems aim to improve the processes within the HR departments itself, albeit in order to improve the service towards the business. With e-HR, the target group is not the HR staff but people outside this department: the employees and management. HRM services are being offered through an intranet for use by employees. The difference between HRIS and e-HR can be identified as the switch from the automation of HR services towards technological support of information on HR services. There are authors who write about HRIS, or write from an HRIS perspective, but who cross the divide with e-HR when they start to develop their ideas. For example, the so-called stage-oriented approaches regarding the relationship between IT and HRM make, at a certain stage, a step over to e-HR. Technically speaking, it can be said that e-HR is the technical unlocking of HRIS for all employees of an organization.

In our view it concerns the following: e-HRM is a way of implementing HR strategies, policies, and practices in organizations through a conscious and directed support of and/or with the full use of web-technology-based channels. The word 'implementing' in this context has a broad meaning, such as making something work, putting something into practice, or having something realized. E-HRM, therefore, is a concept - a way of 'doing' HRM.

1.1 Research questions

Having a clear picture of the phenomenon that is e-HRM, and to what extent something is going on, makes it possible to pose a central research question as the basis of our empirical ambitions. Our conclusion about what is known about e-HRM, and how it is working out in reality, is that it is limited and very much based upon consultancy-based survey material. What are lacking are more explorative,

qualitative data-based results. Therefore, our aim is to fill up this gap and, to this end, we pose the following central research question:

To what extent does the management of employee relationships in companies change with the planned use of web-tools for HRM purposes, and how does this change occur?

From this basis, we distinguish a number of sub-questions:

1. What are the goals that decision-makers within companies try to achieve when they start with the planned use of web-tools for HRM purposes?

2. What types of e-HRM can be distinguished in companies?

3. What are the consequences, in terms of HR outcomes, of the use of web-tools for HRM?

2   A RESEARCH MODEL

Having laid a basis for e-HRM by defining it, seen to what extent it is already becoming reality, we will now dig deeper by theoretically framing e-HRM guided by the research questions as posed. The steps towards the theoretical framework will be: the state of HRM in an organization, the e-HRM goals, types of e-HRM, HRM outcomes.

2.1   The state of HRM in an organization

Organizations do not start with nothing when they step out onto the e-HRM road. For a start there will be certain implicit or explicit HRM policy assumptions and practices already in use. Further, every management decision contains some HRM component. Beer et al. speak about HRM policy choices. The set of HRM policy choices within an organization can be categorized into one of the three types distinguished by Beer et al.: the bureaucratic policy, the market policy, and the clan policy. Each type is typified by specific characteristics regarding the HRM policy areas: employees' influence, flow, rewards, and work systems. This distinction is more than simply a characterization of the development stages of HRM within organizations. Bureaucratic policies are especially found in organizations that operate within a stable environment, both technologically as well as socioeconomically. A market policy is often seen in organizations that have to react rapidly to changes in their environment, for example to strongly fluctuating markets. Finally, the clan policy can be found in organizations that quite heavily rely on delivering quality and on innovation. The expertise of employees in such companies is decisive in the organization's success.

From the existing state of the HRM in an organization (the frame of reference), the individuals and groups involved (the stakeholders) make choices with regard to e-HRM. As these are made within a certain context, the choices are purpose-driven.

2.2   E-HRM goals

What goals drive stakeholders when deciding about e-HRM? All the reasons mentioned so far in professionally-oriented sources (for example *Personnel Jour*nal, June 1995; *Information Systems Management*, autumn 2000; *Internetweek*, 12 March, 2001) are 'confirmed' in a scientific article entitled *Human Resource Management Review* by Lepak and Snell (1998). They refer to the four 'pressures' of virtual HRM. First of all, HRM departments are asked to focus on strategic questions. Secondly, these departments need to be flexible in terms of policymaking and practices. Thirdly, HRM departments should work efficiently and be aware of costs ("…a hard line on costs"). Fourthly, HRM departments should be service-oriented towards management and employees. In short, HRM departments must be strategy-focused, flexible, efficient, and client oriented; and all at the same time (Lepak and Snell, 1998).

Ruël et al. (2002) highlight an aspect that is fairly well covered by the above but that is nevertheless interesting to spell out, namely the changing nature of the employment relationship. With the supply shortage in the labor market (during the economic upturn of the 1990s), the individualization of society, and the increased educational level of citizens (and thus of employees), the power balance in the employment relationship has shifted in the direction of the employees: they want to steer their own career paths. In the view of Ruël et al., a move towards e-HRM can provide the tools to support this development. This aspect fits into earlier-mentioned drivers such as improving service towards internal clients, but has an external societal drive.

The rapid developments in IT, and in its possibilities for HRM, have even led to new journals and magazines especially focused on the integration of these areas.

Based upon the above, we can draw conclusions about the reasons or goals of organizations making steps towards e-HRM. The four 'pressures' from Lepak and Snell (1998) were a good start, but we think that they can be reduced to three types of goals, namely:

1. Improving the strategic orientation of HRM

2. Cost reduction/efficiency gains

3. Client service improvement/facilitating management and employees.

This division of objectives is in line with the conclusion of the annual study on e-HRM in the United States conducted by the consultancy firm of Watson Wyatt. The results from their 2002 study show that companies that had invested in e-HRM, and there were many, were driven by the aim of improving the strategic role of HRM, reducing administrative HR work, and improving employees' satisfaction with HRM services. The three types of goals are essentially the building blocks for the e-HRM research model we will develop.

The goals that drive parties, stakeholders, and individuals in organizations will set a framework for the real e-HRM applications and approaches to be implemented. In our view, the 'choice' of possible e-HRM approaches can be reduced to one.

2.3   Types of e-HRM

E-HRM is not a specific stage in the development of HRM, but a choice for an approach to HRM. Wright and Dyer (2000) distinguish three areas of HRM where organizations can choose to 'offer' HR services face-to-face or through an electronic means: transactional HRM, traditional HRM, and transformational HRM. Lepak and Snell (1998) make a similar distinction, namely operational HRM, relational HRM and transformational HRM.

The first area, operational HRM, concerns the basic HR activities in the administrative area. One could think of salary administration (payroll) and personnel data administration. The second area, relational HRM, concerns more advanced HRM activities. The emphasis here is not on administering, but on HR tools that support basic business processes such as recruiting and the selection of new personnel, training, performance management and appraisal, and rewards. Transformational HRM, the third area concerns HRM activities with a strategic character. Here we are talking about activities regarding organizational change processes, strategic re-orientation, strategic competence management, and strategic knowledge management.

The areas mentioned could also be considered as *types* of HRM that can be observed in practice. In some organizations, the HRM emphasis is on administration and registration, in others on the application of operational HRM instruments, and in a third group the HRM stress is on its strategic role. Within all the types of HRM, choices can be made in terms of which HRM activities will be offered face-to-face, and which will be offered through web-based HR (e-enabled). This question, for the operational type of HRM, provides the choice between asking employees to keep their own personal data up-to-date through an HR website or to have an administrative force in place to do this.

For relational HRM there is the choice between supporting recruitment and selection through a web-based application or using a paper-based approach (through advertisements, paper-based application forms and letters etc.). Finally, in terms of transformational HRM, it is possible to create a change-ready workforce through an integrated set of web-based tools that enables the workforce to develop in line with the company's strategic choices or to have paper-based materials.

In cases where an organization consciously and in a focused way chooses to put in place web technology for HRM purposes, based upon the idea that management and employees should play an active role in carrying out HR work, we can speak of e-HRM. With this line of reasoning, three types of e-HRM can be distinguished: Operational e-HRM, Relational e-HRM, and Transformational e-HRM; and these three types are included in our model.

2.4   E-HRM outcomes

We assume, based upon Beer et al.'s ideas about the expected results or outcomes of HRM, that e-HRM also aims to achieve a certain set of outcomes. There is a danger of confusing these with the e-HRM goals distinguished earlier but there is a clear difference. As stated earlier, e-HRM is, in our view, a way of carrying out HRM, it is a way of thinking about and implementing HRM strategies, policies, and practices. By following a specific e-HRM direction, an organization expects to achieve certain goals: an improvement in the HR's strategic orientation, an improvement in client focus and satisfaction, and a decrease in costs or increased efficiency.

Besides these goals that can lead to anticipated outcomes, a number of so-called 'overall' organizational goals can be distinguished regarding an organization's 'social capital'. All HRM activities, and therefore also all e-HRM activities, will implicitly or explicitly be directed towards these 'overall' goals. Beer et al. (1984) distinguish four possibilities: high commitment, high competence, cost effectiveness, and higher congruence. By high commitment they mean that the workforce is motivated and understanding, and that they are willing to interact with the management about changes in the organizational environment and the impact that this can have on the internal organization. For HR itself, this means that it should be able to play the role of change agent, to use Ulrich's (1997) terminology. High commitment implies a high level of trust between management and workforce. High competence points towards the capacities of employees to learn new tasks and roles if the circumstances require it. For HR itself it means, in Ulrich's framework, playing the employee champion role. Cost effectiveness refers to the competitiveness of pay levels and employee turnover rate, and to the acceptability of costs resulting from employee resistance such as strikes. As Ulrich (1997) states, HR itself has to be able to play the administrative expert role in order to contribute to an organization's cost effectiveness. Finally, higher congruence refers to the internal organization, the reward system, and the 'input, throughput, and output' of personnel, which need to be structured in the interests of all stakeholders.

Depending upon the way in which individuals and parties want to be affected by e-HRM, in line with the defined goals, outcomes will to some extent emerge. These outcomes, in turn, may change the state of HRM in an organization, or through individuals and/or groups within an organization actually result in a new HRM state. This closes the circle.

With the addition of the e-HRM outcomes, the building blocks have been identified that are needed to finalize our e-HRM model (see Figure 3.2) taking into account the preconditions as described.
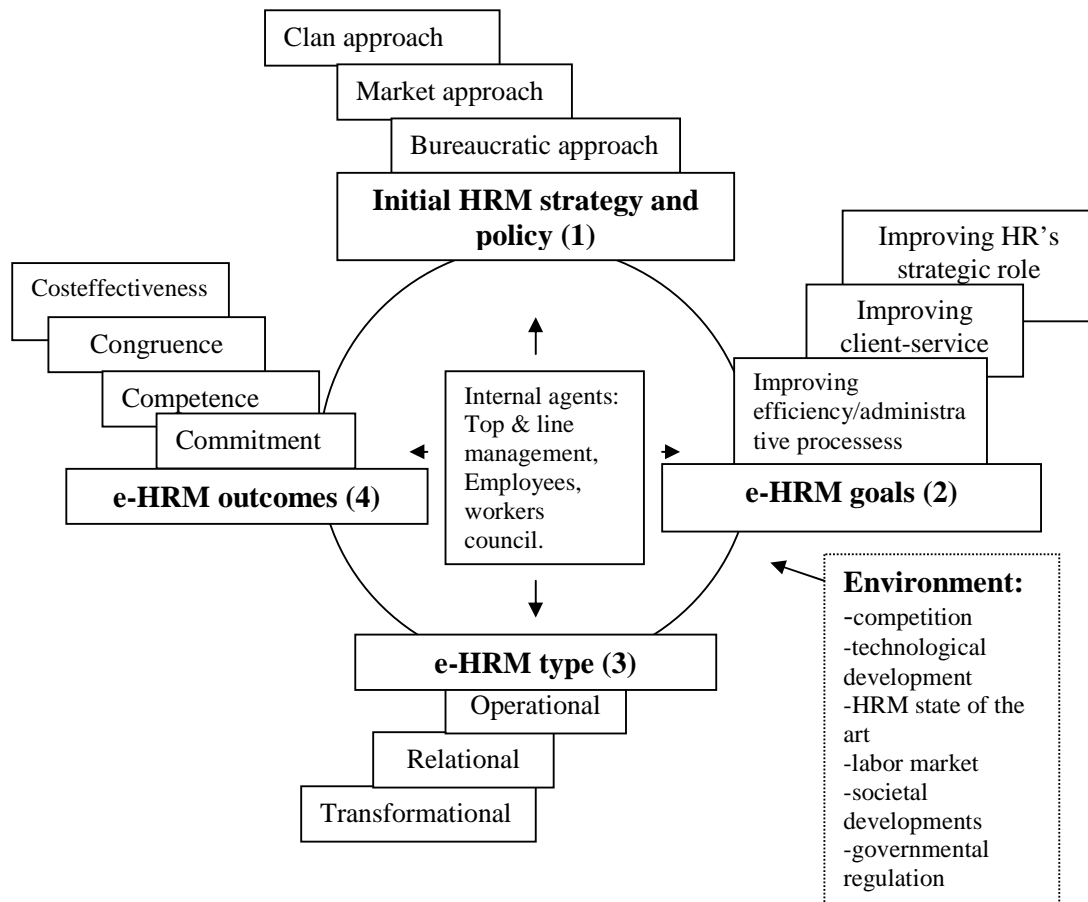
Figure 3.2   The e-HRM model

After having modeled e-HRM, there is another question for us to answer: what are the consequences of e-HRM for the HR department itself? The next section deals with this question.

2.5   Consequences of e-HRM for the HR department

The literature seems to clear: e-HRM will not leave HR departments 'untouched'. Less administrative tasks for the HR department and therefore less administrative positions, more focus on the strategic goals of the organization and therefore an HRM staff consisting mainly of 'thinkers'; this is, in essence, what HR departments can expect or are already facing and experiencing. Let us look more closely at some relevant sources.

Kavanagh et al. (1990) actually gave a good 'push' when they wrote about the consequences of HR information systems (which we distinguish from e-HRM) for HRM professionals: "Today and in the future, however, the successful HR professional must be part HR generalist, part HR functional specialist, part consultant, part business manager, and must understand and be comfortable using information systems" (p. 325). More specifically, they state that HR departments will be more involved in strategic planning processes if they are able to provide adequate, accurate and fast information through the use of information technology. A change for HR departments, related to this, is that with an appropriate use of information technology they can improve their client focus. "…the HR group will focus on providing services to employees, line managers, and senior management, often by serving as an internal consultant. This will better enable the HR function to truly support the business" (p. 323).

Other authors (for example Rampton et al., 1997; LeTart, 1997; Walker and Regan, 1997) also think that by the use of IT for HRM purposes there will be more time left for strategic decision-making. Fewer administrative tasks and a decrease in HR related questions from employees and line management, for example about training and development opportunities, will create this available time.

Trapp (2000) writes about a study undertaken by the Cranfield School of Management's researchers Andrew and Nada Kakabadse on outsourcing. The results will be published with the title: 'Smartsourcing: international practice'. According to Trapp, these researchers believe that the HR function in the future will be the prime target for outsourcing. Some companies divide their HR function into transactional activities, which are attractive for outsourcing, and management and organization development, which have a more strategic value and therefore have a more crucial role. HR departments that do not make this change will probably be reduced in size.

From our definition of, and approach to, e-HRM the following can be concluded about the consequences of e-HRM for the HR department. E-HRM will assume an active role for line management and employees in implementing HRM strategies, policies, and practices. In terms of the more operational and information processing work, such as administration, registration and information distribution, there will be less demand for HR people. This seems most logical for organizations with an operational e-HRM approach. However, also with a relational e-HRM approach dominating, a smaller HR staff will be necessary if line management and employees pick up and use the HRM instruments provided by the HR intranet. There will still be HR experience necessary for the renewal of instruments and to prepare them for easy intranet-based use. Finally, with a more transformational e-HRM approach, strategic HRM expertise will be necessary in order to formulate adequate strategic HRM plans.

3 RESEARCH METHOD

3.1 The case study method

In our study we have opted for qualitative research methods. The case study method

It is not necessary to fully elaborate here on the case study method as such since there are a number of good overviews available (e.g. Yin, 1994; Lee, 1999; Hutjes and Van Buuren, 1992). Rather, this section just develops our specific application of the method.

A case study has five main components (Lee, 1999): Research questions, Theoretical propositions, Units of analysis, The logic linking data to these theoretical propositions, and the criteria for evaluating these propositions.

By including these five components, our case study will hopefully be seen as "proper". With regard to the first component; our study's central research question has been presented in Chapter One. Chapter Two "focused the lens" to be applied in this study, and therefore the second component has also been properly addressed. The third component, determining the unit of analysis, needs further explanation. The unit of analysis should reflect the phenomenon that is to be studied. The danger with case study research is the isolation of the phenomenon from its broader context. Obvious solutions are not readily available, so it is important to be as explicit as possible when defining the unit of analysis. The unit of analysis chosen for our study is *the organization.*

The fourth component, the logic linking data to the theoretical propositions, concerns a study's specific techniques. In other words: how does a researcher collect the data appropriate for finding answers to the research questions or testing the theoretical propositions? This question, and the answer to the fifth component, the criteria for evaluating these propositions, are discussed below.

3.2   Case selection

We have selected large companies (> 10 000 employees) in order to present and explore interesting cases. Furthermore, the selected companies needed to have a good reputation regarding developments in e-HRM. This case selection procedure is valid and appropriate since it is not this study's intent to generalize in a statistical way across all companies. The intent is to explore and, as a result, to make a start with theoretical generalization (Yin, 1994).

We involved the following five large companies (each with more than 15 000 employees): Dow Chemicals, ABN AMRO, Ford Motor Company, IBM, and Belgacom. All of them have been on the 'e-HR road' for a number of years, and in a variety of ways. In fact this suggests the first conclusion: there does not seem to be 'one natural way' to get on the 'e-HR road'. Companies are different, operate in different markets, and have various structures and cultures. It is up to the reader therefore to decide which of the companies they can identify with.

3.3   Case study techniques

Within the case study approach, specific techniques have to be selected for collecting the data. For our study, we have chosen conversational interviews as the dominant technique. The conversational interviews are particularly used to describe the variables in the research model. Conversational interviews are adequate for the following reasons. Firstly, we have studied e-HRM in companies retrospectively since, because of time constraints, it was not possible to participate in e-HRM projects from start to finish. Secondly, through the use of conversational interviews, with representatives of relevant groups of participants, it is possible to 'reconstruct' what happened from the start through to the moment of our investigation.

We have also used immediate participant observations as a source of data. In all of the cases studied we observed a number of users of web-tools for HRM purposes over short periods of time.

The data collected through the conversational interviews, documents, and observations were analyzed using a categorization process. We categorized the responses to the questions in the interviews, the documents, and the observations in line with the indicators for the variables discerned. From this categorized data, conclusions were drawn regarding the individual cases and, later on, across all five cases.

4   **RESULTS**

4.1   Commencing with e-HRM at our five case companies: an overall assessment

Starting to work with e-HRM seems to be connected with the process and globalization aims of the companies. This is one of the more interesting points to emerge from our look at the five companies. Four of them operated internationally, and all of these linked their e-HRM plans with their aim of becoming a global company rather than an internationally dispersed one. The fifth, Belgacom, is not yet an international company, and therefore would not make this connection.

The four international companies in our study chose to standardize and harmonize HR policies and practices as a precondition for becoming a global company and also to create a sound basis for e-HRM, or because they saw no other option but to achieve globally standardized and harmonized HR policies and practices. Interestingly, in all of these companies, 'globalizing' HR produced a tendency to centralize HR policy responsibilities at the company headquarters, while responsibilities for applying HR responsibilities were actually decentralized, placed in the hands of line managers and employees. Through the last of these aspects, it seems that, with the 'rise' of e-HRM, the

responsibility for carrying out HR policies is actually becoming a line responsibility - something that HRM theory has been proclaiming since the mid-1980s!

Overall, it is necessary to recognize that a fourth goal should be added to the three we distinguished for our model in Chapter Two, namely: to improve a company's global orientation.

Further, what we see is that the companies involved have ambitious aims with HR and in implementing e-HRM. The three types of e-HRM goals that we distinguished based upon the literature, namely to improve administration and efficiency, to improve client orientation and service, and to improve HR's strategic orientation, were all selected by the companies involved in this study. However, they all seem to have been selected without any clear priority or, in other words, the three seem to be almost equally important. This is surprising, and actually rather strange, because it is questionable whether an improvement in HR service to employees and line management can coexist with an improved efficiency (for which read decreasing costs). Furthermore, the concept of e-HR has to be facilitated with web-technology, and in all of the involved companies large investments were needed to support their e-HR technology plans, especially in terms of labor input by project team members, trainers, and so on. The return on investment therefore cannot be seen as quick, it will need several years to "recoup" the outgoings. In one case this was openly acknowledged. In our view, the cost reduction goal is more of a hope than a short-term expectation, and perhaps a way of 'selling' e-HR plans to the top management.

The complex set of chosen goals in starting out with e-HRM is also surprising because it goes against the general belief that clearly defined goals are a very important precondition for successful project management. In the companies involved in our study it seems to be the case that goals are used pragmatically: if one is not achieved, then at least one of the others might be. Furthermore, only two of the five companies (Dow and IBM) had a clearly defined HRM strategy on which the e-HR tools were based; the other three (ABN AMRO, Ford and Belgacom) had ideas about where they wanted to go with e-HR, but the links between the e-HRM content and the overall HRM strategy were less clear.

Below, in Table 4.1, we have placed the companies and the e-HRM goals in a matrix, and made a judgment about the emphasis placed by the companies on the selected goals.

	Dow Chemicals	ABN AMRO	IBM	Ford	Belga-com
To globalize the company (standardize/harmonize HR policies and processes)	***	***	**	*	
To improve HR's strategic orientation	**	**	**		**
To improve internal client orientation and service delivery	**	**	**	***	***
To improve administrative efficiency/ achieve a cost reduction	**	***	***	***	**

*** = strongly emphasized, ** = moderately emphasized, * = slightly emphasized

Table 4.1:   The companies involved and their e-HR goals

4.2   E-HRM types

Placing the companies side-by-side allows an overview and comparison. This overview is not intended to classify the e-HRM experiences as 'good' or 'bad' but to show the differences between what is available in the technical sense for employees and management, and how it was being used in practice at the time of our study. All the companies were, and still are, working on further developments and further improvements, and therefore this overview has somewhat of a transitory value. However, the goal of Table 5.6 is not so much the labeling of the type of e-HRM in use, but to compare between the technical state of the e-HRM and the 'use-state'. What is clear is that there is a 'gap' between e-HRM

in a technical sense (the available functionality) and the use and adoption of it by employees and line managers. The actual usage/adoption lags behind what is possible. An initial response to this observation could be that this is natural: real use always follows behind technical implementation. In our view, this 'gap' is more than just a normal phenomenon. As we saw at Dow Chemicals, the time taken for the adoption of e-HRM by users to catch up with the technical possibilities can be around three years! The main explanation for this, in our view, is that starting with e-HRM does not mean that users simply have to learn to work with a new version of a familiar system, but rather that employees and line managers have to be ready, able and willing to pick up responsibilities that were previously someone else's. This really does require a change in mindset!

	e-HRM technical sense	e-HRM in practice
Dow Chemicals (Benelux)	*Transformational*	*Relational/Transformational*
ABNAMRO (Luxembourg)	*Operational/Relational*	*Operational*
Ford Motor Company (Germany)	*Operational/Relational*	*Operational*
IBM (Netherlands)	*Transformational*	*Relational*
Belgacom (Belgium)	*Relational/ Transformational*	*Operational*

Table 4.2   Comparison between e-HRM in a technical sense (available functionality) and e-HRM in practice

4.3   e-HRM outcomes

Cost reduction and a reduction of the administrative burden are in most cases mentioned as an effect of e-HRM. However, no exact figures exist regarding the size of these reductions. Most concrete is the reduction in (HR-)staff level, but to give the whole picture we have to calculate the extra time that is needed by middle-manager and employees to keep up their own HR-administration and to search for their own possibilities at the intranet. For instance at Dow we saw the development of a new function, namely an assistant for management and employees to help them with the use of e-HRM. There is a danger of information overkill through the HR intranet. Without a clear and easy structure employees and line management can be afraid of spending time on exploring web-based HR tools. For example, at IBM employees and line managers felt that the HR intranet site contained too much info in a non-easy way. Therefore they called to the HR call center (ask HR) to get answers to their immediate HR related questions instead of searching the HR site. Strikingly, the HR call center assistants use the same source, the HR intranet site, to give the answers! Although IBM reported a convincing reduction of costs, the abovementioned might raise questions. As was known, IBM outsourced the HR call center and this itself may have reduced costs

Most important e-HRM effect, however, seems to be the strategic integration of HRM with the (revised) company strategy, structure and culture. In all cases e-HRM is mainly seen as an indispensable instrument to help to realize this integration by on the hand centralizing and standardizing HR-policies and practices and on the other decentralizing their execution. This is the same effect we see with IT-applications on other fields, like production, logistics, finance, etc. IT makes it possible to combine centralization and standardization on the one hand and decentralization in the execution and operations at the other. Against this background we may expect companies to continue with e-HRM, more or less regardless the costs.

For the employees, the introduction of e-HRM brings changes in the way experience HRM in a company and in the HR tools and instruments they get offered. They get the opportunity to be up-dated in the organizational developments, take part in the on-line discussions, chose their career path. However, not all employees are willing to pick up the full responsibility for their personal career development through the available web based HR tools. Some (and the cases suggest a certain group)

find that their managers have to come up with career development initiatives. At Dow Chemicals Benelux the philosophy was that through the availability of HR online tools employees would become the initiators of their own career development. However, employees in the plants or factory (instead of in those in offices) did not even have access to online HR-tools because of a lack of PC's or because of costs considerations. This was also the case at Ford Motor Company Cologne. The availability of PC's in all 'corners' of the company and sufficient PC skills with management and employees are important requisites for the success of e-HRM.

Further, although e-HRM creates new opportunities for line management and employees the organisational practice can be limited in using these opportunities because of a lack of time and the willingness to pick them up. E-HRM is not something technical, it is in the first place a change of minds and behavior of HR, line management and employees. At the second place it is about facilitating through IT. In the cases, it seemed to be that IT played a very big role. Selection of the right package, implementation of pieces/part of the 'package' was got a lot of attention. The fact that the philosophy behind the usefulness of the technology had to be 'sold' and made able to incorporate it into day-to-day working life was in the first place forgotten. An example of this was the ABN AMRO case, where line management and employees did not have a good clue about the 'story' behind the online HR tools that were made available. Employees and line managers felt that they even hardly had time to explore the tools. The HRM department did a good job by starting marketing campaigns a number of times per year to stimulate use, with success actually. Employees and line managers minds need to be changed; they have to realize and accept the usefulness of the web-based HR tools. They usually feel a lack of time and space to work quietly and thoughtfully with web-based HR tools, so if there is no real need employees and line management will not easily start to use it.

Implementing e-HRM in international and global companies seems to be difficult in the sense that it is hard to convince the local HRM departments to contribute and to collaborate because it is difficult to make the advantages of e-HRM visible and tangible in the first place. To make local HRM professionals change their way of working is difficult. When implementing e-HRM globally it can be difficult to get the support of relatively small components of the company. Implementing e-HRM on a global scale is not easy to make e-HRM advantageous on a local scale. That makes it harder to get local HRM professional enthusiastic for it. ABN AMRO is the best example of this point in our study.

Good and clear goals and a good plan how to achieve them cannot be missed in order to convince users of the usefulness of online HRM.

DOW	ABN AMRO	FORD	IBM	Belga-com
Cost effective, growth in employee competences, more 'open' culture, transparant and flexible internal labour market.	Hardly yet, especially not at the level of employees. For line managers first administrative support. For HR departments less administrative work load.	HR-intranet site (HR online) became global internal brand for HR services. 80% considers HR-online as primary source for HR. High client satisfaction with e-HR service. HR site most visited internal website. ROI in the long term, not in short term.	Cost reduction (57%), organisational climate change: more flexiblity, better balance work/private life. Communication improved. Support risk-taking and innovation. Emphasizing flexibility over bureaucracy. Client-satisfaction strongly improved.	67% of all HR data entries go through the employee self service. Improved employee satisfaction with HR service, from 4, 39 to 4,93 (on five point scale) in one year. ROI in 2006

Table 4.3   e-HRM outcomes

5   DISCUSSION

Alongside the main findings, we observed a number of additional aspects. Firstly, e-HRM seems to be providing an important 'push': to put HR responsibility in the hands of the line manager. After 15 years of 'preaching', an administrative component of HR is becoming a task for the line management. The introduction of e-HRM is accompanied by the decentralization of HR tasks and by the harmonization and standardization of HR processes. In order to become a 'real' global company, HR policies and practices need to be the same in 'all the corners of the globe' where a company is present. Differences in cultures and languages between continents and countries are a hurdle in the acceptance of newly introduced web-based HR facilities.

For the HR department, introducing e-HRM shows itself to be a 'push-factor' for changing HRM within an organization: from a bureaucratic approach towards a market/clan approach. Introducing e-HRM will be accompanied by a reduction in HR staff levels, especially in terms of administrative staff. If implemented well, it provides an opportunity for an HR department to get a clearer profile and a better image.

Turning to the employees, the introduction of e-HRM brings changes in the way they experience HRM in their company and in the HR tools and instruments they get offered. They acquire the *opportunity* to get updated in terms of organizational dynamics, take part in online discussions, and choose their career path. However, not all employees are willing to accept full responsibility for their personal career development through the available web-based HR tools. Some (and the case studies suggest a specific group) require their managers to come up with career development initiatives. For example, at Dow Chemicals Benelux, the philosophy was that through the availability of HR online tools employees would become the initiators of their own career development direction. Unfortunately, this did not always occur.

Further, although e-HRM creates new opportunities for line management and employees, the organizational practice in using these opportunities can be limited because of a lack of time and the willingness to pick them up.

What tends to be forgotten is that e-HRM is not primarily technical; it is first and foremost a change in the mindsets and behaviors of HR personnel, line managers, and employees. Only secondly is it about facilitating the above through IT. In the companies studied it seemed to be the case that IT played a very large role: selection of the right package, and implementation of pieces or part of the 'package', received a lot of attention. The fact that the philosophy underpinning the usefulness of the technology had to be 'sold' and incorporated into the day-to-day working routines was, in the first instance, forgotten. An example of this occurred in the ABN AMRO case where the line managers and the employees did not have a clear idea about the reasoning behind the online HR tools that were being made available. Further, the employees and line managers felt that they hardly had any time to explore the tools. In response, the HRM department (at ABN AMRO Luxembourg) did a good job by starting 'marketing campaigns' a number of times per year to stimulate use and these were quite successful.

Interestingly, in those companies that had an 'industrial' nature, PC availability in all 'corners' of the company and the PC skills of employees was found to be a crucial element in successful switching to e-HRM. Employees in the plants or factory (unlike those in offices) tended not have access, or at best only limited access, to online HR tools because of a lack of PCs or because of cost considerations. This was the case at Dow Chemicals Benelux and at the Ford Motor Company in Cologne. Perhaps one can speak of a cyber-division at the organizational level?

What became clear, related to this aspect, is that institutional aspects of the organizational environment are a complicating factor in global e-HRM initiatives. Two examples from our study can illustrate this. At Belgacom, the publication of personal information through the HR intranet was complicated by the Belgian law on privacy. At Fords, in Germany, the project team hinted at the wide diversity in the nationalities of employees working for Ford; but at the same time warned us not to ask

questions that could be related to the issues of different nationalities, cross-cultural differences, etc. Such issues were considered by the Works Council as sensitive.

Guaranteeing the security and confidentiality of input data is an important issue for employees in order that they should feel 'safe' when using web-based HR tools. Information technology and the like have the image that they make it easy for one to be checked upon and observed by 'invisible third parties'. When implementing online HRM tools and asking employees and line managers to input personal data, the question arises as to who is authorized to look at the data and to use them? If employees do not feel comfortable about the confidentiality of certain types of data, they will be hesitant about inputting such data.

Further, a good e-HRM strategy (i.e. where are we heading, and how are we going to get there?) is important. Good and clear goals, and a good plan how to achieve them, cannot be avoided if one is to convince users of the usefulness of online HRM.

There is also a danger of information overkill through an HR intranet. Without a clear and easy structure, employees and line managers can be afraid of spending excessive time exploring web-based HR tools. As an example, at IBM, employees and line managers felt that the HR intranet site contained too much information in a form that was difficult to comprehend. Therefore they tended to call the HR call center (ask HR) to get answers to their immediate HR-related questions rather than search the HR site. Strikingly, the HR call center assistants would use the same source, the HR intranet site, to find the answers! Although IBM convincingly reported a reduction in costs, the abovementioned observation might question whether this was really due to e-HRM. IBM had outsourced the HR call center and this in itself may have reduced costs.

Our final observation is that employees and line managers' mindsets need to be changed: they have to realize and accept the usefulness of web-based HR tools. They generally feel that they lack the time and space needed to work quietly and thoughtfully with web-based HR tools and so, if there is no real need, they will not do it.

We believe that e-HRM is a movement that will not go away, but so far it seems to be more suited and attractive to large companies than to small and medium-sized ones.

Referring back to the title of this article, *irritation* seems to start when goals are neither clear nor realistic to line managers and employees; when the aimed for e-HRM type does not fit the real needs of line managers, employees, and HR departments; when expected results do not emerge or are shown to be unrealistic; when the implementation route map is not clear; and when it all is too technology-driven.

E-HRM is an *innovation* in terms of HRM. In the first place because of the opportunities it creates to put employee-management relationships in the hands of the employees and line managers. In the second place because information technology creates possibilities to design HRM tools and instruments that would not be possible without this information technology. A good example is advanced personal assessment and measurement tools that can be used at any moment of the day, and in any location. Employees really can begin to steer their careers with a click of a mouse. HR professionals have to realize and accept this: it will not go away. It is probable that we won't even need to point this out in a few years time: it will be seen as stating the obvious!

Overall, our curiosity is not yet satisfied; actually we are only at a preliminary stage regarding the relationship between IT and HRM in organizations. We lack a good theory linking the relationship between technology and HR developments. Our research project has laid a basis, but further developments would be welcome.

Further research is also needed on the theory concerning the staged approach to e-HRM: is it a matter of growth or planning, how should it be implemented, what are the real effects in the longer term, and how does it influence the role of the HR department? All of this to avoid possible irritation!

List of references is available upon request