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How strategic considerations influence decision making on e-HRM applications

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ABSTRACT

Although numerous studies indicate that the added value of human resource management is strongest when HRM decisions are linked to the organizational strategy, practical knowledge about how strategic considerations influence decision-making processes relating to e-HRM is limited. Therefore, the purpose of this study is (1) to examine in three case studies how strategic considerations influence the decision-making process around the introduction of e-HRM applications, (2) to present propositions for further research, and (3) to offer recommendations on how to better include strategic considerations in the decision-making process. Three in-depth case studies of companies' e-HRM implementation were performed using a model on e-HRM strategy formulation (Marler, 2009). The case studies reveal that when specific business drivers are absent from the decision-making process, the main role of e-HRM becomes to provide an infrastructure with a focus on preventing dissatisfaction. In order for e-HRM to be used in a more strategic way, business and HRM should be aligned. Based on the findings, we offer research propositions for academics studying this emerging field of the interconnections between strategy, human resource management and IT systems. In addition, we offer recommendations for HR practitioners on how to optimize the match between business and HRM.

1. Introduction

Currently, information technology (IT) systems in the area of human resources (HR) primarily serve to provide support at an administrative level, while IT support for strategic purposes is lacking (Strohmeier, 2007; Teo, Soon, & Fedric, 2001). Although electronic applications (e-HRM) are being used in various disciplines of HRM such as recruitment (Stone, Stone-Romero, & Lukaszewski, 2003), selection (Chapman & Webster, 2003), performance management (Cardy & Miller, 2005) and payroll administration (Teo et al., 2001), organizations do not yet perceive that e-HRM systems can help them make better HR decisions (Stone & Lukaszewski, 2009). Current research only presents "mixed findings and some isolated hints that e-HRM may contribute to a more strategic role of HRM" (Strohmeier, 2007:28).

In our view, a precondition for e-HRM to be successfully used for strategic purposes is that strategic considerations are taken into account in the decision-making process around the implementation of e-HRM. There is, however, only limited empirical evidence available on this issue. Based on a review of 20 recently published studies (from 2007 to 2009), Marler and Fisher (2010, p. 33) conclude that "few e-HRM empirical studies have explicitly examined strategic issues". The purpose of this study is therefore to examine the role of strategic considerations underlying the decision-making process around the introduction of e-HRM applications, and to present suggestions for better including such considerations.

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First, we will define e-HRM and discuss how e-HRM differs from other related concepts such as Enterprise Resource Planning (ERP) and Human Resource Information Systems (HRIS). After that we will elaborate on the role of strategy and decision making relating to the adoption of e-HRM in an organization. Finally, the basics of Marler's theoretical model (Marler, 2009) that guided the analysis of the data are discussed.

ERP refers to "any software system designed to support and automate the business processes of medium and large businesses" (Chand, Hachey, Hunton, Owhoso, & Vasudevan, 2005: 558). ERP thus covers a much broader area than HR alone. Today's leading vendors of ERP systems are SAP AG, Oracle/PeopleSoft and Microsoft (Beheshti & Beheshti, 2010). However, while large enterprises mostly opt for these global ERP packages, small and medium enterprises (SMEs) tend to adopt local ERP packages, because of the lower costs and lower integration complexity involved in the implementation of these systems (Koh, Gunasekaran, & Cooper, 2009; Kwahk & Ahn, 2010).

An HRIS is an electronic system to perform activities in the HR field, such as keeping personnel records, job information, information on job training, management tools in the area of HR (e.g. career development planning), salary planning/administration, performance management, and financial transactions in the HR field (Lawler & Boudreau, 2009: 90).

E-HRM refers to internet-based electronic Human Resource Management (Marler, 2009: 515), and studies on this concept started around 1995 (Strohmeier, 2007). According to Strohmeier, e-HRM is "the (planning, implementation and) application of information technology for both networking and supporting at least two individual or collective actors in their shared performing of HR activities" (Strohmeier, 2007:20). This definition captures the potential of e-HRM to connect individuals and collectives beyond the job-role, organizational boundaries or even national borders by using information technology. It furthermore highlights the supportive or even substitutive role that e-HRM can play in performing HR activities.

Reports by the Center for Effective Organizations provide figures on the use and effectiveness of electronic systems in HRM in large corporations in the USA; the most recent data available represent the situation in 2007 (Lawler & Boudreau, 2009). According to the figures, Human Resource Information Systems were used by the majority of companies (60%, p. 89). Overall, there is an increased use of these systems for performance management (p. 91). The ratings for the system's effectiveness for business increase over the years, as well as employee satisfaction regarding the use of the systems (p. 93). When an HRIS is implemented, according to Lawler and Boudreau (2009: 95), "the evidence is quite clear that an HRIS is most effective when it fits the strategy of an organization".

When strategic decision-makers implement ERPs, their motivation is generally to integrate the manifold business processes in their organizations, to create links with stakeholders, to achieve operational efficiencies, and to centralize organizational data to facilitate decision making. HRISs can be defined as ERP systems for the HR field and e-HRM can be seen as modules of HRIS that provide 'anywhere use' of HR functionalities. According to Ruël, Bondarouk, and Looise (2004), who refined Lepak and Snell's (1998) classification of pressures for virtual HR by the implementation and usage of e-HRM, organizations can seek to (1) improve the strategic orientation of HRM, (2) reduce costs or increase efficiency, (3) improve client service or facilitate management and employees and/or (4) improve the organization's global orientation by standardizing and harmonizing the HR function (Ruël et al., 2004). Of course, a stronger focus on HR strategy can also be a goal in itself, and strategic arguments can drive an organization's intention to reduce costs, improve services or standardize the HR function.

2. Strategic HRM

The concept of strategic HRM emerged in the literature about 30 years ago (Lengnick-Hall, Lengnick-Hall, Andrade, & Drake, 2009). Strategic HRM implies that HR objectives have to be chosen in accordance with the general strategy of the organization. These objectives reflect the organization's intended future development. Organizational macro-concerns, for instance with respect to the organizational structure, matching resources to future needs, the quality of services and products, are closely linked to HR issues. Culture, values, and employee motivation are all influenced by organizational structures and processes, and they influence organizational processes and structures in return. HR issues and other strategic goals are thus intertwined.

Strategic HRM encompasses the direction and the general approach toward longer-term employee-related issues in the organization. All organizations have a strategy, or at least some idea of the direction they wish to take going forward. Although it may not always be written down or deliberately formulated, there is always some notion of the future direction. This strategy determines organizational behavior and the way the organization copes with external and internal changes.

There are many definitions of strategic HRM. Often, strategic HRM is defined as activities affecting the behavior of individuals in their efforts to meet the strategic needs of the business (Schuler, 1992), or as a pattern of planned human resource deployments and activities intended to enable the achievement of goals (Wright & McMahann, 1992). These much-cited definitions share an emphasis on the link between HRM and organizational performance as the core issue of strategic HRM (Boxall & Purcell, 2003). The strategic HRM perspective focuses on employees as a strategic resource (Bennett, Ketchen, & Blanton Schultz, 1998). A definition that positions strategic HRM in a broader context is provided by Martín-Alcázar, Romero-Fernández, and Sánchez-Gardey (2005), who see it as "the integrated set of practices, policies and strategies through which organizations manage their human capital that influences and is influenced by the business strategy, the organizational context and the socio-economic context."

Marler (2009: 516) elaborates on two different perspectives that can be taken in strategic HRM: a focus on external positioning that is on how the external environment shapes the business strategy, versus a focus on internal resources and the capability of human resources available in the firm. Whichever perspective is taken, information on the state of affairs of the human resources of the organization is of crucial importance for the business strategy to succeed. Human capital data are needed to feed the process of strategy development, implementation, and evaluation. This information is necessary for the organization to

be able to improve employee performance and business results. Furthermore, this information can be used to show interest and monitor the development and well-being of employees. E-HRM systems are designed to gather, store, and use information on the human capital of the organization. An additional potential benefit of e-HRM is that it can decrease the costs of the HR function, which can be an important strategic advantage.

Several interesting questions arise about the link between strategy and e-HRM. For example, how do e-HRM applications support strategic decision making? Do e-HRM applications provide help in implementing the business strategy? Can, for example, a growth strategy to expand and hire be facilitated by e-HRM application tracking systems that allow the capturing and processing of applicant data? Can e-HRM be successfully linked to strategy if strategic considerations are not taken into account in the decision-making process of implementing e-HRM? This article focuses on the question on how business strategy plays a role in decision making on the use of e-HRM. Therefore, we will now examine more closely the processes that play a role in (strategic) decision making.

2.1. Strategic decision making

Dominant paradigms in strategic decision making are rationality and bounded rationality and garbage can models. In addition, issues relating to politics and power as well as cognitive factors and the normative implications of decisions play an important role (Eisenhardt & Zbaracki, 1992).

With respect to the integration of human resource issues in strategic decision making, different levels of integration can be discerned (Golden & Ramanujam, 1985). The extreme form of low-level integration is an administrative linkage in which HRM is mainly paperwork, without influencing strategy. The highest level of integration is an integrative linkage, where HRM is present at the highest management level and is crucial to the organizational strategy (Bennett et al., 1998). Marler (2009: 519) makes a distinction between different HR deliverables and HR roles that influence decision making on e-HRM. In her view, when HR plays no strategic role, the core deliverable for the HR function is building an efficient infrastructure for a primary administrative role. When HR is perceived as being of strategic importance, but without providing a competitive advantage, the main deliverable of HR is executing the firm strategy linked to a role for HR as strategic partner. The third option, when HR is seen as being of strategic importance and providing competitive advantage, is that the main deliverable for HR is building human capital with a focus on creating dynamic capabilities. The primary HR role in that case implies being a capacity builder.

It is assumed that connecting HRM and strategic decision making improves organizational performance (e.g., Huselid, 1995; Wright & McMahann, 1992). Indeed, based on data of over 19,000 organizations, Liu, Combs, Ketchen, and Ireland (2007) showed that HRM has a significant added value in terms of influencing an organization's performance. The same study showed the importance of strategic decision making: the added value of HRM was strongest when human resource management decisions were related to strategy. In addition, it was found that three factors influenced the effectiveness of HR practices. The first factor was a vertical alignment between HRM and firm strategy, which implies that HRM practices are implemented in such a way that they support strategy (Liu et al., 2007: 508). The second factor was the use of HR practices in a systematic way, so that the practices reinforce one another (Liu et al., 2007: 509). The third factor refers to the importance of the work context. Although it might appear that HRM would make a larger difference in service contexts than in manufacturing, Liu et al. (2007: 510) found that the effects of HR were strongest in manufacturing firms. These findings are in line with the idea that stakeholder interests and contextual factors exert an influence on HRM policy choices (Guest, 1987). Since in many companies HR plays only a limited role in strategy (Caldwell, 2004; Guest & King, 2004), it is important to further examine the factors that can contribute to changing that.

Marler (2009) presents a model of e-HRM strategy formulation that distinguishes three primary goals of e-HRM: cost savings, strategic alignment, and building resources. Each of these primary goals is seen as fitting within the overall deliverables and roles for HR, related to strategy and competitive advantage. Cost saving as a primary goal, for example, is associated with a primary administrative HR role, within the context of deliverables of the HR function that focus on building an efficient infrastructure. These distinctions, based on Marler's model, will be used in the analyses of the cases in this paper.

Given the lack of empirical studies on how strategic considerations influence the decision-making process around the introduction of e-HRM applications (Marler & Fisher, 2010), the purpose of this study is (1) to examine these processes in three case studies; (2) to present propositions for further research in a broader sample of cases; and (3) to offer suggestions on how to better include strategic considerations in decision-making processes on e-HRM.

Three cases of companies' e-HRM implementation will be systematically analyzed to examine the role of strategic considerations in the decision-making process, and the effects of this on the use and position of the e-HRM applications.

3. Method

In-depth case descriptions of three decision-making processes in large organizations are used to examine how strategic considerations relate to the decision-making process. Key informants in the organizations were interviewed to get a thorough and rich description of the decision-making process. In addition, written documents used in the decision-making process were studied. Moreover, to assess the validity of our interpretation of the data the results were commented on by professional consultants who had been working with the organizations and had knowledge on how the decision-making processes had taken place.

Since little is known and written about the decision-making process around the introduction of e-HRM and the role of strategic considerations in this process, we tried to find cases with various backgrounds and e-HRM maturity. Three large organizations were selected, all (semi-) profit organizations with 4000 to 28,000 employees in the Netherlands. These organizations are active in various industries and although established in the Netherlands, which is also their main market, they are active in other countries as well. In all three cases, e-HRM applications had already been implemented and e-HRM projects were still running. The HR-ERP system in place was either SAP or PeopleSoft. The decision-making process of the main (HR-) ERP system was not part of the scope of this study. The focus of this study is on the decision-making process concerning the addition of e-HRM after the implementation of the ERP system.

3.1. Sample

In-depth semi-structured interviews were conducted with organizational members that played a prominent and key role in the e-HRM projects and/or the decision-making processes around the introduction of e-HRM in the three organizations (N = 7). These respondents were selected because they had full overview of the complete process of decision making, in which they had a central position. The job roles of the interviewees varied from HR employment affairs director and HR Service Center manager to e-HRM Project manager and SAP Competence Center manager.

3.2. Interview protocol and analysis tool

The interview protocol included questions on the central concepts of the Marler (2009) model and was supplemented with the central concepts of the so-called People & Performance approach to make the model as complete and concrete/operational as possible. The Marler (2009) model distinguishes three main HR deliverables. In organizations where HR is not considered strategic, the primary deliverable of e-HRM will be to efficiently manage HR administrative transactions. In organizations where HR is considered strategic but not as the source of competitive advantage, the main HR deliverable will be to align HR practices with an external positioning strategy. Finally, in organizations where HRM is considered as a source of competitive advantage, the primary deliverable will be to develop human capital and dynamic capabilities (Marler, 2009).

To further specify the second and third main HR deliverables, we also used concepts from People & Performance. This is a tool that enables a systematic analysis of strategic considerations in organizations. The approach focuses on identifying important business drivers for the organization, as well as relevant people trends. Capgemini[1] uses this approach to give organizations insight into business trends and people trends that impact their business. This information can be used to identify solutions that provide an adequate response. The approach starts by identifying crucial business drivers of an organization. A business diver is a significant effort made by the organization to execute a strategy, respond to a problematic issue, exploit an opportunity, boost an innovation, ensure compliance, or cope with disruption. Business drivers constitute the 'PIN code' of an organization, representing something that unlocks energy and makes the organization operate at a higher level. An example of a business driver is: "Being able to accommodate 1 million new subscribers per month", or "being considered the number 1 service provider".

After identifying business drivers, the second step is to explore and select relevant people trends. People trends can refer to, for example, changes in employee preferences (e.g. increasing diversity of needs), labor supply (e.g., the aging population, shortage of engineers), use of social media (e.g. for networking), organizing (e.g., the flexible workforce, high performance culture, employer of choice, increased autonomy), organizational development (e.g., war for talent, transformational leadership), and new roles for the HR function (e.g., HR as a business partner, line manager's responsibility for individual employees, cutting transaction costs, higher quality of HR services, introducing shared service center).

With respect to the strategic decision-making process regarding e-HRM applications, the e-HRM implementation is expected to be facilitated when linked to the people trends (in case the trends can be considered a source of competitive advantage). In the same way, e-HRM can contribute to the performance of the business drivers (to align HR practices with an external positioning strategy). E-HRM applications can be ranked on the degree of match with people trends and business drivers. On the basis of this assessment the appropriateness of the e-HRM solution can be evaluated.

To examine the strategic considerations underlying the decision-making process around e-HRM in the cases central in this study, the interviews and analyses also paid attention on how business drivers and people trends were recognized and considered in these decision-making processes.

The interviews were audio-recorded and transcribed, and had an average duration of 1.5 h. Each interview consisted of four main blocks, which is reflected in the main structure of the tables presenting the main issues. First, the interviewees were asked to give their organization's definition of the role of e-HRM. Next, they were asked to elaborate on the development of e-HRM in their organization, starting with the initial ideas and initiatives with regard to e-HRM and ending with the current e-HRM projects and the maturity of e-HRM in the organization. The time span of this development varies from 4 to about 10 years in the three cases. Third, the respondents were asked about the initial objectives of the organization for introducing e-HRM, both qualitatively and quantitatively. Sub-questions focused on the extent to which these objectives had been reached and how, if so, the level of 'success' was measured. Fourth, the interview focused on the decision-making processes and the respondents were asked about

[1] Capgemini is a globally present organization with over 120.000 employees, offering consulting, technology, outsourcing, and local professional services.

the consideration of strategic business issues, people trends within and outside the organization, potential HR solutions and business case results, if available. Written documents on the decision-making process were gathered and analyzed using the same steps and concepts. A member check was performed: the results were given to the interviewees to check whether they agreed with the way their answers in the interviews were reported.

4. Cases

The following section of this article describes the three cases. Each case description starts with a short introduction of the specific organization followed by the description of the role of e-HRM in the organization as provided by the interviewees. The key results of the analyses, which are on an organizational level, are reported in Tables 1 to 3. For each case, the main objectives for introducing e-HRM are reported in the first column. For each objective, the corresponding (1) deliverable goals, (2) relation of objectives with the business strategy, and (3) relation of objectives with HR trends, are listed. Objectives reflect the qualitative aims of introducing e-HRM, while goals refer to quantifiable and measurable aims. At the end of each case description, the main insights are summarized.

4.1. Case 1. Provider of asset management, administration and communication services for pension funds

The organization is a provider of asset management, administration and communication services for pension funds. It mainly operates in the Netherlands, but also has subsidiaries in North America and Asia. At the end of 2009 the organization employed over 4000 people, including 350 line managers. In the interviews, the role of e-HRM was defined as a user-friendly portal for the performance of HR activities. The introduction of e-HRM was described as a gradually progressing process, using a step-by-step approach which was mainly based on innovations in HR views, as well as on the availability of new technology. Formal decision making played a minor role during the initial phases of the introduction of e-HRM. Table 1 presents the main characteristics of this case.

In this case, the main HR deliverable was efficiency. Linking HR with strategy and improvements in employee satisfaction were considered secondary aims. This was also reflected in the link of e-HRM with specific business drivers, which was weak. The increasing awareness of costs did not lead to setting an absolute goal of net cost savings for the HR department. The global war for talent was not matched with a specific business driver. The interviewees mentioned a need for more involvement of line managers. However, in their view, this involvement was desirable from an implementation perspective, for example to assure the user-friendliness of the e-HRM application. There was no perceived need for the involvement of line managers to align HR practices with an external positioning strategy. The recognized people trends were in line with expectations of (new) employees and new roles for HR. The trends were not considered a source of competitive advantage.

Several interviewees mentioned the growing popularity of IT applications such as internet banking and the self-measurement of energy use as arguments for introducing e-HRM. Furthermore, the influence of the IT strategy (an 'SAP unless' policy) on the decision making around e-HRM was strong. The possibilities and the limitations of the ERP system in place largely determined the potential functionalities of e-HRM.

4.2. Case 2. Financial service provider

The second organization is a large financial service provider, established in the Netherlands but now operating worldwide. In the Netherlands, the organization has about 28,000 employees, including approximately 3000 line managers. The organization conceives the role of e-HRM as being a supportive instrument for HR processes. Seven years ago, a new HR organization was introduced with a HR Shared Service Center (SSC) and a new HR Enterprise Resource Planning (ERP) system. The decision-making process for e-HRM was primarily based on a business case and the implementation was a big bang for the organization's employees. Table 2 summarizes the main characteristics of this case.

In this case, as in the first case, decreasing costs was a main objective. However, for the implementation of e-HRM this was not the dominant business driver. The use of one ERP HR system and the introduction of an SSC played a substantially larger role in

Table 1
Key results of case 1: provider of asset management, administration and communication services for pension funds.

Objectives	Goals	Relation with business strategy	Relation with HR trends
1) Increase efficiency of HR services.	FTE savings.	Transformation to a commercial organization. More awareness of costs.	New roles for HR.
2) HR becoming a business partner.	HR moving toward more strategic advice and less transactional work.	Not explicit.	New roles for HR.
3) Good employment practices.	Increase employee satisfaction.	Not explicit. For asset management the global war for talent is an issue.	Stay attuned to expectations of (new) employees.

Table 2
Key results of case 2: financial service provider.

Objectives	Goals	Relation with business strategy	Relation with HR trends
1) Decrease HR back office costs.	25% decrease.	Decrease complexity costs (e.g. lots of different labor arrangements). Increase efficiency (aligned with the introduction of the SSC).	New roles for HR.
2) HR becoming a business partner. Line managers being responsible for individual employees.	Moving toward more strategic advice by the HR consultants, while transactional HR work is done by the line managers and the employees.	Not explicit.	New roles for HR.
3) Increase of self-sufficiency of individual employees.	Transactional HR work performed by employees.	Not explicit.	Increase of autonomy and self-sufficiency of employees.

decreasing costs. HR as a business partner and a greater employee self-sufficiency for HR were the deliverables that were aligned to main people trends as recognized by this organization.

4.3. Case 3. Transport organization

The third case is a large transport organization based in the Netherlands. In the Netherlands, the organization employs several thousands of employees, and the organization operates in several other European countries as well. In the interviews, e-HRM's role was referred to as the digital replacement for HR accounting. The organization had started standardizing and concentrating the HR services around the year 2000. A few years ago the process of digitizing the HR services was initiated, as part of a long-term vision for and modernization of the company. Visits to other organizations that had already implemented e-HRM solutions inspired the organization and reassured the people involved that the solutions were technically practicable. The formal decision making was based on clear objectives and a business case. However, there was no sense of urgency for e-HRM, because of the strong economic situation of the organization at that time. The savings realized through e-HRM were used to finance the automation and implementation costs. Table 3 summarizes the main characteristics of the process in this organization.

Although the introduction of e-HRM was part of the company vision to modernize and was linked to the objective of developing “best in class” employment practices, there was not a strong link with a specific business driver. The modernization vision was formulated several years ago in a booming economic period with shortages on the labor market. In the last two years these shortages were much less relevant. The development of e-HRM was not influenced by these changing circumstances, however. Also in the assessment of new functionalities, specific business drivers hardly played a role. Complexity costs versus user-friendliness, efficiency and effectiveness of HR processes were more important drivers. Related HR trends that were recognized included new roles for the HR function and increasing autonomy.

5. Conclusions

Based on the results of the analyses, we can formulate insights concerning the role of HR deliverables, business drivers, and people trends in the strategic decision-making process relating to e-HRM in the three organizations, as well as on the implications for the strategic use of e-HRM. In the following, we amalgamate our insights into four conclusions.

In case one, the link of e-HRM with specific strategic HR deliverables and business drivers was weak. In the second case, decreasing costs were a main deliverable, but for the implementation of e-HRM this was not a dominant business driver. This was in line with the situation in case three, where e-HRM was part of the company vision to modernize, although there was not a strong link with a specific business driver, however. Therefore, our first conclusion is:

Table 3
Key results of case 3: transport organization.

Objectives	Goals	Relation with business strategy	Relation with HR trends
1) Modern, best in class employership.	Maintaining and increasing employee satisfaction.	Modernization.	Increasing self-sufficiency.
2) Decrease HR back-office costs.	Decrease of 85 of 400 FTE (>20%). Standardization.	Not explicit.	New roles for HR.
3) Improve position and image of HR.	Improve predictability and credibility of HR services, in order to improve and increase satisfaction among line managers. Strive for satisfaction of 7 or higher for 80% of the line managers.	Nor explicit.	New roles for HR.

1. Specific strategic HR deliverables and business drivers of an organization, in particular drivers for changes in the external positioning, do not play an important role in the decision-making processes on e-HRM.

Although the literature suggests that the added value of human resource management is strongest when HRM decisions are related to strategy, none of the three cases turned up a clear link with specific strategic deliverables and business drivers. These findings are consistent with what most researchers find to be the primary goal of e-HRM, i.e. improving HR's administrative efficiency or achieving cost reductions (Ruël et al., 2004). This role entails supporting the execution of the business or HR strategy, rather than e-HRM explicitly having a pivotal role in such a strategy. In terms of the Marler (2009) model, this conclusion implies that with respect to e-HRM, in the three cases HR did not align e-HRM practices with an external positioning strategy.

The second conclusion relates to the technology already "in use" at the time when decisions on the implementation of e-HRM are made. The use of e-HRM in other organizations and the increasing role of web-based applications in daily life can create a need to implement e-HRM applications in the organization (an example of 'technology push').

Web-based applications, of which e-HRM is an example, are gaining a more prominent role in business and daily life. However, in case one, the possibilities and the limitations of the system already in use strongly determined the potential functionalities of the implementation of e-HRM. In case two, the existing HR system had a significant influence, and in case three, the assessment of new functionalities was an important issue. Although in all three cases the organizations used the suppliers of the e-HRM technology systems and other organizations to obtain information that inspired them, that provided them with innovative ideas and solutions, and that enabled them to find their own way, the conclusion is:

2. The availability of HRIS technology is a more dominant trigger for using e-HRM than specific strategic HR deliverables and business drivers are.

With respect to the third conclusion, in all cases the main finding regarding reasons to implement e-HRM concerned savings on transaction costs. Because of this focus on cost savings, there was no real need to develop a more business strategy-related reasoning to ground the decision for introducing e-HRM. The conclusion is:

3. The most prominent HR deliverable and business case for the implementation of e-HRM is savings in the HR department. The anticipated savings are used to fund the costs of the implementation of the e-HRM system.

The fourth conclusion reflects the impact of people trends. In case one, people trends were expectations of (new) employees and new roles for HR, as well as the growing popularity of internet banking and self-measurement of energy use, for example. In case two, the main people trends were HR as a business partner and a greater self-sufficiency for HR. In case three, people trends that were recognized were new roles for the HR function and greater self-sufficiency. The common issues in the three cases lead to the following conclusion.

4. Important trends to which the objectives of e-HRM are related are: the positive image among (potential) employees of the organization as a modern employer, the greater autonomy of employees, and the new roles for HR.

In terms of the Marler (2009) model, this conclusion implies that specific trends were distinguished and included in the decision-making process. However, these trends were not really considered a potential source of competitive advantage. Based on the results of the situation in the case studies, the conclusion is that with respect to e-HRM, HR played no real strategic role. The core deliverable was building an efficient infrastructure for a primary administrative role of HR. This implies that a strategic use of e-HRM was not the primary goal of implementing e-HRM. It could well be hard to realize the potential for strategic use of e-HRM if strategy is not considered an important issue in the decision on the implementation.

6. Hypotheses for further research and recommendations for practice

The purpose of this study was to examine the strategic considerations underlying the decision-making process around the introduction of e-HRM applications and to present suggestions for improving the use of e-HRM for strategic considerations.

The combination of the four conclusions formulated above suggests that the decision to introduce e-HRM is mainly a decision to introduce additional infrastructure, which is based on general people trends and the availability of technology. One consequence of the absence of a strong relation with the business may well be that, over time, the e-HRM system that is implemented will 'degenerate' into a functionality comparable to a hygiene factor. The interviewees all indicated this in reference to the emerging trend to be on the lookout for new services with added value. This implies that when this is the case, e-HRM applications will not be used to support strategic purposes relating to human resources.

Based on these considerations, we can formulate six hypotheses for further research as well as two recommendations that might help organizations realize real strategic added value by using e-HRM.

6.1. Hypotheses for further research

The first three hypotheses are based on the conclusions of the case studies. Since we concentrated on a limited number of cases, however, the findings should be validated and tested in a broader sample. Furthermore, it is recommended to examine cases where the decision-making process around e-HRM is more clearly based on specific business drivers. This would yield

further insight into the reasoning behind the decisions, and the extent to which objectives are actually realized. This leads to the following hypotheses:

1. When decisions on the implementation of e-HRM are not aligned to strategic considerations, use of e-HRM for strategic purposes is unlikely to occur.
2. The availability of HRIS technology is a more dominant trigger for using e-HRM than specific strategic HR deliverables and business drivers are.
3. The most prominent HR deliverable and business case for the implementation of e-HRM is savings in the HR department. The anticipated savings are used to fund the costs of the implementation of the e-HRM system.

In addition, further studies could examine more specific hypotheses on differences between sectors and the role of functionalities of e-HRM. An interesting option for further study is to examine cases in not-for-profit organizations. Do they have similar objectives for e-HRM as for-profit organizations? Or do they prefer to link e-HRM with specific business drivers, such as building citizen-friendly organizations? With respect to HRM objectives and business drivers in smaller organizations, Kwahk and Ahn (2010) find that small and medium enterprises adopt local ERP packages because of the need to be flexible in adapting business processes. The question is then whether the availability of 'HR software as a service' becomes more important. Another issue relates to the consequences for the decision-making process. This leads to the following hypothesis.

4. HR deliverables of e-HRM are different for profit as compared to not-for-profit organizations, and for smaller as compared to larger organizations.

Following Marler (2009), organizations that have the ambition of an HR role as capability manager can use e-HRM goals that focus primarily on building human capital resources and organizational capabilities. The previously mentioned trend of the increasing self-sufficiency of employees and the possibilities of e-HRM as a tool for flexible learning can be considered a driver for the organizational capability "creativity and innovation". Use of e-HRM for services with an "added value" such as learning, understanding the business model, monitoring subcontractors' compliance, facilitating work-related dialogues between managers and employees or virtual collaboration, will probably put the e-HRM system in a position that enables its use for strategic purposes. People trends and the use of e-HRM are likely to be used as a potential source of competitive advantage.

Therefore we hypothesize:

5. When e-HRM is used for services with added value, use for strategic purposes is likely to occur.

It sometimes seems as if the HR community uses implicit reasoning about the effectiveness of HR interventions, such as 'to invest in people naturally leads to better business results'. The study of Liu et al. (2007) showed, however, that there are differential effects of HR practices on performance, and that the effects of HR depend on the work context and the degree to which HR is incorporated in a systematic approach. The question emerges whether there are implicit paradigms in use in the HR community that hinder a more business-strategic reasoning. Therefore, the last hypothesis is:

6. There are implicit paradigms that hinder the use of e-HRM for strategic purposes.

6.2. Recommendations for practice

In addition to these suggestions for further research, the following recommendations for HR practitioners can be derived from the results of this study:

1. Use the business leaders to discover and define the business objectives for using e-HRM.

In our view, the 'technology push' ratio reinforces the risk that e-HRM is used as a hygiene factor only. This diminishes the chances of using e-HRM in a strategic way. This situation can worsen if benchmarks of HR costs are used. It can often be observed that benchmarking without taking strategic considerations into account leads to a pressure on HR budgets, which in turn impedes innovation. A positive aspect of the 'technology push' situation is found in the 'technology enabler' argument. Nowadays, many organizations have a common and accessible e-HRM system that can be developed further to include more added value services. However, to prevent a traditional HR-dominated development agenda, we would suggest organizing a continuous dialogue of business and HR people on new possibilities and functionalities that could have added value. The HR consultants, who work closely with the business leaders, can take the initiative and facilitate this dialogue.

2. Use the match of business drivers with people trends to increase added value of services.

In the interviews, several 'sophisticated' services such as learning possibilities, search facilities for hidden talents, and succession planning were mentioned as e-HRM functionalities lined up for future implementation. We recommend a closer match of these functionalities with specific business drivers, which in our view will lead to stronger positive effects, as well as to increasing the chances of real acceptance by the business. A clear match with the business drivers could for example prevent line managers from perceiving the e-HRM applications as an extra administrative burden.

Here we see an important role for HR consultants. In the interviews it was often said that in the past, the added value was believed to be the availability of management information, since only 'SAP wizards' seemed able to retrieve the information from the HR system. However, nowadays e-HRM enables line managers and HR consultants to get the same information out of the HR

system. As a consequence, HR consultants are now expected to advise and challenge the line managers on the content of their HR practices. Matching the business drivers with HR trends and new e-HRM functionalities is the real challenge for the future.

By describing the decision-making processes on e-HRM in three organizations in depth, we have gained insight into the importance ascribed to strategy, business drivers, and people trends as key factors in the decision-making process. The results of the case analyses suggest that the alignment between strategy and decisions on e-HRM could be improved. We hope to have provided concrete suggestions to improve the decision-making process about e-HRM. In this way, by implementing e-HRM applications, Human Resource practitioners should indeed be able to contribute to improving business performance.

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