E-HRM INNOVATION ADOPTION
IN AN EMERGING ECONOMY:
AN ACTOR PERSPECTIVE

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WITH TIME AND PATIENCE THE MULBERRY LEAF BECOMES SILK.
~CHINESE PROVERB

Since 2008, I have been conducting my studies in the Netherlands and I'm more than glad and sad that this time is finally coming to an end. On my journey to become a master of science I have had a lot of remarkable people who supported me no matter the circumstances.

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ABSTRACT

In recent years, the topic of electronic human resources management (e-HRM) has received increased attention within the scholarly debate. E-HRM, has been defined as "an umbrella term covering all possible integration mechanisms and contents between HRM and Information Technologies aiming at creating value within and across organizations for targeted employees and management" (Bondarouk & Ruël, 2009, p. 507). It has been postulated that companies which utilise information technology (IT) for the management of their HR function, are likely to gain benefits such as a less bureaucratic workload and an increased level of efficiency. The increased usage of IT is said to allocate a more strategic position to the HR function within a company. Since the discussion of e-HRM is still in its infancy, there is not much empirical research available glancing at the factors that foster the application of e-HRM, especially in the context of emerging economies; the implementation of e-HRM can thus be seen as an innovation. This research has been carried out in order to explore the reasons behind companies' decisions to adopt certain e-HRM systems. Hence, the question of what factors are likely to influence the e-HRM adoption decision has been addressed. This has been put into practice through employing a qualitative research design drawing on semi-structured and in-depth interviews as the main method of data collection. In total, eleven representatives of Indonesian subsidiaries of multinational companies have been questioned. Drawing from the analysis of the interview data, we created a model that comprises the most conspicuous characteristics about the sample population of Indonesian companies. On the basis of these characteristics as well as the narrations of the interviewees, we come to the following conclusions: First, because characteristics such as communication, external influences, organisational culture as well as skills & knowledge did not appear to have a strong presence in the companies investigated, we derive that they did not play an important role in the company's decision to adopt e-HRM. This was against our expectations, because the literature review, that has been conducted in the first place, attributed a stronger influence of the latter factors. Second, we found that, despite the characteristics management support and resources available having an moderate to strong presence in the companies investigated, their total influence on the e-HRM adoption process can be classified as rather weak. This is because the presence of headquarter influence and efficiency calculations was very characteristic for the entire sample population. We therefore assume that the latter characteristics are also the factors being of the strongest influence on the e-HRM adoption process in the emerging economy context. Additionally, it became apparent that companies that adopted very basic forms of e-HRM at an early stage in time, tended to have

very sophisticated e-HRM systems today. However, companies which implemented e-HRM systems at a later point in time did so with a higher degree of sophistication compared the innovators of the sample, yet not reaching the innovators' level of sophistication as of today. Companies in the emerging economy context are advised to embrace e-HRM innovations through rallying their respective headquarters to free resources as soon as possible to reap long-term benefits at a later stage.

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01 // Introduction

1 INTRODUCTION

1.1 The knowledge economy and its implications for HR

Due to the pressures that globalisation creates, scholars have argued that the economic system as a whole has transformed from an industrial economy into one that is based on the creation of knowledge (Jiménez-Zarco, Martínez-Ruiz, & Gonzales-Benito, 2009; Ruël, Bondarouk, & Looise, 2004). In this system, economic actors need to continuously reinvent what they have to offer, and how they create and deliver their products and services, for otherwise there is "a good chance that [they] won't survive in today's turbulent environment" (Bessant, 2003, p. 761). The ability to innovate has thus become a cornerstone in business strategy (Freeman & Soete, 1997). However, since new ideas continuously originate in the minds of people, organisations need to be able to attract and attain qualified, talented and committed employees. Correspondingly, the aim of human resource management is, according to Macky and Johnson (2003), to "ensure that a firm has the right number of people with the required knowledge, skills, abilities and competencies, in the right place, at the right time, at an affordable cost and who are motivated and committed to achieving the current and strategic need of a firm" (p. 3). However, fulfilling that role requires an adaptation of HR practices and an organisational setup to the contingencies of the knowledge economy as well as the turbulent economic environment we live in today. According to (Ruël et al., 2004), the knowledge intensifying process has encouraged a transformation of the organisational structure into a network type, which in turn influences the way in which relationships between individual employees and organisations are managed. This network composition is said to be the appropriate setup for firms to adapt to the extreme flexibility, interconnectedness as well as the innovative pressure of the knowledge economy (Castells, 1999). Characteristics for the networked enterprise are the intensive use of ICT and knowledge and its important impact on human capital (Jiménez-Zarco et al., 2009). In networked organisations, the organisational structure is flat, team-based and requires voluntary participation, collaboration, loyalty, and informal relationships between management and employees (Ruël et al., 2004). Moreover, network type organisations unleash their full potential when labour is flexible, when diverse working conditions are present, when labour relationships are individualised and, lastly, when new employment configurations are possible (Jiménez-Zarco et al., 2009). Thus, the design of HR policies needs to match the characteristics of the networked organisation and the requirements of the knowledge economy. It has been argued that in order for HR departments to cut costs,

become more cost efficient, flexible as well as customer-oriented, that is to meet the challenges of the knowledge economy, they need to leverage the usage of information technology (Snell, Stueber, & Lepak, 2001). Galanaki and Panayotopoulou (2009) put it like this: "in order to meet the demands of today's knowledge-based economy, companies must maximize the potential and productivity of their employees, a goal towards which HRM information system in general and e-HRM in particular could help" (p. 24). While in the past HRM took on a more or less administrative and bureaucratic role, departments that use IT in combination with their HR processes can now focus on improving service provision and deal with change related issues, for IT can - among other positive consequences - improve information provision and shorten the distance between IT departments and internal clients (Ruël et al., 2004). A more general rational for increasing the usage of IT on the organizational level is, according to Castells (1999), that IT and communication technology help firms and organisations to modernize production processes and are beneficial to companies in terms of increasing competitiveness. There are many terms describing the bringing together of HR services with IT: virtual HR(M), HR Intranet, web-based HR, computer-based human resource management systems (CHRIS), and HR portals (Ruël et al., 2004). This paper, however, pays closer attention to the concept of e-HRM, which has received increased attention by researchers as well as human resource managers in practical settings (Strohmeier, 2007). One of the many definitions of e-HRM is that it is "an umbrella term covering all possible integration mechanisms and contents between HRM and Information Technologies aiming at creating value within and across organizations for targeted employees and management" (Bondarouk & Ruël, 2009, p. 507). In a nutshell, the application of e-HRM promises "tangible benefits such as transaction load reduction, and hence reduction of the total cost of HR, elimination of redundant and/or inefficient systems, and consequently enhancement of decision making capability, and access to a single source of information through self-service for employees, thereby improving efficiency, and reducing wait time in errors on changes" (Lau & Hooper, 2009, p. 33). Moreover, the adoption of an e-HRM strategy promises to promote employee empowerment, employee satisfaction, employability, retention rates and the employee work/life balance due to an increased transparency and visibility of HR data (Lau & Hooper, 2009). Another rationale for adopting e-HRM is that individuals of the millennium generation, who have been growing up with all sorts of IT and are entering the labour market during this decade, also expect their workplace being utilized with IT, for they are naturally eager to use IT and communication technology (Bondarouk & Ruël, 2009).

1.2 Research problem

Although, as stated above, research in the domain of e-HRM is progressing,

according to Strohmeier (2007) "current research shows a strong national focus on the U.S., with only scattered results from other countries" (p. 31). According to Bondarouk, Ruël, and Looise (2011) until now, an initial body of research revolves around empirical findings, focussing on the positive and negative "types of e-HRM applications, consequences of e-HRM, assumptions about various architectural compositions of IT-based HRM channels, differing popularity of e-HRM tools, and business driven-promises (goals) of e-HRM to this research period" (p. xii). Since the research origin of e-HRM is Western-based and only a handful of e-HRM studies have left the North-American/European context (Lin, 1997; Olivas-Luján & Florkowski, 2009), this research approaches e-HRM from a different angle. Thus, we aim at understanding the e-HRM adoption processes in the context of emerging economies. The e-HRM adoption is taking place when the "HR department acts as a business partner in the organization by enhancing strategic planning, aiding redesign processes, and by acting as a customer service to employees, with high accountability and the provision of rich, integrated information to managers and employees" (Lau & Hooper, 2009, p. 32). This endeavour will be approached through referring to Rogers' (2003) theoretical contributions on the adoption and diffusion of innovations. Since Rogers' (2003) DOI theory is rather generic in nature, we will contrast the literature on the factors of e-HRM adoption in developed economies with those present in emerging economies in order to get a more detailed view on the extrinsic factors influencing e-HRM adoption in the emerging economy setting. Doing this is important, because there is reason to believe that the conditions between emerging economies and developed economies might differ (Hoskisson, Eden, Lau, & Wright, 2000). It is thus important to assess, whether the theoretical contributions also hold in the emerging economy context. Having said this, our research is guided by the following research question:

> *What factors influence organisations in the*
> *emerging economy context to adopt e-HRM?*

In a second step, this research attempts to expand Rogers' (2003) DOI theory through allocating the influencing factors of e-HRM adoption to the categories of adopters. In doing so, it can be found out whether there is an interplay between the factors that foster e-HRM adoption in the emerging economy context and the adopter categories brought forward by Rogers.

1.3 Methodology

This research builds on a qualitative research design using semi-structured, in-depth interviews as the main method for data collection. This particular research

method has been chosen, because semi-structured interviews offer the unique possibility to discuss a topic on an in-depth basis, rather than only touching the surface of a given problem through referring to predefined definitions or phrasings. Also, in-depth interviews "can provide greater breadth than to other types in qualitative nature" (Denzin & Lincoln, 2005, p. 705). For the purpose of this research, which is to explore factors that influence the adoption of e-HRM, the chosen method for data collection allows us to "understand the complex behaviour of members of society without imposing any a priori categorization that may limit the field of inquiry" (Denzin & Lincoln, 2005, p. 706). It is also due to the explorative purpose of this research that other methods, especially quantitative methods such as conducting an extensive survey, could not be considered suitable. That is, because quantitative research methods, compared to qualitative research methods, lack the quality to create new ideas and explore alternatives to already existing pieces of information.

Due to the nature of qualitative research methods the amount of data to be created and the time needed to analyse this data was expected to be extensive. It is therefore that we decided to combine their resources from the very beginning and carry out this project together instead of apart from each other. Prior to the execution of this study, we had the objective to include at least ten companies in the research. We knew that the effort to conduct, transcribe and analyse that many semi-structured and in-depth interviews would require a high amount of workload that could not possibly be handled by one researcher alone in the scope of a single research paper. The necessity for a joint research becomes especially important considering the fact that part of the data collection was planned to take place in the emerging economy Indonesia. Also, the data was expected to not provide the basis for two different discussions either. We expected the data to be rich in detail, however, also that limited in quantity for it to make sense to be the basis of two different research papers.

1.4 Outline of the research paper

The paper is structured as follows: the introductory part – as presented above – has opened up the discussion around e-HRM. We aimed at depicting the emergence of e-HRM as a consequence of the rise of the knowledge economy. We have furthermore presented the different tools of e-HRM and their consequences for the work within HR departments. Next to that, we have contrasted the emerging e-HRM model with former models of HRM in order to highlight the positive aspects of the shift towards an e-HRM strategy. The theoretical chapter shall firstly recapitulate Rogers' (2003) DOI theory, which will later serve as the backbone of the empirical part of this paper. Based on the literature, we aim to assort the factors that influence the

adoption of e-HRM in the context of emerging economies. The methodological part will lay out the research design and the operationalization of our variables for the field research. Moreover, the methodological chapter also presents the unique cultural setting and the consequences for the research design. Following the methodology, an in-case analysis will present the highlights of the individual interview sessions. The results of the individual interviews are then compared with each other in a cross-case analysis, which discusses the findings against the expectations that were conjured by the literature review. The concluding chapter will wrap up the findings of the research and present a practical management advice.

1.5 Delimitations of scope

In this research, the units of analysis are multinational companies and organisations that have a subsidiary in Indonesia, with a focus on the greater Jakarta area. The units of observation are individuals, mostly managing employees with a background in HR, who represent the host companies or organisations. It is therefore that generalisations stemming from the observations in this research paper can only be applied in the context of emerging economies and across companies or organisations that are comparable to the companies or organisations in the sample of this research.

1.6 Contributions

This research project contributes to the literature in numerous ways. First of all, the body of research that addresses the adoption of e-HRM in other continents than North America and Europe was staggering low (Strohmeier, 2007). It was very hard to find data about the adoption of e-HRM in emerging economies. On top of that the data available about emerging economies mostly derived from articles focussing on China (Chow, Huang, & Liu, 2008; Cooke, 2004, 2009; Warner, 2009; Zhu & Warner, 2004). This research aimed at closing the above-mentioned research gap by providing empirical data about the adoption of e-HRM in the emerging economy Indonesia and thereby contributes to the knowledge development in this domain. Second, the analysis of the adoption factors of e-HRM in Indonesia provided valuable insights for the companies and organisations taking part in the study. The results made it possible for the participating companies and organisations to benchmark themselves against other Indonesian multinationals. Additionally, the practical relevance of this study was justified through helping HR managers to understand the interplay of factors that influence the adoption of e-HRM in the organisational context, which may ultimately help with influencing the decision-making processes

related to e-HRM adoption. Third, it is worth mentioning that most of the research that has been conducted about e-HRM in general, but especially in the emerging context, derives its empirical knowledge from quantitative data (Appendix 1). Thus, this research did not only aim at filling the above-mentioned research gap alone, but also at supplementing empirical evidence from methods that have been neglected by the literature to a great extent.

1.7 Conclusions

This introductory chapter laid the basis for this research paper. It described the research background as well as the research problem and its resulting research question. The rationale for conducting work in the field has been laid out and specifically tailored to the emerging economy context. The research design has been described together with the research's delimitations. On this basis, the research project will provide detailed information about the theoretical background in the following chapter.

02 // The adoption and diffusion of e-HRM innovations: towards a theoretical framework

2 THE ADOPTION AND DIFFUSION OF E-HRM INNOVATIONS: TOWARDS A THEORETICAL FRAMEWORK

Rogers (2003) defines an innovation as "an idea, practice, or object that is perceived as new by an individual or other unit of adoption" (p. 12). In the light of this definition, e-HRM can be classified as an innovation, because the process of aligning IT with HRM task may enable HRM departments to improve their strategic orientation, reduce costs/gain efficiency and improve client service/facilitate management and employees (Ruël et al., 2004).

2.1 Basics of the diffusion of innovation

Since this endeavour focuses on the factors of e-HRM adoption, the work of Rogers (2003) naturally offers itself as a theoretical foundation. Already back in 1962, the author sought to understand the process of the spreading of new ideas through social entities. Today, in the now 5th edition of his extensive book Diffusion of Innovations, Rogers (2003) defines the diffusion of innovations as the "process in which an innovation is communicated through certain channels over time among the members of a social system" (p. 5). However, the starting point of the author's theory is not the diffusion of innovations, but the adoption of innovations by individuals within the range of five stages, namely knowledge, persuasion, decision, implementation and conformation. Knowledge "occurs when an individual [...] is exposed to an innovation's existence and gains an understanding of how it functions" (Rogers, 2003, p. 169). Persuasion "occurs when an individual [...] forms a favourable or an unfavourable attitude towards the innovation" (Rogers, 2003, p. 169). Decision "takes place when an individual [...] engages in activities that lead to a choice to adopt or reject the innovation" (Rogers, 2003, p. 169). Implementation "occurs when an individual [...] puts a new idea into use" (Rogers, 2003, p. 169). Confirmation "takes place when an individual seeks reinforcement of an innovation-decision already made, but he or she may reverse this previous decision if exposed to conflicting messages about the innovation" (Rogers, 2003, p. 169).

During these five stages, the characteristics of the innovation influence the likelihood of its adoption. The five characteristics are relative advantage, compatibility, complexity, trialability and observability. Relative advantage is "the degree to which an innovation is perceived as being better than the idea it supersedes" (Rogers, 2003, p. 229). Compatibility is "the degree to which an innovation is perceived as
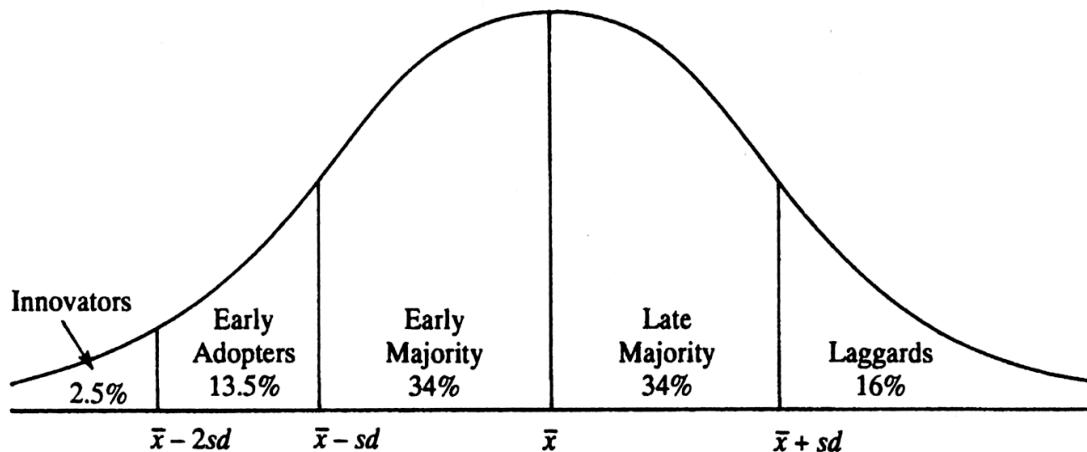
Figure 1: Adopter Categorisation on the Basis of Innovativeness (Rogers, 2003)

consistent with the existing values, past experiences, and needs of potential adopters" (Rogers, 2003, p. 240). Complexity is "the degree to which an innovation is perceived as relatively difficult to understand and use" (Rogers, 2003, p. 257). Trialability is "the degree to which an innovation may be experimented with on a limited basis" (Rogers, 2003, p. 258). Last, observability is "the degree to which the results of an innovation are visible to others" (Rogers, 2003, p. 258). The above given analytic categories have also been applied in the context of the adoption of technological innovations in general (Hall, 2004) and the adoption of e-HRM and HRIS in particular (Florkowski & Olivas-Luján, 2006; Lau & Hooper, 2009), which supports our confidence that Rogers' (2003) DOI theory is a fitting instrument for generating answers to our research question.

Whereas the adoption of innovations refers the decision-making at the individual level to utilise an innovation, the diffusion of innovations is based on the accumulated adoption of innovations in a social system (Rogers, 2003). Within that system, actors exist, who can be categorised according to their innovativeness. Rogers (2003) categorises those who adopt as innovators, early adopters, early majority, late majority and laggards. He visualises their distribution within a population in his well-known S-curve (Figure 1).

According to the author, innovators are willing to explore an innovation at its earliest stage. They are willing to take high risks and invest a substantial amount of resources into an innovation just to become one of the first to implement it. Early adopters directly follow the innovators' lead in their decision to adopt an innovation. The difference, however, between innovators and early adopters is that the latter prefer others to do the initiation and then quickly adopt to an innovation once its out of its children's shoes. The early and late majority marks the tipping point

of the diffusion of an innovation. Once the early majority adopts an innovation, it becomes socially accepted and widely spreads through the market. However, once the late majority adopts an innovation, it lost its momentum and its adoption rates are already declining. That is, because late majority adopters are very opposed to innovations and usually implement an innovation at a late stage of its cycle. Last, laggards round off an innovation, because they do not favour the innovation at all. This can either be because they do not have the means to implement it or simply do not benefit from it.

2.2 Towards a definition of e-HRM adoption

According to Rogers (2003) adoption can be defined as "a decision to make full use of an innovation as the best course of action available" (p. 473). Applying this dichotomous definition to the context of e-HRM adoption would translate to a rather black and white perspective, with an organisation either fully implementing e-HRM in their business or having no concern with e-HRM at all. In this research, however, we do not focus on the dichotomous definition by Rogers (2003), because evidence suggests that the adoption of e-HRM cannot be considered a two-way street. According to Galanaki and Panayotopoulou (2009), e-HRM in its final state – the strategic reorientation of the HRM function – is rare even in organisations in highly developed countries. Applying a dichotomous definition of e-HRM adoption would place the emphasis on the latter organisations and exclude organisations which are in a transition phase exploring the capabilities of e-HRM. For the explorative purposes of this research, we will therefore approach e-HRM adoption as a choice for an organisation to use any type of e-HRM. Hence, the mere presence of e-HRM, regardless of type and intensity, determines its state of adoption.

In this research, e-HRM is considered to be adopted in stages or levels and advances in intensity over time (Lin, 1997; Panayotopoulou, Vakola, & Galanaki, 2007). At the first stage of e-HRM adoption, e-HRM has its focus on the handling of data, files, storage, transaction processing and the construction of reports containing basic information, which is being carried from the higher to the lower levels of an organisation. One can say that e-HRM, within its first stage, has its purpose in supporting the administration of an organisation and assisting in publishing information to its main users, the blue-collar workers. The second stage of e-HRM adoption focuses on the retrieval of information, the planning & analysis of data against expected values and the integration in the company resulting in a reduced amount of paperwork. In this stage, e-HRM serves the purpose of creating information from given data and facilitate work procedures in the organisation. Its main users shift from blue collar workers to white collar workers; the managers. The final stage

of e-HRM resembles are very strategic use of e-HRM. The focus is on conducting complex business analyses with the help of models and has the purpose to create additional strategic value for the organisation and help it users, mainly high level managers, to take better decisions.

2.3 Extrinsic factors of e-HRM innovation adoption

Rogers' (2003) theory is a well-known utility for the analysis of the characteristics of an innovation that result in a higher rate of adoption. However, the aim of this research paper is to look at other factors influencing the rate of adoption that do not stem from the innovation itself. Rogers' (2003) theory can be considered as very generic by nature. The literature review below, shows that there are additional extrinsic factors of innovation adoption, which are specifically applicable in the context of e-HRM adoption in emerging economies. The emerging market perspective is of particular interest here, because there is reason to believe that the adoption of innovation in emerging economies is subject to different influences than in the context of developed economies (Hoskisson et al., 2000). We aim to align the general literature of e-HRM adoption in developed economies with the literature that employs an emerging market perspective. An overview of the factors for both developed and emerging economies can be found in appendix 1 & 2. The articles in the literature review have been found by means of electronic searches (e.g. scholar.google.com) using keywords: e.g. e-HRM, adoption and emerging economies. The keywords utilised produced around 15 to 42 results on Google Scholar depending on the combinations used. However, only articles were used that could extend our knowledge on the factors influencing the e-HRM, HRIT or IT adoption of a company or an organisation. Articles that did not add additional factors and/or strengthen existing factors were disregarded. In the end, 18 articles were left for further examination, that is, analysing the articles' theoretical part, methods, discussions and conclusions. Although we cannot be absolutely certain that every possible factor has been identified below, we are confident that our literature review covers the most relevant theoretical contributions of e-HRM adoption in both the developed and the emerging market context.

According to the literature studied, the following factors play a major role in the adoption of e-HRM or its branches in developed economies. First, the adoption of e-HRM innovation is influenced through the communication related to the innovation. In their literature review, Florkowski and Olivas-Luján (2006) found that "interpersonal communications among potential adopters" (p. 704) increase the likelihood that promises and pitfalls of the new technology can be better understood by decisive organisational actors, resulting in a higher chance for adoption. In line

with this, Panayotopoulou et al. (2007) and Galanaki and Panayotopoulou (2009) stress that profound communication of the technology is the main driver for e-HRM adoption, because through properly communicating an innovation, its benefits are better understood. Moreover, the authors' survey (n = 76) and focus group analysis revealed that intensive collaboration between HRM and IT departments fosters the adoption of e-HRM innovation at the organisational level. Drawing on qualitative as well as quantitative data sets, namely interviews and surveys (survey; n=50), Lau and Hooper (2009) found that a highly ranked success factor for the adoption of e-HRM innovations in large New Zealand companies is the communicative illumination of the innovation as such. In doing so, users of the innovation – that is employees or HR staff – are better capable to understand and use the innovation in their relevant context.

Second, authors representing another group of contributions, provide evidence that skills and knowledge in relation to the innovation are an important factor related to the adoption of e-HRM technologies. Through an intensive literature review, Hall (2004) proclaims that the information about a new technology available in close proximity influences its adoption positively. Thus, actors who are able to gain insights on a technology from their networks are more likely to implement the technology at a later stage. Moreover, Panayotopoulou et al. (2007), stress the fact that employees' IT skills can positively influence the adoption of e-HRM. That is, because skilled personnel is crucial in implementing the technology for others to use. With that same train of thought, Teo, Lim, and Fedric (2007) postulate that the expertise with human resource information systems fosters their implementation. The authors base their insights on a survey amongst n = 110 managing directors/ HR managers of organisations. More generally, the availability of technical skills is a pre for the implementation of e-HRM self-services, as skilled employees are more likely to autonomously handle IT-related tasks based on their previous experiences (Lau & Hooper, 2009).

Third, other factors can be traced back to cultural influences and differences. Hall (2004), for example, states that cultural attitudes can influence the rate of adoption of new technologies. His literature review revealed that cultural attitudes towards risk for instance influence the path of innovation adoption. National cultures, which are more prone to risk-taking are thus more likely to adopt the new technology. In the same vein, Parker, Dekimpe, and Sarvary (2000) claim that homogeneous social systems are faster in adopting innovations than their heterogeneous counterparts, because their shared interest does not create decision-making gridlock. With a more specific view, Panayotopoulou et al. (2007) claim that a change-orientated organizational culture plays a major role in the successful implementation of e-HRM. Likewise, Olivas-Luján and Florkowski (2008) state that HR departments operating in an innovation facilitating environment are more likely to implement HR-ICTs. Interestingly, when referring to culture, the literature takes into account both culture

on a national as well as organisational level. We assume that the national culture significantly influences the organisational culture, not least because e.g. Hofstede, Hofstede, and Minkov (2011) and Dasgupta, Agarwal, Ionnidis, and Gopalakrishnan (1999) also stress this in their research. According to the authors, an organisation's culture has to match a country's culture in order for an organisation to be successful. Thus, most companies are being influenced by the national culture they operate in.

Fourth, costs of system implementation and available resources have also been identified as factors influencing e-HRM adoption. The higher the amount of available resources, the more likely it is for a new technology to be implemented. That is true for both the organisational as well as country level (Parker et al., 2000). With that same reasoning, Lau and Hooper (2009) claim that adequate budget and funding is a decisive factor in the successful e-HRM adoption. Panayotopoulou et al. (2007), in the context of their e-HRM study in Greece, underline the above-mentioned. Through administering a survey (n = 76) and analysing the discussions of focus groups, they found that cost reduction has not been identified to play a major role in e-HRM adoption, because the investment in e-HRM does not provide short-term, but rather long-term financial benefits. This reasoning indicates again that companies should have a healthy budget in order to be able to successfully implement e-HRM innovations.

Fifth, the adoption of e-HRM requires high levels of management support. The analysis of Teo et al.'s (2007) survey data among n = 110 managing directors/HR managers of organisations revealed that one factor influencing the adoption of e-HRM innovations is adequate management support. When it comes down to strategic decision-making, approval of budgets and company realignment, top executives need to be convinced of the innovation's benefits in order to agree on the adoption of the technology as such. As a rule of thumb, the higher the intensity of management support, the more sophisticated HR-ICT solutions can become (Olivas-Luján & Florkowski, 2008). Moreover, the commitment of the management for the technology itself serves as an exemplar for other employees in the company. Also, according to Panayotopoulou et al. (2007), the management's willingness to restructure and thereby facilitate the staffing procedure appears to be influential on the adoption of e-HRM innovation. Lau and Hooper (2009) support this claim and stress that companies, which employ decision-makers who are prone to reengineering in the first place are also more likely to adopt e-HRM innovations that alter their internal processes. In addition to that, the work organisation in general influences the e-HRM adoption decision (Strohmeier, 2009). Companies that employ managers who support the implementation of information technology for internal processes are less likely to encounter problems with the implementations of e-HRM innovations.

Sixth, through employing mostly quantitative study designs, Hall (2004), Teo et al. (2007) and Strohmeier (2009) identified firm size to be an influential factor relating to e-HRM adoption. The bigger the size of an organisation, the more likely

it is to adopt e-HRM innovations. This is due to the fact that larger firms are generally more likely to command sufficient resources in order to pursue a strategic reorientation, such as the shift from traditional HRM towards e-HRM. However, focussing specifically on the adoption of e-recruitment, no support was found for firm size to be influential on the adoption of technology (websites) for recruitment (Hausdorf & Duncan, 2004). In their study, the authors found no significant difference between SMEs and large companies to use websites as a tool for recruitment. Their study is based on empirical evidence from a survey administered amongst n = 175 Canadian organisation of various sizes. Although contradictory statements regarding firm size have been found, we have no reason to discard the argument that bigger firms generally possess more resources then smaller firms. For this sake, we assume that firm size may still have an influencing impact on the e-HRM adoption decision in the emerging market setup.

Seventh, another set of factors can be categorised as external influences. Customers and industry have been found to influence the decisions of companies to implement e-HRM/HRIS (Galanaki & Panayotopoulou, 2009; Hall, 2004; Olivas-Luján & Florkowski, 2008). The industry, for instance, urges itself to implement innovations, because of the pressure coming from the sector they operate in. Customers as well as B2B partners expect the IT industry, for example, to pioneer in matters related to technology, which may foster the adoption of e-HRM technologies in turn. However, Teo et al. (2007) found in their survey (n = 110) that competition does not influence the HRIS implementation decision.

In a nutshell, the following factors influencing e-HRM adoption have been found to be of particular interest in developed countries; communication on e-HRM, skills and knowledge related to e-HRM, cultural influences, resources available to the firm, management support, external influences and firm size.

2.4 E-HRM innovation: from developed to emerging economies

The results of the studies from above only shed light on the situation in developed economies. For our undertaking, however, we need to assess whether these factors do also account for e-HRM adoption in the setting of emerging markets. Will the predominant adoption factors for e-HRM that have been found in the context of developed economies also hold in the context of emerging economies? In order to be able to answer this question, we thus align the findings from the developed context with those from the emerging market context. The overlap of factors will then serve as a theoretical framework that guides the data collection in the emerging market economy. Since the research on e-HRM diffusion and adoption finds most attention in developed economies and is additionally just emerging, there are only few

empirical contributions on the factors that influence e-HRM adoption in emerging economies. However, because e-business, IT-systems, HRIS and B2B E-commerce and e-HRM are based on the implementation of IT in business processes, we can assume that research in those neighbouring fields also qualifies as a valid point of reference. Despite this scarcity of empirical evidence about factors influencing technological innovations (e-HRM) in emerging markets, the following factors can be distinguished:

First, cultural factors also play a major role for the adoption of e-HRM innovations in emerging economies according to the majority of articles we reviewed. Authors like Dasgupta et al. (1999), Thatcher, Foster, and Zhu (2006) or Rao (2009) provide qualitative and evidence that both, a country's and a firm's culture are influential on the adoption of technological innovation like IT-systems, e-commerce systems and e-recruitment or the like. According to Olivas-Luján, Ramirez, and Zapata-Cantu (2007), for instance, the Latin American business culture heavily relies on face-to-face relationships, which makes it difficult to implement the rather clinical electronic recruitment practices. Moreover, executives in countries with strong hierarchical cultures are often not willing to exchange the authoritative selection procedure for management staff, because of the fear that their span of authority might decrease. The authors gained their empirical evidence from various interviews with senior HRM managers, line managers and other employees of Mexican firms. Another cultural aspect fostering the adoption of IT innovations has been described by Jeon, Han, and Lee (2006). The authors' survey data (n = 204) amongst CEOs of South Korean SMEs revealed that South Korean companies are pursuing to achieve economic competitive advantages over companies from North Korea. This behaviour has been triggered by the South Korean cultural attitude to outclass its North Korean rival. Moreover, through conducting in-depth interviews with senior HR managers, line managers and other employees in Mexico, Olivas-Luján et al. (2007) provide evidence that social contracts and relationships are important in Mexico when shaping an e-HRM strategy.

Second, it is noticeable that many authors refer to factors that can be categorised as external influences. Dasgupta et al. (1999), for instance, refer to external factors such as competition, governmental policies and market forces as being influential on the adoption of information technology based on the survey they conducted (n = 46). Moreover, by using a qualitative research design, Thatcher et al. (2006) found evidence that industry pressures in Taiwan are influencing the adoption of technology to a great extent. Such pressures could translate to international companies insisting that Asian suppliers implement certain technologies, or otherwise the relationship with the contractor could be impaired. The same is true for governmental policies and incentives. Government regulations might require organisations to implement certain technologies on pain of penalties. On the contrary, Jeon et al. (2006) found that the pressures from competitors do not play a major role when it comes down

to the adoption of e-business in Korea.

Third, multilateral support, including management support, for the innovation in question seems to be of crucial importance for the innovations' successful adoption. Lin (1997) administered a survey among n = 240 HR managers and found that the support of HR staff, management and IT department can be considered a decisive factor for the implementation of HRIS systems. Thatcher et al. (2006) partially confirmed the findings of Lin (1997) with his qualitative research on B2B e-commerce in Taiwan. According to them, management support is crucial for the successful adoption of e-commerce in Taiwan. In the same year, Jeon et al. (2006) found support for the hypothesis that governmental support is positively linked to e-business adoption.

Finally, resources are an reoccurring topic also in the context of emerging economies. Authors like Hooi (2006) and Jeon et al. (2006) stress the fact that the available resources of an organisation can either speed up or slow down the adoption process of IT technologies. Their data is based on surveys, stemming from both Malaysia and Korea.

In a nutshell, the following factors influencing e-HRM adoption have been found to be of particular interest in developed countries; cultural influences, resources available to the firm, management support and external influences.

2.5 Research framework

Based on the literature review, we have identified eight factors influencing the e-HRM adoption in developed economies and four factors influencing the e-HRM adoption in emerging economies. It is noticeable that the literature about developed economies comprises factors to be found in both developed and emerging economies, whereas evidence from the literature about emerging economies supports only a small amount of factors that have also been identified for developed economies. This denotes that the literature describes no distinguishing factors of e-HRM adoption in emerging economies.

The factors that are both apparent in developed and emerging economies are management support, resources available to the firm, cultural influences and external influences. We thus expect that the field research, at a minimum, reflects these joint factors between developed and emerging economies. However, also the factors that are not shared between developed and emerging economies should be regarded important during the field research, since density of the literature concerned with the factors influencing the adoption of e-HRM in emerging economies is very vague. A reason for a greater number of factors found for developed economies could thus be a gap in the empirical body of research in emerging economies.

Below (Figure 2) we present the theoretical framework, clarifying the just discussed absence of specific adoption factors for emerging economies:

2.6 Conclusions

This chapter has presented the theoretical foundation of this research. It has characterised e-HRM as an innovation and explained its diffusion from the viewpoint of Roger's (2003) theory of innovation. Because the author mainly elaborates on intrinsic factors that lead to an innovation's adoption, this chapter has added an extrinsic focus to understand the adoption of e-HRM. This has been approached through examining factors in the context of developed as well as emerging economies. Based on these examinations, a research model has been constructed, which functions as an anchor throughout this research paper.

Developed economies

Communication on e-HRM

Skills and knowledge related to e-HRM

Firm size

Top management support

Resources available to the firm

Cultural influences

External influences

Emerging economies
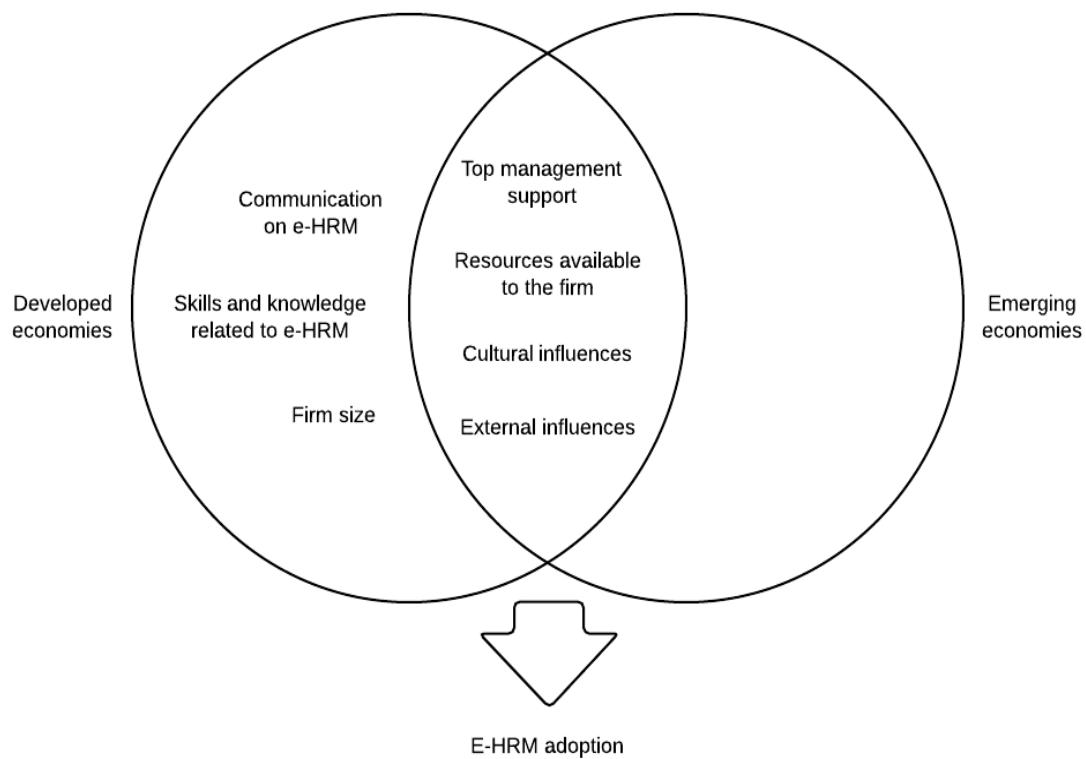
E-HRM adoption

Figure 2: Research framework, factors influencing the adoption of e-HRM in both developed and emerging economies

03 // Methodology

3   METHODOLOGY

3.1 Research design

For the explorative purposes of this study, we opted for a qualitative research design with semi-structured interviews as the main method for data collection. This choice had been made for various reasons. First, unstructured and semi-structured interviews "can provide greater breadth than to other types in qualitative nature" (Denzin & Lincoln, 2005, p. 705). Second, these techniques qualify to satisfy the exploratory research purpose of this study, allowing us to "understand the complex behaviour of members of society without imposing any a priori categorization that may limit the field of inquiry" (Denzin & Lincoln, 2005, p. 706). Third, "[semi-structured interviews] are well suited for the exploration of the perceptions and opinions of respondents regarding complex and sometimes sensitive issues and enable probing for more information and clarification of answers" (Louise Barriball & While, 1994, p. 330).

3.2 Operationalization

The operationalization scheme in table format can be found hereunder (Table 5). This methodological table can be considered to stand at the heart of this work because it is the logical link between the theoretical framework and the empirical part of this research. This operationalization scheme also served as a rough interview guideline, since topics and areas have been sorted in order to guarantee a logical and matching flow of the conversation. However, it is noteworthy that we did freely deviate from this guideline whenever felt necessary in order to allow participants to elaborate more deeply on matters of their concern. This guaranteed the accumulation of richer and meaningful sets of data that were directly based on the opinions of the interviewees and thus better representations of the reality.

In fact, as brought forward by Bondarouk (2004), a "snowballing technique" (p. 96) , which draws upon the insights gained from previous interviews allows the adding or removing of questions and therefore supplements the interview guide. This technique seems to be adequate in a context in which little practical or theoretical knowledge has been presented yet. Snowballing thus enables us to learn from past conversations and helps to enrich the conversations that follow.

The factors that have been identified through reviewing the literature are

presented in the first column of the table, followed by a definition. The second column of the table presents the dimensions as brought forward by the literature. The third column of the table contains the items that are used to control for the presence or absence of those factors during the interview. The fourth column of the table presents the methods of data collection that has been used in order to retrieve the necessary data.

Table 1: Operationalization of constructs

Construct	Dimensions	Items	Method of data collection
1) Adoption level of e-HRM - e-HRM adoption: the presence of e-HRM tools, regardless of type, intensity or function. The sum of tools corresponds with the stages brought forward by Lin (1997) and Panayotopoulou, Vakola and Galanaki (2007)	1. Basic stage of e-HRM	-e-HRM focuses on data, files, storage, transaction processing and the reporting of basic information form higher levels in the organisation to lower levels -e-HRM has its purpose in supporting the administration of the organisation and publishing information -The e-HRM users are predominantly blue-collar employees	Interview
	2. Advanced stage of e-HRM	-e-HRM focuses on information retrieval, planning & analysis of data against expected values and the integration in the company (replacing paperwork) -e-HRM has its purpose to create information from data and facilitate work procedures in the organisation The e-HRM users are managers	
	3. Sophisticated stage of e-HRM	-e-HRM focuses on complex analyses with the help of models -e-HRM has the purpose to be of strategic value for the organisation and help taking decisions -The e-HRM users are higher levels managers	
2) Adopter categorisation (Beatty, Shim and Jones, 2001) - Time elapsed after the adoption of e-HRM	Pioneers Early adopters Early majority Late majority Laggards	-Willing to explore an innovation at the earliest stage, forerunners of an innovation -Quickly follow innovators lead, but do not invent by themselves -First major wave of entities, adopting the innovation -Initially opposed to innovation, but only follow after mass adoption has tipped -Predominantly opposed to innovation	Interview
3) Skills and knowledge related to e-HRM - The extend of learned capacities and abilities in relation to the handling of information technologies and the scope of familiarization	1. Available information about experience with the technology in close proximity (Hall, 2004)	-Decision-makers have access to information on the technology through surrounding entities -Information can travel through entities outside and inside the organization Information diffuses across the borders of firm	Interview

with information on the technology	2. Employees' IT/ technical skills (Panayotopoulou, Vakola, Galanaki, 2007)	-Employees received training enhancing their individual competencies related to IT and technology -Employees with IT skills are recruited and retained in order to further develop and implement e-HRM -Employees and managers are experienced in handling information systems
	3. Employees' knowledge of HRIS (Teo, Lim, and Fedric, 2007)	-Employees received training enhancing their knowledge about HRIS -Employees have undergone past HRIS implementations -Employees and managers have been exposed to other forms of HRIS system prior to e-HRM introduction (in different employment)
4) Communication of e-HRM - The extent and scope of the exchange of information on e-HRM amongst entities within and outside an organization	1. Interpersonal communication amongst potential adopters (Florkowski and Olivas-Luján, 2006)	-The written or spoken exchange of information on e-HRM with e.g. business partners and collaborators
	2. Communication of benefits of employees' participation and involvement in e-HRM services (Galanaki and Panayotopoulou, 2009; Lau and Hooper, 2009)	-The innovation has been introduced to employees -The innovation's consequences have been made clear to employees -Employees have understood the innovation's consequences and the reasons for its implementation -The information flows about e-HRM are bilateral -Employees are given the chance to provide feedback
	3. Collaboration between HRM and IT departments (Panayotopoulou, Vakola, Galanaki, 2007)	-Both HRM and IT department know about the implementation of e-HRM systems -Both HRM and IT department contribute(d) to the installation of the e-HRM systems -There is task division between HRM and IT department considering the implementation of the innovation -There are shared goals between HRM and IT department Knowledge is being shared amongst both departments

Interview

5) Resources available to the firm - The degree and scope of monetary, human and technical assets that an organization commands	1. Available resources (Parket et al., 2000; Lau and Hooper, 2009; Panayotopoulou, Vakola and Galanaki, 2007)	-The organisation has staff available that is able to support the setup of the new technology -The organisation's employees are able to understand and use the technology -The organisation has allocated sufficient financial means to allow for a smooth implementation of an e-HRM strategy -The organisation has sufficient financial means available to absorb potential failures of the implementation of an e-HRM strategy -A lone standing IT department is available, which provides the technical know-how for the implementing of an e-HRM strategy -There is sufficient technical hardware that guarantees a successful shift towards an e-HRM strategy	Interview
6) Management support - The attitude and behaviour of managing personnel towards e-HRM innovation and their willingness to restructure business processes	1. Managers' conviction of the innovations' benefits (Teo, Lim, Fredric, 2007)	-The management is convinced about the innovations benefits -The management communicates its conviction across all organizational layers through its available channels	Interview
	2. Managers' support for the innovation (Olivas-Lujan and Florkowski, 2008)	-The management applies the innovation as an example for fellow employees -The management is willing to endorse e-HRM projects by escorting their implementation -The management enables, activates or takes part in the discussions about the technology	
	3. Mangers' willingness to facilitate the staffing procedure; (Panayotopoulou, Vakola and Galanaki, 2007)	The management is willing to imply information technology for staffing and hiring	
	4. Eagerness for business process reengineering (Lau and Hooper, 2009)	-The organization's management is open-minded towards business process reengineering	

7) Organisation culture influences - The degree to which members of the organisation carry the same attitudes towards risk and newness, are homogeneous in their beliefs and embrace chance	1. Positive attitudes towards risk and newness (Hall, 2004)	-Decision-makers engage in behaviors that may potentially be harmful to or dangerous for the organization -Decision-makers do not fear uncertainty -Decision-makers acknowledge that the implementation of an innovation may not deliver the expected benefits in the short-term but rather in the long-term	Interview
	2. Homogeneity of the social system (Parker, Dekimpe and Savary, 2000)	-Employees and management have equal attitudes towards organizational change, newness and risk taking -The organization is composed of employees with the similar educational backgrounds and learning abilities -There is widespread agreement on the strategic path the top management has chosen -Employees and management are working towards a common goal	
	3. Change-oriented organizational culture (Panayotopoulou, Vakola and Galanaki, 2007; Olivas-Luján and Florkowski, 2008)	-Top management allocates room for the voice of new ideas with the organization -The ideas of employees and management likewise make a contribution to firm strategy and organizational change -Change is seen as a mean to sustain competitiveness -The promotion of knowledge and ideas is component of the organizational identity -The organizational structure facilitates openness and trust Learning and experimentation is not off-limits	
8) External influences - Effects on the decision-making of the organisation that are due to the contingencies of the environment	1. Competitor and customer-related pressures (Galanaki and Panayotopoulou, 2009; Olivas-Luján and Florkowski, 2008; Hall, 2004)	-Customers demand organisations to switch to e-HRM strategy -The organisation has a pioneering task due to sector it is operating in	Interview
9) Firm size	1. Firm size (Teo et al., 2007; Strohmeier, 2009)	-Number of employees -Net revenues per annum	Document

3.3 Sampling & data collection

Due to the fact that we aimed at generating rich and exploratory datasets, we considered it to be important to include a variety of companies to our sample. Contrarily, a pre-filtered sampling procedure which excludes companies of a certain size, sector, or structure has been not used for conducting this study. Correspondence with companies has been initiated either through the professional network of Dr. Neil Semuel Rupidara or via the social network LinkedIn on a random basis. In the case of LinkedIn, the website's keyword search provided us with a useful tool to explicitly browse for HR managers, HR professionals or HRIT experts who had then been contacted on a "cold call" basis in order to ask for their interest to host an interview session. In most of the cases, the contact has been established in two phases. First of all, the prospective interviewee has been contacted and asked whether he or she is interested in helping out with a research about the joint use of HRM and IT. It has to be noted that the expenditure of time was immense for this phase of the data collection, because the internet connectivity was very limited. In case the prospective interviewee showed interest, we provided him with detailed information about the research by sending him or her a digital copy of our letter of invitation, a mini research proposal and a guideline of questions that could come up during the interview. At first we didn't want to provide the questions beforehand in order to reduce bias, however, many interviewees asked for a guideline in order to prepare themselves for the interview. In total, about 150 representatives of Indonesian companies had been contacted via LinkedIn of which about 20 showed a keen interest in the research and 11 ultimately agreed to host an interview session. The interview sessions were very extensive. Every interview took a minimum of one hour with the longest interview taking more than three hours. According to the recordings made, the total interview time resulted in about 25 hours, including the two hours of interviewing Sampoerna, which we were not allowed to record. On average that results in an interview time of about 2,3 hours per company or organisation. However, this is only a small fragment of the time it took to conduct the interviews. A considerable amount of time has also been invested in the travel to the interview places. Despite choosing Jakarta as a central place for conducting the interviews, the traffic situation did not allow for a quick travel between locations and it took a minimum of two hours to get to the interview place and back to the hotel. Several interviews also took place in remote places (outside of Jakarta or Surabaya) forcing us to travel for days. Apart from the time spent on interviewing and travelling, the process of transcribing the data gathered consumed another 4 hours per interview recording, resulting in another 44 hours of work. Especially, because the whole process of data gathering and processing was so work intensive it was necessary to work on the project together with two students instead of one, which would normally be the case. The amount of data gathered for this research

project would have been way above the limits for only one master student alone.

The sampling method is adequate for this study, since it was not aimed at drawing statistically valid generalizations across the participating companies (Ruël et al., 2004). The table (Table 2) hereunder presents additional information of the sample; including the sector, contact person, interview time as well as time needed for transcribing the data.

Company	Sector	#Employees (locally) (globally)	Website	Main contact person	Interview time	Transcript time
Aggreko	Power supply rental service	150 (5000)	http://asia.Aggreko.com/	Kabul Hartono	1h	3h
AXA	Insurance	243 (160.000)	http://www.axa-insurance.co.id/en	Rudy Franto Manik	2h, 50m	7,5h
Indocement	Cement	5000 (53.400)	http://indocement.co.id/aspx/	Freddy Siahaan; Findy Arnanda Lukman	3h, 25m	7,5h
Nuffic	Consulting	12 (300)	http://www.nesoindonesia.or.id	Mervin Bakker	1h, 30m	3h
Nutreco	Animal nutrition	160 (10000)	http://www.trouwnutrition.com/	Paulus Kun Yuhanclestria	2h, 55m	5h
Reckittt Benckiser	Consumer goods	950 (36000)	http://www.rb.com/	Edwar Edwar	1h, 40m	3h
ANZ Bank	Banking	1200 (48.000)	http://www.anz.com/	Fransiscus Lumentut	2h, 50m	5h
Oxfam	Non-profit organisation	80 (6000)	http://oxfamindonesia.wordpress.com/	Wisnu Wardhana	2h, 40m	5h
Kievit	Nutrition	240 (5500)	http://www.kievit.com/	Arman Hasan Poeloengan	2h, 30m	5h
Formulatrix	Liquid handling	90 (360)	http://www.formulatrix.com/	Dina Christiana	2h	5h
Sampoerna	Cigerettes	4500 (78100)	http://www.sampoerna.com/	Lucia Nany Lusida; Cicilia Tri Sulistyawati	3h	6h

Table 2: Sample information

3.4 The rationale for choosing Indonesia as a case country and for researching e-HRM adoption

The aforementioned has characterised Indonesia as a complex and dynamic environment, being incorporated in the global economic system, which influences the HR function of companies operating in Indonesia. The strategic shift to e-HRM may bring with it the right toolset to adjust to the requirements of global competition and the requirements of the knowledge economy. More sophisticated HRM systems – or even e-HRM systems – may help to push job training and employee development to the next level in order to overcome the flaws of the Indonesian education system, which is "often unable to produce graduates with the right kinds and levels of skills" (Sutiyono, 2007, p. 379). Thus, explorative research regarding the factors that influence e-HRM adoption on the organisational level may guide Indonesian managers to prepare for a successful shift from traditional HRM towards e-HRM and thus contribute to the economic development of the country. Ideally, this research will underline the positive effects of bringing together the HR function with information systems. Next to that, Indonesia is a typical example of an emerging economy, because being ranked 121th, Indonesia scores relatively low on the Human Development Index (United Nations Development Programme, 2013) compared to other nations. Therefore, conclusions drawn from the Indonesian context may enrich the theoretical understanding of e-HRM adoption also in the context of other emerging economies. It is striking, however, that "despite the major issues facing this country and the significant international concern about its future, reports on HRM are limited mostly to labour economics and macro level human resource development. The English language journals have included articles on the developing countries in Europe, Africa, and Asia (countries, such as Hong Kong, China, Singapore, Korea, Japan, and India), but surprisingly little has been reported on Indonesia" (Bennington & Habir, 2003, p. 374). This is also supported by the fact that there is an extensive body of research on HRM practices in China (Chow et al., 2008; Cooke, 2004, 2009; Warner, 2009; Zhu & Warner, 2004) but relatively little available scholarly information on other countries in Asia. Looking specifically at one emerging economy in South-east Asia might thus help to close this knowledge gap. Lastly, sparking the e-HRM discussion in Indonesia may contribute to the institutionalisation of the HRM function, which – as discussed above – has not yet occurred in Indonesia (Habir & Larasati, 1999).

3.5 The research setting: Indonesian geographic, demographics, and economic development

The archipelago Indonesia (17.508 Islands) is situated in South-East Asia

between the Indian Ocean and the Pacific. It covers a total land area of 1.904.569 sq. km as well as 93.000 sq. km area of water (CIA, 2013). Indonesia's bordering countries are Timor-Leste, Malaysia and Papua New Guinea. It is the fourth most populous country in the world. Its 251 million people live dispersed across Indonesia's 6.000 inhabited Islands, whereas the great majority of people live on the five biggest islands, i.e. Java, Sumatra, Papua, Sulawesi and Borneo. Indonesia's capital and most important business hub is Jakarta, which is home to 9,1 million Indonesians (CIA, 2013). According to Bennington and Habir (2003), although city hubs like Jakarta and Surabaya keep growing, 70% of Indonesia's population lives in rural areas. The main spoken language in Indonesia is Bahasa Indonesia, though about 250 other regional languages and dialects are spoken across the country. The four most populous ethnic groups are Javanese (45%), Sundanese (14%), Madurese (7,5%) and Coastal Malays (7,5%). Although representing a minority group, the 5% ethnic Chinese control 60-80% of Indonesia's economic activity. In addition to the ethnic diversity, Indonesia is also host to diverse religious beliefs: Muslims 87%, Protestants 6%, Roman Catholics 3%, Hindus 2% and 1% Buddhists (Bennington & Habir, 2003).

After gaining Independence from the Netherlands in 1945, the country has established a democratic political system. However, "despite [this] transition to a more democratic government, and perhaps because of it, the country finds itself possibly more divided along religious, ethnic economic, social and political lines than ever before" (Bennington & Habir, 2003, p. 375). The Asian financial crisis of 1997 severely impacted the economy of Indonesia, slowed its growth rates and led to an extreme devaluation of the Rupiah against the US Dollar. This crisis also slowed down the business relation for privately as well as publicly owned companies (Sutiyono, 2007). In exchange for saving Indonesia from bankruptcy, the International Monetary Fund called for economic reforms. However, many reforms that were supposed to simplify and support commercial operations within and out of the country have been obstructed by nationalistic and patrimonial forces (Bennington & Habir, 2003). In recent years, growth rates were with 6,1% in 2010 and 6,4% in 2011 well above the global average, and due to reforms of the financial sector and taxation laws, Indonesia managed to safely live through the global financial crisis of 2008 and 2009 (CIA, 2013). With a GDP of $1,212 trillion, Indonesia is today member of the G-20. Split by occupation, the 119,5 million people strong labour force is distributed as follows: agriculture 38,3 %, industry 12,8 %, services 48,9 % (CIA, 2013). According to Bennington and Habir (2003) nearly 70% of the labour force works in the informal sector. With respect to the legal system, "the law in Indonesia arises from numerous sources, is extremely complicated and somewhat vague, and much discretion is left to government authorities" (Bennington & Habir, 2003, p. 367)

3.6 Indonesia and Network readiness

Since the focus point of this study is the adoption of e-HRM and the fact that e-HRM can be understood as an integration of ICT with HR processes, it suggests itself to look at the dispersion of ICT in Indonesia as a starting point.

According to the World Economic Forum (2011) "ICT has shown its revolutionary power as a catalyst for change, modernisation, and innovation and one can safely predict this trend will only accelerate going forward" (p. 9).

Since 2006, the World Economic Forum publishes the Global Information Technology Report, which assesses the extent to which different economies across the world leverage ICT advances. The so-called network readiness framework produces an index, which compares economies on the basis of 71 variables. These variables translate into measurements of environmental readiness, stakeholder readiness and usage of ICT. Looking at the data of the 2010/11 report, the Asia and Pacific region by and large stands out for accommodating some of the best performers in the world. Seven countries (Singapore, Taiwan, Korea, Hong Kong, Australia, New Zealand & Japan) feature among the top 20. Indonesia in particular could tie in among the fast improving economies since 2006. While in 2009, Indonesia came in at place 67 in the world ranking, two years later, the emerging economy climbed 14 ranks on the index, showing significant improvements in a majority of categories. ICT readiness is especially distinct in Indonesia, which is supported by high levels of individual readiness (rank 18), fairly good educational standards and affordable ICT. However, nationwide ICT penetration and usage remains rather low (rank 80). The efforts of the government to give more importance to ICT on its developing agenda are positively influencing the overall index (World Economic Forum, 2011). Despite these improvements, Indonesia has still been categorised as a belated adopter in terms of internet connectivity and internet penetration (Figure 3).

It is expected that the number of internet users in Indonesia will triple by 2015 (Jakarta Globe, 2010).

3.7 HRM in Indonesia

Indonesia is a country with enormous diversity and general HRM challenges (Bennington & Habir, 2003). These challenges are rooted in the complexity of the cultural, geographical, historical, ethnic, religious, economic, political as well as administrative systems (Hartono, 2010). According to Budiharjo (1996), as cited in Habir and Larasati (1999), however, human resource management "has historically not had an important role in Indonesian management. It has traditionally been regarded as personnel function, almost totally administrative in orientation. Even in this capacity, human resource management is not regarded highly. A survey

Appendix B: Economies in each stage of Internet connectivity and descriptive statistics

Belated adopters		Converging adopters		First adopters
Afghanistan	Indonesia	Albania	Macedonia FYR	Australia
Algeria	Kenya	Argentina	Malaysia	Austria
Angola	Laos	Azerbaijan	Maldives	Belgium
Armenia	Lesotho	Bahrain	Mauritius	Canada
Bangladesh	Liberia	Belarus	Mexico	Cyprus
Belize	Libya	Bosnia and Herzegovina	Moldova	Denmark
Benin	Madagascar	Brazil	Morocco	Estonia
Bhutan	Malawi	Brunei Darussalam	Nigeria	Finland
Bolivia	Mali	Bulgaria	Oman	France
Botswana	Mauritania	Cape Verde	Panama	Germany
Burkina Faso	Mozambique	Chile	Paraguay	Hong Kong SAR
Cambodia	Myanmar	China	Peru	Iceland
Cameroon	Namibia	Colombia	Poland	Ireland
Central African Rep.	Nepal	Costa Rica	Portugal	Israel
Chad	Nicaragua	Croatia	Qatar	Italy
Comoros	Niger	Czech Republic	Romania	Japan
Congo (Brazzaville)	Pakistan	Dominican Rep.	Russia	Luxembourg
Congo, D.R.	Philippines	Ecuador	Saudi Arabia	Malta
Côte d'Ivoire	Rwanda	Egypt	Serbia	Netherlands
Djibouti	Senegal	Eritrea	Slovakia	New Zealand
Timor-Leste	Solomon Islands	Georgia	Suriname	Norway
El Salvador	South Africa	Greece	Syria	Singapore
Equatorial Guinea	Sri Lanka	Guatemala	Thailand	Slovenia
Ethiopia	Swaziland	Guyana	The Bahamas	Korea, Rep.
Fiji	Tajikistan	Hungary	Trinidad & Tobago	Spain
Gabon	Tanzania	Jamaica	Tunisia	Sweden
Ghana	Togo	Jordan	Turkey	Switzerland
Guinea	Uganda	Kazakhstan	Ukraine	Taiwan, China
Haiti	Zambia	Kuwait	United Arab Emirates	United Kingdom
Honduras	Zimbabwe	Kyrgyz Republic	Uruguay	United States
India		Latvia	Uzbekistan	
		Lebanon	Venezuela	
		Lithuania	Vietnam	

Averages	Number of countries	Internet users (per 100 population)	Internet subscriptions (per 100 population)	Broadband subscriptions (per 100 population)	Personal computers (per 100 population)	GDP per capita (US$)	Urban Pop. (%)
First adopters	30	75	31	28	70	40,514	80
Converging adopters	66	39	9	7	20	9,317	63
Belated adopters	61	5	1	1	4	1,806	41

Sources: ITU, 2010; IMF, 2010; United Nations, 2010.
Note: These are illustrative classifications based on the latest available data, mostly reflecting the situation at the end of 2009.

Figure 3: Economies in each state of internet connectivity and descriptive statistics (World Economic Forum, 2011, p. 45)

undertaken in 1995 showed managers' perceptions of the human resource audits, human resource development and planning, employee orientation, and salary system of their companies were negative" (p. 549). Typical HR responsibilities practiced in Indonesian companies are dependent on size, sector, cultural influences and business ownership ties. They "vary between the provision of housing and

social facilities for families in remote areas, personnel administration, relationship management, and preventing strikes" (Bennington & Habir, 2003, p. 387). Human resource managers in Indonesia do not generally enjoy as much regard as those in developed economies and their educational backgrounds are generally not HR-related, since there are only few institutions that offer specific HR courses and educational programs (Bennington & Habir, 2003). In line with this, De Guzman, Neelankavil, and Sengupta (2011) claim that: "The problem of lack of recognition of the HR role and its importance to an organisation is of even greater concern for Asian multinationals than Western European and US multinationals" (p. 2667). In the Indonesian context, there is no clear title for HR professionals. Moreover, HRM practices in state-controlled enterprises are less effective compared to HRM practices in privately owned companies (Sutiyono, 2007). Due to the Javanese cultural heritage, open criticism is avoided, there is strong preference for consensus and harmony, and oral communication usually trumps written communication (Bennington & Habir, 2003). Albeit the aforementioned lack of appreciation for the HR responsibilities, according to Habir and Rajendran (2007) "there is scholarly agreement that, since the 1997 crisis, business organisation have moved towards improvements in their HRM system; currently, personnel departments are known as HR department and personnel managers are re-designated as HR managers. More companies are adopting strategic HR by highlighting the responsibilities of HR departments in their annual reports. Some companies have set up HR committees at the governance level, in line with good corporate governance practices. These developments indicate a growing realisation of the importance of HRM in Indonesia today" (pp. 30-31). However, De Guzman et al. (2011) claim that there is evidence that "Asian multinationals are far behind European- and US-based multinationals" (p. 2668) when it comes down to the acceptance of HR responsibilities. In the same vein, the authors acknowledge that Asia has made steady progress over the past two decades considering the appreciation of HR responsibilities. Nonetheless, with regard to the aforementioned shortcomings, "it would be unwise to generalise too much about HRM in Indonesia because conditions, philosophies, and practices vary widely across enterprise types, industries and regions" (Bennington & Habir, 2003, p. 388).

3.8 Implications for the research project

In the light of institutional theory, it can be assumed that the above-mentioned features and characteristics of the Indonesian socio-economic system are likely to have an effect on the e-HRM adoption within Indonesian organisations. Institutional theory, according to Rupidara and McGraw (2011), suggests that formal and informal institutions or social structures shape the way in which people behave, and likewise in what way organisations behave. Whereas 'old institutionalism' aims at explaining

"how concrete social processes regulate behaviour" (Rupidara & McGraw, 2011, p. 176), 'new institutionalism' on the contrary focuses on the "cognitive processes which create taken for granted structures that establish legitimacy around certain ideas and lead to their diffusion" (Rupidara & McGraw, 2011, p. 176). Both perspectives thus may add to our understanding of how decisions to adopt e-HRM in the Indonesian context come about. From the information given above, we could identify institutional influences, which are likely to affect the adoption of e-HRM at the organisational context and are thus worth to mention. First, the complexity and vagueness of the Indonesian legal system, as claimed by Bennington and Habir (2003), may actually interfere with the transition towards e-HRM managing sensitive employment data. While in the developed economy context the handling of personal and sensitive data is clearly governed by law, this might not be given in the Indonesian context. The decision to adopt these techniques could therefore be influenced negatively.

Advancements in network readiness, as shown by the World Economic Forum (2011) can be interpreted as a positive influence on the adoption and diffusion of e-HRM.

The willingness of the Indonesian government to generally support the development of ICT technologies (World Economic Forum, 2011) can be interpreted as a positive influence regarding the diffusion and adoption of e-HRM practices. Yet, it is unclear in how far, for example, subsidies will be issued over the next years to support the development of ICT in the business context. Although this trend may lead to an increase of ICT usage across Indonesia in general, it is questionable whether the positive effects of political intervention may also reach the HRM departments of Indonesian companies and organisations. This is due to the general underestimation of the HRM function in Indonesia (Habir & Larasati, 1999). It is therefore that we expect Indonesian firms to be less ambitious in terms of restructuring the HR function than firms in the developed economies.

3.9 Adjusting the interview style to the Indonesian corporate culture

So far we have pointed out that the Indonesian institutional environment is complex, challenging and different from Western standards. Thus, the interviewers need to adapt their behaviour to the corporate culture on site. The following thus presents a summary of characteristics of the Indonesian corporate culture that may pose a threat to the interview process if not being accounted for. According to CDA Media (2012), the business structure of Indonesian companies often reflects the prevailing cultural norms of society. Due to a strong prevailing cultural belief in hierarchy and superiority and the respect for elders and superiors, Indonesian organisations are hierarchically organised. Decision-making is controlled top down and judgement

taken by leading staff is not to be questioned by employees who wield less authority. In contrast to European or American practices, initiative and proactive thinking across all layers of the organisation is not welcomed in Indonesian organisations, since this is oftentimes interpreted as an indirect critique of the manager's judgement and decisions (CDA Media, 2012). The term 'Bapakism' describes the Indonesian attitudes towards elders and superiors and serves as a guiding principle for employees across the organisation (CDA Media, 2012). The term is derived from the word 'Bapak', which literally means father. There is a felt need to absolutely respect the decisions taken by fathers or elders in general, because their decisions are positively influenced by their life-experiences and thus superior to those decisions taken by younger or less experienced people. In the interview situation, the interviewers need to be prepared that respondents will thus be not likely to question the role and the decisions of his/her superiors. This especially poses a threat to gaining honest input that is related to understanding whether top management support was an influencing factor on the adoption of e-HRM or not. While on the one hand interviewers need to dig deep into in order to be able to generate meaningful and true data, he or she needs to refrain from pushing the interviewee into a situation where the interviewee feels that his superiors are being criticised, for this might offset the attitudes of the interviewee towards the interview situation. In Indonesia, time is considered to be elastic and business meetings may easily overshoot the scheduled time frames because extensive small-talk like conversations in which business partners get to know each other are important in the Indonesian business culture. Interviewers thus need to be prepared that the meeting may take longer than expected (CDA Media, 2012). Comparably to Japanese and Chinese Business culture, Indonesians find it hard to express their disagreement. A verbal 'yes' must not mean that the interviewee agrees with the subject matter (CDA Media, 2012). It is therefore that interviewers should make use of extensive probing techniques. Moreover, interviewers should make sure that the conversational partner has the lion's share of the speech ration, because that may increase the likelihood that honest answers are triggered. The giving of small gifts is an indigenous Indonesian custom and may help to express the respect towards the business partners (CDA Media, 2012). Lastly, foreign language levels are not as good as compared to those in Singapore and Malaysia and according to CDA Media (2012), occasionally, even senior figures need translators for doing business abroad. Thus, Interviewers must make sure that misunderstandings are prevented through using 'user-friendly' English.

3.10 Trustworthiness of the study

Because, according to Bondarouk (2004), "interviews are as complex as any other social event, and researchers are dependent on the posing of questions and the atmosphere during the conversation" (p. 96), we received interview training prior to the data collection phase, in order to prevent the posing of leading questions that carry the potential to bias the responses. Furthermore, the use of probes has been practiced in order to establish consistency between the interviews and to grasp the real meaning behind the explanations of the interviewees. Every interview was transcribed shortly after the interview had taken place. Whenever possible, we recorded the conversation to guarantee the exact reproduction of the conversation. In the case that recording was not allowed, we took extensive notes which grabbed hold of the most relevant statements and ideas. Because our research aimed at gathering in depth information on the factors that influenced the adoption of e-HRM in Indonesian countries, the interpretations, statements and elaborated thoughts of the informants stood at the heart of the transcriptions. The transcripts therefore comprised of written text and direct citations, disregarding phonetics and international features. Three experienced researchers, of which two are specialised in the field of e-HRM and one in international business, have been involved in the creation of this research paper, which accounts for an increased validity and reliability. Additionally, in order to increase the validity of the data, transcripts have been send back to the case study companies for verification, decreasing the likelihood of interviewee bias or false interpretations.

3.11 Conclusions

This chapter has described the research design and motivated the use of the corresponding research methods. The variables have been operationalized and illustrated in table format. Furthermore, this chapter has described the sampling and data collection efforts of the field research. Additionally, it has been given reason for the choice of Indonesia as the research setting. The cultural setting has been analysed in terms of economic, ethnographic as well as geographic characteristics. Special attention has been attributed to the human resource function in Indonesia as well as institutional influences that may pose a bias towards the observations. This chapter has been closed through summing up implications for the field research that result from the country specific characteristics and contingencies.

04 // In case Analysis

4   IN CASE ANALYSIS

In order to obtain deep insights of the e-HRM practices in Indonesia and the factors that influenced the adoption of those systems, we involved a total of eleven companies. All of the companies that were willing to take part in this study are multinational companies (MNCs). The majority of the companies are headquartered in Europe and extended their reach into Indonesia by establishing a country office. The results from the interviews are presented hereunder. Each section starts with a short description of the company, followed by a presentation of the e-HRM practices of the companies visited. Citations highlight the opinions of the interviewees regarding the systems in place. The factors that contributed to the adoption of the e-HRM systems are highlighted at the end of each section.

4.1 Aggreko

The simplest way to elaborate what Aggreko does is to refer to the company's „what we do" video on the firm's landing page. Supported by sketchy cartoon drawings, the narrator explains that

„we [Aggreko] specialise in providing power and temperature control solutions to customers who need them. For short periods, or long-term solutions. In our local business we hire our equipment to customers who operate it for themselves, whilst we take care about servicing and maintenance. In our international power projects business, we operate as a power producer. That means we install and operate power plants and are paid revenue for both delivering electricity and for building and operating the power plant on behalf of our customer. In fact, we served customers in about 100 countries from 165 service centres and offices. And with over 6000 employees and over 13000 generators, we supply the equivalent energy that will power over 1/10th of the entire UK needs. Aggreko has grown over the last century, to become the global market leader" (Aggreko, 2013).

While the multinational's headquarter is London-based, the location in Dubai also plays a major role in managing the firm's subsidiaries across the globe. As part of Aggreko's global expansion strategy, the regional office in Jakarta has been established in 2012 and hosts around 150 employees. The interviewee is the only salaried human resources manager for the Indonesian subsidiary as well as the facilities on the Philippines. According to the interviewee, the dominant HRIS at Aggreko is the SAP-based Adrenaline. In the classical sense, Adrenaline manages

most employment data, the headcount, as well as leave requests. Adrenaline, so the interviewee, has been chosen by headquarters as the standard HRIS for the whole organisation for efficiency reasons:

"the purpose is to use the same HRIS system. The whole organisation shall work on Adrenaline. The system shall help me to analyse the data, managing head counts etc. Having the system is also giving accessibility for the country and the region to see the personal data".

Adrenaline is not yet integrated with payroll- and performance related matters, which are both still managed manually by HR staff through excel spread sheets. Also in terms of the management of leave requests, the Indonesian subsidiary lags behind other global locations. Whereas in Dubai or Singapore e.g., employees can self-handle leave requests online, their Indonesian colleagues can not yet access this function. Employees in Indonesia still have to file their leave request on pen and paper basis. The interviewee then receives the leave requests, translates those into digital format and inputs them into the Adrenaline database. The Adrenaline system also provides a self-service function for personal data. However, this feature is also not yet integrated in Indonesia and thus the interviewee has to manually update the Adrenaline database once every month. He therefore enjoys full administrative rights. Additionally, in Indonesia, the Adrenaline interface still needs mediating interfaces, such as Excel or Access in order to create reports or letters. With the situation at the Indonesian subsidiary not being ideal, the interviewee stated that

"I as a user expect that all systems will be integrated, so I don't need to do a double job. If someone has already approved the leave request, it should automatically go to the HR record, then should go to the payroll and so forth. That is the ideal situation".

In order to foster the implementation process, Aggreko has created a special team with intense knowledge of the system:

"we have a specific team for HRIS implementation, a dedicated team in Dubai. The team consists of HR and IT people and is not very big. At the beginning of last year it consisted of four people, and now only of two. One dedicated manager from the company and one external person appointed by Aggreko. If there are problems, the dedicated team can also address the people of Adrenaline".

The team, so the interviewee, can be consulted by HR if problems and issues arise. Referring to the motivation of headquarters to implement a central system, the interviewee mentioned efficiency and centrality reasons.

Factors of e-HRM adoption

Communication

According to the interviewee, the implementation of Adrenaline was part of the annual business plan and thus explicitly stated in the company's reports and corporate documents, which have been forwarded to managers across the organisation for their discretion. Besides that, there have been also email conversations on the topic, telephone conferences or even a workshop in the regional office in Singapore, during which the new system has been communicated and elaborated. Moreover, the system itself has a function where suggestions, complaints or problems can be forwarded to the HRIS-administrator on a ticket basis. The HR administrator will deal with the problem and send his feedback back to the user via email.

Resources available

As indicated above, Aggreko has installed a dedicated support team for the implementation of Adrenaline across its subsidiaries. According to the interviewee the support staff in Dubai

"would help us if we have any trouble".

The dedicated support team is also experienced in handling IT. In addition, budgets have been allocated to stem the costs of implementing the system. However, the implementation problems and the failure to integrate Adrenaline with other HRM functions is not approached with full urgency. According to the interviewee, Aggreko has other priorities than solving problems that are HRIS related in the short term:

"What I understand is that currently the company has a different focus of preference. We are more focussing on the operation sites. Making HRIS more sophisticated is not the priority for this year. It's developing slowly because it is not upper priority".

Cultural influences

The interviewee described the culture at Aggreko as follows:

"Aggreko is quite open for any changes, because in our industry especially, we provide a temporary power generator. The change is happening every day. We deal with demanding customers, so we are challenged to generate new ideas and new improvements as long as they bring benefits for the organisation. So any new ideas of changes are welcomed. In fact at Aggreko we have a dedicated department – we call it continuous improvement department. Any kind of improvements are very much welcomed. Every employee has the possibility to join the improvements initiative".

The interviewee reported that some of his colleagues already joined the global "improvement" initiatives. The team members of the improvement department help to structure and plan the suggestions and aim at reaching perfect fit between old and improved practices. Moreover, the interviewee explained that:

"We have a country representative for improvements. Any suggestion for improvement is forwarded to him. This person's task is to structure the improvement process and to help foster change".

Referring to the Indonesian management team's openness to change, the interviewee claimed that

"the team strongly encourages change and improvements. We also discuss possibilities for improvements".

When asked how Aggreko deals with uncertain and new situations, the interviewee replied that Aggreko has always two plans at hand:

"If plan A does not succeed, they move to plan B".

He therewith implied that while situations can be new and challenging, these are still embraced and even if management failed to come up with the right recipe, a second strategy is close to hand.

Management support

The initiative to switch to Adrenaline, and thus the desire to centralise the personnel data management for efficiency reasons, came from corporate headquarters. It can therefore be assumed that support for the project was present during all times of the implementation phase. However, as confronted with the lack of system integration and the lack of functionality, the interviewee raised the request to expand the functionality of Adrenaline to the extent that simple reports could be created. According to the interviewee, his feedback was appreciated and management approved the changes to the initial system. In detail he asked whether it was possible that data from spread sheets could be uploaded into an Adrenaline template, so that the process of adding, removing or refreshing data could be simplified. However, the full integration of the system and the search for improvement is according to the interviewee not

"top priority".

When asked whether it was planned by top management to rework the report function of Adrenaline he stated that:

"We requested it, but I don't see any progress yet".

At this point, however, it is worthwhile to mention that according to the interviewee, the Aggreko management staff is open to change and improvements. Approval for system changes comes from the country managers.

Skills and knowledge related to e-HRM

The interviewee was, prior to his experiences at Aggreko, already skilled in handling HRIS. In particular, the interviewee was well experienced with PeopleSoft. After one year experience with using Adrenaline, the interviewee finds that

"the capabilities of the system [Adrenaline] is about equivalent".

When asked whether he received any training the interviewee responded the following:

"I have been trained last year, for how to run the system. Adrenaline is something new to me. After three whole weeks of training, I could run the system for about 50% of its functions. After some trial and error phase and contacts with Dubai, I am fully capable of using the system".

The training session encompassed classroom trainings and exercises. Moreover, the interviewee gained valuable field practice through data management and the necessity to manually update the Adrenaline database.

4.2 AXA Indonesia General (AXA)

With annual revenues of around 90,1 billion euros and an operating profit of 4,2 billion euros, the AXA group is one of the world's biggest conglomerates for insurance products. Globally, the company employs around 160.000 people. AXA offers a wide range of insurance products, of which motor vehicle, property, health and life insurances are just a few examples. While being headquartered in Paris, the company has expanded its business to Indonesia in 1995 through acquiring a local insurance company called Salazunda. AXA Indonesia General has 19 lines of business, including the most common insurance products, except life insurances.

At the location in Jakarta, the research team interviewed the vice president for human resources. According to the interviewee, AXA is the second largest insurance broker in Indonesia, employing 243 people in Jakarta and around 1000 additional insurance brokers and agents who are dispersed across the country. According to the interviewee, the insurance Industry in Indonesia is experiencing a boom, which is driving AXA's expansion to other regions in Indonesia, such as Makasa or the tourist hub Bali for example. Yet, the perspective of accelerating growth has also attracted various competitors, which toughens the conditions for AXA to attract and retain the right talent across the country. Sophisticated e-HRM systems, so the interviewee, enable AXA to focus on the strategic function of managing human resources and thus to survive in this competitive market.

AXA makes extensive use of IT in order to support the human resource function. According to the interviewee, PeopleSoft's 'People In' has been introduced in 2005 and is the main application for managing employee performance, storing and analysing employee data as well as managing employee mobility. The mobility system helps to transfer employee data from one entity to another. Moving datasets is required because locations only have restricted access for regional data. Also in terms of performance management, the 'People In' application digitalises processes that were previously managed manually. In the first step, performance targets are set by the appropriate authorities and are put into the system. The second step comprises of mid-term reviews, which are based on the data provided by the 'People In' application. While processing the mid-term reviews, administrators can leave comments and their feedback inside the system, which then serves as the basis for adjusting the targets if applicable. The final consideration of the employee performance occurs mid-January each year, followed by appraisal talks. The entire communication hereunto can be processed by using the 'People In' application. The 'People In' HRIS is also closely embedded in the organisation's talent review (OTR). According to the interviewee,

"OTR is one of the critical processes of our organisation. Employees are not only evaluated on purely meeting the financial targets but also on how they have achieved the results".

Based on the performance data stored in the 'People In' HRIS, employees who perform well are placed in a designated talent development pool and selected as candidates for trainings that are closely aligned to AXA's medium term strategy:

"After employees have been defined and assigned, there will be talent development, but before the process begins we have focus group discussions internally. We discuss about the small population that will be selected. We will discuss it in our regional office together with the regional CEO and the regional HR head. One by one, we discuss about which

kind of talent will be schooled. Looking at the next three years target, we also keep in mind the organisational change and the structural change that comes with it and we decide what kind of people need to be trained. Then we decide about the development possibilities. All discussions of this process will be prepared with 'People In' based on the data. This is a paperless process".

Apart from these functions, 'People In' is also used for managing AXA's long term incentives, such as share plans and options. Generally, all employees have access to the 'People In' HRIS, though some functions are only available to HR administrators. Next to the 'People In' application, AXA also uses an application called Adrenaline to manage the leave process. Adrenaline has already been adopted in 2001 and enables all employees to file their leave request online. These are then automatically forwarded to the appropriate manager in order to receive approval. Moreover, AXA has two distinct intranet services. Both intranets are accessible to all employees and are web-based. The main intranet service is used for communication, procedures, policies, bookings, uploading documents and to purchase software. Besides these key services which are available to every AXA subsidiary across the globe, the interviewee explained that:

"Besides of that, we have also regional intranet. Especially in HR we have a community on regional and global basis. We use this intranet, so if we have projects regionally or globally, we can put information on the intranet. So this becomes a knowledge management tool and shows us how other countries or regions deal with issues".

AXA also has implemented an electronic system for keeping track of the employee's working hours. According to the interviewee, all systems are integrated with each other. The reasons for implementing IT solutions for managing the human resource function are manifold. One major reason is, so the interviewee, the gain in efficiency:

"Efficiency is of course one reason. Why it is easier to get information? If you do it manually, such as to ask our manager, please provide me with analysis of our employees, it will always take time".

Moreover, the possibility to use the search function of the database is also regarded as a plus of the electronic system. Also considering the organisation's talent review, the HRIS simplifies the tracking of HR performance and supports managers with assigning adequate trainings for the right staff. Since according to the interviewee,

"recruitment planning is also complex",

sophisticated data can also be provided through the HRIS. It is therefore that the system provides full report functions that influence the recruitment decisions of managers. One other major reason supporting the adoption of the systems as such is the necessity of HR to always stay in close contact with employees for feedback loops and strategic alignments. Considering this, time becomes a crucial resource:

"We have no time to think how to develop our employees. How can you have fruitful discussions with people in business. Actually that is the most important thing in HR. You will not become a partner with a business, if you do not have time to talk to them. Especially in Indonesia".

The interviewee further explained that

"in HR we need to think differently. We are facing a situation where talent is rare in the market. Because this business grows very fast the number of people who have acceptable skills and knowledge in the business is very limited. The more easier thing is to lure someone away from other companies, however, this is not cheap. The competitors do the same to us".

It is therefore that HR needs to be able to focus on employee development, training and ultimately, also on the re-training of the employees. According to the interviewee:

"That is why we are building communications with the leaders on how to manage and motivate their team. To equip our leaders to become a good leader becomes very important in Indonesia. Especially in the insurance industry".

When asked what internal factors have contributed to the introduction of e-HRM, the interviewee explained that

"if you talk about internal factors, we are growing bigger, and we spend too much time to do administrative task and less time to think strategically. And if you look at the regional level, we need to grow our employees".

Factors for e-HRM adoption

Communication
The e-HRM system in place at AXA are communicated through various channels. As indicated above, administrators can use the messaging functions of the system to communicate all sorts of information. Moreover, invitations to take part in the system, schedules and other forms of documents are sent to employees via

Email using Microsoft's Outlook. According to the employee,

"before the system is implemented, three month ahead, we will communicate via email the contents of the system and what kind of training employees receive".

Also, whenever employees experience problems with the system, help can be requested via email. According to the interviewee,

"we clearly communicate the benefits of e-HRM. If we have more time, it is also good for the employees".

Most of the communication on e-HRM as well as feedback comes from the HR department. Feedback from employees is communicated to the regional offices and processed. "We still need to remember that even though we have a system, direct contact is very important. While there is a great deal of electronic communication of e-HRM, employees are also approached directly on a face to face basis:

"even though we have simplified the system and don't use so much paper anymore, we still push our leaders to have personal discussions".

Resources available

At AXA, the IT department's task is to provide the technical assets for the IT infrastructure. Software related issues are forwarded to PeopleSoft who are responsible for the maintenance of the system. Generally, since

"the system is not so complex"

nearly every employee is capable to use the assigned functions of the HRIS. AXA has a sufficient stock of technical devices in order to guarantee system access to its employees. Financially, AXA wields enough resources to implement 'People In' – which has been developed to AXA's needs – across the whole organisation.

Cultural influences

People relations are one of the major issues anchored in AXA's policy. According to the interviewee at AXA,

"we evaluate people not only by what they achieve but by how they achieve this. You will not be able to be promoted to be a leader if you are not able to maintain a good relationship with your team. Here at AXA we believe that teamwork is even more powerful than superman. This is also part of our values. We call it pragmatism, professionalism, integrity and team spirit".

Open communications with employees is key, so that even the lowest levels of employees are able to understand what managers want to achieve. The centrality of open communication is also supported by the introduction of "CEO-chat" and "CEO-updates", which are frequent communications from top management to the lower layers of the organisation. Next to these principals at AXA, so the interviewee,

"we believe that if we can build a culture of trust and achievement, it will help us to grow business, it will help us to retain the best employees and in the end it will help us to grow our company in Indonesia".

In order to prepare for uncertain situations, AXA allocates resources for market research.

Management support
Recognising the challenges of the Indonesian insurance market and the centrality of retaining and schooling employees, top management fully supported the global conversion to the 'People In' system. That is why the directive to unify the HRIS globally came from headquarters in Paris and had to be fully implemented. In the light of the open-communication policy described above, however, top managers are eager to receive and process feedback from all sorts of functions. Yet, once decisions are taken, swift implementation is expected.

Skills and knowledge related to e-HRM
Concerning the ability to handle the system the employee stated that

"specific in our case, because we are a global company, we have to talk English. The second requirement for handling the system is that you need to be familiar with using the internet".

While most of the employees at AXA do possess these skills, especially the older employees are not familiar with modern IT. In these cases, HR managers have to manually guide them through the processes of the systems. Upon appointment, employees receive a basic introduction training in which the major functions of the system are outlined. After one month of employment, employees receive an advanced introduction to the system. Moreover, further training can always be requested at the AXA Academy, which is the main training facility in Jakarta.

External influences
The interviewee repeatedly explained that external influences are the major push factors for a shift to a sophisticated e-HRM system:

"when we only focus on administration job we forget to do the discussion with our employees and we don't have time to learn and understand what kind of organisation they want to work with and then it is easier for the competitors to approach them. Finally it will impact externally. Externally, the competition is very high now in Indonesia and talent scarcity is also there".

4.3 Indocement

The company Indocement Tunggal Prakarsa TbK. is one of Indonesia's largest cement manufacturer. Starting its operations in 1975 with then only one production plant, the company has expanded its reach across Indonesia and operates 12 production plants at present. Indocement's 5.000 employees managed to produce as well as to sell 18 million tons of cement in 2012. The company thereby outpaced its direct competitors and reached a market share of 41,7 % on the Island Java. Indocement also gains competitive advantage due to the fact that it is the only white cement producer in Indonesia. Since its listing on the Indonesian stock exchange in 1989, investors from Indonesia as well as from outside the country have accumulated the company's shares. Today, the German Heidelberg Cement Group is with 51% the majority shareholder and thus the main driver behind corporate strategy of Indocement. The Heidelberg Cement Group is the global market leader for building material, operates in more than 40 countries and employs 53.400 employees (Indocement, 2010).

At the location on Java, our research team had the chance to talk with two representatives of Indocement; the department head for human resource administration and the senior recruitment officer. According to the interviewees, Indocement has experimented with IT supported HR services since the late 1980s. However, these were only tentative attempts because the IT dispersion was rather low at that time and the diffusion of modern personal computer was in no way comparable to that of the present date. In 2004 however, so the interviewees, Indocement adopted a major HRIS for administering the HR function. This system, the interviewees claimed, is tailor-made and developed through Indocement's in-house IT department on-sight. It encompasses personal data storage, performance management, employment termination, suspensions, trainings, payroll, insurance, medical payroll, leave applications, promotion and transfer functions. The various functions of the system can be accessed through the company's intranet (Figure X) and are, so the interviewees, fully integrated with each other. However, the system as standing today, has evolved over the years. Functions have been added or removed according to the needs of the HR administrators;

"systems are evolving from time to time".

The interviewee explained that

"when somebody is promoted for example, the database will automatically update, payroll processes will be adjusted and so forth".

Until now, approximately 1000 people have access to the intranet and the human-resources self-services. The majority of the employees, that is the remaining 4000 people, are not yet trained in using computers or the HRIS as such. That is because for employees working in manual functions

"it is difficult for them, as you know, most of them don't have computer literacy. Because some of them came from lower school levels".

Yet, the proclaimed goal of the company is to

"develop our employees"

so that one day, every employee can access the HRIS. In this light, the interviewees claim that

"we are thinking to set up public computers for the company in every division and every department, but this is not yet approved".

In order to request HR related services, employees still have to contact their supervisors, who access the system on their behalf. Nevertheless, every employee has his/her own employee ID and an electronic profile, which can be accessed by those employees who have administrative rights. The overarching goal behind the introduction of IT-supported HR functions at Indocement is, so the interviewees,

"to increase performance in human resource processes".

Yet, the interviewees stressed more than once that the ability to control was a cornerstone of their e-HRM strategy:

"Control and transparency are major things. We want to see and trace everything HR related. All is there. It is simple for us to use".

Having tighter control on payroll processes was another reason for the adoption of the system:

"Sometimes we give up some efficiency in exchange for more control".

When asked why Indocement decided to implement its own HRIS, the interviewees responded that

"I think it is a strategic decision. It is not our level to decide which system. But I think why they decided for a tailor made system is because we have around 50-60 IT people right now. So the resources were there. Also we adopted the system on the basis what SAP already has. We were inspired by the SAP. Also this reduces costs, because we can make it ourselves. Cost of time also plays a role".

The interviewee went on to explain that

"we can not say that our system is better than others in the market, but it is suitable for Indocement".

The system is subject to constant improvements and renewal processes. Administrators of the HRIS can file system change request through using the intranet, which basically is a form of constructive feedback, aiming at improving the system. Feedback will be processed by managing officials and discussed with stakeholders during official meetings. If those suggestions are approved, the IT department will seek to implement the suggestions as soon as possible. Moreover, the two interviewees are also communicating with other users of the HRIS and representatives from the IT department. If problems occur, the interviewees as well as the IT representatives are open to feedback and do not hesitate to arrange meetings. Moreover, the IT and HR staff who is frequently working with the system hold yearly meetings, during which problems and suggestions can be tackled:

"For the IT we have yearly meetings with HR and IT. In October or September something like that. There, we plan what we will do, the new system etc. If we agree, only HR manager and IT manager and responsible staff, than we will produce it. The managers then report the progress to the directors".

Factors for e-HRM adoption

Communication
The communication of the new system initially occurred in a top down manner. Higher management levels communicated and explained the new system first through email, and then through meetings, which administrators, supervisors, and HR staff had to attend. Employees across all layers of the organisation know that the system exists. However, many employees – as indicated above – either find it difficult to operate the self-service or don't have access to personal computers. According to the interviewee, even if employees have access,

"it is easier for them to go to the supervisor".

However, because communication has been in place that explains the reasons for the system adoption:

"Employees usually don't have a problem with the change, because they know that is for their own good".

The interviewee and other HR staff also stand in close connection with the in-house IT department. Communication happens usually via email or phone calls. Occasionally, informal meetings are arranged in which progress of the implementation or issues therewith are discussed.

Resources available

The availability of skilled IT personnel can be regarded as one important resource Indocement controls. The functions of the HRIS were developed in-house and tailored towards the needs of the users. Moreover, since according to the interviewee,

"in each production facility we also have IT people there"

it can be assumed that the implementation process is strongly guided and supported by the IT department. When asked whether there was sufficient budget for IT implementation for the HR function the interviewees replied that

"mostly, what the HR needs, the HR will get. Until now we did not have any problems".

Cultural influences

According to the interviewees, the culture at Indocement is unlikely flat for Indonesian organisations:

"Our organisation is flat, we only have 6 levels. BOD, directors, managers, department heads, supervisors and employees".

This fosters communication processes and allows for feedback, ideas and improvement to quickly travel across the organisational layers. It is also therefore that Indocement is able to quickly find solutions for arising problems. In this light the interviewees explained that during the Asia crisis the

"company has been affected by the crisis. Sales volume went down, but the company has the principal that they didn't want to terminate the employees. We adjusted some of the benefits e.g. together with the labour union. We have a condition not to increase our salary over some time. I think it was a good decision, because now, our business is in a good situation again".

The interviewees went on to say that at Indocement

"one makes the best out of the worst".

Management support

The citation

"what the HR needs, the HR will get. Until now we did not have any problems"

suggests that in general, the HR function enjoys high levels of support by upper management levels. In addition to that, according to the interviewees, the Heidelberg Group – which steers corporate decision-making – allows a lot of freedom, provided the system meets the group's requirements. Although other Heidelberg facilities use different HRIS, Indocement has been granted the right to implement its own system, which is geared to the Indonesian needs. Once every year, so the interviewees, audits take place during which representatives from the Heidelberg Group examine the functionality of the HRIS. The audit has so far always passed without any implementation problems.

Skills and knowledge related to e-HRM

Administrators and employees who come in close contact with the HRIS received in-house training. External trainers were hired in order to equip the staff at Indocement with the right skillset to handle the system. Other trainings were scheduled off-site. Moreover, employees with access to the self-service portal could take part in online trainings on the intranet. However, as clearly stated by the interviewees, the majority of the company's 5000 employees is not yet equipped with the computer skills in order to work on the HRIS installed at Indocement. The IT staff at Indocement seems to be well-capable to address any issue related to the HRIS, not least because they designed the system by themselves. According to the interviewees, there has, on the other hand, not been any knowledge transfer from the Heidelberg Group to Indocement.

External influences

According to the interviewees, there have not been pressures from the industry to implement sophisticated e-HRM systems. However, the interviewees referred to

a general economic pressure and the need to stay competitive. Apparently, with increased size and higher numbers of employees, the bureaucratic burden increases proportionally. Paper-based administrative systems have become outdated and inadequate for the present time:

"We cannot handle it [the workload] by manual anymore. We have 5000 employees in 3 locations. In the future we will even expand. We need to be more transparent and more efficient".

Moreover, the interviewees mentioned that

"because we are part of the Heidelberg Group we also need to be more professional".
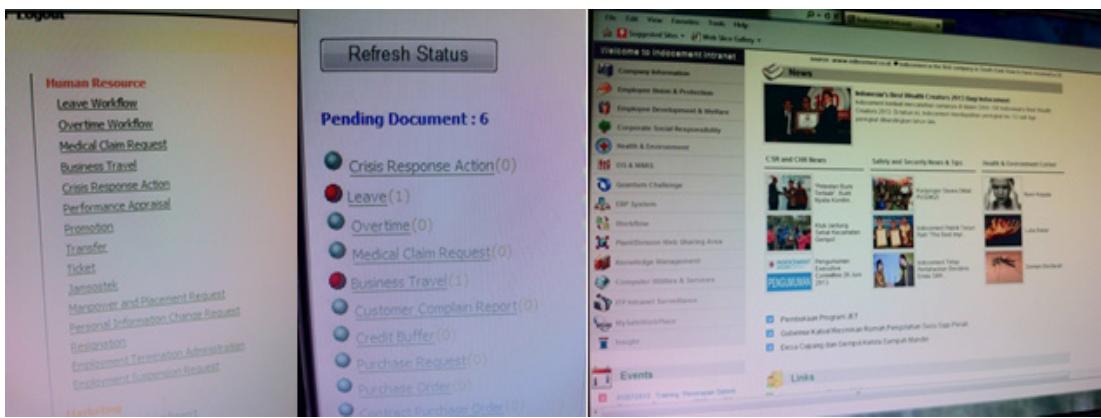
Figure 4: Intranet, HRIS interface & pending system requests at Indocement)

4.4 Nuffic

The Dutch organisation Nuffic aims at fostering international cooperation in higher education. Nuffic is funded by the Dutch ministry of education, is present in 10 locations worldwide and employs roughly 300 people. Country representations are organised into NESO offices (Netherlands education support office) and can be found in Brazil, China, India, Indonesia, Mexico, Korea, Russia, Taipei, Thailand as well as Vietnam. The organisation's head office is located in the Hague, the Netherlands. Nuffic's main goal is to initiate cooperation and to help people to get into existing education. In Jakarta, the research team has spoken with the director of Nuffic Indonesia who explained that

"basically we do everything higher education related that is good for the Netherlands in the end".

Nuffic is the smallest organisation considered for this study and is, in terms of IT usage for the human resources function, not as positioned as the larger multinationals examined. According to the interviewee, the main way of using IT for managing human resources is to

"advertise vacancies on job sites and our own sites".

In terms of the recruitment of new employees, Nuffic has transformed into a paperless company, yet the interviewee stresses that

"the system is not that sophisticated, we usually make a word file for the vacancy and upload this to our website via a content management system".

Since Nuffic is a small organisation,

"staff changes don't occur often".

Besides this, Nuffic employees can make use of the organisation's intranet. This intranet comprises of a contact display, tools for publications, application downloads, structural information, legal regulations, information about the annual assessment cycle as well as information on employees' language and general skills.

According to the interviewee, a second intranet called "Share Points" has been introduced this year. This application supports employees with sharing information and with cross-function communication. The application also comprises of a chat function resembling Microsoft's Skype application. According to the interviewee, the intranet and financial tools have foremost been implemented to make the company less paper-based. On the contrary, applying for a leave at Nuffic still is a paper-based process. Employees hand their filled-out forms to the interviewee, who then inputs the leave data into Account View, which primarily is a financial application run by the head office in the Hague. According to the interviewee, Account View has been introduced four years ago. Account View is also integrated with a financial administration program called FAP. FAP is the organisation's option to book all commitments that are made. In worksheet manner, financial managers can book nearly all financial changes. Online contents are uploaded by using Plone, which is a content management system that has been introduced at Nuffic in 2008. According to the interviewee, there is no integrated feedback module for the systems in place, mainly because Nuffic is

"too small for it to make sense".

This is also the reason why the HRIS system are not as sophisticated as compared to other firms that have been examined. At Nuffic, there have not been any official trainings for the HR related tools mentioned above. Yet, short informal trainings have been taken place between experienced employees and fresh starters. The decision to implement the systems had been taken by the head office and pushed down the organisation:

"Every decision is made by the Hague, at least when we look at systems. On the other hand, when I think I need another system, such as monitoring the staffs' process, for example a system that automatically shows when contracts diminish, then I make budget free for this. However, I usually spend my budget on more important stuff".

The last part of the quotation implies that the interviewee does not see any urgent need for a system upgrade related to the HR function. Major changes to the organisational structure or IT systems are announced once or twice a year when the global meeting comprising of managers from all ten Nuffic destinations takes place. Yet, most of the communication occurs via means of email. According to the interviewee, when system changes are awaiting, the communication usually is clear and from the next day onward, Nuffic directors need to implement it and there

"is not much ado about it".

The IT department is outsourced and mainly guaranteeing for the availability of the Nuffic webpage.

4.5 Nutreco

Nutreco is a multinational company specialised in the production of animal nutrition and fish feed. The company's headquarter is located in Amersforth, the Netherlands. The company employs approximately 10.000 people in 30 countries and has sales operations in about 80 destinations. With annual revenues of about 5,2 billion euros in 2012, Nutreco counts as one as the largest conglomerates for animal nutrition worldwide. Through acquiring the agricultural branch of the state-owned company BASF in 2007, Nutreco has established itself in Indonesia. In 2009, the company has expanded its capacities by also building a production factory. Nutreco Indonesia employs around 160 employees and secures about 40% of the market share for animal nutrition with products such as protein additives, vitamin additives or anti-fungi medicines. Nutreco's main competitors are GSM, Malindo and Kargil.

At the location in Jakarta, we were hosted by a representative from the human resources department who has been hired two month prior to the interview. One of the interviewee's main responsibilities is to improve the integration and functions of the HR systems that are in place at Nutreco.

According to the interviewee, in general, the HR department in Indonesia is mostly independent from the control of the Dutch head office. Systems can be designed on a regional basis, thus enabling the systems to fit to the specific needs of the local markets. However, the performance management system PACT is an exception to this rule, for it is based on generic core functions and adopted globally on grounds of a headquarter directive. Local performance management data

"is send to the Netherlands for performance review".

The head office also gives direction in terms of how the performance management should be designed and how it should function. Yet, according to the interviewee, there is some room to incorporate feedback stemming from the Indonesian subsidiary:

"There is some communication on what they have planned, they forward the concept to us, we review it and see if they are suitable for Indonesia."

Besides this performance management system, which is not yet integrated with other HRIS, Nutreco Indonesia uses other electronic means to support the HR function. First, recruitment uses online job advertising to attract the right talent. However,

"job advertisements are not yet fully integrated",

meaning that while applicants are made aware of the job offering through visuals, there is no linkage to any input mask and ergo no deep linking into the Nutreco database. Second, Nutreco has adopted an e-leave system in 2011. Every employee of Nutreco Indonesia has his/her own login details which grant access to an electronic leave system. Leave requests can easily be filed through the system. Requests are automatically forwarded to the responsible senior staff and, if successfully granted, employees receive automated email communication related to their request. According to the interviewee, one reason for the implementation of e-leave was the notion of transforming Nutreco into a paperless company. Moreover, the old system created delay and bureaucratic hassle because managers had to be contacted on personal basis. Yet, managers in higher functions were frequently not able to approve requests, simply because they were out of the office for business trips. Though practically every Nutreco employee has his/her own login data, there

are some employees who are not used to work with computers and therefore need guidance by administrators or supervisors. The new system also overcomes the problem that employees had frequently distressed supervisors and managers through asking

"how many leave days they have left".

The e-leave system was developed in-house in collaboration with the IT department. Third, Nutreco has installed a master database. This data base comprises of sensitive personnel data, such as bank account details, educational status, marital status as well as contact details. A great number of employees have access to this database and can change information on their own initiative. Yet, writing rights are not universal. Around 60 people don't have direct access to this database. However, according to the interviewee, Nutreco plans to broaden the access in the near future. Fourth, Nutreco has implemented an e-learning environment, which can be accessed by employees from the same department. The learning environment contains information about e.g. ISO standards and corporate policies. Fifth, Nutreco has implemented its own mobile emailing system in 2011, which is used for business communication on the managerial level. Sixth, the interviewee explained that comparable to the social network Facebook, Nutreco has implemented a global intranet called Nutri-Net. The system provides information about people working at Nutreco and intensifies employee communication. Data entries have to be manually generated by the employees themselves. Seventh, since 2009, Nutreco makes use of a fingerprint system which reports working hours and overtime. Since 2011, this system is directly integrated into the payroll module. According to the interviewee, the main reasons for adopting and implementing the systems described above are the gains of efficiency and productivity within the HR department. Before the master database had been implemented, data could only be updated manually once a year. Now, so the interviewee,

"the data can be changed at will".

<u>Factors for e-HRM adoption</u>

Communication

According to the interviewee, the announcement of the systems has occurred mainly via email. Electronic messages had been sent to employees with email access. These communications contained manual guides and general explanations of the system's functions. Employees working in operations who did not have email access were told to contact their supervisors for information. Follow-up socialisations were then scheduled with employees in order to train them – on a trial and error basis

– for the usage of the system. The IT department stood responsible for bug fixing and eradicating small system errors.

Resources available

According to the interviewee, resources are limited for the IT and HR department. He explained that

"if it is a local problem then we use the local budget, which is limited. Therefore we make it ourselves and simple. Local development is rather slow because of the money. There is no budget for the systems and projects".

The interviewee explained further that if the HR function is aiming for a system upgrade or the introduction of a new system, HR staff needs to contact the IT department in order to check

"whether the IT department can implement something. If they can, they do it. If not, the system is either disregarded or requested at a higher level. Budgetary allocations are scheduled once every year, which decreases the likelihood that major system upgrades can be implemented on an ad-hoc basis."

Moreover, the interviewee explained that due to the budgetary restraints, systems are adopted on a "one system at a time" basis. However, the interviewee stressed that

"usually it is not a problem for the managers as long as it increases the productivity and efficiency".

Cultural influences

According to the interviewee, the culture at Nutreco is organised around three principles: trustworthiness, innovation as well as nutrition. The interplay of these principles creates an atmosphere that embraces

"big as well as small ideas".

It is therefore that managers are usually supportive of new ideas that bring benefits in terms of efficiency and productivity. Moreover, processes at Nutreco are designed in a transparent way, because according to the interviewee,

"transparency is at the basis of trustworthiness".

Uncertain situations are largely tackled through ad-hoc management meetings

during which strategic decisions are taken.

Management support

As indicated above, management usually is supportive of new ideas that increase efficiency and productivity. Some major implementation are nonetheless decided via top management in Europe and pushed down the funnel.

Skills and knowledge related to e-HRM

According to interviewee

"the systems are easy to use, and it is easy to understand".

Yet, because some applications are not translated into Bahasa Indonesia and some employees face difficulties because of that.

External influences

As indicated by the interviewee, Nutreco is not influenced directly by pressures from the industry. Yet, recommendations of other HR professionals of the industry are analysed and considered as suggestions for future implementation and strategic alignment:

"We are not really pressured, it is more like we get inspired by what they have".

4.6 Reckittt Benckiser

With 9,5 billion pound sterling revenue in 2012 (Reckitt Benckiser Group plc, 2012), the London-based Reckitt Benckiser group is one of the worlds leading companies for hygiene and healthcare products. The company employs 36 000 people worldwide and has production facilities in over 60 countries. Reckitt Benckiser has established a strong presence in South-East Asia. According to its annual report, the medium-term goal is to grow the emerging market areas, so that by 2015, emerging markets represent 50% of the company's core business. In South-East Asia, Reckitt Benckiser has operations in Malaysia, Singapore, Thailand, the Philippines and Indonesia. The Indonesian head office is located in the nation's capital Jakarta. Its main production lines are pest control and antiseptic products. Whereas the head office in Jakarta employs 140 people, the total number of employees in Indonesia amounts to 950. The interview partner on-sight was a compensation and benefit manager, responsible also for recruitment and staffing processes. According to the interviewee, the first steps towards an e-HRM strategy occurred in 2009, when the

corporate head quarter determined the shift towards an integrated and electronic performance management system called PeopleSoft. PeopleSoft digitally stores personal information, positions, costs centres, allowances, educational backgrounds, medical data, standing promotions and base salaries. The introduction of PeopleSoft is a result of the global strategy of Reckitt Benckiser. Managers across the organisation can access the data saved into the HRIS and process those for the purposes of performance management according to specific needs. Although PeopleSoft has, according to the interviewee, reduced the bureaucratic burden, the possibilities and functions of the HRIS are not encompassing enough to account for the country-specific needs of the Indonesian HR function. It is therefore that the Indonesian HR staff – with the help of the IT department located in Singapore – created a HRIS system that expands the functions of PeopleSoft. Based on the Microsoft Access, the so called local HRIS enables the user to add, as well as to remove menu items, data categories or general information. Thus, the self-made HRIS adds to the functions of PeopleSoft, while at the same time accounting for the social and legal conditions of the Indonesian environment. One advantage of the local HRIS is that performance reports can be printed on employee request basis, while PeopleSoft data is sensitive and only available to managers in higher corporate functions. Employees, so the interviewee,

"would come for reports for banks, social security or their own assessment".

Because the system is to some extent self-made, it is tailored towards the needs of the user and thus generates high levels of usability:

"The system is easy to use, time saving and efficient. It also saves hard copies".

The local system also keeps records of the trainings allocated to individual employees as well as the budget allocated to the training function. Though the "local HRIS" can be considered to be a lone-standing application, it is based on the data which is downloaded manually from the PeopleSoft database once every month. The duplicate datasets are saved on local servers and readied for further access. Because the PeopleSoft self-management system for employees is not yet available in Bahasa Indonesia, employees – who often times lack high-school education – find it hard to operate the system. It is therefore that employee data still is recorded on pen and paper basis and later transcribed to the electronic PeopleSoft application by HR managers such as the interviewee. This especially applies for most of the employees working in the production facilities across Indonesia. According to the interviewee, these employees often don't have access to personal computers with internet connectivity. Next to the performance management system described above, Reckitt Benckiser has outsourced the payroll process to the multinational consulting

company Mazars in 2006. Employee data is submitted to Mazars on a monthly basis. Mazars then analyses the data, calculates gross and net earnings and submits full payroll reports back to Reckitt Benckiser. These reports are the basis for monthly payments to the employees. Prior to outsourcing the payroll process to Mazars, payroll data was edited and processes via Microsoft Excel.

Taxation related issues are handled by Deloitte and are not integrated with the payroll process. According to the interviewee, next to the switch to electronic payroll and performance management, Reckitt Benckiser Indonesia plans to shift towards an electronic leave management system, which is developed in cooperation with the company's IT department responsible for the South-East Asia region. The current leave management system is paper-based; employees fill in their leave forms and forward them to the HR department. According to the interviewee, this system creates heavy bureaucratic burden.

<u>Factors for e-HRM adoption</u>

Communication

According to the interviewee, the switch to electronic HRIS was initiated by corporate headquarters in London. The change instruments as well as the processes were clearly communicated top down to management directors in the Indonesian subsidiary. The PeopleSoft system was explained and elaborated. Communication to employees occurs through various channels. On the one hand, whenever grand scale change is scheduled, employees are contacted via email and invited to take part in online training sessions during which the handling of new processes and applications is explained. On the other hand, informal channels or semi-official events such as

"monday coffee breaks" or *"fun fridays"*

are used to communicate e-HRM on a mouth to mouth basis. The e-leave program, as presented above, was communicated via email, with an invitation for online training courses attached to the email. Moreover, novel applications or processes are also presented to a selected group of employees in large meeting rooms. Feedback from employees, so the interviewee, is welcomed and occurs on a rather informal basis at the interviewees office. Additionally, feedback loops with the PeopleSoft programmers are also in place.

Resources available

The fact that the Indonesian subsidiary is connected to the South-East Asian IT department seems to be beneficial for the development and implementation of e-HRM tools and processes. So does the IT department for example

"come over if there is a problem".

The IT department also steers the development of the upcoming e-leave system and stands in good relations with the HR department in Jakarta. According to the interviewee, the IT department also designed the new system in such a way that it could satisfy the needs of the subsidiary's managers. When asked what other forms of HRIS competing firms in the industry use, the interviewee expressed that SAP systems seem to be of better quality and more suitable to fulfil the needs of the Indonesian subsidiary. However;

"SAP is more comprehensive, but the cost for implementing SAP is too huge".

The local HRIS, so the interviewee has also been chosen, because it is a cheap, but powerful alternative.

Cultural influences

One of the biggest drawback for implementing the PeopleSoft platform across the whole Indonesian subsidiary and for making it available to every employee seems to be the language barrier. There are only few employees who fluently speak English. The majority of employees thus struggles to handle the online PeopleSoft environment. This environment, so the interviewee, is not yet translated into Bahasa Indonesia:

"we only have English, Italian, and now we have also Malay. We were requesting Bahasa Indonesia, but that is not yet approved. Maybe its because they think that Indonesian is the same as Malay".

Hidden in the quote is also the interviewees assumption that the corporate management does not unilaterally understand the cultural differences between countries in South-East Asia. When asked, when in the interviewees opinion a full transition to e-HRM services is likely to be achieved, the interviewee replied with:

"To make it more country specific, it really takes more time – maybe 4 more years...". In this light; *"making it country specific, they also need to understand all the differences"*.

Management support

Generally, it can be assumed that since the decision to introduce PeopleSoft and to outsource HR-related services was prescribed in a top down manner, top management was also supportive of the idea as such. Yet, talking about possibilities to improve the current e-HRM strategy, the interviewee stated that the corporate structure is

"very hierarchical and no one knows how long it will take until management can decide".

However, when referring to the initiative to establish the local HRIS, the interviewee claimed that

"my boss really supported this".

Skills and knowledge related to e-HRM

As already stated above, the majority of employees at the various production sites in Indonesia are not prepared for using the automatic PeopleSoft system. Partly due to language barriers, partly because they lack general computer skills or have no access to the hardware. However, the interviewee stated that in his case, he was especially hired because he was experiences with e-HRM tools and Microsoft Access. Because the local HRIS was designed and implemented by the interviewee, it can be assumed that his skills, as well as the skills of his fellow colleagues who use the system on a daily basis, are sufficient to handle the switch to a full-blown e-HRM strategy.

External influences

According to the interviewee, a switch to e-HRM processes is , with view to general economic pressures, inevitable:

"We cannot survive two minutes in the year 2013 with the old processes. We make decisions based on that [the performance management data]".

At the same time, competitors in the industry even went further to adopt e-HRM based on SAP, which in his eyes is more sophisticated than the PeopleSoft system. When asked, how the interviewee would improve the system to match the challenges of the economic environment he straightforwardly replied

"we need to make it faster".

Other external influences the interviewee mentioned were the special character of taxation and legal obligations in Indonesia, which do not make it easy for companies to operate in Indonesia. Interestingly, the question of whether there were pressures from the industry to switch to a HRIS has been denied. In contrast, the interviewee clearly stated that

"its mainly corporate headquarters who decide what to implement".

4.7 ANZ

The ANZ group (Australian New Zealand Banking group) is a multinational financial institution that is headquartered in Melbourne, Australia. ANZ operates in more than 32 countries and is planning to further strengthen its presence in the South-East Asian region. ANZ controls assets of 531,74 billion Australian Dollars and is thus the fourth largest financial institution in Australia. In New Zealand, ANZ could secure the market leader position. ANZ's 48.000 people look after approximately 8 million customers worldwide. In 2011, ANZ increased its commitment in Indonesia through acquiring a 99% majority of the local Panin Bank. A total ownership, however, is, with view to Indonesian venture law, debarred. ANZ Indonesia employs around 1.200 permanent employees and an additional 2.000 contract employees.

At the country head office in Jakarta, we were able to talk to the head of HR services, who is responsible for handling recruitments, HR operations, HR projects as well as managing payroll processes for ANZ's permanent employees. Before starting his career at ANZ in 2008, the employee gained experiences in handling the adoption and implementation of e-recruitment processes at another Indonesian financial institution. In 2012, shortly after having acquired the real bank of Scotland and thus doubling the headcount of the organisation, ANZ Indonesia has adopted the sophisticated HRIS PeopleSoft. According to the interviewee, this step was made because the company realised that

"if we don't adopt any online system that can support us [the human resource department], we will end in so much administrative work, which is not ideal".

Moreover, the interviewee explained that:

"We really need the system, because the bank is getting bigger and we hire more people. If we maintain manual processes, it will be hard for all of us. We can't handle the situation anymore. Online system always works the best if you know how to use it. It works the best if we employ thousands of people and if we employ people that sit in different geographies. The way to connect the people is through online. Imagine that people sit in Surabaya and they have to fax their everyday leave requests to Jakarta. This is not efficient".

The search for a suitable HRIS that would accustom the special needs of the Indonesian subsidiary already started in 2010. Yet, it was strongly influenced by the fact that the parent company in Australia had already adopted a well-functioning PeopleSoft system. The interviewee explained that:

"We chose PeopleSoft because it is a global system and so many companies use

PeopleSoft as well. It was also much easier to use the same system as the parent company".

In 2012, ANZ Indonesia finally implemented PeopleSoft. Within a six to eight month period, the initial PeopleSoft model was tailored towards the subsidiary's needs. Previously, so the interviewee, ANZ Indonesia managed the administrative task of the HR function on pen and paper basis, which was "rather primitive". After having implemented PeopleSoft,

"everything that has been based on pen and paper is now managed online through the system".

The PeopleSoft application consists of three main modules "e-leave", "workforce administration" as well as the "recruitment model". The system at ANZ Indonesia enables all permanent employees from any location in Indonesia to file and manage their leave requests online. Leave status updates are notified through the system via email. The so-called workforce administration is a database compiling personal/ job information. Employees have access to the systems and can add or change their personal information. Some information, however, can only be changed by HR administrators. Marital status updates for example require certificates, which are still processed manually by HR personnel. Yet, medical documents to proof sick leave can already be attached online by the employees themselves. Employee mobility as well as contractual agreements are also managed through the workforce administration module. The PeopleSoft HRIS for the Indonesian subsidiary is a local build because according to regulations of the central bank, the storage of sensitive banking data is only permitted on Indonesian ground and can thus not be outsourced or transferred to an overseas location. The recruitment module simplifies the communications between hiring managers, recruiters as well as line managers. Hiring managers specify the position's recruitments online, which can be then be sighted by recruiters who search for candidates matching the position. Aside this system, ANZ Indonesia has adopted an HRIS for managing the payroll process as well. This payroll system, called Delphinos, has been introduced in 2009. It is a local build by an Indonesian service provider. Delphinos is not integrated into the PeopleSoft modules. The interviewee explained that:

"The PeopleSoft module is too expensive. It requires also a lot of data preparation. Having the three modules was already a lot of work, and we already took a risk of implementing the three modules at once. Including the e-payslip system. The payslip is directly sent to the email address. I think not many companies are using this tool. Sending the payslip is a risk to confidentiality".

Employees can voice their feedback through the application "my voice", where

they have an index section for criticism or suggestions. Employees can log into the system and fill-out the annual corporate survey online. My voice uses worldwide data and is coordinated by the head office in Australia and is operating since spring 2013. Employees can also file help requests via the "people assist centre". The people assist centre is the first point of contact for employees and reachable via telephone or intranet. ANZ Indonesia is also connected to the global intranet were policy documents and diverse corporate information is stored. A local intranet, based on Microsoft's share-point, is also in place. Referring to the wide range of different HRIS, the interviewee stressed that:

"I think it would be really good to have one single platform of HRIS but I think it would be really hard because first of the money and, second, there is some information that is handled locally and it is somewhat tricky to combine these different data sets into one platform, especially considering the financial regulations".

The performance management process is still managed manually for most parts. Line managers fill out their KPIs and balance scorecards, which are then assessed by manager. The calculations, however, are done via the system. Access to these features is only given to supervisors and management personnel.
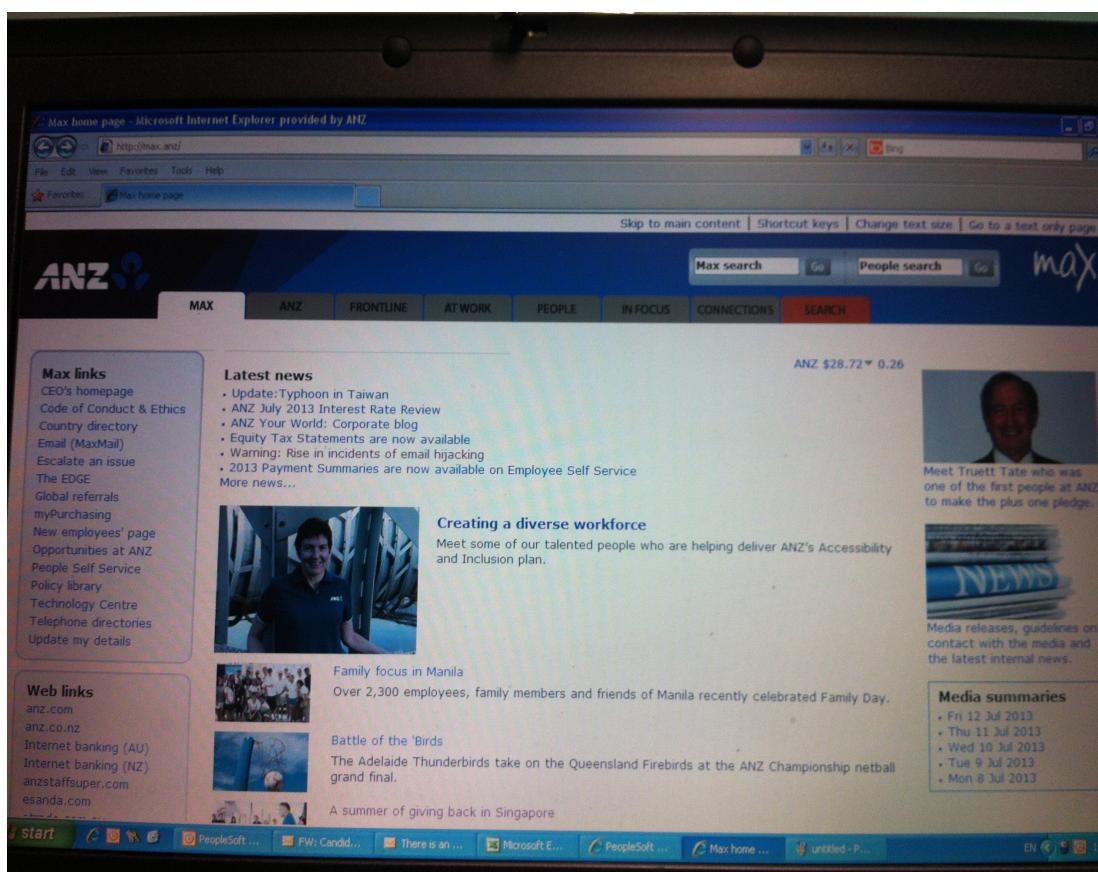

Figure 5: Intranet at ANZ

<u>Factors for e-HRM adoption</u>

Communication

ANZ Indonesia heavily communicated the switch to PeopleSoft using most of the communication channels at hand. First, announcements were sent to all permanent employees using the weekly email newsletter. Second, 200-300 employees were invited to take part in two hour training sessions. It was expected that those who took part in the trainings would explain the system's functions also to their subordinates. Third, and this is striking, ANZ Indonesia directly communicated the benefits and the functions of the systems through placing marketing material on desks and in hallways. The HR department also hosted little quiz sections. Employees who could rightly answer questions related to the PeopleSoft system were given little gifts. The interviewee explained that

"we did everything we could in order to make the people aware of the system".

Figure 6: People Soft advertisements at ANZ Indonesia

Resources available

According to the interviewee, resources are approved by the regional office in Singapore, which decides on allocations on the basis of headquarter's mandate. Budgetary allocations are decided upon during panel talks, where all projects and assessments are being brought to. An indication for the availability of budgets is the following quotation:

"For this project [the adoption PeopleSoft] we really fought hard for its implementation. We convinced them that if we use PeopleSoft it will help a lot with the processing and the administration".

The plan for the future, so the interviewee, is to keep the existing modules and to enhance the system so that it gives more convenience and is more user-friendly. Also they would like to integrate medical-claims. Moreover, the interviewee explained that in the first six month,

"we had a lot of problems. I think the issue is that some people did not want to try and explore the system by themselves. Assisting those was hard because we have very limited HR headcount here".

The interviewee also indicated, that acquiring the PeopleSoft payment system that would directly integrate itself with the other PeopleSoft modules was too expensive. It is therefore that ANZ Indonesia decided to adopt Delphinos as an alternative.

Cultural influences

Concerning the organisational culture, the interviewee saw the problem that some employees are not change-oriented:

"We need to do a lot of socialisation, a lot of briefing and a lot of education. That is the challenging part for us. It is a matter of trying new things. We still find it quite challenging in terms of people taking initiative and pushing them to want to explore the systems. They actually have to do it, but some people still prefer to call us for help. We want to get the culture more change oriented. When it comes to online systems like this, some people are just ignorant."

Yet, according to the interviewee, ANZ embraces the input and feedback of their employees:

"We always listen to what people have to say. Their inputs and feedback helps us to go forward. I think with the feedback, we know how people feel with the new system".

Skills and knowledge related to e-HRM

When asked whether the systems require certain skills, and whether the organisation's employees possess these skills, the interviewee explained that the systems are easy to handle for people who generally have dealt with computers before. He was positive about the employees' capacity to work with the systems given to them.

External influences

The context characteristics of the Indonesian legal framework influence ANZ's possibilities to design the systems. Outsourcing databases and transferring local data

to offshore locations is, as indicated above, not possible. Moreover, the spread of HRIS across the whole organisation and the economic trends of the market influenced ANZ Indonesia to opt for the PeopleSoft solution.

4.8 Oxfam

Oxfam is a non-governmental development organisation with the goals of reducing worldwide poverty, securing and enforcing human rights and asserting the dignity of human beings across the globe. Starting its operations in 1942 as the Oxford Committee for Famine Relief, the organisation has expanded its reach globally and now connects 17 independent organisations in more than 93 countries. Oxfam's action catalogue comprises of classic development work, poverty aid, lobbyism as well as creating economic added value for small business owners or farmers in the poorest regions of the world. In Indonesia, the Oxfam affiliate is based in Jakarta and responsible for managing the organisation's Asia program. The reporting authority for the Jakarta office is the Oxford based headquarter. At the country office in Jakarta, we had the chance to speak with the country HR manager for Indonesia. The interviewee explained that since 2012, the Oxfam organisation is attempting to centralise its operations under the go-live system. While prior to 2012, every country worked independently, Oxfam plans to erect the Oxford head office as the central planning and decision-making entity. The interviewee further explained that

"even in Indonesia we had five Oxfam organisations here; Oxfam Great Britain, Oxfam Indonesia, Oxfam Australia, Oxfam New Zealand, Oxfam Hong Kong and Oxfam in the Netherlands".

However, so the interviewee,

"having one system will not start in one or two years".

When asked about his feelings towards a centralised Oxfam entity, the interviewee responded with

"you know we have jargon, its a single management system, but now we have the feeling that it is not a single system, but in our feeling it is a separate management system. We are still to find the shape of the system, the shape of the organisation – everything".

In terms of the adoption and implementation of a HRIS, since 2008, Oxfam is using a PeopleSoft application called Gold. The system comprises of a record of all employee data, a payroll system as well as a system for managing medical

reimbursements. Next to that, Oxfam has adopted a system called iGrasp for managing the recruitment process. iGrasp is online since 2005 and enables that vacancies can be displayed online and candidates can upload their personal data via the recruitment page. This system, however, is not integrated with the PeopleSoft system. In terms of the payroll procedure, according to the interviewee,

"for the practical, we still use the Excel sheet between HR and finance. Also for the communication with the regional offices, we will send the data to the regional and to the country director for approval of the payroll. After that we input the data into the local payroll report in the Gold system. Then, UK can check the payroll".

The interviewee explained that for the UK office, the advantage is to be able to sight and process the data. For regional managers, the ability to summarize, print as well as report the data that is stored in the system, is a plus as well. Considering the medical reimbursement process, the interviewee explained that the process is a mixture between electronic/manual work for employees who need to send their requests first to HR personnel on paper basis who then approve the requests and create respective data entries in the Gold system. Next to these systems, Oxfam has also implemented an international intranet which is called Sumus. Besides this, the global KARL system supplies employees with the global policy and important insights into the workings of Oxfam. All the systems are provided by Oxfam in the United Kingdom. Due to fact that the software supplier of iGrasp went bankrupt, the head office has already planned to shift to another solution for managing the electronic recruitment process. Prior to adopting the PeopleSoft Gold system, Oxfam has used Lotus notes to store and manage basic personal data. In terms of the reasons for the implementation of the systems described above, the interviewee explained that

"I think the purpose is to be more effective in the work. With the system you get good support and it makes life easier to work".

Generally, the decision to adopt or not to adopt a certain system is made by the head office based in Oxford, England, and country offices have to follow suit. HR managers have a confined scope to voice their feedback:

"I give some feedback for the iGrasp. For example, when we locally hire only Indonesians, but the advertisement is made visible for everyone around the world. So we get all the applications from the world. This is too much work. We wanted a barrier, an option we can click in the system that this position is just for Indonesians. But nothing happened so far".

In terms of communication of the systems, the interviewee explained that the switch from Lotus notes to the PeopleSoft Gold system was mainly announced and communicated via email:

"Last time when the process migration from Lotus to Gold was taking place, actually HR people from the international office got the news just by CC in the email communications. But the person in charge to implement the system and to organise trainings, he received special, more elaborate, email communication. Regional officers therefore got most of the information. And then regional officers forwarded the communication to country levels".

The interviewee further explained that regional office had provided training for the HR staff. Training sessions were initially held in Bangkok, later via Skype. The interviewee received a total of two training days, while his colleagues who were trained online received four days of training. HR officers were also subject to assessments after the trainings were conducted. According to the interviewee, skills related to the handling of the HRIS in place are not obligatory. He explained that if

"there is a new employee, we will provide inductions and training".

The company would, however, prefer to hire candidates who understand the Oxfam culture and organisational objectives and who have some previous HRIS skills. In terms of management support, most decisions and backings originate from the head office:

"Decision-making is always from top to bottom".

Resources, the interviewee explained, are all provided by the head office in the UK.
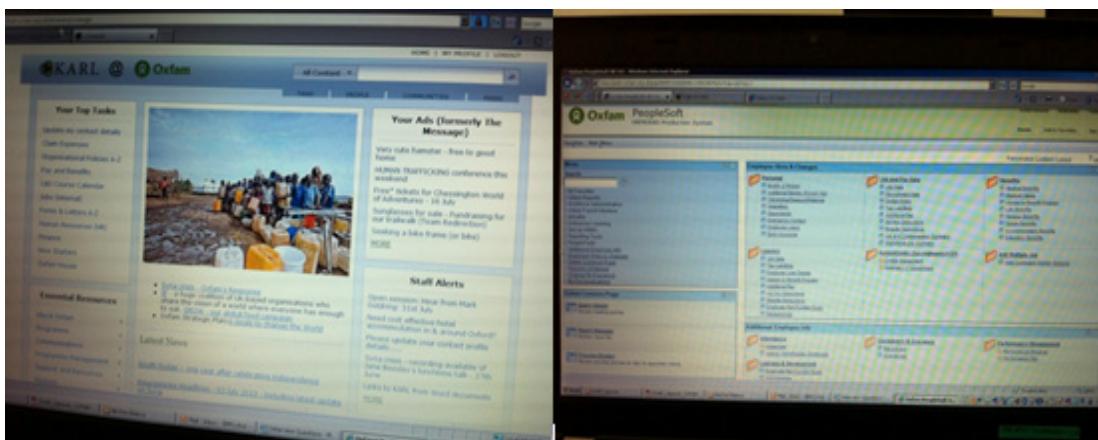

Figure 7: People Soft Gold interface & Oxfam intranet

4.9 Kievit

The Netherlands-based company operates in the sector for food additives. Kievit's main production lines are based on the encapsulation and dry-cleaning of food additives, such as foamers, fat or oils powders, cocoa-based powders as well as nutritional oil powders. As being a 100% daughter of Friesland Campina, the fifth largest dairy company in the world, Kievit has also extended its reach to Salatiga, Indonesia. The subsidiary mainly operates in a B2B partner network, employs roughly 250 employees and heavily relies on robotically aided factory production. The Indonesian operation started in 2005 on a project basis. In 2009, the subsidiary has shifted towards a profit driven organisation and is now fully embedded into the organisation's structure. At the location in Salatiga, the research team had the chance to speak with the HR manager responsible for the adoption and implementation of the HRIS at Kievit.

According to the interviewee, while the parent company Friesland Campina uses a SAP system for managing its HR functions, Kievit relies, due to its medium size, on a simple system produced locally. Titled Sunfish, the HRIS is used for payroll processes, leave and reimbursement management as well as for displaying and managing personal data. Access to the Sunfish system is granted through the local intranet, which, furthermore, functions as a portal for company policies as well as newsfeeds. Administrative access to the Sunfish system is still only granted to HR administrators, implying that data is collected manually via forms and Excel sheets and then manually stored into the Sunfish system. While technically the system is capable to grant access to all employees, the current lack of trust towards employees necessitates a controlling function of the HR administrator:

"The system can, but we still do not trust our employees. In the current situation we force the employees to the office to get approval for HR matters. If they do not come five times, we can fire them. By doing it with the system, if they miss out, they will also need to come to us. But then we have to do it two times. We still need to educate our employees".

According to the interviewee, a self-made training application complements the functions of the Sunfish HRIS. This training system has been developed and designed by the IT department and contains information on employees' training progress and offers recommendations about which employees qualify for extensive trainings. The HR administrators can, by falling back on the data stored in the Sunfish system, create sophisticated reports that are then forwarded to the head office in the Netherlands for reporting purposes. The Sunfish system has been in place since 2009. The training application followed a year later in 2010. The reasons for the adoption of the HRIS at Kievit are twofold. First and foremost, the adoption

of the HRIS was meant reduce the bureaucratic burden of the HR function and contribute to transforming the company into a paperless operation. Furthermore, the interviewee explained that being able to create reports based on the data stored in the system simplifies the reporting and internal auditing process. Kievit plans, so the interviewee, to roll out basic system access to all its employees not before 2015.
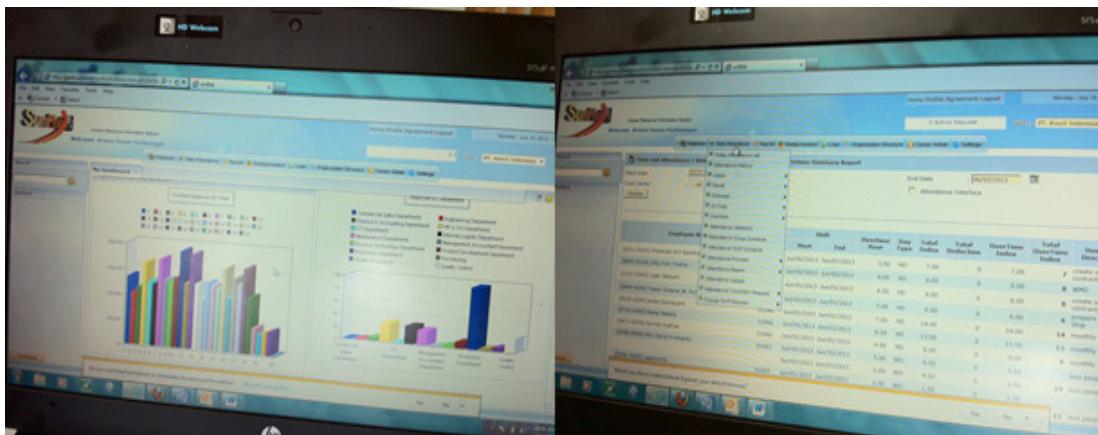
Figure 8: Sunfish interface at kievit

Factors for e-HRM adoption

Communication

Because the interviewee and his superiors were directly responsible for sighting and later implementing suitable the HRIS, there has also been communication about the system itself as well as its benefits prior to the actual adoption. The HR team discussed the pros and cons internally and feedback was sent to the management level which approved the system. When asked how potential new systems would be communicated to the employees in the future, the interviewee responded that

"communication for the employees is very easy, because here we have Pandopo meetings where everybody gets together every six month. We also have magazines. We can also put it there and we have an announcement board and televisions in the company. So we have many channels to communicate".

In the semi-annual meetings, the interviewee plans to also communicate the benefits of the HRIS.

Resources available

The presence of an in-house IT-department can be counted as a resource that is close to hand. Moreover, as indicated by the interviewee, Kievit increased the

HR headcount in order to adopt and implement the HRIS. Budgetary allocations are negotiated on a yearly basis:

"Every year we will submit the HR budget at the end of August. If we would like to add, review or get a new system, we use this budget. Every August we will have discussion here and see what we need".

It can therefore be assumed that Kievit places strong emphasis on allocating resources in order to transform the human resources function. However, a negative point is that not every employee has a company email account yet.

Cultural influences

The interviewee stressed that generally the company is very innovative and thus can properly deal with uncertain situations. However, he explained that Kievit has a project-oriented culture:

"The company was a project only. From 2005 – 2008. They set up the production in 2009 and changed to a profit organisation. But the culture is still about the projects. They are therefore very good to complete projects, but they don't know how to develop the people".

In order to change internal processes, the interviewee explained that

"if I would like to change the systems I need to get approval by the managers. The culture in here means that you need to put everything into a project".

Moreover, the organisational culture is very goal oriented:

"At the end, if we are not achieving the targets, we will get a problem with the head office".

Employees, so the interviewee, do not have a say in the design and implementation of the systems:

"If we do this, the system will never run. Too many cooks spoil the broth".

Management support

As described above, management is supportive when it comes down to HRIS adoption and implementation. Based on his previous experiences, the interviewee was especially hired to drive forward the adoption and implementation of e-HRM. Budgets can furthermore be allocated to the HR department to support the process.

Moreover, the fact that headquarters did not dictate what systems to adopt, can also be seen as a supportive gesture.

Skills and knowledge related to e-HRM

Speaking about skills and knowledge, the interviewee has experience with the implementation and use of HRIS. Generally, he indicated that the employees at Kievit are well educated. The lion's share of the employees have bachelor's degree or higher, which results in high rates of computer literacy and understanding of the necessity to shift to an e-HRM model. According to his perception,

"for me there are no special skills needed. You have to know how to use a computer. Also the language will be English and Bahasa Indonesia. Also we train our people".

External influences

Concerning external influences and pressures from competing companies, the interviewee replied that

"I don't care about other companies. What I care about is that my team is fully active with the systems. I want the system to make the life of my employees easier".

4.10 Formulatrix

Formulatrix is a company that provides automated protein crystallisation solutions to its customers. The company was founded in 2002 and has its headquarters in Waltham, Massachusetts. Amongst its customers are leading pharmaceutical companies and academic research institutions around the world which are provided with software and robotic automation solutions. Formulatrix Indonesia is located in Central Java and was established in 2006. Just like its American counterpart, its business focuses on engineering and software development. At the time of writing the Indonesian office of Formulatrix employs more than 95 full-time employees. According to the interviewees, Formulatrix employed around just 50 employees before 2009. At the time, human resources managed their employees without the help of any sophisticated system. Namely, Microsoft Office has been used in order to carry out simple management tasks such as tracking employees' personal information or creating forms and letters that employees needed. It was not before 2010, that the company made contact with its first out-of-the-box management software Krishand. Krishand is a local Indonesian payroll system, which can track an employee's attendance and update the employee's salary. However, it is not integrated with the rest of the tasks carried out by human resources. That is why the company only used this system for four months and decided to implement its own system. In 2012, quite

recently, Formulatrix developed its own HRIS they simply call "employee information system". The system is an online system, accessible by username and password from any given location. It features functionalities such as a calendar for national holidays, which allows employees to easily check when they have to come for work or how to plan their holidays. Moreover, the system allows HR to upload news or announcements through the employee information system as one of the various information channels. The system also incorporates a recruitment module, which features multiple choice testing. It has recently replaced an external testing system for new applicants, which had been in use since 2006. If online applicants fail to reach a certain amount of points in the multiple choice test, they will be automatically receive an email stating that their application has been rejected. The system helps with the initial filtering of applicants, the actual recruitment and selection is still done manually. Also, the system manages any kind of employee information from name, date of birth, ID, to religion and salary, but also the employees' insurance information including the employees' past medical expenses. Once a new employee is hired, HR enters the data manually into the system. When the data is in the system it is kept up-to-date by either the employees themselves or HR. In addition to the detailed employee information, Formulatrix' system also includes a payroll module. It covers the history of payment, a loan section and a system which helps preparing the employees' tax payments. The tax payment, however, is handled by an external party and not by the system itself. Yet, the system is able to create a file that can be uploaded directly to the bank in charge of the tax preparations. Another feature of the employee information system is the promotion module, which allows HR to easily promote or demote its employees. The promotion system then again is linked to the payroll system and automatically updates an employee's payment. Apart from payroll, the system can also broadcast announcements such a news about marriage, death and birth related to the company's employees, or create letters and forms from existing templates. Also, the system takes note of the employees' leave time and attendance by receiving data from the company's fingerprint sensors. One of the system's final tasks is to manage employees' leave-job time. The system allows employees to digitally fill out a form and thereby register when they have to leave their job unplanned. A notification will automatically send to HR. Once a leave has been approved by HR, the information will automatically be passed to security outside of the office. Last but not least, the employee information system includes an inventory module that allows the easy tracking of tools borrowed by the employees.

Factors for e-HRM adoption

Communication

Formulatrix has a strong emphasis on communication. The implementation of the employee information system has been communicated gradually to the

employees. However, before that, the system has been tested between IT and HR by trial and error. After a successful test run among a small sample of employees, the system has been communicated to a larger batch of employees before it was communicated to all employees. Feedback is a central element during the phase of implementation. Formulatrix ensured to make it as easy as possible for its employees to voice their feedback. With the help of online surveys and review meetings the new system was designed according to both the needs of HR and the employees.

Resources available

The resources in Formulatrix can be considered very limited on the one hand, but rather rich on the other hand. This is because, of the limited manpower in HR (3 persons) and IT (2 persons) that is available for the development of the HRIS. Despite the good collaboration between HR and IT one cannot neglect the fact that it took about one year to implement the basic functions of the employee information system and many additional months for its incremental development. The person responsible for the programming of the system, however, is a

"very skilled and resourceful"

employee. Despite having a limited budget and time, he managed to create the system nearly by himself and to address all the feedback he has gotten from both HR and the company's employees. With the help of ebooks, the in-house software engineers, an informal network and the internet, he created what can be called a sophisticated HRIS. Formulatrix considers the third party systems like PeopleSoft or SAP to be not reasonable in price in relation to the size of their company.

Cultural influences

Formulatrix has an open culture that positively influenced the implementation of the employee information system. The interviewee stressed the fact that Formulatrix is trying to

"improve itself no matter the circumstances".

Their aim as a company is to

"combine its available skills with the goals of the company".

The company does not have or want a long hierarchy and promotes open communication and joint problem solving. This is also represented by the fact that the company based its payments on output. In order to keep the open and flexible culture, Formulatrix only hires employees that they consider a match with the

company's existing culture.

Management support

      The human resource management of Formulatrix is very supportive regarding the HRIS, because the head of human resources, recently joined the company in order to implement more efficient systems that enable the managers to spend quality time with their employees instead of

"wasting six hours daily in order to meet people for bureaucratic reasons".

Efficiency

      A main reason for the interviewee to implement the HRIS was to increase efficiency especially in the light of the fact that the human resource department consists of three employees only. The manual work took too much time for the HR managers to fulfil their tasks due to the increasing number of employees. The multiple choice system for example saves the time to check the CV of applicants who failed the online test.

External influences

      According to the interviewee, the external influences from e.g. competitors play a minor role for the implementation of the HRIS. The company itself

"strives for the better"

and tries to be as efficient and effective as possible without taking into account the pressure from outside.

4.11 Sampoerna

      The company is a tobacco company and has been acquired by Phillip Morris in 2005. The reason for Phillip Morris to acquire HM Sampoerna was, that Sampoerna had a strong local identity and position in the market. Phillip Morris could not successfully penetrate the market and thus decided to take over Sampoerna. Sampoerna is currently the market leader when it comes to the volume of cigarettes produced. They have a market of 36%, 5 brands are in the top 10 of the market and their production is about 115 billion sticks per year. Sampoerna makes use of various forms of information technology for their daily human resource operations. In 2007 Sampoerna started integrating a system called PeopleSoft, which replaced the old, mostly paper-based system PAM (Personnel Administration Module). PAM has been developed in-house and has been in use since 1994. Although PAM also made

use of computers, the system was not integrated into the company very well, which made the additional use of paperwork a necessity. PAM has been mostly used to lower the administrative burden of the company and not to analyse data and create information from this data. PeopleSoft consists of a main database (implemented 2007) and a self-service module (implemented 2008). The PeopleSoft software bundle can affect up to 40.000 employees (thus: every employee of Sampoerna). This is the case for widely integrated systems like e.g. e-Leave, e-Payroll and e-Attendance. Other systems belonging to PeopleSoft, however, do have a more defined reach of e.g. 10.000 employees. This is the case for e-CIT, since it is a relatively new system. PeopleSoft consists of various systems like e-PAF (electronic personnel action form). E-PAF allows the HR managers to directly input data into the HR database. Once the data has been submitted it will either be approved by the higher level managers or flagged for revision. Another system integrated in PeopleSoft is called e-Payroll. It allows the company's employees to access their salary slip online. It provides rich information to the employees and was welcomed with very positive feedback of the employees. This is mostly, because the system makes it very convenient for the employee to check their salary information and saves them employee a lot of time. E-Profile is a system that empowers employees to update their personal data (e.g. name, address, etc.) and e.g. pension contribution. It saves the company a lot of money, because the information does not have to be passed on via paper. Moreover, the process of updating the personnel information has become less time-consuming. E-Leave is a system that allows to register a leave from the company and to show, for example, how many days leave are available to the employee. E-CIT is a system that has been implemented in order to give employees the possibility to voice their suggestions, feedback, complaints and questions. It functions as a forum where topics can be posted. It has been implemented, because sometimes employees do not have the possibility to reach HR via email and phone. A team of 9 people (for about 10000 employees) has been established to handle the incoming requests, questions, etc. Also, the company provides publicly accessible computers for the employees to log into the CIT system. In the recent past (mostly) female employees have been suggesting to stop smoking in the company building. Because of that, as of last week it is forbidden to smoke inside the company building. E-Attendence is a system that has been implemented in order to handle working hours and overtime. The system itself is not visible for the lower level employees (just through the card that the employees use to check in and out). E-Learning is a system which is still in its implementation phase. It will be a platform that allows to provide training through the use of technology. The exit questionnaire provides feedback to the company about people leaving the organisation. Last but not least, Sampoerna implemented the so-called e-letters. Because sending letters from one part of the company to another took very long and was not effective (letters getting lost), not to mention the high costs, an electronic letter system has been established. Managers and employees

receive letters through the system and can print them on their own behalf.

In a nutshell, despite all the systems being implemented under the brand PeopleSoft, the transition from a paper-based HR to a completely electronic approach is still going on in the lower levels of Sampoerna. The system PeopleSoft has been implemented in 2007, its self-service module in 2008. It took about 2 years until the system has been successfully implemented and showed positive results.

Factors for e-HRM adoption

Efficiency

Sampoerna decided that its business needs have changed and that the old system had to be improved. The new system is able to better track employee movement and transactions. Sampoerna implemented PeopleSoft in order to facilitate their internal business processes, especially through the empowerment of the HR managers. PeopleSoft allows the company to save substantial amounts of time and to work more efficient.

Communication

Sampoerna uses various channels in order to communicate the implementation of new innovations such as PeopleSoft and its underlying systems. The communication takes place via intranet, TV, radio broadcast, magazines, stand-up displays, banners in the building, meetings, the exchange of information among offices. There are different channels for different levels in the organisation. Also the benefits have been communicated to employees and managers. The new system is more efficient and saves a lot of resources like time and money. The systems are designed in a user friendly and straight forward manner. Moreover, Sampoerna received feedback from its employees concerning the HRIS. The feedback through e.g. e-CIT has been very positive, because e-HRM facilitates the processes and saves time for employees. Apart from the communication between HR and its employees, the communication between HR and IT can be considered very good as well. HR can tell the IT department what they require and IT will assess the requirements and vendors. IT will work together with PeopleSoft in order to implement and customise the system.

Resources available

The organisation set up a team consisting of people from HR, IS, PMIHR, PMIIS, experts. The project team is called "new horizon". Resources for PeopleSoft were given from headquarters and cannot be considered to be limited when it comes to the implementation of the required features of PeopleSoft.

Cultural influences

Sampoerna is a company that embraces uncertain situation by constantly

innovating. Change and uncertainty is not seen as a bad thing but as important. According to Sampoerna

"change is the every day meal".

The top level decisions are being made by Philip Morris itself (e.g. the implementation of SAP beginning in the future), but despite that, Sampoerna is very free to take every decision themselves. Sampoerna is open for new innovations and ideas. Due to its drive for perfection, the company welcomes ideas that support change (see company logo, 3 needs/parties to be fulfilled and satisfied). Basically everything that brings the company forward will be heard through the various channels available. Feedback is monitored from internal as well as external customers in order to reach the highest quality possible.

Management support

The company is very open and supportive towards e-HRM. It implemented various systems of e-HRM already. For Sampoerna, the main driver to implement e-HRM was internally. Sampoerna wants to gain more empowerment, intuitive systems, excellent integration and confidentially in order to save money and time and to increase efficiency. The company says that governmental regulations might influence their decision to implement certain systems (or its customisation) but that does not play a major part. The global management as well as the Sampoerna management are both very open to the changing of business processes if it helps the company to reach more efficiency and to save resources. The integration of PeopleSoft five years ago showed that the management is very supportive when it comes to the implementation of new systems, and the upcoming integration of SAP ("HR 2 YOU") underlines this fact even more.

Skills and knowledge related to e-HRM

The company did some research on what systems exist on the market. Ultimately, they crossed out every system that could not live up to their expectations. The system had to be able to manage tens of thousands of people, provide confidentiality, to be able to integrate with the rest of the company, be user friendly, customisable, offer regular maintenance and have a good price. Through a constant communication among HR personnel, in-house training and coaching by business partners and HR experts, the employees (HR managers) of Sampoerna can enhance their skills and knowledge related to the implementation of the PeopleSoft system and its underlying modules. For the e-PAF system it was very hard to educate the people. The reason for this is not the technology which creates problems, rather the empowerment of the HR managers itself. Before the system, the HR managers had fewer responsibilities and instead of having to input the data themselves they let their subordinates

do the work and merely gave their signature in the end (simplified). Also special skills are required to implement a sophisticated HRIS in Sampoerna. For this reason representatives of PeopleSoft have been hired to implement the system and highly customise it. Also good communication skills are required between the IS (information system) and HR department. There is a dedicated IS department for HR at Sampoerna. Moreover a special change management team has been set up in order to meet the requirements of an implementation of such a big size. The company is, however, fully capable to integrate e-HRM and has shown that by implementing PeopleSoft five years ago. Moreover, Sampoerna can learn from Philip Morris affiliates by exploiting the existing knowledge.

External influences

The changes result from the inside of the company, not from the outside. There has been pressure from the mother company Philip Morris to implement SAP for certain processes, because of the synergies that would result from a global integrated system. It is easier to maintain, more efficient and integrates better with others systems from e.g. finance.

4.12 Conclusions

This chapter has presented the results of the field research on case by case basis, paying attention to the factors that have been reported to have played an influence on the adoption of e-HRM practices at the host organisations. Moreover, each company has been briefly described. The current practices of e-HRM have also been described in order to get an overall impression of the levels of e-HRM adoption for the case organisations.

05 // Cross Case Analysis

5   CROSS CASE ANALYSIS

Whereas the previous chapter presented the results from an in-case perspective, thus in an isolated manner, this chapter intends to align the findings of the in-case analysis in order to crystallise the most common characteristics amongst the companies studied. Due to the fact that the individual cases are compared to each other, the analysis done in this chapter will crystallise characteristics that do not only apply for individual cases but depict the entire sample population. The analysis of the strength of the presence of the characteristics for all eleven companies studied will help us to generate statements about which characteristics are influential on the adoption of e-HRM and bring us one step further that the answering of the research question

"What factors influence organisations in the emerging economy context to adopt e-HRM".

This chapter further intends to refer back to the literature in order to crystallise deflection between reality and expectations. It is therefore that we report at this point the characteristically composition. A refined research model will be presented, which shows factors that were decisive in terms of the facilitation of e-HRM adoption.

5.1 Time and level of adoption

When comparing the adoption time of e-HRM innovations, the results among our sample are somewhat mixed but show a tendency towards a relatively recent implementation of e-HRM. Companies such as Aggreko, Nuffic, Nutreco, ANZ, Reckittt Benckiser, Kievit and Formulatrix first introduced a form of e-HRM between 2007 and 2012, whereas AXA and Oxfam already got in contact with e-HRM innovations between 2001 and 2005. Only Indocement and Sampoerna explored e-HRM at a very young stage within our sample, that is around the years 1980 and 1994. According to Rogers (2003), companies that implemented e-HRM innovations the earliest are classified as either innovators or early adopters. Since Sampoerna and Indocement claim to have been using e-HRM since about 20 years or more, these companies clearly represent the innovators or early adopters in our sample population. AXA and Oxfam implemented e-HRM many years after it has already been implemented by Sampoerna and Indocement, yet also many years before the majority of our sample population. Thus, according to Rogers' (2003) adopter categorisation, AXA Indonesia

and Oxfam can be classified as an early majority when it comes to the adoption of e-HRM. Last, and significantly, are the companies that just recently introduced e-HRM as a part of their business (that is between 2007 and today). The seven companies, which were mentioned above, are considerably late with the introduction of e-HRM compared to the rest of our sample and are thusly classified to be the late majority in terms of utilising e-HRM (Rogers, 2003). The companies should not be classified as laggards, because not a single company in our sample had a negative attitude towards e-HRM implementation as such.
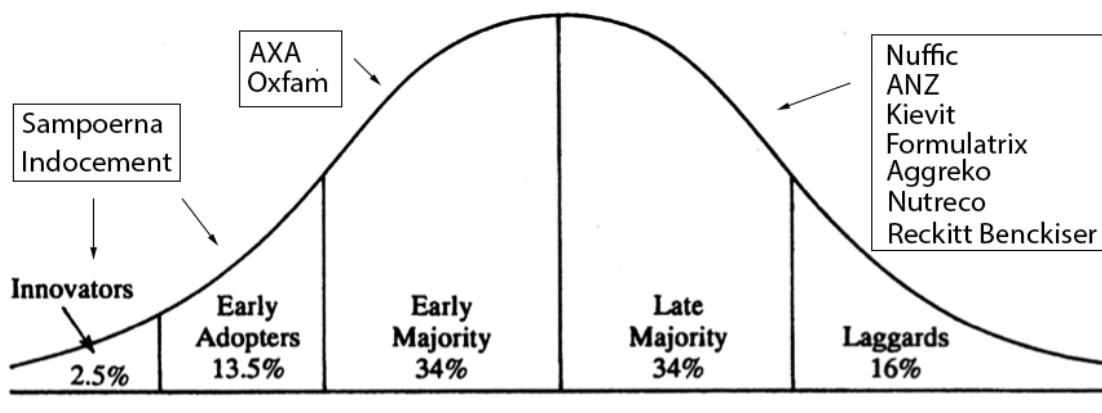

Figure 9: Sample Population classified to Roger's DOI curve

The information given above should be handled with care, because it lacks crucial information about the actual levels of e-HRM adoption. One flaw of Rogers' (2003) adopter categorisation is, namely, that it does not take into account to what extent the innovation has been adopted. The mere fact that e-HRM innovations have been adopted does not provide information about the system's sophistication. Therefore, as a next step we are having a closer look at the e-HRM implementation itself, rather than at the e-HRM adoption time alone.

Sampoera and Indocement have implemented a form of e-HRM for the longest time in the sample population. In the case of Sampoerna, computers have been introduced in the year 1994. The same is true for Indocement. Already in the late 1980s, the company partly managed its data electronically, thus combining the use of HRM and IT. However, according to Lin (1997) and Panayotopoulou, Vakola, and Galanaki (2007) the level of e-HRM back in those days can, if at all, only be described as a very basic stage of e-HRM. Thus, the technology was merely used in order to store some data and reduce the companies paperwork by a small amount. Sampoerna and Indocement introduced their first integrated HRIS not before 2007 and 2004, respectively. Thus, a considerable amount of time after the companies first made contact with e-HRM. Both of today's systems, however, can be described

as highly sophisticated, because they are integrated with all processes in human resources and serve a high strategic value for managers and top management, while in the same vein reducing the overall bureaucratic burden of the company. When comparing the level of adoption of e-HRM of Sampoerna and Indocement when they first implemented e-HRM, with Oxfam and AXA, it seems that both Oxfam and AXA have had a more sophisticated level of e-HRM when they began with its implementation. Oxfam has been using iGrasp as a tool for its managers in order to facilitate the recruitment process in 2005. According to Panayotopoulou et al. (2007) and Lin (1997), an e-HRM tool that facilitates processes and is predominantly used by managers classifies as an advanced stage of e-HRM. The same is true for AXA's HRIS called "Adrenaline" which the company first used in 2001 in order to manage its leave process more efficiently. Today, AXA is using a form of PeopleSoft they labelled "People In" in order to carry out most of HR business functions. Due to the fact that "People In" is a valuable factor in the company's decision making by managing e.g. the employees' long-term incentives and training, the e-HRM system can be classified to be on a sophisticated level. The system Oxfam is using today is also a form of the popular software "PeopleSoft" which they label "Gold". The system, however, can not be considered very sophisticated, because it mainly manages employee data, payroll and medical reimbursements. The system tries to reduce the bureaucratic burden, but still heavily relies on manual input through paper forms. As of today, Oxfam did not get further than the advanced stage of e-HRM (Lin, 1997; Panayotopoulou et al., 2007). A reason for this might be the fact that Oxfam is a non-profit organisation that faces no external pressures to increase its efficiency, but also budget limitations. When analysing the seven companies which adopted a form of e-HRM for the shortest period of time (Nuffic, Nutreco, Reckittt Benckiser, Kievit, Formulatrix, Aggreko, ANZ), it is noticeable that merely one of the companies reached a sophisticated stage of e-HRM as of today, namely Formulatrix. The rest implemented a form of e-HRM that can be described as a basic or an advanced stage of e-HRM. It seems like companies which implemented e-HRM at a very early stage in time, despite their e-HRM implementations being on a very low level, have very sophisticated e-HRM systems today. Companies which just recently started the implementation of e-HRM, on the other hand, have not reached a sophisticated stage of e-HRM as of today. There can be numerous reasons to explain this phenomenon. First, the implementation of a sophisticated e-HRM system takes time. Both Aggreko and ANZ, for example, have not had an e-HRM system as of 2012. Introducing a very complicated system takes its time and cannot be realised over night. In fact, Sampoerna and Indocement took years before they completed the implementation of their e-HRM systems. A second reason might be the sector which the companies operate in. Formulatrix reached a sophisticated stage of e-HRM in just two years, however, the company is very high tech and has a lot knowledge about software engineering. It is also noticeable that, despite most of the

seven companies not reaching the highest level of e-HRM adoption, more than half of the companies start off their e-HRM strategy with an advanced stage of e-HRM or higher. The reason for this is probably that the knowledge of e-HRM is widespread compared to the time Indocement and Sampoerna first made contact with it. This could indicate that the barriers to implement e-HRM in a business are lower today than they were in the past. The adoption instead seems to be influenced by other factors such as the size of a company and its resources. The other factors will be discussed in the following paragraphs.

Company	Level of adoption today (Lin, 1997; Panayotopoulou et al., 2007)	Time of first implementation (Rogers, 2003)
Indocement	Sophisticated stage of e-HRM	1980
Sampoerna	Sophisticated stage of e-HRM	1994
AXA	Sophisticated stage of e-HRM	2001
Oxfam	Advanced stage of e-HRM	2005
Nuffic	Basic stage of e-HRM	2007
Nutreco	Advanced stage of e-HRM	2009
Reckittt Benckiser	Advanced stage of e-HRM	2009
Kievit	Advanced stage of e-HRM	2009
Formulatrix	Sophisticated stage of e-HRM	2010
Aggreko	Basic stage of e-HRM	2012
ANZ	Basic stage of e-HRM	2012

Table 3: Stages of e-HRM adoption by company and time of first adoption

5.2 Skills and knowledge related to e-HRM

In light of the literature studied, we expected that companies who adopted an e-HRM strategy would show a strong availability of skills and knowledge related

to the handling of e-HRM. Hall (2004), for example, claimed that the amount of information actors have with regard to a certain system will influence their ability to comprehend, adopt as well as use the system. This observation has been underpinned by Panayotopoulou et al. (2007) who stressed that skilled personnel, such as for example employees with IT backgrounds, can easily understand IT-related matters and also transfer their knowledge to other people in an organisation. The statement of Lau & Hooper (2009) extended this notion through positively linking more general technical skills to the adoption of information systems. Looking at the representation of "skills and knowledge" alone, we can not draw straightforward conclusions for the whole sample which support the claims made in the literature. On the one hand, we frequently heard statements giving the impression that sophisticated IT skills were not necessary. For instance,

"the systems are easy to use and it is easy to understand them" (Nutreco) or
"for me there are no special skills needed. You have to know how to use a computer. Also the language will be English or Bahasa Indonesia" (Kievit).

On the other hand, it was eye-catching that apparently those companies who have huge factory productions, such as Indocement, reported that mostly IT personnel, HR managers or supervisors were using the systems. Factory workers or shop floor workers, on the contrary, often didn't use the systems, because they had difficulties handling and accepting the HRIS:

"It is difficult for them, as you know, most of them don't have computer literacy. Because some of them came from lower school levels".

Also at Reckitt Benckiser, a company with grand scale production facilities, one of the biggest drawbacks for implementing the PeopleSoft platform across the whole Indonesian subsidiary and for making it available to every employee seemed to be the language barrier, because the system was not translated into Bahasa Indonesia. An interesting case considering the strong presence of "skills and knowledge" has been elaborated by the interviewees at Sampoerna. The fact that Sampoerna especially hired skilled and experienced representatives from PeopleSoft had a positive influence on the adoption as well as the implementation of the system. Strikingly, companies with an in-house IT department had on average more sophisticated e-HRM systems than those companies that did not have IT resources close to hand, which supports the claims made in the literature and attributes positive spill-overs to the presence or absence of an in-house IT department (AXA, Indocement, Nutreco, Reckitt Benckiser, Kievit & Sampoerna had an in-house IT department). What is interesting, most of the companies offered development trainings to their employees in order to teach them how to use the systems at hand. However, the scope and depth of these trainings

varied from case to case. At Nuffic, the smallest organisation included in this study, trainings had been scheduled on a rather informal "on-the-fly" basis, whereas at other companies, such as Aggreko, HR professionals were trained for three weeks in total. Yet, the fact that nearly all companies offered trainings, in whatever form, to their key users of the systems suggests that companies recognised the added value of adopting an e-HRM strategy. In isolation and seen across the sample, one can say that companies that have adopted e-HRM show no strong presence of specific "skills and knowledge" regarding e-HRM as operationalized in the previous chapter. It can be claimed that on average, the apparent ease of use of the systems minimized the risk that the adoption would fail due to a general lack of skills. If the case companies detected a need for training, lectures and working sessions were provisioned to overcome the lack. However, a full rollout of the systems across the organisation was in various cases not possible, due to computer illiteracy and language barriers. The table hereunder shows the representation of the presence of "skills and knowledge" across the companies that have adopted e-HRM in the Indonesian context. These conclusions were drawn upon the indications of the interviewees, as highlighted by the citations in this and the previous chapter as well as the presence/absence of a designated IT department. Moreover, we also considered testimonies, which directly referred to the skillsets of the employees.

Company	Presence of characteristic "skills & knowledge" regarding e-HRM adoption
Aggreko	weak
AXA	weak
Indocement	moderate
Nuffic	weak
Nutreco	moderate
Reckitt Benckiser	moderate
ANZ	weak
Oxfam	weak
Kievit	weak
Formulatrix	weak
Sampoerna	weak

Table 4: Characteristics of "skills & knowledge" regarding e-HRM adoption

5.3 Resources available

When comparing the resources available to the sample population, the results of the case study indicate that companies which adopted e-HRM had, to some extent, allocated resources specifically for carrying out an e-HRM strategy. Whereas in general all the companies of the sample, except Nuffic, used at least on two to three IT systems for supporting the human resource function, the quality of the systems as well as the integration thereof seems to be related to the resources at hand. Some companies such as Reckitt Benckiser or ANZ indicated that fully integrated PeopleSoft or SAP systems were too costly to implement at the present time:

"SAP is more comprehensive, but the cost for implementing SAP is too huge" (Reckitt Benckiser).

In the same vein, we observed that

"I think it would be really good to have one single platform of HRIS but I think it would be really hard because of the money and second there are some information that are handled locally and it is somewhat tricky to combine these different data into one platform" (ANZ).

This claim is also supported by the story we heard at Formulatrix. With regard to the size and limited manpower at Formulatrix, PeopleSoft or SAP systems were not considered to be reasonable in price. These observations are in line with the findings of the literature review. As Parker et al. (2000) suggested, the costs of system implementation indeed influenced the decision to adopt a system; at least to the extent that cheaper options of a system had been adopted. The interviewee at Nuffic showed, that even if resources were available, the ultimate decision to adopt a system is still depending on the subjective evaluation of the manager in charge:

"When I think I need another system, for e.g. monitoring the staff's progress, for example a system that automatically shows if contracts fade, then I make budget free for this. However, I usually spend my budget on more important stuff" (Nuffic).

In comparison, larger sized companies such as Sampoerna, AXA, as well as Indocement had no budget constraints when it comes down to the adoption of their corporate e-HRM strategy. Budget could be allocated if requested in the forerun. The following quotation clearly underlines this claim:

"Mostly, what the HR needs, the HR will get. Until now we did not have any problems" (Indocement).

As suggested by the literature, generally, the presence of an IT department has been valued positively across the sample and IT resources have been used in order to gear the systems towards the needs of the local subsidiaries. At Indocement and Nutreco for example, the IT personnel developed modules that were supporting the systems in place:

"But I think why they decided for a tailor made system is because we have around 50-60 IT people right now. So the resources were there" (Indocement).

Looking at the companies with labour intensive production processes, a full roll-out of the systems for all the employees was constrained due to the lack of computer literacy and more generally, the lack of public devices on the shop floor or within the factories. At this point, one can not neglect that resources are to a great extent determined by the size, the operating income of a company, as well as by the willingness of decision-makers to allocate sufficient budget. It is therefore difficult to exclude the factor size from the analysis and to judge the net influence of the factor resources on the adoption of e-HRM practices standing alone. However, the data from the interviews brought forward that whenever budget was tight, the integration of the systems in place did not occur entirely. The table hereunder shows, based on the information brought forward in this as well as the previous chapter, that companies which adopt e-HRM strategies wield sufficient resources. These conclusions were drawn based on a comparison of resources at the company as well as the operationalizations given in table 1 (availability of, human, financial, IT and technical resources).

Table 5: Characteristics of "resources" regarding e-HRM adoption

Company	Presence of characteristic "resources" regarding e-HRM adoption
Aggreko	weak
AXA	weak
Indocement	weak
Nuffic	strong
Nutreco	strong
Reckitt Benckiser	strong
ANZ	strong
Oxfam	moderate
Kievit	weak
Formulatrix	moderate
Sampoerna	weak

5.4 Management support

The data gathered from the interviews suggests that it is apparent that the decision to adopt e-HRM systems was often taken by the top management executives located at the headquarters of the organisations and not by the managing executives at the subsidiaries. This trend has been examined throughout the interview sessions and can be characterised as crucial anchor for the understanding of how e-HRM is being pushed into a company in the emerging economy context. Because of this central importance, the topic will be picked up later in this chapter. Nevertheless, nearly all of the interviewees, that is the executives of the subsidiaries who use the e-HRM systems on a continuing basis, reported that they were convinced of the benefits stemming from the innovations and supported the adoption and the improvement of the systems. Moreover, the interviewees responsible for the systemic adoption and implementation keenly used the system, as we frequently heard, because the systems in place created added value and relieved the users of the system from bureaucratic work, reduced wait time and enabled the HR departments to focus on strategic issues. These findings were in line with the claims of the literature (Bondarouk & Ruël, 2009, p. 507; Lau & Hooper, 2009). For the sake of increasing efficiency, which will be also picked up in a designated paragraph, decision-makers were willing to free resources as this average quotation suggests:

"Usually, it [the funding of the projects] is not a problem for the managers, as long as it increases the productivity and efficiency" (Nutreco).

At ANZ, lower management levels actively pleaded for introducing more systems because they were convinced that the benefits would outweigh the implementation costs:

"For this project [the implementation of PeopleSoft] we really fought hard for its implementation. We convinced them that if we use PeopleSoft, it will help a lot with the processing and the administration".

As was brought forward by the interviewee at Reckitt Benckiser, requests to add system features were also accommodated supportively:

"My boss really supported this [adding features to the established system]".

Besides this observation, it became apparent that investments in terms of system implementation had usually to be approved by the respective headquarters and top managers with budgetary powers. At AXA, Sampoerna, Indocement and Formulatrix, additional budget was made accessible upon request which, according

to the operationalisations made, can be interpreted as an indicator for management support. In the cases of the remaining companies, general budgetary constraints – as depicted under 5.3 – probably also influenced the attitudes of top managers to dedicate resources to the adoption of more integrated and more sophisticated systems. However, if budgets would have been adequate, the interviewees indicated that more sophisticated e-HRM practices would have been welcomed. This notion is also been supported by the observations that systems updates or enhancements had been scheduled in the future. In order to draw conclusions in how far the factor "management support" contributed to the adoption of the systems, it does only make limited sense to isolate "management support" from the factor of "headquarter influence", not least because headquarters have been reported to have the ultimate decision-making power when it comes down to a system adoption. It is therefore that this debate will be taken on later in this chapter.

Company	Presence of characteristic "management support" regarding e-HRM adoption
Aggreko	moderate
AXA	strong
Indocement	strong
Nuffic	moderate
Nutreco	strong
Reckitt Benckiser	moderate
ANZ	strong
Oxfam	strong
Kievit	strong
Formulatrix	strong
Sampoerna	strong

Table 6: Characteristics of "management support" regarding e-HRM adoption

5.5 External influences

Among the Indonesian companies which have been considered in this study and which had adopted e-HRM, we did not find a strong presence of "external influences". Internal influences, such as the top-down decisions of headquarter executives, or the need to transform the companies into paperless organisations, has been a characteristic in most of the companies reported. However, there are also

exceptions to this rule. At Reckitt Benckiser we heard that

"we can not survive two minutes in the year 2013 with the old processes. We make strategic decisions based on that [the performance management data]."

The interviewee therewith referred to the rather general economic pressures and tried to depict e-HRM as one mean to stay competitive in markets that require high levels of effectiveness. At this point, however, it has to be noted, that although not frequently heard, these pressures apply to all of the companies examined in this study and should therefore not be overvalued when it comes down to depict the isolated presence of this particular characteristic. With the same notion, the representative at AXA also referred to external economic pressures that exist in the insurance sector. The talent shortage within the Indonesian insurance market necessitates the focussing on talent acquisition, training as well as talent retention; managerial functions that can only be looked after if the human resource function is relieved from bureaucratic burdens, the interviewee explained. The representative of ANZ additionally referred to governmental regulations that force companies operating in the Indonesian banking sector to store data locally in Indonesia. If this regulation would have not been in place, the interviewee explained, ANZ would have been able to further integrate the datasets generated in Indonesia into the global ANZ network. However, these regulations did not stop ANZ to adopt HRIS in the first place, but merely limited the extend and scope of integration. Although not heard frequently, the benchmarking of HRIS systems across companies within the same sector took place. The respondent at Nutreco for example outlined that

"we are not really pressured by the competition, it is more like we get inspired by what [systems] they have".

The table hereunder shows – according to the respondents narrations – that "external influences" where only partly characteristic for companies which adopted e-HRM.

Company	Presence of characteristic "external influences" regarding e-HRM adoption
Aggreko	weak
AXA	strong
Indocement	weak
Nuffic	weak
Nutreco	weak
Reckitt Benckiser	moderate
ANZ	moderate
Oxfam	weak
Kievit	weak
Formulatrix	moderate
Sampoerna	weak

Table 7: Characteristics of "external influences" regarding e-HRM adoption

5.6 Communication

In light of the literature studied, we expected that companies which adopted an e-HRM strategy would show strong signs of "communication" related to the handling and execution of e-HRM strategies. However, looking at the sample, we found that communication has not been reported to show an overwhelming presence in companies adopting e-HRM practices. However, communication seems crucial to guarantee the smooth implementation of an e-HRM system, especially when it is very sophisticated, as depicted by Panayotopoulou, Vakola, and Galanaki (2007), Galanaki and Panayotopoulou (2009) and Lau and Hooper (2009). Companies such as Sampoerna, Formulatrix, Indocement and AXA make good examples for the latter. The systems they have adopted are very sophisticated and in order to guarantee a smooth implementation the communication is accordingly broad. AXA, for example, is convinced that

"open communication with employees is key".

According to them, it is only due to communication

"that even the lowest levels of employees are able to understand what mangers want to achieve".

Typical channels of communication that are being used in order to communicate a very sophisticated e-HRM innovation, as in the example of Sampoerna, are the intranet, TV, radio broadcast, magazines, stand-up displays, banners, meetings and an informal exchange of information on the work floor. Some companies included in our sample do not really have the urge to have a strong communication of e-HRM innovations, because they have very basic forms of e-HRM, as discussed in 5.1. The insights gained from the interview with Nuffic, for example, showed that the organisation announces important changes just once or twice a year via email and does not need to utilise a broad spectrum of communication channels, because of its small size and basic e-HRM implementations. The same is true for Aggreko. The company announces important changes through its annual business plans and forgoes an extensive communication of new innovations. The most remarkable efforts to ensure a proper e-HRM system implementation, however, came from ANZ. The bank's HR department made the following statement during the interview:

"We did everything we could in order to make the people aware of the system" (ANZ).

And in fact the company was the only to place marketing material containing information about the new HRIS at the workplaces and in hallways. Additionally, they hosted little quizzes about the HRIS which has been introduced and employees who got the right answers were given little gifts. In a nutshell, communication with regards to e-HRM can be seen as a powerful tool to facilitate the implementation of e-HRM for both managers and employees. However, we did not find a strong presence of communication within the companies that have adopted e-HRM. The claims of the literature that interpersonal communications among potential adopters, competitors or peer groups, will lead to a higher adoption of e-HRM innovations did not come forward in our sample.

Company	Presence of characteristic "communication" regarding e-HRM adoption
Aggreko	weak
AXA	weak
Indocement	weak
Nuffic	weak
Nutreco	weak
Reckitt Benckiser	weak
ANZ	weak
Oxfam	weak
Kievit	weak
Formulatrix	weak
Sampoerna	weak

Table 8: Characteristics of "communication" regarding e-HRM adoption

5.7 Organisational culture

After having analysed the data from our sample, we can say that none of the eleven companies or organisations that represent our sample can be described as "being opposed to" or "repellent towards" change or innovation. Also, we came to the conclusion that having a company culture that is open for change and innovation, is not something that is determined by e.g. a company's size or resources. Rather, it is dependent on the company's individual morals and values. It is noticeable that companies that adopted very sophisticated e-HRM systems also have a very positive attitude towards change and improvement. Formulatrix e.g. is

"trying to improve itself no matter what".

The company tries to combine all its resources in order to achieve its goal and promotes an open communication and joint problem solving. The same is true for Sampoerna, which

"embraces uncertain situations by constantly innovating".

Sampoerna does not consider change a bad thing but as important as

"the every day meal".

Indocement shares the same attitude by saying

"one makes the best out of the worst".

This clearly states that with every change that might influence the company negatively on the first glance, new possibilities to improve open up. However, as stated above, not only companies that have very sophisticated e-HRM systems and are big in size show strong cultural characteristics. Aggreko, ANZ and Reckitt Benckiser, for example, have very limited resources available, but manage to sustain a culture of open communication and continuous improvement. Aggreko has a dedicated continuous improvement department and considers itself open to change. Both ANZ and Reckitt Benckiser value the feedback of their employees and use it to improve the existing structure:

"We always listen to what people have to say. Their inputs and feedback helps us to go forward" *(ANZ)*.

It is interesting to see that some companies such as ANZ value a two-way communication with feedback from its employees over a one-way (top-down) communication such as in Kievit. The reason for e.g. Kievit to not allow too much feedback from its employees is understandable as well:

"If we do this, the system will never run. Too many cooks spoil the broth".

In summary and against the claims of the literature, we could not detect any convincing evidence that company which implement e-HRM show signs of a strong culture. One simple explanation for this might be the fact that all the companies in our sample were very open to change and innovations as such.

Company	Presence of characteristic "culture" regarding e-HRM adoption
Aggreko	weak
AXA	weak
Indocement	weak
Nuffic	weak
Nutreco	weak
Reckitt Benckiser	weak
ANZ	weak
Oxfam	weak
Kievit	weak
Formulatrix	weak
Sampoerna	weak

Table 9: Characteristics of "culture" regarding e-HRM adoption

5.8 Strength of characteristics across the sample population

Paragraphs 5.2 to 5.7 analysed the characteristics in an isolated manner. While this is good to understand how strong the presence of each characteristic is among the sample companies, it lacks the power to see the great picture. For this reason, we combined all factors discussed so far in the diagram (Diagram X) below. The diagram not only helps to understand how strong the presence of each characteristic is within the sample of the eleven companies, but shows the relation between the characteristics and makes it visible whether there are characteristics which are generally stronger than others. The diagram is based on a scale from 0 to 22 from the left to the right, with 0 representing a characteristic which has a weak overall presence in all of the eleven companies and 22 representing a characteristic which has a strong overall presence in all of the eleven companies. A weak presence represents 0 points on the scale, a moderate presence represents 1 points and a strong presence represents 2 points. These points were then multiplied by the eleven companies. This is why communication, for example, is shown on the very left of the diagram. All the companies showed weak characteristics, which results in 0 points on the scale. Management support, on the other hand, has a very strong presence and is almost at the very right.

What becomes apparent from the diagram is that both "resources available"

and "management support" show a very strong presence in our sample companies compared to "communication", "organisational culture", "skills and knowledge" and "external influences". The fact that both the resources and management support play a major role in the companies investigated underlines what we already mentioned in the previous paragraphs. The headquarter influence and its efficiency calculations determine a great deal of what happens in the subsidiaries in Indonesia. The headquarter determines the subsidiary's resources and, through its strategic planning, determines to which extent e-HRM is adopted, thereby forcing the subsidiaries to adopt e-HRM whether they like it or not. At this point, it is impossible to say whether this behaviour depends on the global firm size or not, however, what was apparent is that all companies comprising our sample, expect for Nuffic, are big multinationals and often also the market leader in their sector. Having said this, the following paragraph will go into detail concerning the headquarter influence and efficiency calculations of the companies. We consider the latter characteristics the overruling characteristics that might exert the biggest influence on e-HRM adoption in emerging economies.
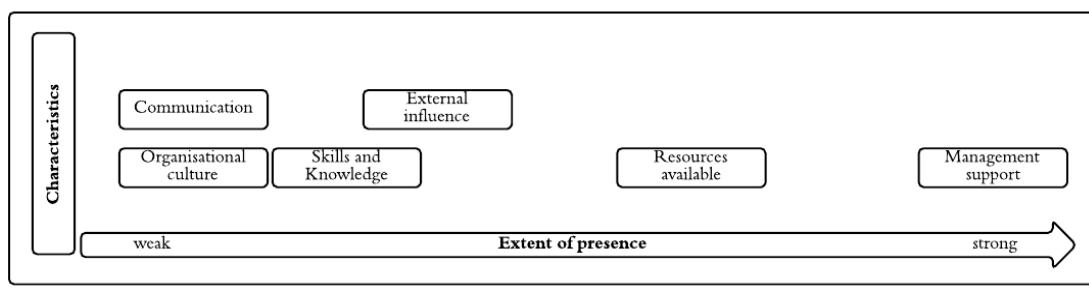

Figure 10: Characteristics and their extent of presence

5.9 Headquarter influence and efficiency calculations & firm size

While the data suggests that the characteristics shown in the diagram above had an either weak or moderate presence in the companies of our sample population, it became apparent that the decisions of headquarters to use HRIS for supporting the HR function has been the dominant characteristic for the entire sample population. As the reports suggest, headquarter influence is the decision of a company's headquarter to adopt an e-HRM strategy under the umbrella of integrating the HR function in a unified global system. In most of the cases described, the decision to implement a certain type of system had been taken by the top management and consequently pushed down the hierarchy. It has to be noted that the decision taken by the headquarter was compulsory on the one hand, but in some cases a

certain amount of latitude was granted with respect to the exact implementation of the system. A good illustration for the latter has been provided by the case of Sampoerna. As we heard, the parent company Philipp Morris dictated that Sampoerna had to support the HR function by means of leveraging information technology. Yet, the choice of the system's vendor was left to the subsidiary's own discretion. After the implementation of PeopleSoft, which took the company about four years and a considerable amount of resources, a recent decision by the headquarter demanded the subsidiary to, yet again, change its course of action and adopt SAP as the HRIS of the company. The same is true in the case of Oxfam. The organisation is undergoing a global structural change at the time of writing, influencing the subsidiaries to also adapt their strategy. Oxfam has ambitious plans to become one whole and centralised organisation instead of being scattered all over the world. The core of the strategy is the introduction of an e-HRM system which is conform amongst all the parts of the worldwide operating organisation. Another example of a company which showed strong characteristics of headquarter influence with regard to the adoption of e-HRM is Reckitt Benckiser. The information provided by the case made it clear that sometimes companies to not have any voice in the decision to adopt e-HRM systems. Despite the subsidiary of Reckitt Benckiser in Indonesia not having an urgent need for a new e-HRM system, the headquarter pushed down the decision to implement a variant of PeopleSoft, resulting in a higher workload for the interviewee. In this light, the interviewee stated that

"its mainly corporate headquarters who decide what to adopt".

Also at AXA, headquarter influence was strongly characteristic as we heard during the interview. The latter examples can be interpreted as extreme cases of headquarter influences and hierarchical decision-making, however, there were cases where the headquarter influence merely defined the goal of e-HRM adoption but not the approach itself. At ANZ and Indocement, for example, the interviewees were given an extensional amount of freedom when it came down to the actual implementation of the e-HRM system. Only the fact that a form of a sophisticated e-HRM system has to be adopted was determined by the headquarter. In summary, the factor "headquarter influence" had not been stressed in the literature as lone standing characteristic of a company. Yet, after having conducted multiple case studies, it suggests itself that, at least in the Indonesian context, the corporate headquarter influence on the subsidiary can not be denied as a characteristic. We can only assume what reasons stand behind the decisions of the headquarters to adopt e-HRM, but the narrations of the interviewee point into the direction of gains in terms of efficiency and effectiveness:

"I think the purpose is to be more effective in the work. With the system you get

good support and it makes life easier to work" (Oxfam).

In the light of his company's performance, the interviewee at Indocement stressed that

"we cannot handle it [the workload] by manual anymore. We have 5.000 employees in three locations. In the future we will even expand. We need to be more transparent and more efficient".

06 // Refined research model and conclusions

6   REFINED RESEARCH MODEL AND CONCLUSIONS

The previous paragraph analysed the strength of each individual characteristic and outlined that, on the one hand, there are many characteristics that show a weak presence in the companies and, on the other hand, there are only few characteristics that show a strong presence. On the basis of this we are now able to present a refined research model, which is depicted hereunder. Bigger sized boxes between the factors and the centre of the graph represent a strong presence, whereas smaller sized boxes represent a weak presence.
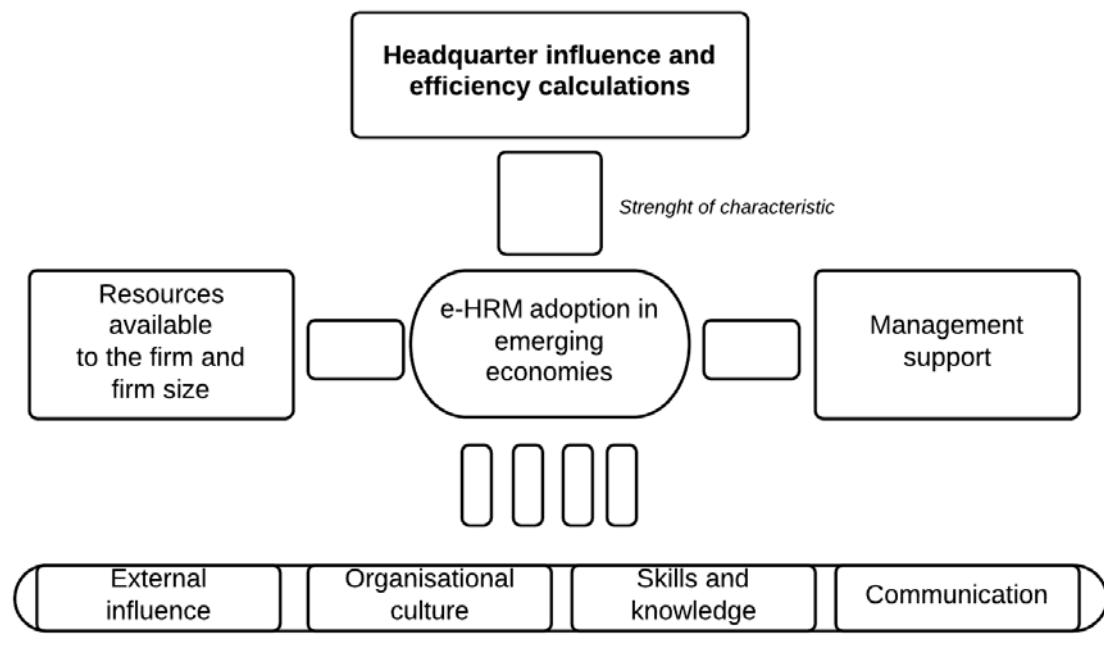

Figure 11: Refined research model

The research illustrated in this paper opted for the analysis of factors and characteristics that have been reported by Indonesian subsidiaries of multinational companies to have played a role in the adoption process of e-HRM. We first conducted an extensive literature review, which showed that most factors influencing the adoption of e-HRM innovations were found in the context of developed economies. The evidence from emerging economies, however, was rather limited and mainly based on studies conducted in China. Based on the factors found in both the developed and emerging context, we constructed a research model, which has been the basis for an ethnographic study. This ethnographic study employed a qualitative research design based on semi-structured and in-depth interviews with eleven case

companies that were mainly based in the Jakarta area, Indonesia. Indonesia is an emerging economy and offers rich possibilities for research in the field of e-HRM, especially since we identified a knowledge gap concerning e-HRM studies in the emerging economy context. The interviews provided us with hours of material that had to be transcribed and analysed. From the analysis of the data it became clear that the factors presented in the literature differ from the ones we found (characteristics in the companies studied). We found that the strength of presence of the characteristics varied between the companies studied. Whereas characteristics such as organisational culture, communication, external influences and skills & knowledge proved to have a big influence on the adoption of e-HRM innovation in the literature, the empirical observations from Indonesia found that companies, which have employed e-HRM as a strategic choice, did not report these characteristics to be of a strong presence. Contrarily, management support and resources as well as firm size were very characteristic of the sample population of companies. There is evidence that suggests that the latter characteristics show such a strong presence because of the strong headquarter influence and its efficiency calculations, which have been present in almost every company investigated. The headquarters allocate the budget for the subsidiaries in Indonesia and make the strategic decision to adopt and implement e-HRM systems on a global basis. The subsidiaries are bound to the resources provided by their respective headquarters are pushed to implement certain e-HRM systems. These findings are especially striking because the literature we found on the factors influencing the adoption of e-HRM in emerging economies did not examine headquarter influence to the extent that we observed it in our study. It is therefore that this research paper brings added value to the theoretical body of knowledge. Another observation is that the level of adoption was dependent on the time an e-HRM system has first been introduced. Companies that adopted e-HRM at a very early stage compared to the rest of the sample population, had more sophisticated e-HRM systems at the time of the analysis. It can therefore be assumed that the earlier companies were able to gain experiences regarding e-HRM systems, the more capable they are to implement very complicated and complex e-HRM systems. These experiences thus also adds to their ability to integrate the systems. Relating back to Rogers' (2003), we would like to note that we had problems applying the diffusion of innovation theory to the emerging economy context. Although the authors' theory helped us to determine whether companies in our sample could be classified as innovators or not and thereby detecting that the companies which were innovators have very sophisticated systems today, the value of this information has to be handled with care. The innovators in our sample were mostly companies which were long-established in Indonesia (e.g. Sampoerna and Indocement) and simply had the advantage of time on their side to adopt e-HRM. Especially, because Indonesia is an emerging economy, many companies, such as Nutreco, just recently opened an international office located in Indonesia and thus did not have the chance to adopt an e-HRM strategy just yet. Moreover, the sample population analysed in this research

paper comprises a large variety of organisations. Rogers' (2003) theory, however, is most valuable when it is applied to numerous companies which operate in the same sector. That is, because it makes more sense to compare companies' innovativeness when they are direct competitors than if they operate in different sectors. In the case of Indonesia, or probably also other emerging economies, it proves hard to find a significant amount of companies which operate in the same sector. The reason for this is that Indonesia does not provide any database comprising companies, as it is the case for most developed economies, let alone a database indexing companies of the same sector. Due to these circumstances, applying the diffusion of innovation theory can only be considered partly effective in this research paper. However, despite these limitations, Roger's classifications and theoretical contributions can partly explain what we have seen. Whereas it took the innovators of our sample somewhat longer to get accommodated with e-HRM, the followers, despite being not unilaterally at a sophisticated level at the time of analysis, could have learned from the experiences gained by the innovators. This might explain that at the time of analysis, followers seemed to have reached stage two and three comparably quicker than had their counterparts. This matches Roger's theory in so far that innovators can in the short run benefit stronger from the innovation, but that followers take less risk and learn from the mistakes of the innovators.

In summary, this study has expanded the knowledge of how e-HRM adoption in the emerging economy context takes place. We were able to show that the factors which are influencing the e-HRM adoption in developed economies seem to be present also in the in emerging economies, however, vary in their strength of presence.

6.1 Limitations

First of all, we are only able to generalise to the extent of multinational companies in Indonesia. The unit of analysis are multinational companies who have subsidiaries in Indonesia and are mostly located near the central hub Jakarta. Second, the nature of the empirical research, which is qualitative, provides rich in-depth data, however lacks the ability to cover a large number of companies for e.g. in-sector comparisons. Moreover, because of the study's research design, causations and correlations can not be made. We can only assume that the factors we found ultimately influence the adoption of e-HRM systems. This is because there might be other unknown factors that could responsible for the adoption of the e-HRM systems that have not been covered in this study. Third, despite the fact that companies have been chosen at random, their main location is around Jakarta in the West of Java. Due to constraints of resources it was not possible for us to cover bigger areas of Indonesia. Hence, generalisations based on this study's sample population

for the whole country or the emerging economy context have to be made with caution. Another limitation to the research, despite being rather minimal, is the level of English spoken by some of the respondents. The interviews were hard to manage at some points, which might have led to confusion and misunderstandings. We, however, sent the transcripts back to the interviewees in order to check whether the information given to us was correct. Finally, it has to be criticised that only companies which approach innovation and continuous change have taken part in our research. It seems that companies who are very interested in the field of e-HRM were more willing to help than companies who have never heard of the term before. This is mirrored in the observation that the factor management support has shown a strong presence in the sample population.

6.2 Management advice

As a practical lesson for managers, the studies results show that the adoption of e-HRM systems in the emerging economy context is mainly determined by the decisions of the respective headquarters. For this reason, the scope of independent decision-making is relatively limited. However, as reported by several interviewees, there are still options for Indonesian HR managers to influence the e-HRM adoption to some extent. What we noticed during the analysis of the interviews is that most of the communication between the managers of the headquarters and the subsidiaries can be described as top-down. In many cases the interviewees took this situation for granted and did not show any efforts to establish a two-way communication channel between headquarters and subsidiaries. Thus, their behaviour, regarding the implementation of e-HRM systems, could be described as very reactive. Based on this premise, we advise managers of Indonesian subsidiaries to change their reactive mindset to a proactive one, by embracing communication with upper level managers whenever possible and voicing their feedback. Such an approach could increase the likelihood that systemic upgrades are more compliant with the demands and needs of the subsidiary. Additionally, we would advise the companies to adopt e-HRM whenever possible, however, not exceeding their needs. The logic behind this is that e-HRM should be implemented to the level necessary whenever possible in order to gain valuable experiences with the handling of e-HRM systems. Even though the systems might be simple in the beginning, the experiences gain are valuable and might help companies to establish more sophisticated system when it is necessary. Moreover, HR managers should increase awareness for the benefits that stem from e-HRM adoption even among their fellow colleagues. This increases the likelihood that the wants and needs of the very basis of the organisation are understood and can be communication to the headquarters through the subsidiaries' managers. All in all, it is important not only to welcome e-HRM with open arms, but to actively approach it in order to stay competitive.

A // Appendix

APPENDIX 1 – FACTORS OF E-HRM ADOPTION ACCORDING TO LITERATURE IN EMERGING ECONOMIES

Research on the factors influencing the adoption of technological innovations in emerging economies					
Author(s)	Technology focus	Research question(s)	Methodology focus and respondents	Key findings	Economy
Lin (1997)	•HRIS	•Test of six influencing factors of HRIS implementation identified from the literature	•Survey •Human resource managers who are members of the Human Resources Development Association and Chinese HRM Association in Taiwan (n = 240)	•The support of HR staff, top management and IS department have found to be the dominant factors for HRIS implementation •HRIS training, involvement of HR leaders and computer knowledge of HR staff appear to be of lesser importance compared to the first three factors	Taiwan
Dasgupta, Agarwal, Ioannidis & Gopalakrishnan (1999)	•IT-systems	•Organizational factors influencing the adoption of information technology on the organizational level	•Survey •Organisations in the Indian manufacturing sector (n = 46)	•Firm's culture and size •Environmental factors like competition faced by firms •Government and policies •Market forces •The role of management information systems personnel has a negative impact on adoption of IT-systems	India

Hooi (2006)	•E-HRM	•The availability of resources and the feasibility of implementing e-HRM •Readiness of employees to implement e-HRM	•Survey •Secondary data analysis •Small and medium sized enterprises in Malaysia (n = 60)	•Conventional HRM is still more popular amongst companies compared to e-HRM •The lack of resources and expertise are factors influencing the implementation of e-HRM systems •Technical infrastructure is in place and does not negatively influence the implementation of e-HRM •Employees can be considered read and receptive towards e-HRM	Malaysia
Thatcher & Foster (2006)	•B2B E-commerce	•Organizational, industrial, governmental, and cultural factors influencing the decision to adopt B2B E-commerce systems •The relative strengths among organizational, industrial, governmental, and cultural factors on the decision to adopt B2B E-commerce systems	•Qualitative and interpretive design comprising organizational documents, documents from governmental agencies & transcripts of semi-structured interviews •IT staff, CIOs and CEOs of organisations	•Top management support is an important driver for e-commerce advancement in electronics industry •Industry pressures are a main source of influence in the adoption of technology in Taiwanese businesses •The competitive pressure in an industry does not only influence the initial technology acceptance decision but also influence the type of technology that a firm adopts •The existence of governmental policies and incentives are influential in encouraging or discouraging companies to adopt B2B E-commerce systems in Taiwan •Culture provides an explanation for the degree of B2B E-commerce	Taiwan

Jeona, Hanb & Lee (2006)	•E-Business	•The determining factors of the successful adoption of E-business by small and medium enterprises (SMEs)	•Survey •CEOs of Korean SMEs (n = 204)	•CEO's knowledge of information technology (IT)/e-business •Relative advantages and benefits from implementing e-business •Governmental support •Globalization strategy •The North Korean factor •Business size, the cost of e-business adoption and competitive pressure of the industry do not seem to play an important role in the adoption of e-business	Korea
Olivas-Luján, Ramirez & Zapata-Cantu (2007)	•E-HRM	•The impact of Mexican infrastructure and culture on the implementation of e-HRM strategy	•Interviews •Case studies •Senior HRM managers, line managers and other employees of firms (n = 4)	•A country's geography, institutions, contextual and social contracts, employee educational levels, industry effects as in financial institutions, generational gaps, social relationships, and infrastructure disparities clearly shape the applicability and use of an e-HRM strategy.	Mexico
Rao (2009)	•E-recruitment	•Factors influencing E-recruitment practices	•Literature review •N/A	•National culture has an impact on e-recruitment practices in India & Mexico	India, Mexico

APPENDIX 2 – FACTORS OF E-HRM ADOPTION ACCORDING TO LITERATURE IN DEVELOPED ECONOMIES

Research on the factors influencing the adoption of technological innovations in developed economies

Author(s)	Technology focus	Research question(s)	Methodology focus and respondents	Key findings
Parker, Dekimpe & Sarvary (2000)	•Technological innovations	•Country characteristics affecting the adoption of technological innovations	•Hazard model, based on government documents •International Telecommunications Union provided information	•The longer the international experience with an innovation, the higher the chances that other countries will implement it •The wealthier a counter, the more likely it is to innovate •Countries with homogeneous social systems adopt innovations faster •The size of the old technology's installed base negatively influences a country's adoption of new technologies
Hall (2004)	•Technological innovations	•Determinants of the diffusion of innovations	•Literature review •N/A	•The benefit received from new technologies positively influences the adoption rate •The network of customers affects the adoption rate of new technologies •The implementation costs of technologies influences the rate of adoption •The information available in close proximity about a new technology influences its adoption •A firms size, market and environment influence the adoption of new technologies •Cultural attitudes can influence the rate of adoption of new technologies

Hausdorf & Duncan (2004)	•Online recruitment	•The influence of firm size on the online recruitment process	•Survey •Stratified random-sampling •Canadian organisations ranging from small, medium to large size (n = 175)	•No support was found for firm size to be influential on the adoption of technology (websites) for recruitment
Florkowski & Olivas-Luján (2006)	•HRIT diffusion	•Test whether the spread of HRIT within North America and Europe is attributable to external, internal, or hybrid forces	•Literature review •N/A	•HRIT diffusion is fuelled primarily by interpersonal communications among potential adopters •External marketing efforts by technology vendors and management consulting firms to infuse more technology in HR services are not irrelevant, however, of relatively small influence when compared to its internal counterpart
Panayotopoulou, Vakola & Galanaki (2007)	•E-HRM	•Reasons for e-HRM adoption •Critical success factors in e-HR	•Survey •HRM departments (n = 76) •Focus groups •HR managers (n = 3)	•The willingness to facilitate the staffing procedure and communication are the main reason for e-HRM adoption •Cost reduction has not been identified to play a major role in e-HRM adoption •A change-oriented organisational culture plays a major role in the successful implementation of e-HRM •Employees' IT skills positively influence the adoption of e-HRM •The collaboration of HRM and IT positively influences the e-HRM adoption process

Teo, Lim & Fedric (2007)	•HRIS	•Factors influencing the adoption of HRIS in organisations	•Survey •Managing directors / HR managers of organisations (n = 110)	•Departmental relative advantage influences HRIS adoption •Complexity does not influence HRIS implementation •Compatibility influences the HRIS implementation decision •Top management support is essential for a successful implementation of HRIS •The size of an organisation influences HRIS implementation •HRIS expertise is a factor influencing HRIS implementation •Competition does not influence the HRIS implementation decision
Olivas-Luján & Florkowski (2008)	•HRIS	•Factors for an organisation to adopt an HR-ICT	•Literature review •N/A	•Top management support influences the intensity with which an organisation will use HR-ICTs •HR departments with an innovation climate trigger the use of more HR-ICTs •A system of potential adopters, e.g. pressure within industries, can lead to an increasingly high adoption rate of HR-ICT
Galanaki & Panayotopoulou (2009)	•E-HRM	•Factors facilitating the adoption of e-HRM	•Literature review •N/A	•Organisational culture influences the adoption of e-HRM innovations •Employee's IT skills and their familiarization with electronic tools benefits e-HRM adoption •Communication to employees plays a crucial role as a facilitator in e-HRM implementation •Collaboration of HRM and IT is a crucial success factor in e-HRM adoption •The industry and sector a company operates in influences the e-HRM adoption

Lau & Hooper (2009)	•E-HRM	•Success factors in e-HRM adoption	•In-depth interviews •Survey •Top large New Zealand companies from a wide range of industries and government departments (n = 50)	•Adequate budget /funding •High level executive commitment •Collaboration between HR and IT •Availability of technical skills to implement self service •Process design and processes improvement reengineering •A strategy and plan that includes prioritisation of applications •Business case (proving need, showing potential payback) •Marketing and employee communication •Access by all employees any time and place •Corporate standards for technology solutions •Consistent look and feel of web applications & interface across media
Strohmeier & Kabst (2009)	•E-HRM	•Empirical exploration of major adoption factors	•Survey •European organisations (n = 2336)	•Size of an organisation can be seen as a well-established adoption factor •Partial evidence has been found that sectorial differences in task structures can further or restrain e-HRM adoption •Organisational demography shows no influence on e-HRM adoption •Work organisation influences the e-HRM adoption •Employment structure does not affect e-HRM adoption •Configuration of HRM shows significant influences for e-HRM adoption •The national economic development influences e-HRM adoption only partially or regionally

APPENDIX 3 – CORPORATE WEBSITES

Company	Title of page	Retrieved from:	Year	Company
Aggreko	Aggreko PLC Annual Report and Accounts 2012	http://ir.Aggreko.com/~/media/Files/A/Aggreko-Investor-Relations/finreps/2012/ar-2012/ar-2012.pdf	2012	Aggreko
ANZ Bank	ANZ in Indonesia	http://www.anz.com/indonesia/en/about-us/our-company/anz-indonesia/	2013	ANZ
AXA	AXA in Indonesia	http://www.axa-insurance.co.id/42/en/about-axa/axa-in-indonesia/opening-page	2013	AXA
Formulatrix	Formulatrix - about us	http://formulatrixindonesia.com/home.php?pg=1&&a_page=1	2011	Formulatrix
Indocement	Indocement in Brief	http://www.indocement.co.id/aspx/content.aspx?id=68	2010	Indocement
Kievit	About kievit	http://www.kievit.com/about-kievit	2012	Kievit
Nuffic	Information in English	http://www.nesoindonesia.or.id/home/information-in-english	2013	Nuffic
Nutreco	About us	http://www.nutreco.com/en/About-us/	2013	Nutreco
Oxfam	What we do	http://www.oxfam.org/en/about/what	2013	Oxfam International
Reckitt Benckiser	Annual Report and Financial Statements 2012	http://www.rb.com/documentdownload.axd?documentresourceid=44050	2012	Reckitt Benckiser
Sampoerna	Sampoerna.com Halaman Utama	http://www.sampoerna.com/id_id/pages/homepage.aspx	2013	Sampoerna

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