

e-HRM as Strategic Capability to Achieve Transformational Outcomes

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ABSTRACT

The field of electronic human resource management (e-HRM) continues to evolve amidst the continuous increase in information technology that is shaping all aspects of business. Firms are spending millions of dollars building e-HRM capabilities and looking to capitalise on them to increase organisational performance. However, there is a greater scope for research about the strategic contribution of e-HRM because there is limited evidence of how e-HRM produces strategic outcomes.

This thesis reports on research conducted in a one of the biggest e-HRM solution providers and adopters in the world. Qualitative data were collected from semi-structured interviews with diverse stakeholders in the company from throughout the world and document analysis, providing insight into the use, implementation and strategic outcomes of e-HRM. This study has found that e-HRM could be strategically orientated as it has been developed to align with the outcomes set in the organisation's business strategy. In addition, e-HRM strategy has a direct impact on the types of key tasks defined in the e-HRM system, and technology plays an enabling role and is a driving force to initiate changes and to the develop dynamic capability of e-HRM so that it is regarded as a strategic resource that generates strategic outcomes.

This research clarifies e-HRM could be viewed as a strategic resource for organization, converted to strategic capabilities, and proposes an integrated framework that explains how e-HRM becomes strategic and how the strategic outcomes could be achieved. This study contributes to the understanding of the strategic aspects of e-HRM as it differentiates strategic orientation from strategic outcomes and extends the application of theories of strategic HRM into e-HRM research. In practical terms, this research serves as a point of reference for organisations to better understand the strategic potential of e-HRM and to make decisions and choices about their e-HRM practices that embed strategic thinking.

Keywords: e-HRM, strategic HRM, strategic orientation, strategic outcomes, transformational consequence, dynamic capabilities, organisational resource, best fit, employee experience

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1 Introduction

“Uber, the world’s largest taxi company, owns no vehicles. Facebook, the world’s most popular media owner, creates no content. Alibaba, the most valuable retailer, has no inventory. And Airbnb, the world’s largest accommodation provider, owns no real estate... Something interesting is happening...” (Goodwin, 2015)

Technology has shaped people’s lives in almost every industry and has transformed how human resources (HR) is operated, performed, and managed (Bondarouk and Ruël, 2009). Recent years have seen a dramatic increase in the adoption and impact of technology on HR processes and practices. These changes are linked to the development of cloud computing, big data analytics, machine learning and artificial intelligence, all of which bring new capabilities for the HR function. Currently, HR information technology (IT) systems support almost every HR process, from recruitment, payroll and compensation management to HR planning, employee learning and performance appraisal, among others. Larkin (2017) has claimed that HR digital disruption has brought the best wave of transformation in decades and HR technology is becoming an area of significant strategic importance. This transformation is also perceived as a business digital transformation (Betchoo, 2016). More recently, the COVID-19 pandemic has underscored the vital role of information and communication technology (Papagiannidis et al., 2020), with some (see Vahdat, 2022) suggesting that IT-based technologies are fundamental to the future of HR in the post COVID-19 landscape. A field study conducted by Gallagher (2020), found that the total addressable global market demand for HR technology reached \$158B in 2020, and this demand is growing; we now see HR departments working closely with the entire population across organisations, providing services to employees, HR specialists, managers, and executives.

The fusion of technology and human resource management (HRM) has led to electronic human resource management (e-HRM), a term coined to refer to the exploration, study and research into different aspects of technology and its relationship with HRM. The roots of e-HRM are traced to the introduction of technology into HR to support basic administration and operational tasks. The current expectation for e-HRM goes far beyond this; organisations adopt and

implement e-HRM in the hope of improving the efficiency of HR tasks and services, in many cases elevating HR into business partners to achieve a competitive advantage through HRM (Bondarouk and Ruël, 2013, Parry, 2011).

One of the most significant changes in the adoption and implementation of e-HRM is related to its strategic potential, where organisations expect e-HRM to support business and people strategies. However, Gallagher's (2020) survey also revealed that despite a steady increase in HR technology investment and clear expectations about what it should accomplish, most HR leaders are not managing this resource strategically. The survey found that only 35% of respondents had implemented new HR technology since 2018 with complete success, while 45% had some strategies guiding their approach to HR tech, only 15% had a comprehensive plan that aligns with organisational strategies, and 21% did not have any strategy. It seems that organisations still lack an understanding of how e-HRM could produce desired strategic outcomes and are constantly facing implementation challenges. Despite this, e-HRM adoption continues to increase, with the evolution of technology creating additional possibilities that elevate organisational expectations that e-HRM will help them to achieve strategic outcomes.

Against this backdrop, there is much potential for balancing the reach of e-HRM research. Despite current e-HRM research focusing on aspects such as actors, activities, technology and consequences (Strohmeier, 2007), most studies have paid more attention to the actual application of technological methods in HRM processes and the potential goals of e-HRM. However, the studies have rarely investigated how these goals are achieved and what factors have an impact on the process of goal realisation (Parry and Tyson, 2011). In addition, despite mixed research findings related to whether e-HRM can achieve desirable outcomes (Almashyakh, 2022, El Idrissi et al., 2021), the trend of e-HRM adoption has continued. In this respect, there is a need for better understanding of the strategic benefits of e-HRM – how these strategic benefits are achieved – and to gain an integrated picture about the value realisation process of e-HRM.

This thesis is concerned with the problem of how e-HRM becomes strategic and achieves strategic outcomes. Given the diverse understandings and mixed findings in the current literatures (Lengnick-Hall et al., 2018, Njoku et al., 2019, Shamaileh et al., 2022), these issues remain open research questions. Dominant debates highlight that the limited insight into an integrated picture of the value realisation process for e-HRM, with insufficient explanation of the strategic capabilities developed from e-HRM to achieve the final strategic outcomes. Previous studies discuss the transformational nature of e-HRM as well as the details of the strategic orientation of e-HRM, explaining the 'fit' between e-HRM and its environmental factors, but there is a concrete empirical gap to understand how the use of e-HRM could produce strategic outcomes, and a theoretical gap to gain insight into the value realisation process for e-HRM.

Underpinning the value realisation process of e-HRM is strategy, which has a longstanding research tradition in HRM through scholarship on strategic human resource management (SHRM). While both e-HRM and SHRM invoke potentially transformational outcomes regarding the role of HR, each brings a different perspective (Marler and Fisher, 2013). Compared with e-HRM research, SHRM research has a longer, more developed history, and is better supported by established theories and frameworks. E-HRM, however, is still in its nascent stages and lacks a robust theoretical foundation (Marler and Fisher, 2013). In this respect, there is significant potential to use ideas from SHRM to study the strategic potential of e-HRM.

To address these gaps, this research uses strategy as the linking construct between e-HRM and strategic HRM (SHRM), bringing both areas together to develop an integrated analytical framework. More specifically, the research adopts the contingency theory to understand the factors that influence the strategic orientation of e-HRM. Based on the resource-based model, the research engages with e-HRM resources to discuss the capabilities that could be converted from these resources to produce strategic outcomes for organizations. The specific research focus on the strategic outcomes of e-HRM serves as a response to the scarcity of research in this area (Strohmeier, 2007). Finally, this research studies e-HRM on Harvard model to develop a contextualized view to explain how e-HRM realize its strategic benefits. Through the integration

of these theoretical lenses, this research is expected to contribute knowledge about the strategic potential of key factors of the e-HRM process and to propose a model that explains how e-HRM generates transformational outcomes as well as how strategic HR goals impact e-HRM practices.

The research presented in this thesis aims to provide insight into the process through which e-HRM produces its strategic outcomes, focusing on the factors that shape this process and their interrelatedness. The objectives of the research include: understanding the attributes of e-HRM and its context and how technology influences the process through which strategic outcomes are achieved; exploring the interconnections between the key e-HRM tasks and their outcomes; and examining the strategic contributions to the organisation.

In theoretical terms, this research is expected to identify the list of contextual factors influencing e-HRM's strategic orientation, provide insight into e-HRM as an organization's strategic resource, and offer an integrated understanding of capabilities facilitated by e-HRM to bring insight into the relationship between the e-HRM capabilities and outcomes. In practical terms, many organisations have been looking to gain a thorough understanding of e-HRM and its strategic outcomes to help them better plan, adopt and implement e-HRM. By revealing the interrelationship between e-HRM and its strategic outcomes, this research is expected to provide a reference for organisations that are still indecisive about their e-HRM choices and those that are seeking a better understanding of e-HRM practices. It depicts the interaction between e-HRM and strategic outcomes and how the process should be understood regarding contextual factors. On the one hand, this research provides ideas on the management of organisational resources towards strategic goals. Its discussion of strategy fit sheds light on the content, process and implementation of e-HRM as a whole, which contributes to a better understanding and utilisation of e-HRM.

To achieve its aims, objectives and expected outcomes, the research reported in this thesis was driven by the following two research questions:

Question 1: How does SHRM affect e-HRM's strategic orientation?

This research question looks at the relationship between SHRM and e-HRM, focusing on the key elements of the strategic fit of e-HRM. More specifically, to what extent is e-HRM focused on achieving business objectives as stated by the organisation? And to what extent is e-HRM influenced by the situational factors to become more strategic oriented? To explore this question, the research draws on contingency theory, which argues that the optimal course of action is contingent (dependent) upon the internal and external situations and assumes that the effectiveness of HR practices is context specific rather than universal. In this case, the strategic orientation of an organisation is an external situation of e-HRM and leads to a fit between e-HRM and business strategies.

Question 2: How does e-HRM become a capability to produce strategic outcomes?

This research question looks at how e-HRM moves towards the strategic end, with a focus on understanding the process of producing e-HRM strategic outcomes. By leveraging SHRM theories, such as the RBV, this research question examines the unique strengths and capabilities of e-HRM in an organisation and evaluates how the desired strategic outcomes are achieved.

The research adopted a qualitative approach to gain insight into the contextual conditions that shape implementation of e-HRM and its strategic outcomes. In line with the requirements of DBA studies to explore issues in a real-world set-up, this study used a case study, focusing on a specific organisation, rather than an industrial environment. The research presented can be classed as 'backyard' research (Glesne and Peshkin, 1992) as it studies the researcher's own organisation. This approach has unique advantages related to access to data and other necessary resources.

This thesis is divided into six chapters. Following this introduction (Chapter 1), Chapter 2 goes through the existing literature, providing an overview of areas of interests and emerging research themes relevant for e-HRM, and explaining the research gaps. Chapter 3 explains the research design, methodology and methods, providing details of the case study, the sampling strategy and the data collection and analyses. Chapter 4 presents the main findings and corresponding

discussion grouped according to the themes of the research; each theme also concludes with a framework. Chapter 5 presents a global framework that consolidates all the themes and answers the research questions. Chapter 6 concludes the research, discussing implications for theory and practice, addressing limitations and identifying future avenues for research.

2 Literature Review

This chapter provides a literature review for the areas of interests and emerging research themes relevant for e-HRM, to then identify the research gaps. The chapter is organised in three sections. The first section starts with an overview of e-HRM to introduce the background of this study. A review of how e-HRM has been defined in the literature is then followed by an introduction to the two most adopted research frameworks. The second section of the literature review narrows the examination down to the strategic aspects of e-HRM research, establishing the connection between SHRM and discussing the strategic orientation, strategic capabilities and strategic outcomes of e-HRM. Finally, the third section identifies gaps in existing knowledge that have led to the research opportunity of looking into how e-HRM as a strategic capability achieves transformational outcomes. The diagram below illustrates the flow of the literature review

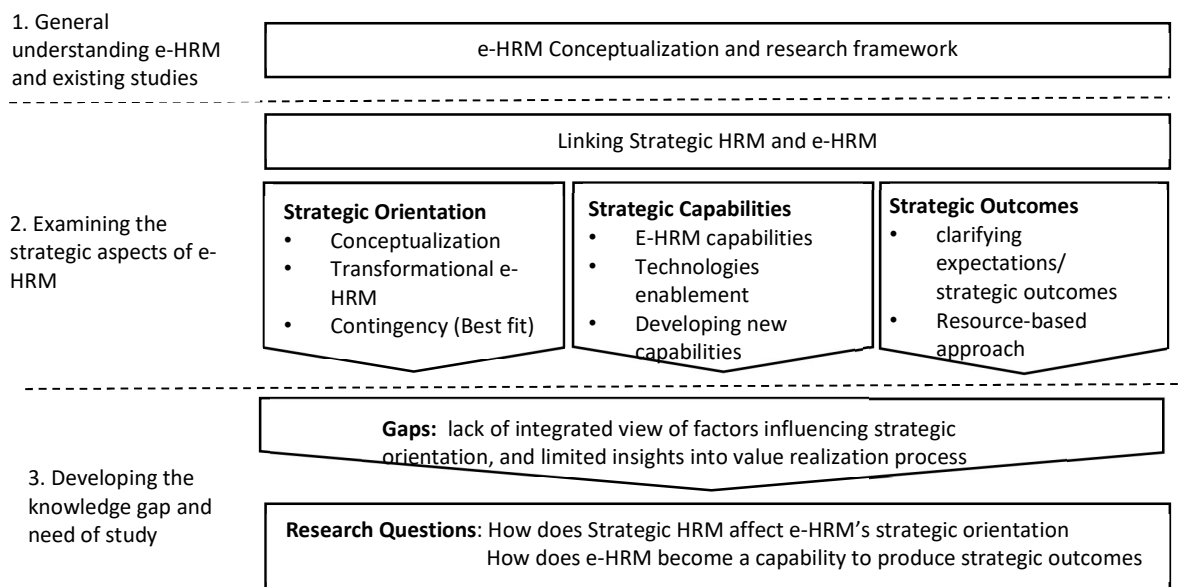


FIGURE 1 E-HRM LITERATURE REVIEW

2.1 e-HRM research at a glance

2.1.1 History and development of the e-HRM concept

In the 1960s, HR functions started to employ IT to support administrative tasks (Stone and Dulebohn, 2013). Since the 1980s, organisations have been making significant investments in IT to support HR administrative processes such as payroll and personnel administration (Bondarouk and Ruël, 2009). In today's highly globalised world, both HRM processes and departments are informed by IT shared around the world. Such integration of HR practices and IT has been increasingly adopted to serve organisational purposes and to achieve business objectives. As a result, traditional ways of conducting HRM are currently facing the continuous challenges posed by the digital era when e-HRM expands its scope and starts to cover strategic aspects of HRM such as talent acquisition services and performance management (Bondarouk and Ruël, 2009). With its increasing acceptance among organisations, e-HRM has also opened new discourses to include the idea of self-service portals, the notion of HR user-friendliness and plans for streamlined processes, among other topics.

Although the concept of e-HRM has been widely used in both organisational and academic scenarios, a consensus on the definition of the concept itself has yet to be reached. The current definitions of e-HRM share a focus on 'the Internet-supported way of performing HR policies and/or activities' (Strohmeier, 2007). Ruël et al. (2004), for example, defined e-HRM as 'a way of implementing HRM strategies, policies and practices in organizations through the conscious and direct support of, and/or with the full use of, channels based on web technologies' (p. 368). Such a definition involves much 'doing' and reinforces the idea that e-HRM is a way of getting things done through technology. It appears that e-HRM is the substitution of traditional HRM practices with IT methods to accomplish HR tasks. In a more explicit definition of e-HRM, Strohmeier (2007) expanded the scope to emphasise the notions of individuals and interaction by arguing that 'e-HRM is the planning, implementation and application of information technology for both networking and supporting at least two individual or collective actors in their shared performing of HR activities' (p. 20). Based on their earlier work, Bondarouk and Ruël (2009) then refined the definition of the concept 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' (p. 507). Compared with their previous definition of e-HRM, the authors diluted the simple idea of 'doing' and integrated into the newer definition the purposes of implementing e-HRM in organizations.

Although these definitions differ slightly from one to another, together they shed much light on the conceptualisation of e-HRM. Some essential elements of e-HRM can be extracted from the above definitions. First, HR technology facilitates the actualisation of organisational purposes through HR function. Moreover, because its purposes are directed towards both employees and organisations, e-HRM should reflect the interaction among all the involved actors. Finally, e-HRM functions in a multi-layered and multi-context manner and thus its impacts reside both within and across organisations.

To better conceptualise e-HRM, it is important to differentiate it from a topic that is frequently referred to in the discussion of applying technology in HRM – human resource information systems (HRIS). According to Johnson et al. (2016), HRIS is characterised as an often web-based system that is used to 'capture, store and disseminate' HR information, and support 'the communication, interaction and service goals' of HR processes (p.52). The fundamental difference between e-HRM and HRIS is that HRIS is by nature a system of HR information storage and management that does not function much outside the HR department, while e-HRM involves more stakeholders both within and outside organisations besides the HR staff (Ruël et al., 2004). In other words, HRIS could be regarded as a mechanism that enables the implementation of e-HRM but is not to be confused with e-HRM because the latter entails much more than a specific information system.

2.1.2 Research frameworks

Current e-HRM research covers a wide array of topics and most research deals with specific subsets of the e-HRM field (Strohmeier, 2007). These topics include context, individual and collective actors, activities, technology and consequences, among others. One possible way of understanding the areas of interests for e-HRM is to look into what has been conducted through

previous research frameworks. This section examines the two most cited research frameworks in e-HRM, namely Strohmeier's (2007) e-HRM research framework and the e-HRM territory of enquiry (Bondarouk and Brewster, 2016).

Strohmeier (2007) suggested a research framework generated based on the previous definitions and conceptual works of e-HRM. The authors proposed a general framework to structure the relevant topics of e-HRM research. Context, configuration and consequences are labelled as the three major sections of the e-HRM research framework (Figure 1). These three sections are integrated into one framework to reflect the multilevel nature of e-HRM. Taking one step further, a distinction between the micro and macro levels is also made in each of the sections of the framework. Context, the first section of the framework, is built with various factors, and the actual factors might vary from one organisation to another. For example, individual attitude could be a micro-level factor of a specific context, but it could be either positive or negative or anything else. Furthermore, individual attitude itself could be so complicated that it is not measurable by a simple continuum from positive to negative. Corporate culture, for example, could also act as a contextual factor. e-HRM configuration as the second section maps a range of e-HRM modes by capturing their major components. Individuals, groups and organisations are the actors of e-HRM at different levels, and they are all part of the e-HRM configuration because they all perform e-HRM. Because e-HRM incorporates technology as one of its key factors, technology is also regarded as part of the e-HRM configuration. Strategies and activities are given the central place in understanding e-HRM processes. A thorough understanding of what the strategies are and how the strategies are implemented serves as the linking point between the actors and technologies in e-HRM configuration. e-HRM consequences are another critical component; they can be either beneficial or the opposite.

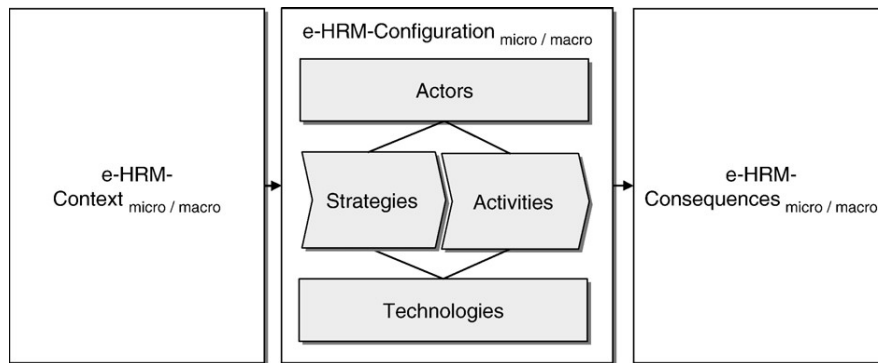


FIGURE 2 STROHMEIER'S E-HRM RESEARCH FRAMEWORK

(Strohmeier, 2007, p. 21)

Unlike Strohmeier's (2007) differentiation among context, configuration and consequences, Bondarouk and Brewster (2016) took a different approach. Their conceptualisation of the future of HRM and technology research generalises the e-HRM territories into which researchers have delved (Figure 2). The framework examines the e-HRM research from a futuristic perspective and aims to pinpoint the focal issues for the field in the future. It covers the implementation, content, design and consequences of e-HRM, as well as the targeted employees and managers involved in e-HRM. Furthermore, the authors argue that although the components of e-HRM are highly intertwined, context, multiple stakeholders and the long-term consequence are the three most promising research areas among all the territories that future research should consider. The introduction of technology in HRM happens in distinctive contexts, and technology itself is considered a contextual factor by some scholars (Bondarouk and Brewster, 2016). Thus, studies on context should provide much insight into e-HRM research. The most immediate stakeholders of e-HRM are HR professionals, line managers and other employees. Such groups can also be easily extended to external organisations and individuals. The wide coverage of involved groups provides much space for investigation, and many studies have been conducted to examine the instant impact of e-HRM on these involved groups. Research on the long-term outcome is also of great value because new technologies are emergent and bring challenges and opportunities in the age of big data.

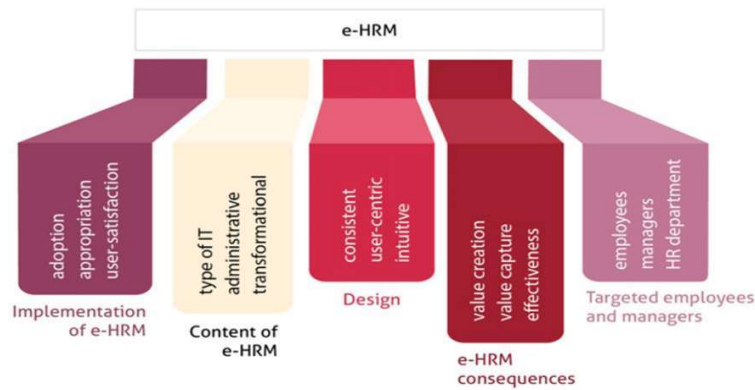


FIGURE 3 THE E-HRM TERRITORY OF ENQUIRY

(Bondarouk and Brewster, 2016, p. 2659)

Both research frameworks demonstrate key areas of e-HRM research in a structured picture. Regardless of the approach used to conclude the research framework – looking at the past or being futuristic – both research frameworks have similar areas of attention, including e-HRM technology, content and consequences. Although much research effort has been invested in e-HRM in the past decades, much of it has been directed towards actual e-HRM practices (Al Shobaki et al., 2017, Erdoğan and Esen, 2011; Ruël and van der Kaap, 2012, Sanayei and Mirzaei, 2012) rather than theory building of this field of research. For example, some researchers have incorporated learning and behavioural theories with their investigation of learning through e-HRM. For example, Coppola and Myre (2002) compared the effectiveness of instructor-led and web-based learning in a corporate setting. Using the conditions of learning (Gagné and Medsker, 1996) as the theoretical foundation, they concluded that web-based learning is no less effective than instructor-led learning. In a review on e-learning in organisations, Derouin et al. (2005) called for more research on measuring the behavioural and organisational outcomes of e-learning. Some researchers argue that the digitisation of HRM processes is conducive to achieving positive outcomes in various contexts and aspects. Stone et al. (2013), for example, examined the effectiveness and applicant acceptance of e-selection systems and argued that the systems contribute to the realisation of organisational and individual short-term and long-term goals.

The research frameworks from both Strohmeier (2007) and Bondarouk and Brewster (2016) suggest that strategic aspects of e-HRM are the essential parts of the overall picture. However, Strohmeier (2007) argued that there is limited and ambiguous knowledge concerning e-HRM strategy. With the advancement of information technologies, the number of companies that have adopted digital approach to HRM continues to grow. The wave of 'digitisation' has brought both e-HRM practice and research to a new level: it now goes beyond only looking at its basic practice and operational tasks.

2.2 Examining the strategic aspects of e-HRM

Under the umbrella of 'strategy', scholars have examined many different aspects. Some researchers have looked into e-HRM strategy and its alignment with SHRM to understand its strategic orientation. For example, Lengnick-Hall et al. (2018) discussed the importance of aligning e-HRM with business strategies so the HR practices could be internally consistent. They further highlighted firms that effectively manage e-HRM and its technologies could create an advantage that is difficult to imitate. Almashyakhi (2022) took an evidence-based approach and directly measured the e-HRM impacts on SHRM. Both benefits and drawbacks of e-HRM and outlines how strategic values of e-HRM could be assessed. Another group of studies has focused more on the configuration and capabilities from strategic point of view. For example, L'Écuyer and Raymond (2020) surveyed small and medium-sized companies to understand different combinations of e-HRM capabilities and high-performance work system capacities that could favour strategically coherent HR functions. They discussed the strategic capability to support the digital transformation of small and medium-sized companies. In addition, with the expectations of capitalising on the investment from organisations on e-HRM, the discussion around strategic outcomes from e-HRM is receiving significantly increased attention. Many scholars have tried to link e-HRM with organisational outcomes and performance (Cheng and Zou, 2021, Iqbal et al., 2019, Mikalef et al., 2020, Njoku et al., 2019, Wege et al., 2019).

In order to effectively address the research questions and understand an integrated picture of strategic e-HRM value realization, in the next section, the link between e-HRM and SHRM is

established to build the foundation and possibility of bringing SHRM knowledge into e-HRM research, then discuss the existing e-HRM studies based on three categories: from the strategic orientation of the e-HRM itself to its associated capabilities and its final outcomes, which helps to form an end-to-end picture of strategic e-HRM.

2.2.1 Linking e-HRM and SHRM

The discussion of 'strategy' could go back to thousands of years ago when Sun Tzu discussed the tactical side of military strategy in *The Art of War* (Tzu, 2008). There are modern-day interpretations of strategy and strategy management. Alkhafaji (2003) provided a corporation-oriented view where strategic management is taken as a process of assessing the cooperation and its environment to meet the firm's long-term objectives of adapting and adjusting to its environment through manipulation of opportunities and reduction of threats. In the 1980s, SHRM started to capture the attention of scholars of management and, after more than 30 years of development, it has grown into an established domain of inquiry. Researchers have argued that SHRM is not a new idea, with roots that date back to the 1920s when labour economists and industrial relations scholars in the US discussed the deployment of labour force from a strategic perspective (Lengnick-Hall et al., 2009). An early definition of SHRM came from Wright and McMahan (1992), who described it as the pattern of planned HR deployment and activities intended to enable an organisation to achieve its goals. Thus, SHRM is understood to comprise two dimensions. First, SHRM by definition integrates HRM with organisational strategies. Second, the implementation of SHRM requires that the HRM practices within organisations be coordinated with each other according to a given pattern or plan. Jackson et al. (2014) provided a more explicit explanation that defined the SHRM scholarship as 'the study of HRM systems (and/or subsystems) and their interrelationships with other elements comprising an organizational system, including the organization's external and internal environments, the multiple players who enact HRM systems, and the multiple stakeholders who evaluate the organization's effectiveness and determine its long-term survival' (p. 2).

Between SHRM and e-HRM, 'Strategy' is the keyword that holds together the notions of strategic management. Strategy management involves developing an organisation's objectives, policies

and plans to achieve the desired outcomes, and then allocating resources to realise the plan. SHRM is the strategic deployment of HR and activities to achieve defined goals. For e-HRM, although strategy is not specified in every instance of its implementation, it does not seem appropriate to say that e-HRM is deployed without a strategy. One thing that is undeniable about the three closely related notions is that they are all introduced with a view to realise strategic organisational goals. Therefore, it is worth looking at this common theme, as well as the interrelationship between strategic management and SHRM, then delving into how e-HRM is related to SHRM as e-HRM is deployed with a growing orientation towards strategy.

Throughout the history of SHRM research, there has been some consensus that organisations with HRM systems achieve positive outcomes for both internal and external stakeholders (Marler and Parry, 2008a, Paauwe and Boon, 2009). The question of how HRM influences the achievement of organisational objectives has also become the centre of the discussion on SHRM. Theories such as the human capital theory, the RBV and behavioural perspective have all been adopted to examine how SHRM generates positive outcomes (Paauwe and Boon, 2009). There are many opportunities to discuss whether these theories could be applied in e-HRM research; some researchers have argued that in this post-SHRM era many studies display a tendency to focus uncritically on HRM policy choices and short-term outcomes (Boselie and Brewster, 2013), and thus long-term outcomes are to some extent ignored. Furthermore, some scholars (see Jackson et al., 2014) have contended that future SHRM research should both look back and move forward. While e-HRM is running HRM in an 'electronic' way, the nature of e-HRM, like 'HRM', remains unchanged. Therefore, looking both backward and forward also makes sense for e-HRM.

Because there are multiple possibilities concerning the relationships between e-HRM and SHRM, it might be wise at this stage to only consider them as two closely related fields. If e-HRM is examined more from its HRM side, based on previous discussions, it is not difficult to find that there are a few common theories employed by both e-HRM and SHRM researchers. A few major theories have been identified in e-HRM studies (Fındıklı and Bayarçelik, 2015), but a few more theories have been adopted in SHRM research (Boselie et al., 2005, Boselie and Brewster, 2013).

Contingency theory, the RBV and new institutional theory have been employed in both e-HRM and SHRM research. The contingencies of e-HRM and SHRM overlap to a significant extent. The major difference between the use of contingency theory in e-HRM and SHRM research is that the discussion of e-HRM contingency may be directed towards HR technology. However, some researchers regard HR technology as part of the strategy and others view it as part of the context in which strategy is formulated and implemented. The RBV is used in both fields with a slight difference in the substance of the resource to which they are referring. HR technology is included as the resources that organisations may employ to gain competitive advantages, but SHRM puts humans in the centre when discussing resources. This distinction, however, is not definite because HR technology and humans can both be included as resources in either field of research. New institutional theory is applicable in e-HRM and SHRM research in that it does not specify the institutional factors but allows room for the explanation of how HRM structure is affected by institutions. The structures, programmes and practices of either e-HRM or SHRM in organisations can attain legitimacy through the social construction of reality (Wright and McMahan, 1992).

Marler and Fisher's (2013) review of e-HRM and SHRM is an example that combines the three meta-theoretical perspectives of e-HRM research and four theories adopted in SHRM research and proposes research questions accordingly. They found that current e-HRM research generally needs more support from a theoretical foundation. They found that e-HRM research lacks attention to the strategic outcomes and research has rarely examined e-HRM from an RBV to test the theoretically supported relationship between e-HRM and strategy. In terms of consequences, SHRM research reports generally positive outcomes for stakeholders (Jackson et al., 2014), but the situation is quite different when it comes to e-HRM. There have been mixed findings on e-HRM outcomes, especially regarding their strategic contributions. There is evidence suggesting that e-HRM plays an active role in achieving organisational objectives, while there are also studies showing that e-HRM does not bring fully satisfactory outcomes.

Meanwhile, in order to have an integrated picture that how e-HRM could become strategic oriented and produce strategic benefits, such a discussion could be inspired by the established

model in SHRM domain. The research frameworks of SHRM have evolved over the past 30 years. More and more elements are being added to the frameworks to provide a fuller picture of how it is understood. Topics such as the organisational context, business strategy, organisational capability and legitimacy claims, HRM policies and practices, stakeholders and organisational performance (Paauwe and Boon, 2018) have each received substantial research attention. Since the early days of SHRM research, the Harvard model (Beer et al., 1985) has been widely adopted in discussions on strategy and its application in HRM. The Harvard model provides an overview of the process in which HRM strategies are formed. It takes into consideration both stakeholders' interests and situational factors based on what HRM policy choices are made. It also prescribes the HR outcomes and long-term consequences of SHRM so that the model is 'both descriptive and prescriptive' (Paauwe and Boon, 2018). Although HRM scholars still frequently refer to the Harvard model, some researchers (Boselie and Brewster, 2013) have argued the Harvard model is still appropriate for current HRM research. According to Boselie and Brewster (2013), the Harvard model differs from other research as it is an approach that emphasises the human aspect of HRM. It focuses on situational factors and multiple stakeholders and is therefore considered developmental humanism. Another major differentiator is that the Harvard model includes the long-term outcomes at various levels.

How do e-HRM and SHRM interact has also become a discussion for the scholars. With its rapid growth, especially in recent years, e-HRM is widely employed to allow an organisation to meet its strategic needs. e-HRM can be viewed as the decisions that an organisation makes as part of its business strategy. An alternative view, however, argues that e-HRM is the cause of SHRM because it allows more time and space for strategic actions. In this case, e-HRM exemplifies how external forces such as peer organisation pressure and technological advancement change the way HRM is performed. Interestingly, Marler and Parry (2008b) conducted an international HR survey and concluded that e-HRM does not seem to be the mechanism through which companies with HR strategies get more involved in strategy setting; besides, e-HRM and SHRM interact indirectly through HR strategies. The authors later conducted an empirical study on the competing theoretical perspectives of the relationships between the two concepts and found

that the one-way relationship between e-HRM and SHRM does not quite provide a integrated understanding. Internal and external factors are not independent of each other; instead, they interact in a reciprocal manner (Marler and Parry, 2016). Despite the actual conclusion, such a discussion again demonstrates the link between two domains and possible synergies behind.

In summary, examination of e-HRM and its strategic outcomes could draw many references from SHRM research – not only because the strategic orientation of this research coincides with the focal point of SHRM, but also because SHRM research sheds light on the currently fragmented e-HRM research, both theoretically and empirically. The comparatively more mature research framework of SHRM provides a reference for e-HRM research. The commonly adopted research theories also suggest that research into e-HRM could draw experience from SHRM research.

2.2.2 Strategic orientation

The starting point to discuss the strategic aspects of e-HRM could be a firm's intent of making e-HRM 'strategic'. This section focusses on the understanding of such an intent, and a type of e-HRM as the realization of such an intent: a transformational e-HRM that largely focus on achieving strategic benefits, and finally explains what could course such an intent of having a transformational e-HRM and to be strategic oriented.

2.2.2.1 The intent: making e-HRM strategic

The concept of strategic orientation reflects a firm's strategic directions implemented to create proper behaviours for the firm to maintain superior business performance (Narver and Slater, 1990). In other words, strategic orientation is closely related to strategic benefits. Gatignon and Xuereb (1997) concluded that there are three distinctive strategic orientations: 1) customer orientation, an organisation's commitment to integrating customer preferences into the product development and marketing process; 2) competitor orientation, an organisation's commitment to integrating competitor intelligence into the product development and marketing process; and 3) product orientation, an organisation's commitment to integrating innovation into the product development and marketing process (Voss et al., 2000, p. 63). In the e-HRM context, such

orientations could be translated into the strategic values that the firms set for e-HRM (Bondarouk and Ruël, 2013) such as enabling the strategic role of HR (Al-Harazneh and Sila, 2021) or evaluating the contribution of e-HRM to sustain a firm's business performance (Njoku et al., 2019). There is no official conceptualisation of e-HRM strategic orientation itself; most of the existing e-HRM researches discuss desired strategic values or outcomes (Bondarouk and Ruël, 2013, Findıklı and Bayarçelik, 2015, Iqbal et al., 2019, Wirtky et al., 2016), or its strategic considerations (Schalk et al., 2013). However, the intention from organisations to make e-HRM strategic is consistent across existing research.

Gatignon and Xuereb (1997) also argued that the strategic orientation of a firm reflects what set of actions it believes will lead to superior performance. In the e-HRM context, the idea represented by the term 'strategic orientation' is the attribute or the intention of e-HRM. Such an orientation has been perceived in many aspects of e-HRM. Performing administrative tasks is one of the most common situations in which e-HRM is employed. However, administrative tasks themselves do not necessarily entail strategic orientation, but freeing up capacity from these tasks does reveal some strategic traits. One of the strategic considerations behind this is shifting the role of HR from being purely HRM to an entity that involves more strategy. In previous studies, researchers have considered such a shift as one of the benefits of e-HRM that are expected by more and more organisations (Bondarouk and Ruël, 2013, Ruta, 2005, Stone and Dulebohn, 2013). The intention of leveraging e-HRM to make HR as a resource for competitive advantage indicates another aspect of the strategic orientation for e-HRM.

In the context, it is also important to clarify the relationship between e-HRM and business strategy. According to Marler and Parry (2008b) there are two perspectives of looking at such a relationship. One suggests e-HRM leads to a more strategic role of HR in business strategy, the other side believes e-HRM is the result of strategic HR orientation aligned with business strategy.

The first perspective could be explained in the way that investments in e-HRM free up time for HR to focus on more strategic activities. It allows HR to do more strategic value-added activities.

Therefore, HR builds an HR strategy that focuses the strategic activities, HR also develops capabilities to take on a more active role in the development and implementation of business strategy. In such a process, e-HRM could play a role, such as supporting strategic decision-making and shapes HR and business strategies. e-HRM itself does not encompass strategic aspects but displays strategic orientation only. Therefore, e-HRM could only have a mediate effect on the formulation and implementation of the business strategy. This process is similar to what resource-base model where Grant (1991) explain how business strategy could be formulated and implemented from organization resource standpoint, through a five-step approach (that will be explained in chapter 2.2.3.1).

The other side argues e-HRM is the result of HR strategy. It could be either a linkage between HR strategy and business strategy, executing the integrated set of HR policies and practices developed to support execution of the company's business and HR strategies, or e-HRM could be the consequence of set of the decision from the top of the organization, which presents a contingent view in which business strategy proceeds the development of the HR strategy, and finally the HR strategy is reflected in e-HRM setup and executed accordingly. Such a view takes business strategy as one of the contextual factors for e-HRM to become strategic oriented.

Both perspectives take different standpoints but can be complementary to each other. One side takes inside-out approach, views e-HRM as a resource to facilitate the capabilities and develop the strategy. While the other perspective is more outside-in, where the contextual factors influence e-HRM to move towards the strategic end. Both perspectives do not reveal a direct effect from e-HRM to business strategy but mediate effect.

The intent of making e-HRM strategic reflect expectation of the organization, and the type of e-HRM they would like to build. Bissola and Imperatori (2013) suggested that e-HRM practices could be grouped into operational, relational and transformational categories. With the growing emphasis on HR transforming itself into a more agile and responsive organisation to respond to external challenges, as well as the trend of having decentralisation and delegation of managerial

decision-making to the frontline (Wirtky et al., 2016), transformational e-HRM is receiving increasing attentions from the scholars. Transformational e-HRM aims to contribute strategically to organisational performance and change the role of HR itself through practices that include restructuring, outsourcing, knowledge management, organisational development, talent management and those with direct strategic impacts. The discussion of the transformational aspect of HRM is not completely new. Lepak and Snell (1998b) defined a type of HRM as transformational when related to activities in the HRM area that have a strategic importance for the organisation – for example, knowledge management, employee development developed in accordance with the strategic goals of the organisation. With the continuous transformation agenda of HR and ever-changing technology, transformational e-HRM is a constant-evolving topic to study in different contexts. For example, Njoku et al. (2019) described ‘transformational e-HRM’ (p. 21) in the latest technology context, as digital/data analytics and artificial intelligence enhanced e-HRM and argued that transformational e-HRM enables organisations to achieve such a transformation and sustain competitive advantage through capitalising on these new productivity tools and approaches. Similarly, Fraij (2021) specifically discussed how e-HRM could be leveraged to overcome HRM challenges in the COVID-19 pandemic. It could be argued that the organizations that the realization of the strategic orientation of e-HRM is a transformational e-HRM that largely focus on the strategic benefits of the organization.

The question of ‘how’ in relation to the value creation process of transformational e-HRM is also a point of discussion. For example, Njoku et al. (2019) conducted a case study and argued that using artificial intelligence productivity tools could possibly develop strategic flexibility and adaptive capability for organisations, and contribute to sustaining business performance. Nurshabrina and Adrianti (2020) tried to determine the effects of e-HRM activities such as e-recruitment, e-training and e-appraisal, and to understand which has the most positive and significant on employee productivity and cost efficiency for companies in a changing environment. From many aspects, transformational e-HRM largely deals with the strategic aspects of e-HRM, such as its strategic orientation, its realisation process and the final outcomes. A recent study by Zhou et al. (2022) screened 6000+ articles and identified 55 studies for a meta-analysis that

examined the factors affecting e-HRM that have a positive influence on a firm's operational, relational and transformational performance. Their meta-analysis concluded that e-HRM could achieve higher performance in countries with high information communication technology development and low human capital quality.

2.2.2.2 A contextual approach

In an effort to understand the strategic orientation of e-HRM (Findıklı and Bayarçelik, 2015), contingency theory has been used in, and has contributed to, e-HRM research. Contingency theory (Lawrence and Lorsch, 1967) places much weight on how the surrounding environment becomes the contingency influencing the orientation of e-HRM. The fit between the internal and external environments of an organisation has been emphasised during that stage of research. Wit's (2011) research on the factors and consequences of e-HRM success was an example of the adaption of contingency theory in the field of e-HRM. The author developed a contingency model of e-HRM consequences to illustrate the interaction between e-HRM orientation and e-HRM consequences.

A review of the development of SHRM would help to better understand contingency theory itself. Lengnick-Hall et al. (2009) conducted a chronological review and identified various themes to conclude the major evolutionary stages of the SHRM literature. Studies published during the early stage of SHRM in the 1980s laid the theoretical foundation for future research in this field. Early strategic research was largely dominated by the contingency perspective. This perspective focuses on the fit between HR policies and practices, and various strategy elements. According to Marler and Fisher (2013), contingency theory, as one of the prominent theories applied in SHRM research (Lawrence and Lorsch, 1967), draws much attention to how both internal and external organisational contingencies function to shape HRM (Boselie and Brewster, 2013). Moreover, strategic research from the 1990s to the 2000s was characterised by quantitative empirical research to add value to the notion of 'fit' in multiple layers, such as internal fit and strategic fit in the Michigan model (Boselie and Brewster, 2013). The notion of fit is itself two-dimensional. Horizontal fit exists among HRM practices and vertical fit concerns the interrelation

between specific organisational contexts and HRM practices (Delery, 1998). Delery (1998) argued that to measure fit, a detailed description of how practices work together to achieve organisational objectives is both necessary and important. The author also explored the relationships between different HRM practices. One possible relationship among HRM practices is 'additive' (p. 293), meaning they have independent effects on HRM outcomes. Another possibility is that these practices are 'interactive' (p. 293), meaning that some practices may replace others to achieve the same goal, but synergism may also exist among those HRM practices.

When using contingency theory for e-HRM studies, researchers have classified the contextual factors into the micro and macro levels (Ruël and van der Kaap, 2012) to help understand the complexity of e-HRM and to examine its strategic orientation. Marler and Fisher (2013) adopted contingent perspectives to highlight the fit between e-HRM activities and business strategy. Marler and Parry (2016) further use the contingency approach by examining the relationship with e-HRM HR strategic decision-making. Shamaileh et al. (2022) stated that contingency theory provides a foundation for researchers to explain the strategic evolutionary perspective of e-HRM. However, early critics (Boxall, 1992) have argued that contingency theory and the notion of strategy are combined in a normative manner, so contextual analysis is insufficient. Furthermore, other researchers (Weill and Olson, 1989) have proposed criticisms of contingency theory. Indeed, contingency theory entails a deterministic perspective, and the empirical studies conducted under the paradigm show conflicting results. The concepts of fit and performance are poorly defined, and researchers have adopted a comparatively narrow perspective when conducting research. Those limitations may apply to the e-HRM studies. However, in discussing the strategic orientation of e-HRM, the notion of fit has been greatly emphasised in many studies as a key measurement of e-HRM (Almashyakh, 2022, L'Écuyer and Raymond, 2020, Wege et al., 2019, Wit, 2011).

Following the suggestion from Shamaileh (2022), this research brings the possibility of using the contingency theory as the foundation and explore what are the key contextual factors that

influence the strategic intent of the e-HRM. Marler and Fisher's research (2013) discusses the fit between e-HRM activities and business strategy, and its linkage to strategic decision making (2016). It could be argued that both researches take strategic intent of e-HRM as a 'given', a step before would be examining what leads to such a strategic intent. This could contribute to the understanding of the integrated picture of e-HRM strategic value realization.

2.2.3 Strategic resource and capability

Following the point of understanding the strategic orientation or e-HRM, the next step would be to looking into the works that aim to explain how e-HRM realize such a strategic intent and help organization to achieve its desired strategic benefits.

2.2.3.1 e-HRM as a strategic resource

In SHRM domain, the theory of resource-based view (RBV) could explain how certain strategic benefits could be achieved from a resource point of view by viewing HR as a method to gain a competitive advantage on the market. The work by Barney (1991) is the most frequently cited literature when the RBV is adopted in SHRM research. The RBV takes HR as the most valuable resource that contributes to sustaining organisational competitive advantages. In other words, the range of business strategies is determined by the unique strengths and capabilities of the resources that an organisation possesses. Strategy, in this case, is not universally applicable; rather, it is dependent upon the HR that organisations own because resources are rare, value producing, imperfectly imitable and without strategically equivalent substitutes (Marler and Fisher, 2013).

The RBV has gained its popularity as it was firm-focused (Wright and McMahan, 1992), allowing researchers to examine how combinations of internal resources could sustain the competitive advantages of organisations. It also takes into consideration the abilities of individual employees, their motivation and their opportunities to participate, and differentiates itself from other HRM theories by investigating HRM issues from an individual perspective rather than an organisational

one. RBV takes HR as the most important component of HRM because these resources are valuable, unique, inimitable and imperfectly substitutable (Barney, 1991).

From the RBV perspective, resources are the key elements in forming and implementing organisational strategies. There are five steps in the formulation of strategy based on the RBV perspective (Grant, 1991). The first and most fundamental step is to identify and classify the firm's resources to identify opportunities to better utilise the resources through a thorough evaluation. However, compared with dynamic capabilities, resources are static – they are either deployed or discarded – so the next question to consider is the conversion of resources into capabilities. In such a process, one of the key steps is to identify the firm's capabilities, to 'identify the resource inputs to each capacity and the complexity of each capability' (p. 115). Nevertheless, capabilities do not constitute competitive advantages unless they are appraised based on their potential to sustain these advantages and their appropriability of returns. When resources are properly converted into capabilities, the next step is to select the strategy that can best exploit both the organisation's resources and its capabilities. This process involves considering the internal and external environments. The last step is to identify any resource gap so that more resources can be created accordingly. Although this final step does not seem to be directed towards the implementation of strategy, it is equally important because it points towards resources, the basis upon which new capabilities and competitive advantages are sustained. Such a process could be further illustrated by the diagram below.

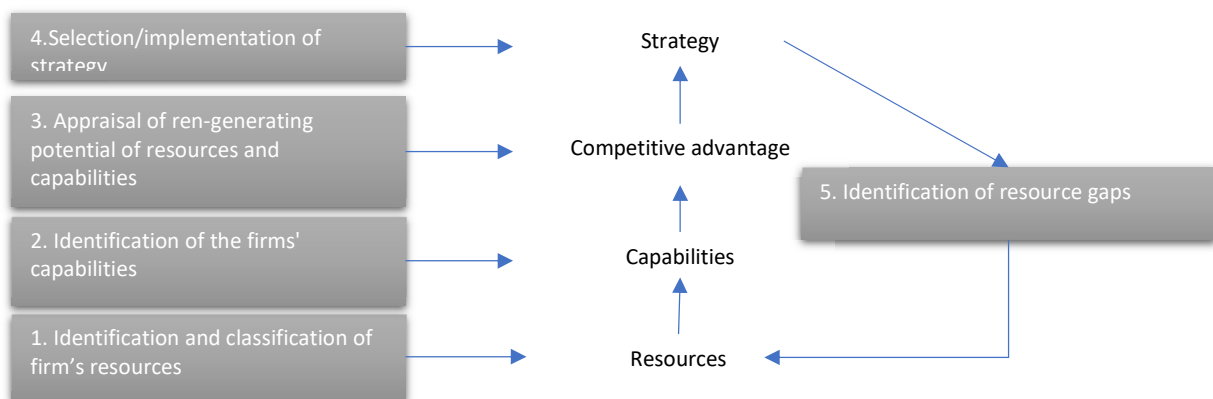


FIGURE 4 THE RESOURCE BASED APPROACH FOR STRATEGY FORMULATION AND IMPLEMENTATION

(Grant, 1991)

Lazazzara and Galanaki (2020) examined RBV perspectives in e-HRM research and argue RBV can contribute to the theoretical foundation of e-HRM research by explaining the relationship between the configuration and its possible transformational consequence. they further explain 'e-HRM could be viewed as a lever to enhance the value of other organizational resource and capabilities' (p.118) and achieve the competitive advantages. As an example, from the RBV, e-HRM practices such as e-recruiting and e-learning can also be regarded as methods for facilitating the achievement of desired goals by organisations (Fındıklı and Bayarçelik, 2015). To build on the work from Lazazzara and Galanaki (2020), it's worthwhile further examining how e-HRM, as a lever, enhance other organizational resources, or e-HRM itself could serve as strategic resource for organizations to develop desired capabilities subsequently, competitive advantage by leveraging the resource-based approach. If e-HRM fulfils role of the organization resource, especially as VRIN resources, according to Grant's resource-based approach, there is a possibility to examine how e-HRM as organization resource develop the capabilities and competencies, and finally produce strategy outcomes and help organizations to achieve the competitive advantage.

The RBV has received criticism for its static and equilibrium-based nature (Ambrosini et al., 2009b, Maatman et al., 2010) as it fails to address how valuable HR could be if refreshed to meet the dynamic external environment. Organisations need to both respond to the market environment and to adjust their institutional expectations accordingly. This also raise the expectation towards e-HRM. In this case, e-HRM could be regarded as a change that organisations make to adapt themselves to the environment. Therefore, as mentioned in the previous section, many studies on e-HRM have combined dynamic capabilities with the RBV, which also closely links e-HRM strategic outcomes. Many empirical studies of dynamic capabilities have been conducted in combination with the RBV. Lin and Wu (2014) explored the relationships among different resources, dynamic capability and organisational performance. The researchers discovered that dynamic capability has a significant mediating effect on improved performance. More specifically, valuable, rare, inimitable and non-substitutable (VRIN) resources influence performance to an even greater extent than non-VRIN resources, and VRIN resources positively affect the development of dynamic integration, learning and reconfiguration capabilities. By combining the

RBV and dynamic capability in their discussion of service innovation, Kim et al. (2015) proposed that property-based resources combined with relational capabilities as well as knowledge-based resources combined with relational capabilities exhibit greater effectiveness in developing ‘integrative, re-configurative and extractive dynamic services, and these capabilities generate better service innovation for firms in the service industry’ (p. 358).

2.2.3.2 Strategic capabilities of e-HRM

2.2.3.2.1 Explaining capabilities of e-HRM

The capabilities could be interpreted and explained in different ways. The ISG (2019) takes a practical approach and describe the e-HRM capability from ‘function’ point of view. It compares e-HRM capability at the early stage (namely HR Techn 1.0) and at the current stage (namely HR Tech 4.0) across five areas, namely HR strategy capability, process capability, service model capability and direct access capability, reporting and analytics capabilities (Table 3). The ISG (2019) believes that e-HRM currently performs increased capabilities across all five areas of functions under investigation.

HR Tech 1.0	HR Tech 4.0
No strategy or central ownership of HR technology; unable to adequately respond to business needs	Central governance established by an HR tech CoE (Centre of expertise); HR viewed as a strategic partner helping drive the organisation’s broader objectives/roadmap
No/limited SaaS (Software as a service)	Full SaaS; advanced use of emerging technologies (artificial intelligence, automation)
No/limited direct access (Manager Self-Service/Employee Self-Service)	High degree of direct access, including use of emerging channels (chat, voice); full adoption and strong user experience focused on ‘moments that matter’
Processes are not harmonised or optimised; not customer-centric	Processes are fully automated, harmonised and optimised
Basic reporting only; no metrics or Key Performance Indicators (KPIs)	Fully integrated intelligence platform; leading metrics and KPIs; strategic business insights

TABLE 1 ADOPTED ISG HR TECH CAPABILITY MODEL

(ISG, 2019, p. 11)

According to the ISG (2019), Strategy capabilities of e-HRM positions HR as a strategic business partner working with the line of businesses to drive organization's objectives and roadmap. It also indicates the capability of performing strategic HR task through e-HRM such a strategic talent acquisition, business planning etc.

Process capability supports a must-have in process of globalisation and digitalisation to define because centralised accountability of HR, which is a key to drive HR strategy across the organisation. At the current stage, advanced technology opens more opportunities for e-HRM to achieve greater capabilities. However, to truly realise the value of the investments made in introducing new HR technology, organisations need to optimise the process so that e-HRM could be implemented in the way that it supports the execution of HR.

Service delivery capability is another aspect that organisations should pay attention to because this aspect could also maximise the return on HR technology investment. In terms of the specific service delivery models, increased reliance on shared services and outsourcing indicates the trend in improved user experience, quality and reduced costs for organisations (ISG, 2019).

Another e-HRM capability to look at is direct access capability – which is also an aspect of the maturity of HRM in organisations. Direct access capability is closely related to employees who use e-HRM on an almost daily basis and self-service can be taken as a method for improving HR service accessibility and generating a high-quality employee experience.

Another e-HRM capability is advanced analytics and reporting capability. The desire for such a capability has been growing over the last few years (ISG, 2019). As indicated in the description for HR Tech 4.0, fully integrated intelligent systems enable e-HRM to perform advanced levels of operational capacities.

It could be argued that the five types of capabilities all have their strategic aspects: strategy capability deals directly with the strategic position of HR: Process capability is largely related

to the process standardization and efficiency; Analytical capability is a crucial step of strategic decision making and planning; Direct access has a direct impact on the experiences of using e-HRM, and could be an essential part of the employee experiences. Therefore, this capability model could be viewed as a categorization for the strategic capabilities of e-HRM and could help to examine the detailed e-HRM capabilities from a strategic point of view.

Another different approach to describe the capabilities of e-HRM is to focus on its nature of being 'operational' or 'dynamic'. Given the continuous wide adoption of e-HRM among organisations, e-HRM has started to be viewed as a resource facilitating organisational capability. e-HRM capabilities range across many aspects of HRM as it is employed in almost every e-HRM practice. Bondarouk and Ruël (2013) argued that the technology aspect of e-HRM enables both the operational and dynamic capabilities of an organisation. In other words, e-HRM facilitates the operation of ordinary HR processes as well as processes that add value.

Winter (2003) stated that operational capabilities allow an organisation to operate its daily business properly. In the e-HRM context, these are the basic HR functions that satisfy the day-to-day operation of an organisation. One of the foremost functions of the HR unit is administration. Administration enabled by technology allows tasks to be completed through simplified processes so that both employees and HR practitioners can spend less time on administration-related issues. Being able to deliver and receive HR services anytime and anywhere benefits employees both within and outside the HR sector.

The other type of capability from e-HRM is dynamic. Attaining a sustained competitive advantage requires the HR function to not only use the existing HR capabilities but also to have the capacity to develop new ones. Here is the place for dynamic capability, the capacity of an organisation to purposefully create, extend or modify its resource base (Helfat et al., 2009). The term 'dynamic' reflects a change not only in the capability itself but also the resource base or the renewal of resources (Ambrosini and Bowman, 2009a). Although dynamic and operational capabilities are believed to be two different levels of capabilities (Teece et al., 1997), it still seems very difficult

to separate one from the other. In many cases, dynamic capabilities are derived from operational capabilities. For example, the technology adopted in HRM reduces the time required for HR administrative work, and such a capability is operational. Dynamic capability is generated through this process because HR practitioners are allowed more time to perform strategic tasks such as designing HR policies, getting involved in business planning, performance management and human capital development.

2.2.3.2.2 e-HRM technology impacts

The capabilities of e-HRM are largely related to the technologies adopted in e-HRM. To gain a better understanding of e-HRM capabilities, it's worthwhile to understand the development of e-HRM technology and its impact.

At the very beginning of the introduction of technology in HR, e-HRM systems were focused on reducing costs and improving efficiency. The realisation of such an expectation is also evident in the literature (Al Shobaki et al., 2017, Lengnick-Hall and Moritz, 2003, Parry, 2011, Ruël and van der Kaap, 2012, Sanayei and Mirzaei, 2012). Moving beyond the most common and widely expected benefit of e-HRM, improving HR services also takes up a significant proportion of the expectations for HR technology. In terms of having employees better accept new technology and services, Huang and Martin-Taylor (2013) found that HR can play a more proactive role in shaping and reshaping users' perceptions towards accepting a new technology by better understanding how systematic interventions can be developed, used and evaluated. For example, a shared HR services centre is considered one of the effective ways to improve HR service delivery to end-users, and to achieve higher HR service productivity by using technology to centralise knowledge and operations (Meijerink and Bondarouk, 2013). Although big data as a new technology is frequently utilised in corporations, Verma et al. (2020) found that the application of big data in HRM also helps to improve HR services in small and medium-sized companies. Globalised HR systems being compiled using a consistent global scale is also considered one of the benefits of e-HRM systems. The globalisation of HR systems enables organisations to perform HR practices consistently both locally and globally, which drives organisations towards a more mature HRM.

Growing attention has been paid to these types of technology and a corresponding term, 'SMAC', for social, mobile, analytics and cloud, was coined around 2011 or 2012 to describe the influence exerted by IT (Laskowski, 2021).

According to Langen (2016), SMAC technology is a digital ecosystem for innovations of products, services and business models. Compared with SMAC, SMACi is an even more recent term that emerged with the advent of the Internet of Everything, a network of connected devices that enables machine-to-machine communications. However, exactly where SMACi fits in SMAC is still up for debate. The Internet of Everything is considered by some people to be the accelerator of SMAC, while some others believe it belongs to the umbrella term SMAC. Some also see the Internet of Everything as an extension of the four already-established SMAC pillars; therefore, the term SMACi came into being (Table 1) (Laskowski, 2021). Betchoo (2016) mentioned the term SMACi; the author considered it a key enabler of digital transformation of e-HRM. The author believes that SMACi differs from the previously mentioned term 'SMAC' as the former expanded its scope to include the Internet of Everything as a driving force.

Although researchers argue that relatively little research has been conducted to examine, from an integrated perspective, the effectiveness of incorporating technology with HRM (Stone et al., 2015), it seems that already-existing research on digital transformation in organisations possesses a positive attitude towards IT's influence over HRM (Betchoo, 2016). The quantitative examination by Betchoo (2016) is an example of the general conclusion as to whether digital transformation brings about positive or negative effects. In an examination of two public organisations, the author discovered a positive relationship between digital transformation and HR factors, including HR development, talent management and performance management, and digital transformation, thereby contributing to enhancing productivity.

Technological advances have advanced at a faster pace in recent years. Moreover, there has been increasing attention on 'smart' technology, which collects data from surrounding environment and assist user in day-to-day activities. Many applications are embedded with 'artificial

intelligence’ (Papagiannidis and Marikyan, 2020), with the purpose of significantly improving the productivities and end-use experiences.

SMAC Technologies			
Social	Mobile	Analytics	Cloud
Social media platforms give businesses new avenues through which they can communicate with existing and potential customers.	Connected devices are the basis for new business models and new services offered to customers.	Data are a by-product of business. By analysing it, companies can make smarter decisions and predict future behaviour.	Cloud computing offers businesses a quick and flexible way to respond to changes in their markets and access important data.

TABLE 2 SMAC TECHNOLOGIES

(Laskowski, 2021)

Although there has been much discussion on the application of SMACi technology in e-HRM, it is not yet possible to determine which type of technology is solely used in what e-HRM process as technology is diffused among HRM processes. It would be more appropriate to conclude that one or more technologies can be involved in almost every e-HRM practice. Starting from the earliest point of recruitment, e-recruitment is used to attract a talented and diverse workforce, while e-selection, such as electronic job analysis, electronic job applications, electronic tests and personality inventories, helps organisations to identify talented and diverse employees among applicants. As previously discussed, social media could very well be a platform through which employers gather information and select potential employees. Interactive technologies (Sullivan, 2014) might even enhance the overall efficiency and effectiveness of e-recruitment. Analytics also functions in these processes, as it helps employers to make better decisions on recruitment and selection. After employees have been onboarded, e-training and e-learning are then introduced to broaden the channel to increase employee knowledge, skills and abilities. Mobile devices combined with cloud services enable employees to access learning and training anytime and anywhere, while analytic methods make it possible to personalise learning and training for individuals. The management and enhancement of employee performance are also supported by technical methods. Performance measurement and feedback are the two main areas where technology is deeply involved (Stone et al., 2015). For example, facilitated by cloud technology, electronic performance measurement (e-PM) is capable of tracking employee performance and

storing corresponding comments and feedback on performance. The e-compensation system and employee self-service system (ESS) serve the goal of motivating and retaining talented employees with diverse backgrounds.

The recent development of the new technologies has forced many scholars to revisit the application of technology in HRM (Coppola and Myre, 2002, Derouin et al., 2005, Stone et al., 2013) and displayed the multidisciplinary nature of e-HRM as pointed out by Paauwe and Boon (2018). As a few examples, Ziebell et al. (2019) examined how e-HRM has evolved in cloud environment, and Rahman and Aydin (2020) explored the role of technology in e-HRM implementation in a public sector organisation. Moreover, Ruel (2021) discussed the future of e-HRM and artificial intelligence in the hospitality and tourism industry. In other words, technology has transformed how HRM is performed, and this transformation is perceived as a digital transformation (Betchoo, 2016). The ways in which technology is related to HRM have been multiplied and the scale of the influence that technology exerts over HRM is growing even greater over time.

Though e-HRM technology should have the capability to support lots of conceivable HR practices. Researchers (Erdoğmuş and Esen, 2011) have argued that acceptance of the use of HR systems by employees plays an important role in such processes, which creates another aspect to look into the process. For example, Parasuraman (2000) introduced the Technology Readiness Index (TRI) to measure the employees' level of readiness to use technology and revealed that different personality types could have both positive and negative effects on the use and adoption of IT. On the other hand, the willingness of using e-HRM also depends on 'experiences' that e-HRM could possibly bring to the employees, and therefore the employee experience (Plaskoff, 2017) could be strategically important for e-HRM value realisation. However, research regarding the employee experience has not sufficiently examined interactions with other factors to jointly address the understanding of e-HRM value creations.

2.2.3.2.3 Dynamic technology capabilities

Zollo and Winter (2002) argued that dynamic capabilities have a knowledge- and information-intensive nature. Following this, McLaughlin (2017) argued the advancement of the technologies reshape the organisation's capabilities to compete effectively in the marketplace. The authors also proposed a set of dynamic technology-enabling capabilities that an organisation could consider. Moreover, this scholar suggested that by aligning, integrating and adopting technology into the business, an organisation could better utilise technology to achieve performance goals. As part of the research, McLaughlin (2017) defined the concept of 'dynamic technology capabilities' as 'those capabilities that are either influenced by technology, or influence how technology is used to build competitive advantage, or improved performance for an organization; (p. 68). The researcher further explained that dynamic technology capabilities are a subset of dynamic capability; therefore, its output, and focus for dynamic technology capability remain same, which is to improve the competitiveness of the organisation. Mikalef and Pateli (2017) examined information technology-enabled dynamic capabilities (ITDCs) and their indirect effect on competitive performance. They also demonstrated the critical role that ITDCs play in ensuring the performance of a firm. Majhi et al. (2021) evaluated a similar topic from a different perspective, specifically from the individual manager standpoint. They introduced a new construct called 'individual IT leveraging capability' and further explicated the relationship between IT and dynamic managerial capabilities from managers. They argued and demonstrated ITDCs could help the firms to enhance its performances by facilitating better support to managers. Dynamic capabilities are only dynamic if they can adjust the deployment of resources appropriately in the face of the fact that changes are constantly happening both inside and outside organisations. However, dynamic capabilities are not without pitfalls. They do not constitute a sufficient condition for competitive advantage, as they may also be 'a source of rigidity and may lead to a competency trap' (Wójcik, 2015, p. 102).

Bondarouk and Ruël (2013) argued that the capability perspective should always evolve, and they explained how HR could be used to sustain the competitive advantage under a dynamic set-up. HR function should not only use the existing HR capabilities; it should also have the capability to

develop new ones, a characteristic referred to as dynamic capability. This concept reflects the renewal of the resources (Ambrosini and Bowman, 2009a). This is where the organisational capability theory and the dynamic capability framework come into the picture. Organisations possess capabilities. A capability, whether operational or dynamic, is the ability to perform a particular task or activity (Helfat et al., 2009). Operational capability permits an organisation to 'make a living' in the short term (Winter, 2003). While operational capability enables an organisation to live in the present, dynamic capability is related to the ability to face changes. According to Helfat et al. (2009), dynamic capability is the capacity of an organisation to purposefully create, extend or modify its resource base. It is thus reasonable to think about higher-order capabilities. Teece (2018) argued that the highest-order dynamic capabilities, which include the sensing, seizing and transforming of competencies, are those that are most relevant in organisational innovation and opportunity exploitation. These highest-order dynamic capabilities direct various ordinary capabilities and the second-order dynamic capabilities.

2.2.4 Strategic outcomes

To have a complete strategic e-HRM picture, after discussing the strategic orientation, and capabilities it is important to understand actual meaning of strategic benefits of e-HRM, and possible explanations on how e-HRM could help organization to realize this strategic intent.

e-HRM is expected to provide a number of benefits to organisations (Stone and Dulebohn, 2013). According to the ISG's 2019 report on HR technology, HR practitioners and organisations have a long list of expectations for e-HRM. These expectations include: improve the employee user experience, reduce HR administration costs, reduce dependency on IT, succeed in ongoing innovation and best practices, increase employee engagement, improve integration of data and applications, enable globalisation, increase scale and leverage, increase speed to implement and achieve value, reduce technology of ownership, enable the use of artificial intelligence, and avoid capital expenditure (ISG, 2019). Although these expectations do not carry the same weight in the consideration of e-HRM goals, this does not mean that any single expectation is more important than another. The aforementioned specific expectations can be reclassified into four major categories. The basic expectations of greatest concern in implementing e-HRM systems are

reducing costs and enhancing HR efficiency. Improving HR services is also a major concern for organisations. As technology enables all parts of the world to become more closely related, globalisation is also one of the benefits (Coppola and Myre, 2002, Derouin et al., 2005, Huang and Martin-Taylor, 2013, Ruta, 2005, Stone et al., 2013, Williamson et al., 2003). Although it is not mentioned in the above report, enabling HR professionals to become strategic or business partners in an organisation (Stone and Dulebohn, 2013) has gradually become the fifth expected benefit of e-HRM systems.

2.2.4.1 Clarifying the strategic outcomes of e-HRM

There have been different discussions on the strategic benefits or outcomes of e-HRM. At a micro level, Strohmeier (2007) argued that one type of e-HRM consequences is transformational, mainly concerning the role HRM plays in company performance and strategic support. More specifically, transformational consequences involve transforming HR into a business partner that could provide strategic values to organisations. Compared with the other three types of consequences, namely individual, operational and relational, transformational consequences are associated more with the strategic benefits of e-HRM and describe them more generically at the organisational level. More specifically, Bondarouk and Ruël (2013) classified the strategic benefits ascribed to e-HRM into seven groups, namely: the generation of HR metrics to support strategic decision-making, the automation of routine HR tasks and replacing 'filing cabinets', the branding of organisations and improving the organisational image, freeing HR staff from administrative burdens and allowing them to undertake strategic people-management activities, empowering managers through the development and supporting management capacity to conduct HR activities, improving talent management through e-selection, self-assessment and e-performance management, and 'transforming HR professionals from administrative paper handlers to strategic partners' (p. 392).

The works from Strohmeier(2007) and Bondarouk and Ruël (2013) largely take the standpoint of the organization. For a long period of time, employees have been considered human capital that, deployed with strategy, can be a means for organisations to achieve added value through people

(Baron and Armstrong, 2007). Specifically, 'human capital theory focuses attention on practical issues relating to employee resourcing, development and reward, measuring the value of people, evaluating HR processes, organizational learning and knowledge management' (p. 18). However, researchers believe that the view of 'human capital' takes a hard approach in considering humans as assets to be utilised to the maximum to achieve organisational goals. In contrast, experience management places humans at the centre of what empowers business (SAP, 2020). Although improving the employee user experience is the prime expectation of HR technology, it has become a strategic benefit for which organisations try to capitalise. Following Strohmeier's (2007) work defining different types of e-HRM consequences, the employee experience in the e-HRM context could be viewed as an individual consequence. It has become a strategic topic for many organisations.

Among discussions on all aspects of HR, the employee experience has emerged as the prime strategic concern of organisations in a wide range of business (Maylett and Wride, 2017, Morgan, 2017, Plaskoff, 2017). Maylett and Wride (2017) defined the employee experience as 'the sum of perceptions employees have about their interaction with the organization in which they work' (p. 12). To better illustrate how the employee experience is generated, the authors proposed an equation that puts the employee experience at one end and experiences, expectations and perceptions at the other end. In a similar effort, Morgan (2017) argued that the employee experience lies at the intersection between employee expectations, needs and wants, and organisational design of employee expectations, needs and wants. Thus, there is a discrepancy between organisational effort in employee experience and actual employee experience, which proves that employee engagement and the employee experience cannot be interchanged. Moreover, the employee experience is not to be confused with other terms that are related to things about humans, such as talent management or HR development, because the employee experience appears to be more bidirectional than the other terms. These two definitions of employee experience from Maylett and Wride (2017) and Morgan (2017) are not the same. While Maylett and Wride's (2017) definition is more inclined towards the sole perspective of employees, Morgan's (2017) intersectional employee experience differs from that and argues that it might

be in both parties' interest if employee experience is viewed as created and affected by both the organisation and its employees.

One question around the employee experience is why the concept itself deserves much attention and discretion. The significance of the employee experience is explicit in the literature (Farndale and Kelliher, 2013, King and Grace, 2009, Lemon, 2019, Ludike, 2018, Yildiz et al., 2020), where the employee experience could be understood as a value driver. It also fits with the 4th categories of strategic benefits focusing on 'people' described in the section 2.2.4.2. Linking this to the discussions of e-HRM strategic orientation and capabilities, if the employee experience is viewed as a strategic concern of the organization, it needs to be part of the strategic considerations of e-HRM. In many scenarios, employees are the consumers of the e-HRM, such as employee performing HR self-services through e-HRM. Hence, the capabilities of direct access or services deliveries may have direct impact on employee's satisfaction and experiences. Therefore, e-HRM capabilities need to be able to fulfil the expectation of delivering good experiences to the employees.

In summary, the studies and discussions around strategic benefits can be summarised into four categories: first, the capacity to perform strategic HR activities, such as business decision support, strategic talent acquisition, etc.; second, transforming the role of HR into strategic business partners; and third, helping the organisation to achieve a competitive advantage through its HR, which is also studied in the domain of SHRM discussed before. The first three categories of strategic benefits are studied from the 'organisation' standpoint. The fourth category focuses on 'people', as HR is seen as a 'people' function in organisations, many researchers have looked into individual impacts such as employee motivations, the employee-employer relationship, in order to link individual consequences with strategic benefits at the organisational level.

2.2.4.2 Outcomes of e-HRM dynamic capabilities

Besides conceptualizing 'dynamic capability' itself, Eriksson (2014) also discusses the relationship between the dynamic capabilities and organizational performance and argued there are four

types of possibilities: a straightforward direct relationship where dynamic capability links directly to the consequences and organisational performance, a less direct relationship influenced by other factors, a direct relationship where dynamic capability works as the mediating factor between organisational resources and processes, and finally an indirect relationship where dynamic capabilities create changes in operational capabilities and, consequently, influence organisational performance (figure 5).

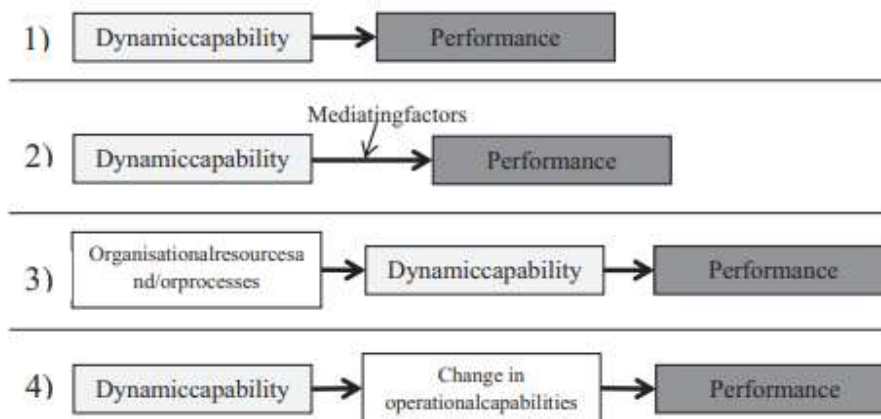


FIGURE 5 THE RELATIONSHIP BETWEEN DYNAMIC CAPABILITIES AND ORGANIZATIONAL PERFORMANCE
(Eriksson 2014)

In e-HRM context, such a relationship could explain different scenarios. An example of direct impact would be the dynamic technology capability of ‘decision support’ would create positive impact on business decision making to drive for the performance. On the other hand, as an example of ‘indirect impact’, the dynamic technology capability of designing user interface may create impact on how e-HRM operational services are delivered to the employees, influencing their experiences of using e-HRM and subsequently on overall employee motivations and experiences. In such a process, operational capabilities are enhanced by dynamic technology capabilities. This relationship is similar to what Barreto (2010) describes ‘the relationship between dynamic capabilities and performance is rather indirect through the quality of substantive capabilities changed by dynamic capabilities’ (p. 276). The two types of consequences brought by operational capability and dynamic capability comprise e-HRM consequences and together create organisational competitive advantages and desired performance.

Applying Eriksson (2014)'s work to e-HRM in which dynamic capabilities facilitated by e-HRM produce various consequences at different levels to achieve organisation performance, helps to understand the relationship between the dynamic capabilities and outcomes of e-HRM. And together another work from Eriksson (2014) where dynamic capabilities are conceptualised through generic-knowledge-related processes, namely 'knowledge accumulation, integration, utilization and reconfiguration, such a framework helps to not only examine both direct and indirect relationship between the capability's facilitated by e-HRM and its outcomes, but also develop a picture to explain how e-HRM as a strategic resource, facilitating capabilities to produce the strategic outcomes.

Although there are many possibilities regarding the relationship between dynamic capability and organisational performance (Barreto, 2010, Eisenhardt and Martin, 2000), it is appropriate to argue that dynamic capabilities and operational capabilities collaborate to produce the desired outcomes. The organisation constantly engages itself in the journey of HR transformation, and dynamic technologies capabilities (Mclaughlin, 2017) from e-HRM enable the organisation to adopt the latest HR technology to support its operation and creates flexibilities and efficiencies. Should there be any changes or new requests in the daily operation, such a capability allows making apt and quick responses to accommodate new operational capabilities and bring e-HRM outcomes. Specifically for e-HRM, the company's dynamic technology capability, by adopting advanced technologies, could further develop the operational capability of managing the daily HR operations such as payroll and employee information maintenance, and finally produce the desired consequences.

2.3 Gaps in knowledge and avenues for advancement

The picture of e-HRM research and practice is complex. On the one hand, decades of e-HRM research present conflictive evidence about the strategic impacts of e-HRM (Almashyakhi, 2022, Bondarouk and Ruël, 2009, El Idrissi et al., 2021, Iqbal et al., 2019, Marler and Fisher, 2013, Orlikowski and Scott, 2008b, Strohmeier, 2007). On the other hand, organisations continue to struggle with their e-HRM investment decisions due to mixed results and ambiguous strategic

impacts (Bondarouk and Ruël, 2013, Canedo, 2020, Marler and Parry, 2016, Shamaileh et al., 2022). Despite research evidence that presents a relatively positive picture of e-HRM (AlHamad et al., 2022), these rely on potential for impact, with limited insight into concrete strategic outcomes of e-HRM. This makes the strategic value of e-HRM appear as a general assumption (Hoq, 2021, Marler and Fisher, 2013). Against this backdrop, there are two main knowledge gaps: lack of an integrated view of the key factors that influence the strategic orientation of e-HRM, and limited insight into the value realisation process of e-HRM.

2.3.1 Lack of an integrated view of the key factors influencing the strategic orientation of e-HRM

The capability of e-HRM to be strategic has been acknowledged (see Marler, 2009) but its success relies on HR managers thinking strategically before implementing e-HRM (Parry & Tyson, 2011; Al-Harazneh & Sila, 2021). In this respect, understanding how to embed strategic business thinking is a useful angle to advance research on the strategic outcomes of e-HRM. Dominant research has explored the interconnectedness between established policies and practices; for instance, Marler and Parry (2008) argued that e-HRM and strategic involvement are related indirectly based on its relations to a company HR strategy, whilst Marler and Fisher (2013) examined the fit between e-HRM activities and business strategy.

Contingency theory provides a good avenue for this exploration given that setting variability shapes e-HRM directions. Many researchers (Fındıklı and Bayarçelik, 2015, Marler and Fisher 2013, Ruël and van der Kaap, 2012) adopt contingency theory as the theoretical foundation to explore how the surrounding environment becomes the contingency influencing the orientation of e-HRM. As noted by Olivas-Lujan et al. (2007), “the country’s geography, institutions, contextual and social contracts, employee educational levels, industry effects as in financial institutions, generational gaps, social relationships, and infrastructure disparities shape the applicability and use of an e-HRM strategy” (p. 430). Adopting a contingency approach involves considering both internal and external factors; for example, e-HRM design requires the knowledge of important external situational factors such as local legal regulation, industry trends,

among others. Similarly, e-HRM implementation must consider internal organizational factors such as organizational culture, leadership style, technology readiness and strategy, among others.

Shamaileh et al. (2022) have stated that contingency theory provides a foundation for researchers to explain the strategic evolutionary perspective of e-HRM. This was the case of the studies previously mentioned by Marler and Fisher (2013) and Marler & Parry (2016). The former adopted contingent perspectives to highlight the fit between e-HRM activities and business strategy. The latter used the contingency approach by examining the relationship. However, there is scope for to expand these works exploring the strategic thinking that underpins these policies and practices in a more integrated way that also considers contextual factors. In practical terms, although contextual factors of the organization could largely vary from one to another, an integrated understanding of how these factors influence the strategic orientation could help organizations define the strategic position for their e-HRM efforts.

2.3.2 Limited insight into the value realisation process of e-HRM

Despite a wealth of literature (see Beer et al., 1985, Bondarouk and Brewster, 2016, Fombrun et al., 1984, Paauwe and Farndale, 2017, Strohmeier, 2007) that shows that e-HRM brings multiple outcomes to individuals, organisations and the society as a whole, the understanding of how e-HRM improves organisational performance is still fragmented (Zhou et al., 2022). There is no conclusive evidence on these outcomes as they have been found to be expected, unexpected, desired and undesired. For instance, recent research has focused on specific desired strategic benefits, such as efficiency improvement and transformation the role of HR (Al-Harazneh and Sila, 2021, Shrivastava et al., 2022), sustaining business performance (Njoku et al., 2019) and discussing the key factors to achieve the desired benefits. Parry and Tyson (2011) note that most current research focuses on the discussion of the potential goals of e-HRM, but they have rarely investigated how these goals are set and achieved and what factors have exerted impact in the process of setting and achieving the goals.

The understanding of strategic value realisation is generally fragmented. As a consequence, The limited insights into the e-HRM value realization process contributes to the difficulty of explaining the mixed findings and varied conclusions in terms of the strategic contribution of e-HRM, why and how this happens. Ruël et al. (2004) found that the acclaimed strategic advantages of e-HRM, such as changing the role of HR into business partners and increasing the time available for strategic HR issues, have not been convincingly realised. Other scholars have reached similar conclusions. In contemplating the process of how strategy is formulated in organisations, Marler (2009) discussed whether applying e-HRM towards strategic ends is a reality or a myth, arguing that the current perception of the strategic value of e-HRM is overly optimistic, and few goals will achieve its intended objectives. Subsequent empirical research (e.g., Bondarouk and Ruël, 2013) has revealed that the effects of e-HRM may not be very satisfactory because whilst the role of HR professionals went through a perceived change, the roles of line managers and non-managerial employees remained unchanged.

Other scholarship argues that the strategic impacts of e-HRM are evident even if perhaps somewhat indirectly strategic. Parry and Tyson (2011) examined the goals that organisations stated for introducing e-HRM; drawing on Lepak and Snell's (1998a) categorisation of SHRM outcomes, they classified them into three types of goals: efficiency, service delivery and standardisation, which they found to be commonly achieved. However, they found no evidence of increased participation of HR in decision-making processes even when there was evidence of the transformational impact of e-HRM in the form of HR staff members having more time and information to support organisations in achieving their business strategy. Other research (see Ruta, 2005; Olivas-Lujan et al., 2007) has provided evidence that e-HRM can facilitate the strategic integration of HRM with the company strategy. Olivas-Lujan et al., (2007) found that organizations reported that, by replacing traditional paper-based HRM with e-HRM solutions, their costs were effectively reduced, and organisational efficiency was improved. As a result, the role of HR was expected to change towards a more strategic unit. Similarly, Ruta's (2005) case study indicated a positive attitude towards the strategic meaning of e-HRM; the study found that the use of an employee portal contributed to business strategy in at least three ways. First, the

HR function was perceived to have greater value and became less administrative with the simplification and standardisation of most HR practices. Second, the cost reduction was significant and the HR function was more involved in strategic activities such as problem solving and competencies. Finally, having successfully managed the strategic transformation of the whole company, the HR department was now regarded as a strategic partner. Unlike the previously mentioned studies, these studies appear to be more optimistic about the role of e-HRM in organisations.

2.3.3 Avenues for advancements

In reviewing these gaps for e-HRM, there are more clarities needed to understand orientation of e-HRM, its resource nature, capabilities converted from these resources and the interrelationship with the outcomes. An integrated picture explaining how the strategic benefits of e-HRM could be achieved is still missing. A few avenues for advancement are proposed in this research to effectively address the research questions.

Further clarity on viewing e-HRM as an organization resource

This research provides the possibility of studying the 'resources' nature of e-HRM by using resources-based view, and discuss if e-HRM could be a lever building organizational resources, or itself could be a resource, fulfilling NRIV criteria. Many research examines and discuss e-HRM from resource point of view (Fındıklı and Bayarçelik, 2015, Lazazzara and Galanaki 2020), most of research take a helicopter view of e-HRM and examine it resource nature without going into the specifics. The clarity of type of resources e-HRM could offer and their contributions to the strategic benefits is unclear. Subsequently, the applicability for VRIN criteria for e-HRM resources from RBV theory point of view is also largely unaddressed. Clarifying these points would help to examine e-HRM using the resource-based model (Grant, 1991) to discuss its contribution to strategy formulation and implementation, which would contribute to address the research question in this research.

More integrated understanding of capabilities facilitated by e-HRM

Many researchers have examined specific e-HRM practices, such as e-selection and e-learning, under specific organisational and geographical set-ups. e-HRM. Many looks into the detailed configuration of the e-HRM to understand how it helps to achieved desired consequences (Rahman et al., 2018, Somendra et al., 2012, Ziebell et al., 2019). Most of the research has focused on a specific scenario and has attempted to find explanations. Connecting with the discussion of view e-HRM as an organization resource, besides of the type of resources that need to be understood, understanding the list of capabilities facilitated by these resources could also be crucial to form the picture of value realization for e-HRM.

Resources constitute a basis for static and dynamic capabilities that could be operational, functional or strategic (Paauwe and Boon, 2018, Wójcik, 2015) manage the changes. The development of research around organisational dynamic capabilities provides another angle to further explore the strategic aspects of e-HRM. By using the resource- based approach, the research could examine the relationship between the resources and capabilities. Organisational capabilities differ in their complexity (Grant, 1991), a single resource might comprise multiple capabilities and a single capability could consist of multiple resources, which adds one more dimension to the analysis of dynamic capability. As technology evolves, there is an opportunity to examine a set of dynamic technology–enabling capabilities (McLaughlin, 2017) in the e-HRM context, and how these capabilities help an organisation to achieve the desired strategic benefits. As presented in the introduction of this dissertation, one of the purposes of this research is to analyse and depict the role of e-HRM in the development of strategic capabilities and its influence on the firm’s performance. Exploration of the e-HRM dynamic capability could very well reveal how the resources are deployed and subsequently converted into dynamic capability. Moreover, such analysis also helps in examining the interplay between organisational resources and the environment so that a fuller picture of e-HRM discussion is available.

The interconnections between the e-HRM capabilities and outcomes

Strohmeier (2009) tried to explain the unexpectedness and undesirability of consequences of e-HRM. It could be due to the complexity of consequences bundles itself, where some obvious

consequence may be expected, however unobvious consequence may not be easily foreseeable. In this context, further clarification of the meaning of strategic benefits may help to address such an issue. Meanwhile, in order to understand how the final outcomes are achieved, it's necessary to have the clarity on the relationship between the e-HRM capabilities and its outcomes. There are studies discussions on the relationship between the dynamic capabilities and organizational performance (Ericsson 2014), however this has not been put under specific e-HRM context. The ambiguity of the relationship between these 2 notions creates the further confusion for the value realization process. Exploring such relationship between the e-HRM capabilities and its outcomes would help to build the final piece of the picture to address the research question.

This research offers opportunity to develop more integrated picture of strategic outcome of e-HRM by linking individual consequences, such as employee experiences with organizational outcomes. Many strategic benefits are still researched from the 'organisation' standpoint. As HR is seen as a 'people' function in organisations, many studies have investigated individual impacts such as employee motivations and the employee-employer relationship, among other factors. However, these studies have not quite linked individual consequences with strategic benefits at the organisational level. Therefore, individual consequences of e-HRM constitute an important topic of current e-HRM research, and there is need for further investigation (Strohmeier, 2007) of individual consequences themselves and its relation with strategic benefits.

A contextualized picture of strategic e-HRM and its value realization

Researchers have argued much effort is required in building the theoretical framework of e-HRM research (Findıklı and Bayarçelik, 2015, Stone and Dulebohn, 2013, Strohmeier, 2007, Ziebell et al., 2019). This research intends to study e-HRM on Harvard model to have a more contextualized view. Across a broad view of the research frameworks of e-HRM and SHRM, the Harvard model has inspired both fields of research (Bondarouk and Brewster, 2016, Paauwe and Farndale, 2007, Strohmeier, 2007). One of the reasons might be the situational focus of this model among all the e-HRM and SHRM frameworks, and a critical issue is the significance of context. Bondarouk and Brewster (2016) even argued that understanding the integration of HR technology and HRM

allows comprehending the context in which it happens. These researchers based their conceptualisation of future e-HRM research on the Harvard model and offered a more contextualised view of e-HRM, a more expansive view of stakeholders and a wider and more long-term approach to outcomes. The authors proposed the e-HRM territory of enquiry in which they defined context as 'the external and internal conditions and circumstances that are relevant for HRM' (p. 2665) and argued that in academic literature there is an implicit assumption of the universal applicability of research findings. Some contextual factors have largely been ignored by current research, which offers further research opportunity.

3 Research Design, Methodology and Methods

This chapter starts with the aim and objectives of the research, then further states the research questions that contribute to address the knowledge gaps discussed in the previous chapter. This chapter explains qualitative research design for this research, and how the single case study is adopted to conduct the research. The data sampling strategy, qualitative data collection and analysis methods are explained and discussed in more details. Finally, a few research considerations specifically associated with this research, such as the role of the researcher, are discussed and clarified.

3.1 Aims and objectives

For companies spending millions of dollars to build their HR information systems and implement e-HRM, gaining strategic benefits from e-HRM is one of the important reasons for such an investment. It is important for companies to gain a more sophisticated understanding on how e-HRM could help them to achieve their strategic goals. Though e-HRM appears to be capable of generating multiple strategic benefits, just like what has been discussed in the previous chapters, the authors have also pointed out that there is a lack of research that links e-HRM to HR strategic benefits.

By developing an integrated view of key factors influencing the strategic orientation of e-HRM, and gaining further understanding into the strategic value realization process of e-HRM, the research aims to provide insights into the process through which e-HRM produces its strategic outcomes, focusing on the factors that shape this process and their interrelatedness.

Such an aim is converted to a few objectives for this research, first, understanding the attributes of e-HRM and contexts shaping its strategic orientation; Second, clarifying the e-HRM resources and the capabilities facilitated by these resources, particularly how technology influences the evolution of the capabilities; Third, examining the strategic contributions to the organisation and exploring the interconnections between the key e-HRM capabilities and their outcomes;

Finally, developing a contextual, holistic picture that explains the process that how e-HRM become strategic oriented, subsequently achieves its strategic outcomes.

3.2 Research questions

Driven by the interest of this study in understanding the process of value realization for e-HRM and to capture interactions as part of the process, this research has two research questions:

Question 1: How does SHRM affect e-HRM's strategic orientation?

Question 2: How does e-HRM become a capability to produce strategic outcomes?

The questions emerge from the interest in understanding both the characteristics of e-HRM itself and the mechanism of how e-HRM produces strategic outcomes in order to produce knowledge that captures the intersection between strategic orientation, strategic capabilities and outcomes. The two research questions connect e-HRM and strategic HR outcomes. This does not assume a direct linkage between the two notions and pays attention to the existence of mediating factors. The two split views on the relationship (strategic consequence as an impact of e-HRM/e-HRM as an outcome of strategic decisions) are allowed to compete in one paradigm. This pluralistic research approach is an active attempt to understand the complex relationship between e-HRM and the desired strategic benefits.

Question 1 looks at the relationship between SHRM and e-HRM. By adopting the contingency theory, it discusses how e-HRM is influenced by the environmental factors, specifically the 'fit' between e-HRM strategy and its environment factors, making e-HRM strategic oriented. Therefore, it helps to address the first knowledge gap of understanding the key factors shaping the e-HRM's strategic orientation. Question 2 focuses on the understanding of the resource nature of the e-HRM, as well as the capabilities converted from the resources, subsequently the interrelationships between the e-HRM capabilities and its desired strategic outcomes. By having such a holistic picture, it contributes to address the second knowledge gap about getting more insights into the value realization process to explain how the strategic outcomes of e-HRM are achieved.

3.3 Qualitative research design

3.3.1 Research paradigm

This research holds the constructivist (or the interpretivist) world view (Creswell and Creswell, 2017) and believes that an individual's understanding of meaning is constructed through their interaction with the world in which they live and work. Thus, reality is the continuous negotiation that takes place both socially and historically. Meaning can be varied so that there is no defining truth but different interpretations of the world. A generalisation of meaning is therefore impossible and does not make sense. This research does not intend to narrow down meaning into a few categories; rather, it aims to understand its complexity. It focuses on the processes of interaction among individuals and the specific contexts in which they live and work in order to obtain information and to interpret the meaning.

Based on the constructivist world view, this research operates under the following assumptions. First, because meanings are constructed while human beings engage with the world, open-ended questions allow individuals to share their meaning of the world with which they are constantly engaging. Second, understanding contexts is achieved through in-person visits and the interpretation is shaped by the researcher's background and experiences. Third, this research process is inductive and the research generates meaning from the collected data (Crotty and Crotty, 1998).

3.3.2 Qualitative approach

The qualitative research paradigm is adopted because its distinctive features provide advantages to achieve the research objectives. First, it allows the researcher to study the meaning of e-HRM in the real world as interviewees are encouraged to say what they want to say without being restricted by any laboratory-like setting. It helps in collecting the data that could reflect the real-world setting and opinions, and subsequently in addressing the issues or questions that the research would like to address in a real world. Second, the priority of qualitative research is to represent the views and perspectives of the participants in a study. This approach helps to gain deep insights from the participants from multiple angles and to represents their views on the key

points that the research intends to address. Third, the qualitative research paradigm explicitly attends to, and accounts for, real-world contextual conditions – social, institutional, cultural and environmental – and exploring and understanding the contextual condition of e-HRM is crucial for this research. e-HRM means deployment in firms with various organisational contexts and dynamics, and it is essential to understand e-HRM integratedally in a contextual environment. Fourth, multiple sources could be planned to collect information and data for this research; qualitative research could work with more than one source and acknowledges the value of collecting, integrating and presenting data from a variety of sources of evidence as part of any given study (Yin, 2015). In this research, the data are collected from multiple channels. Interviews and documents in the research provide the advantage of data completeness, integration and triangulation.

e-HRM researchers have proposed criteria for evaluating e-HRM research, which could serve as reference for e-HRM studies. Bondarouk and Ruël (2009) proposed three criteria of good e-HRM research, which are defined by the keywords ‘multidisciplinary nature’, ‘e-HRM discourse’ and ‘contribution to theory’ (pp. 511-513). This research has assiduously followed these criteria. First, the multidisciplinary nature of e-HRM requires researchers to utilise knowledge of both IT and HRM and to conceptualise the two together in one study. The multidisciplinary nature of e-HRM research is reflected in this research through the discussion of both IT and HRM in answering the research questions. Next, the research should elaborate on the e-HRM discourse to facilitate ‘shared thinking, symbols, language and epistemological boundaries’ (p. 513) of the e-HRM research community. This is beneficial for the construction of the e-HRM researcher’s identity and important for the prescription of e-HRM research practices. This research relies on previous research of both e-HRM and SHRM and intends to enrich the knowledge of the e-HRM field by investigating the interrelationship between e-HRM and strategic HR outcomes. Lastly, research should contribute to theory building by both choosing the level of theoretical contribution, such as organisational, global, interorganisational, group or individual, and specifying the stakeholders for whom the research is being conducted. This research is expected to contribute to the theory building of e-HRM by building a model of interaction between e-HRM and strategic outcomes.

3.4 Case study approach

3.4.1 Case study

Given the purpose of gaining a deep understanding of e-HRM strategic orientation and how its strategic outcomes are produced, instead of comparing the differences or similarities to understand the different situation, this research needs to richly describe and explore the phenomenon of e-HRM from different perspectives. Looking deep into a single case – an organisation that is committed and experienced in implementing e-HRM – better fulfils such a need. Meanwhile, to answer the strategy-related questions, elite-level interviews and access to the data that are relevant to a company's strategic decision-making are necessary. The selected case should be able to support the feasibility of accessing the data and resources. Therefore, this research applies a case study method with the expectation of providing in-depth insights into the underlying phenomenon. The design, data collection and analysis of a case study have been guided by prior development of theoretical propositions. To ensure the reliability of the data, this case study relies on multiple sources of evidence so that data could converge in a triangulating fashion (Yin, 2015).

Company S was selected as the case for investigation for four reasons. First, the organisation itself is actively involved in an HR transformation that covers a wide range of HR practices. Every step of an employee's career at the organisation is supported by e-HRM systems. The presence of e-HRM has been integrated almost everywhere in the workplace. Meanwhile, the organisation aims to transfer its HRM into measurable outcomes. This visualisation could be very helpful in providing a fuller picture of the scale and consequences of e-HRM at the organisation so that thorough analysis is more possible. Third, the organisation has explicit strategic goals and has accordingly taken steps to further its HR transformation. This attempt coincides with the author's research purpose in delving into the interrelationship between e-HRM and strategic outcomes. Lastly, because the organisation occupies a large market share, it is also hoped that research into the organisation could facilitate a better understanding of the e-HRM market and become a point of reference for other organisations that have used, or are considering using, e-HRM.

3.4.2 Case organisation

The research was conducted in a multinational corporation (referred to as company S), which is one of the biggest e-HRM solution providers and adopters in the world. Company S currently has 100,000 employees globally and generates €30 billion in revenue annually. According to the company's internal business report, it provides business software solutions to about 70% of the Fortune 500 companies and is itself deploying a large-scale transformation of HRM from decentralised and globalised HRM towards cloud-based and intelligent HRM. In its transformation plan, the organisation explicitly states that the new world of work operates differently and how work gets done in HR is changing. It believes that future HR must deliver 'experiences' and drive measurable change. HR must be fluent in data analytics and predict outcomes tied to the business strategy. Solutions must integrate seamlessly with finance and other business processes. As the organisation itself is creating e-HRM solutions, it is going through a digital transformation according to the leading trends it identified of future HR software: 1) next-generation talent acquisition will borrow heavily from marketing and sales automation technology; 2) next-generation learning is focused on learning experience and new form factors; 3) performance management will increasingly leverage continuous employee engagement; 4) HR service management is emerging as a category distinct from HRM system. 5) employers are investing more in employee well-being; and 6) mid-market vendors are creating payroll-centric HR suites.

The HR transformation of company S is being conducted with three stated key HR objectives. The first is to simplify HR processes and to make them globally consistent, that is, one HR system and global HR processes wherever possible across 130 different countries so that the speed in selecting best internal and external talent is increased and daily activities are aligned with corporate strategy. The second is to create better consumer experiences for employees, including the contingent workforce, which might be achieved through an easy-to-consume, seamless and modern user interface that is mobile, and a unified onboarding and learning process for all workers. The third is to utilise integrated data to drive decision-making, including simplifying planning, reporting and predictive analytics in one analytical solution, providing faster

blending and analysis of workforce data with business, finance and operations, creating real-time workforce insight and empowering managers to make data-driven people decisions.

During the early stage of its HRM transformation, company S's HR function was moving from a decentralised pattern to a globalised one along a three-pillar model, namely human resource business partner (HRBP), human resource global service department (HRGSD) and human resource centre of excellence/expertise (HRCoE). This model was adapted from Ulrich's (1996) three-pillar theory, but company S considers one of the original pillars – a shared services centre (SSC) – to be the global service department. Indeed, company S's SSC is located in one country and provides services to its global subsidiaries. In 2012, company S initiated a transformation from HR based on the cloud towards intelligent HR. At the stage of cloud-based HR, the three-pillar model was enhanced so that HRGSD cooperates more closely with both HRBP and HRCoE to make HR more scalable and customer focused. In 2019, the adoption of artificial intelligence and machine learning enabled the organisation to move further towards intelligent enterprise, as stated in the organisation's business strategy. Intelligent HR shuffles the components of the three pillars to include HRBP, HR Global Service Delivery and HR practices. This experience-focused model enables a integrated end-to-end set-up for a superior HR customer experience provided by one HR. Currently, company S runs about 90% of its HR processes in the cloud.

Table 4 lists the major components of company S's HR cloud and their specific functions. According to the company's internal survey, the system achieved more than a 50% average time reduction (68% for temporary staff ordering and 45% for non-billable service ordering) and covered €150M of company S's global spend on the external workforce. From 2013 to 2018, around 4,500 new external workers were added to a contingency workforce management system (Fieldglass) every year and an estimated 1,800 suppliers are to be rolled into it. Recruiting, onboarding, learning and other major HR practices are supported by company S's HR Core, SuccessFactors. One of the most important components of company S's HR cloud is HR Core. It is applied to keep the people profiles of over 126,000 employees and contractors. Every day, around 600 workflows are managed in Employee Central. The recording of personnel data is

supported by 70 workflows, which are mostly global, with local deviations for approximately 12 countries. Over 37,500 data changes are recorded in Employee Central every month. Sixty-two per cent of these changes relate to employee events, payment information and organisational changes. The HR Core data model and workflows were simplified, resulting in a reduction of 20% of the data fields. In preparation for the migration to Employee Central, the HR Core project delimited 7,411 wage types, 378 of which will be managed in Employee Central. Nineteen global wage types cover 524 local wage type needs and the remaining 359 wage types are country specific. Every month, more than 4,800 organisational changes are performed, including over 1,350 changes to the organisational structure as well as over 3,450 changes to positions. About 46% of all organisational units were delimited in company S's HCM to support the Employee Central migration.

In 2017, more than 18,000 internal and external hires were supported by company S's recruiting solution and the talent community grew to more than 1.2 million members, which was an increase of nearly 66% compared with the year before. The more than 900,000 monthly visitors to the career pages were considered to have resulted in an increased number of applications and members in the talent community. Moreover, international job boards and universities are connected to Recruitment Posting (RP), an application that facilitates job postings. In terms of onboarding, one solution is used to produce the necessary output for all parties who are involved during and after the onboarding (new hire, IT, facilities, etc.). The manager wizard ensures the completeness of onboarding activities to be ready on and beyond the first day of work. Most onboarding activities, like completing the required paperwork, which previously took 8 days, are usually completed by the new hire in less than 5 days. Over 14,500 new hires globally were invited to the pre-start portal in 2017 and they rated the content on the pre-start portal at 8.3 out of 10. Learning is another function that is supported by the HR cloud. Around 1.3 million courses are delivered to learners and 12 non-mandatory courses are delivered per learner. Some 21,000 employees are included in five programmes providing a simplified development map of formal learning and experiences. A significant proportion of company S's employees (90%) have taken courses in addition to their mandatory compliance training. An annual compensation review and

equity are two frequently used functions related to total rewards. In 2017, over 90,700 employees were under compensation review in 72 countries with 8,900 managers involved, and over 52,200 employees were managed for the Global Revenue Enabling Roles Bonus plan. About 11,500 promotions to the next career level and 7,00 progressions to the next grade level were made within the global compensation framework. There were 56% fewer errors during the HR review phase and a major reduction in HR efforts compared with the start of audits due to the existence of a simplified compensation plan. In terms of equity, over 60,000 employees have enrolled in Own S to purchase more than 6 million shares since the plan launched. The simplified process and tools enable employees to enrol in Own S in less than 1 minute. Social collaboration is facilitated by S Jam. An average of 315,000 documents and videos are created on public S Jam groups every month and over 192,000 unique members visit public S Jam groups each month.

The implementation of e-HRM at company S has a major focus on 'experience management'. Company S believes that at the end of the day, HCM takes a hard approach in considering humans as assets to be utilised to the maximum to achieve the organisation's goals. In contrast, human experience management (HXM) places humans at the centre of what empowers business, although improving employee user experience comes as the prime expectation of HR technologies and HR transformation. Admittedly, for years, HR technology has focused on process automation and data quality, while today's HR technology is at an 'inflection point, driven by the introduction of all kinds of new technologies and expectations from everyone who touches the systems' (SAP, 2020, p. 3).

Table 3 shows other assets used in company S's e-HRM. There is one entry point for all analytical assets (dashboards, reports) via the Enterprise Analytics Store and a single source of truth for all of the 70 HR KPIs (Key Performance Indicators), such as women in management, span of control and share of early talents, which are tracked via the Digital Boardroom and HR Mission Control Centre. The organisation's stated strategic direction for 2018 took S Analytics as its major platform for analytics solutions, including steering dashboards, self-service solutions and executive reporting.

System	Subsystem	Function/Contents
Fieldglass	Fieldglass	-External workforce management -Curriculum vitae matching
SuccessFactors	HR Core	-People profile -Employee central -Payroll -Data comparison manager -Digital signature
	Digital Assistant	-HR direct learning -Leave
	Social Collaboration	-S Jam
	Total Rewards	-Annual compensation review including equity -Executive bonus management -Total rewards statement -Commission management
	Recruiting	-Recruiting marketing -Recruiting management -Recruiting posting -Career site builder -Job analyser -Interview scheduling -Candidate experience -Job sharing -Brilliant hire
	Onboarding	-Pre-start portal -Onboarding forms
	Talent	-Performance and goals -Development planning -Mentoring and coaching -360° feedback -Succession management -Skill management (development units)
	Learning	-Learning management -Learning recommendations
	Enable Now	-Guided tours -Hotspots -Content help

TABLE 3 FUNCTIONS OF COMPANY S'S HR CLOUD

	Subsystems
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Cloud	
S Qualtrics	Moments that Matter
	Pulse Chatbot
	People Survey
S Analytics Cloud	Digital Boardroom
	HR Mission Control Centre
	My Team Dashboard
	Semantics
S Leonardo	Sentiment Analysis
	HR Direct Chatbot
	S Intelligent RPA
S Cloud Platform	Appreciate
	Well-Being

TABLE 4 OTHER CLOUD-BASED HR SERVICES

3.5 Methods

3.5.1 Semi-structured interview

Semi-structured interviews were conducted to collect qualitative data for this research. A questionnaire was developed based on Strohmeier's (2007) e-HRM research framework that examines context, configurations and consequences at the micro and macro levels. Meanwhile, the RBV, contingency theory (best fit) and organisational capability theory, which are widely used in SHRM research, were leveraged to build the interview questions and to understand the strategic aspects of e-HRM. Technology was examined as part of the e-HRM context, focusing on the role it plays. The consequences of e-HRM were studied at the organisational and individual levels to evaluate the significance of the 'employee experience', which has received increasing attention according to the literature review.

The list of questions started with a grand tour question (Yin, 2015), which invited the participants to describe the e-HRM system that has been used/implemented at company S, aiming to give each participant an easy question to start with so that the session could move from descriptive answers towards more reflective comments. Starting from the e-HRM system itself, the interview moved gradually towards the strategy side of e-HRM. The initial set of questions concerned an individual's understanding and appreciation of the e-HRM system at company S, including its purposes, achievements, benefits, strategic impacts and competitive advantages. The interview

questions then covered the uniqueness, inimitability and irreplaceability of the e-HRM system. In answering the second research question, the link between business strategy and e-HRM as well as the internal and external influences over the direction, design, implementation and usage of e-HRM were reflected in later questions. The final questions allowed the participant to recap the content of the interview and to provide further information that had not been elicited by previous questions.

Though the same set of interview questions was developed for all participants, the interviews were conducted in such a way that the interviewees were asked to focus more on the questions that they think are more relevant and to provide answers based on their roles and responsibilities. More specifically, the grand tour questions aimed at understanding the overall picture of the e-HRM at company S and the impact of the technology to get different perspectives on the same topic. Depending on their roles and responsibilities, employees were asked to focus more on providing detailed feedback on their adoption of e-HRM, while HR experts and specialists were asked to provide their detailed understanding of the e-HRM tasks and outcomes related to their specific roles. Meanwhile, managers and executives were asked about the management and strategic aspects of e-HRM and their impact on the capacities, resources and outcomes at the organisational level. Figure 6 provides a view of the building blocks of the interview questions. The interview questions are included in Appendix A.

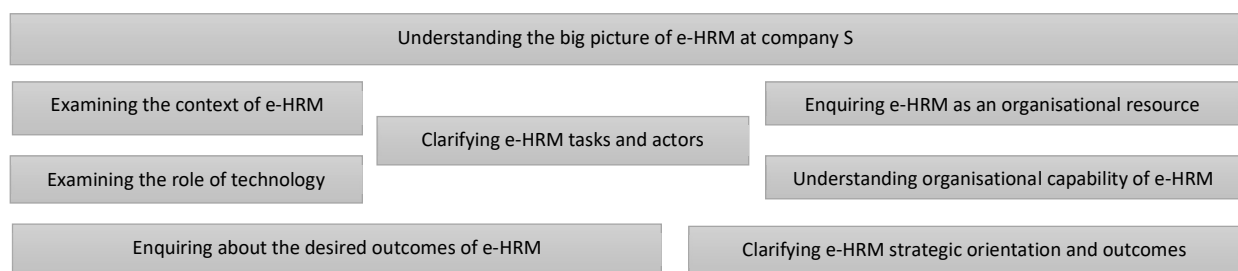


FIGURE 6 INTERVIEW QUESTIONS

The four basic characteristics of proper interview questions were followed to ensure that the answers to the questions were reliable and valid. According to Flower Jr. and Cosenza (2009), a good research question must reflect four characteristics, which are described below.

1. Consistency in understanding the questions

While in the pilot interview the participants appeared to have a consistent understanding of the research questions, it appeared that some participants' understanding of e-HRM systems was limited to those that serve perceived traditional HR functions such as payroll and employee information management. Meanwhile, the participants requested further definition and elaboration about the term 'strategy'. Hence, 'e-HRM' and 'strategy' were defined at the beginning of each interview in phases two and three. Each participant was clear that HRM systems refer to the HR systems used by company S and strategy refers to planned deployment of resources and activities intended to enable an organisation to achieve its goals (Wright and McMahan, 1992).

2. Respondents' access to the information required to answer interview questions

This characteristic was reflected in the purposive selection (Yin, 2015) of participants and the critical incident technique (Flanagan, 1954) applied during the interview session. The actual selection of participants was based on the criteria that 1) they had worked at company S for at least three years and 2) they had experienced the HR transformation at company S. The participants were able to provide specific information through their recall of critical incidents during the interview.

3. An interview question structure that allows participants to report what they have to say

At the beginning of each interview session, the researcher informed the participants that they could ask for clarification if they had any questions or concerns about the interview questions. The form of the semi-structured interview also allowed the researcher to probe when the participants appeared to comprehend a few questions differently.

4. Respondents' willingness to provide the answers was called for in the question

The participants might exhibit a tendency to provide socially desirable answers to make themselves look good or avoid making themselves look bad (Flower Jr. and Cosenza, 2009). To reduce the effects of social desirability, a few precautions were taken at the beginning of each interview. Each participant was informed of the purpose of the research and that the interview would be confidential. Code switching was also allowed so that the participants could use the

expressions they found most appropriate. All the participants reviewed the interview notes and agreed that the notes reflected what they had said at the interview.

3.5.2 Document analysis

Document analysis (Bowen, 2009) has very often been applied in combination with other methods in qualitative research and is used in this research for its specific functions as follows. The analysis of organisational documents provided rich contextual information and helped to understand the selected case more comprehensively. In this research, various project documents, such as project charter scoping documents, project plans, implementation plans, strategy papers and meeting minutes, were reviewed prior to the interviews. These documents provided a lot of background information as well as historical insights that helped to contextualise the data collected from interviews.

The documents represented supplementary research data that was a valuable addition to the knowledge attained through other methods. In this research, for example, the documents included internal statistics related to the deployment of e-HRM at the company S, which served the purpose of describing the key messages in detail. In addition, the documents recorded changes and developments. As the collected documents covered a 3-year period, the changes in and developments of e-HRM were documented. Moreover, the documents helped to verify the interview findings and, in some cases, were mutually complementary with the interview data, making the research more trustworthy.

3.6 Sampling

3.6.1 Interview participants

Purposive sampling (Yin, 2015) was used 1) to collect representative and typical information from individuals to achieve adequate conclusions that better represent the population who are the stakeholders of e-HRM in the case of this research; and 2) to illuminate the comparison of the differences between the subsets of the population range.

In this research, employees, HR practitioners and line managers, and executives who had experience with the organisation's transformation project in the past 5 years were selected as

the participants of the interview as they are considered to be better positioned to provide insight. The selection of participants with 5 years of e-HRM experience ensures that all participants have the right level of knowledge and experiences of the e-HRM at company S to properly answer the interview questions. Altogether, 30 participants from company S participated in the interview session (Table 5).

Participants	Location	Responsibility	Years using e-HRM	Code
Employee 1	India	software engineer	4	E1
Employee 2	India	Data analyst	3	E2
Employee 3	India	Product manager	3	E3
Employee 4	Brazil	Software engineer	4	E4
Employee 5	Brazil	Software engineer	6	E5
Employee 6	Brazil	Product Manager	5	E6
Employee 7	Germany	Software engineer	8	E7
Employee 8	Germany	Software engineer	7	E8
Employee 9	Germany	Product manager	3	E9
Employee 10	China	Software engineer	3	E10
Employee 11	China	Implementation consultant	3	E11
Employee 12	China	Implementation consultant	4	E12

Participants	Location	Responsibility	Years using e-HRM	Code
HR practitioner 1	China	HR shared services	3	HRP1
HR practitioner 2	China	Recruiting	4	HRP2
HR practitioner 3	China	HR shared services	5	HRP3
HR practitioner 4	Germany	Recruiting	5	HRP4
HR practitioner 5	Germany	Payroll	4	HRP5
HR practitioner 6	India	Payroll	3	HRP6

Participants	Location	Responsibility	Years using e-HRM	Code
HR Manager1	China	HR business partner	6	HRM1
HR manager2	China	HR system manager	7	HRM2
HR manager3	Brazil	HR business partner	7	HRM3
HR manager4	Germany	HR business partner	7	HRM4

Participants	Location	Responsibility	Years using e-HRM	Code
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Business manager 1	Germany	Line manager	5	BSM1
Business manager 2	India	Line manager	5	BSM2
Business manager 3	Brazil	Line manager	8	BSM3
Business manager 4	China	Line manager	9	BSM4

Participants	Location	Responsibility	Years using e-HRM	Code
Business executive 1	China	Managing director	7	BX1
Business executive 2	Germany	Senior vice-president	11	BX2

Participants	Location	Responsibility	Years using e-HRM	Code
HR executive 1	Germany	Line of business HR head	7	HX1
HR executive 2	China	Regional HR director	9	HX2

TABLE 5 LIST OF PARTICIPANTS

3.6.2 Documents

Internal documents related to the HR transformation at company S were used in combination with the interview data. For the documents that are not open to the public, approval to access these documents for academic research purposes was obtained. Table 6 lists the documents that were collected for the analysis of this research.

Document	Content	Accessibility
HR Tech Trends	Company S's forecast of HR technology trends	Public
HR Transformation Story	Overview of the HR transformation at company S	Public
HR Goes Cloud Journey (2018)	Recap of HR transformation	Public
HR Goes Cloud Journey (2020)	Recap of HR transformation	Approved by the document owner
HR Goes Cloud 2.0	Programme direction of the HR transformation	Approved by the document owner

HR Goes Cloud Co-Innovation Approach	Company S's innovation approach and its outlook	Approved by the document owner
HR Goes Cloud User Stories	Business benefits by role	Approved by the document owner
HR Transformation Whitepaper	Business purposes and insights into HR transformation	Approved by the project team on the condition that the company be presented anonymously in the research
Other project presentations	Project charter, detailed configurations, project management reports, change management reports, implementation plan, risk management, etc.	Approved by the project team on the condition that the company be presented anonymously in the research

TABLE 6 DOCUMENTS FOR ANALYSIS

3.7 Data collection and analysis

3.7.1 Data collection

The entire interview process started in March 2019 with the pilot group and was completed in December 2020. The interview process and corresponding data collection consisted of three phases.

First, a pilot interview was conducted with participants after the initial interview questions had been formulated. The pilot interview was conducted with three participants (one employee, one HR practitioner and one line manager) to ensure that the interview questions were appropriately comprehensible and capable of eliciting sufficient information for this research.

The second-phase interviews (interviews for data collection) were conducted with a total of 21 participants. All the interviews were anonymous, and each participant was assigned a code name. For example, 8E refers to participant number 8, an employee. All the interviews were conducted in a one-on-one manner in person or video meeting. Each interview lasted for 45–50 minutes. Microsoft Word was used to take notes during the interview.

The third phase involved in-depth interview conducted with six senior managers and executive managers at company S because insights from interviews are of great value if the participants are key people in the organisation – not just an average member of the organisation (Yin, 2009). Furthermore, the initial review of data gathered in the second phase revealed that some of the participants responded that they could not comment much on a few questions related to strategy, which also called for further investigation on strategy-related aspects of e-HRM. The third-phase interviews followed the same process as the second phase, but the focus was on strategy-related issues. This interview phase was conducted in accordance with the aforementioned characteristics of the interview questions that required the participants to have access to the information needed in answering the questions.

3.7.2 Interview data analysis

Thematic analysis in research is usually conducted for the purpose of theoretical development (Corbin and Strauss, 1990, Glaser and Strauss, 1967). Given that this research provided an opportunity to develop a theoretical framework of e-HRM, thematic analysis was conducted to process the interview data. Data were collected primarily from semi-structured interviews and informal conversations with the participants. The qualitative data analysis proceeded iteratively in multiple stages, both during and after the different phases of data collection. In these processes, the conceptual framework emerged from the interactions among interpretations, the literature and the interview transcripts. The researcher engaged in frequent discussions with some senior managers to test and refine their emerging insights into the data. This process resulted in the interpretations concerning how e-HRM is different from traditional SHRM, how it enables the realisation and implementation of an organisation's strategy, and under what circumstances it would be more effective.

Following the procedures advanced by Corbin and Strauss (2014), the analysis started with open coding, which included reading the interview transcripts and marking codes to describe the content of the interviews. Nearly 1,000 segments of data were developed. The initial codes covered various topics, such as 'overview, objectives of the e-HRM' and 'benefits and strategic

impacts of e-HRM'. It also included strategic outcomes themes such as 'become more competitive in the market'. The analysis also involved categorising such level 1 codes into more abstract theoretical dimensions. Numerous memos were also written during the process to develop theoretical insights.

The coding procedures were further refined according to the evolving understanding of the phenomenon (Corbin and Strauss, 2014). The literature on dynamic capacities (Hodgkinson and Healey, 2011, Teece et al., 1997) was consulted to code the role, context and strategic outcomes of e-HRM. These studies have indicated that dynamic capabilities enable business organisations to create, deploy and protect the intangible assets that support superior long-run business performance, and organisations can adopt some management practices to improve such dynamic capabilities. Following this idea, e-HRM with strategic orientation adopted by the organisation (e.g. an HR executive articulated that 'it translates people and organisational implications into action') can ensure that the organisation realises some functions (e.g. an executive highlighted that '[i]t's an imperative and we need our technology to help us remain compliant'), which further enhances the dynamic capabilities of the organisation (e.g. an HR expert mentioned that '[t]he most recent technology shift – big data/cloud/machine learning/AI – changes how an HRM system is set up and interacts with people, and its strategic capabilities, such as analytics, planning, flexibilities, etc.'), and ultimately achieved the strategic goal of the organisation (e.g., one executive highlighted that 'we set ourselves the purpose ... and aligned our HR strategy accordingly').

In addition to coding, a method bearing a resemblance to constant comparisons (Corbin and Strauss, 2014) was employed to pinpoint differences and similarities among assorted data segments. For example, comparing HR executives' descriptions of the strategic outcomes of e-HRM with employees' descriptions of their experiences with e-HRM revealed that after e-HRM is adopted, it has positive effects on individual development, team effectiveness and organisational operations. By comparing the descriptions from employees, HR managers, HR executives and corporate executives, it is possible to establish a rigorous theoretical framework to explain how

e-HRM functions in this organisation. Finally, at multiple points throughout the analysis, several discussions were conducted with key informants to justify the emerging interpretations (Glaser and Strauss, 1967). Table 9 presents a summary of the data of thematic analysis.

3.7.3 Document analysis

Table 8 provides a summary of the documents used to supplement and triangulate the data for the corresponding themes.

Documents	How the documents connect to the themes of the research	How the documents were useful
<ul style="list-style-type: none"> • HR Transformation Story, • HR Goes Cloud Journey (2018, 2020, 2.0) • Project documentation (project charter, management report) 	e-HRM and its contexts	<ul style="list-style-type: none"> • Provided the historical background of the HR transformation • Supplemented data on the key context elements of e-HRM
<ul style="list-style-type: none"> • HR Goes Cloud Co-Innovation Approach • HR Transformation Whitepaper 	Strategic orientation of e-HRM	<ul style="list-style-type: none"> • Supplemented background information of the strategic direction of e-HRM implementation • Provided further details on the link between e-HRM strategy and corporate strategy (HR strategy), and what is defined in e-HRM strategy
<ul style="list-style-type: none"> • HR Tech Trends • HR Goes Cloud Co-Innovation Approach • HR Goes Cloud User Stories • Project documentations (detailed configurations) 	Capabilities from e-HRM Technologies	<ul style="list-style-type: none"> • Verified the key technologies adopted in the e-HRM implementation, and how e-HRM technologies enable the HR practice to achieve the desired user stories • Provided further information on how the technology will support

		the future direction of HR at company S
<ul style="list-style-type: none"> • HR Transformation Whitepaper; • HR Goes Cloud Co-Innovation Approach 	e-HRM as a strategic resource	<ul style="list-style-type: none"> • Provided more background information about the strategic consideration of e-HRM at company S • Supplemented info to understand how e-HRM is positioned in the company, and its strategic impacts
<ul style="list-style-type: none"> • HR Transformation Whitepaper • HR Goes Cloud Co-Innovation Approach • project documentations (Project charter, detailed configurations, project management reports, implementation plan) 	Strategic outcomes of e-HRM	<ul style="list-style-type: none"> • Described in detail the desired outcomes of the e-HRM implementation at the operational and strategic levels

TABLE 7 DOCUMENTS USED TO SUPPLEMENT AND TRIANGULATE

3.8 Research considerations

3.8.1 The role of the researcher

In line with the purpose of DBA studies at Alliance Manchester Business School of ‘the chance to tackle an important, unresolved business and managerial problem in a rigorous and systematic way and to contribute to your organisation’s success while developing academic knowledge and theories’ (AMBS, 2022), the researcher chose their own organisation as a case study site.

The researcher currently holds a research and development role in company S in HR digitisation. Prior to this role, the researcher was a consultant working with firm clients in HRIS. The researcher’s experience involves both successful and unsuccessful implementation of HRIS with clients, a scenario that served as the prime motivation to pursue a DBA and this research project.

Against this backdrop, this research project could be viewed as 'backyard' research (Glesne & Peshkin, 1992), which refers to a study in the researcher's own organisation. This approach is the most common in DBA studies and has advantages and disadvantages. On the one hand, it provides the advantages of access the data and other necessary resources; on the other hand, it can raise concerns around bracketing and sensibilities around ethical and institutional power that can compromise the accuracy of organisational portrayal, data objectivity and could even jeopardising the role of the researcher and their relationship with the participants (Creswell and Creswell, 2017, Malone, 2003).

The chosen firm, as a producer of the products supporting e-HRM, naturally intends to promote HR digitisation and e-HRM. However, as part of the research design, the researcher sought to ensure that the project remained independent and disconnected from the researcher's corporate duty, as well as company's interests and commercial agendas. Hence, the researcher focused on understanding the value realisation process for e-HRM, especially how the strategic benefits of the firm could be achieved, instead of promoting any solution, products or concepts from a product/vendor point of view.

The researcher recognises, however, that being an employee of a firm that actively promotes HRIS and e-HRM, the researcher's values and perceptions may potentially be influenced by the company. For instance, the firm would always emphasise the positive impacts from the technologies and consequences of implementing HRIS, or it may educate its employees, especially those who are in business development, marketing or sales, on the positive returns of HRIS, and how client-facing employees could possibly promote and even convince their customers on such a positive value proposition. With the interviews, the researcher sought to unpack the participants' broader engagement with these narratives while also probing them critically. Nonetheless, this has been acknowledged as one of the limitations of the research.

In practical terms, the research was conducted at multiple locations with employees who were in departments different from the researchers. Most of the participants were from either the HR

department or engineering teams who are not directly influenced by the firm's sales and marketing intentions. The researcher followed a rigorous and systematic protocol of engagement with each participant. Key information regarding the research – such as the purpose, research topic and approach, the reason the site was chosen, what activities will occur during data collection and how the results will be reported – were communicated in detail to each participant before the interview. E-mail confirmation from the participants were collected before the interviews took place. This allowed a degree of confidence regarding the participants' understanding of the research, its purpose and their involvement. In addition, each participant received and signed a consent statement to ensure the research project complied with the General Data Protection Regulation (GDPR).

With such a set-up, the researcher was confident about the ethical conduct of the research, that there was a respectful researcher-participant relationship that avoided compromising the researcher's ability to disclose information, and that there was no power imbalance between the researcher and the participants (Creswell, 2014). In addition, to minimise leaning towards certain themes or creating favourable or unfavourable conclusions, the researcher reflexively considered potential biases, values and experiences that could shape the way questions were developed, how data were collected and how answers to questions were interpreted.

3.8.2 Research credibility

The truth value, analysis and interpretation of the data are key concerns of qualitative research (Guba and Lincoln, 1994). The researcher employed a few techniques to increase confidence in the truth and interpretations of the data. First, prolonged engagement in this research allowed the researcher to have sufficient time in the field to better understand the questions of interest. The researcher followed the project for more than 2 years, from the end of 2019 to 2021, and thus gained a thorough understanding of the context in which the study was carried out. Interviews were conducted over an 8-12-month period across multiple locations, including Germany, India, China and Brazil, so a wide scope of views was achieved. Project documents spanning over 1.5 years were collected and analysed to trace contextual changes over time.

Second, careful observation of the research context provided improved depth in terms of data collection and interpretation. Multiple visits to the key stakeholders and reviews of the project documentation were conducted to the point that data saturation with recurring codes had emerged from the data. This not only helped to collect the right information and data for the questions of interest but also supported gathering high-quality data for analysis. Moreover, such an approach included multiple instances of data interpretation, which provided the opportunity for the researcher to reflect on possible bias during data collection and analysis. According to Guba and Lincoln (1994), prolonged engagement and persistent observation effectively support the breadth and depth of data collection and analysis.

In addition, to gain sufficient understanding of a subject matter, triangulation was used to build credibility (Guba and Lincoln, 1994). The triangulation method of incorporating interviews (both initial and in-depth) and document analysis provided ways to check the consistency of the data collected through different methods. Triangulation of sources helped to examine the consistency of data collected with the same method. The interviews were conducted among different participant groups in multiple locations so that a cross-examination of data was possible. Figure 4 provides an example of triangulating the findings for ‘desired e-HRM outcomes’ at company S.

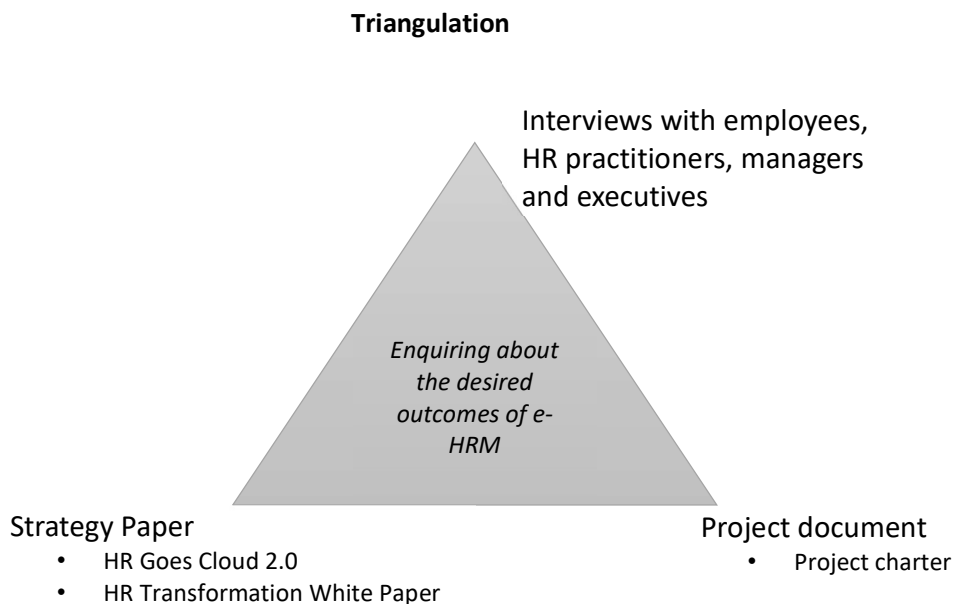


FIGURE 7 EXAMPLE TRIANGULATIONS

Both method and data source triangulation approaches were adopted to understand the desired outcomes of e-HRM at company S. Pilot and in-depth interviews were conducted to verify the findings and to gain more detailed insights, aiming to increase validity. The same interview questions were asked to different professionals – engineers, HR practitioners, managers and senior executives – to compare different views and standpoints. Meanwhile, different types of documents, such as a strategy paper for HR transformation, and project documents, such as project charter, were collected to corroborate, supplement and triangulate the findings from the interview data. Strategy paper documents provide information that allows a thorough understanding of the HR transformation at company S in terms of its objectives and approach. Project documents describe the execution in greater detail, which could be used to verify the consistency and supplement the findings from the strategy paper.

Other documents describing the transformation strategy could verify the data collected from the interviewees who provided valuable strategy-related information from the perspective of individual users. Documents explaining particular e-HRM functions could triangulate the feedback from the HR professionals on how they use the system and the expected outcomes. In addition, documents from different time periods of the same project provided much insight not only into the development of HR transformation but also into the thinking behind it at different time points. This helps in further understanding how the digital transformation has evolved over the years. Table 9 provides an overview on how the triangulations were conducted between the interview datasets and documents data sets.

Interview dataset	Documents	Outcomes
<i>Understanding the big picture of e-HRM at company S</i> Interview data from questions 1 and 2	<ul style="list-style-type: none"> • HR Transformation Whitepaper 	Verified the overall picture of e-HRM at company S
<i>Examining the context of e-HRM</i>	<ul style="list-style-type: none"> • HR Transformation Story 	Confirmed the key context of e-HRM

Interview data from questions 12, 14 and 15		
<i>Examining the role of Technology</i>	<ul style="list-style-type: none"> • HR Tech Trends • HR Goes Cloud Co-Innovation Approach 	Confirmed the key technologies adopted in the e-HRM
Interview data from questions 3, 7 and 16		
<i>Clarifying e-HRM tasks and actors</i>	<ul style="list-style-type: none"> • HR Goes Cloud User Stories • Project document (e-HRM configuration) 	Verified the functions and features, key users and stakeholders
Interview data from question 2, 11 and 12		
<i>Understanding the organisational capability of e-HRM</i>	<ul style="list-style-type: none"> • HR Goes Cloud Journey (2018, 2020) • HR Goes Cloud Co-Innovation Approach 	Consistent findings on the key capabilities that are mentioned in the interviews and described in the documents
Interview data from questions 7 and 9		
<i>Enquiring about E-HRM as an organisational resource</i>	<ul style="list-style-type: none"> • HR Transformation Whitepaper 	Verified the strategic position of the e-HRM at company S
Interview data from questions 6, 8 and 9		
<i>Enquiring about the desired outcomes of e-HRM</i>	<ul style="list-style-type: none"> • HR Goes Cloud 2.0 • HR Transformation Whitepaper • Project document (project charter) 	Consistent findings from both interview and documents; however 'Employee experience' is emphasised more in the document
Interview data from questions 2, 4 and 13		
<i>Clarifying e-HRM strategic orientation and outcomes</i>	<ul style="list-style-type: none"> • HR Transformation Story • HR Transformation Whitepaper • HR Goes Cloud 2.0 	Confirmed the existence of the dedicate strategy document for e-HRM, Verified the meaning of strategic outcomes at company S
Interview data from question 3, 4, 5, 6, 10 and 17		

TABLE 8 DATA TRIANGULATION

4 Findings and Discussions

This section intertwines a detail description of the findings with the theoretical reflections (Eisenhardt and Graebner ,2007). The data analysis explained in section 3.7 develop a number of themes (table 9). And the corresponding themes are aggregated into four dimensions: making e-HRM strategic oriented, understanding e-HRM as an organization resource, converting the resources into the capabilities, contributing to the strategic outcomes, which serves as a structure and flow to present the findings and discussions (Figure 8).

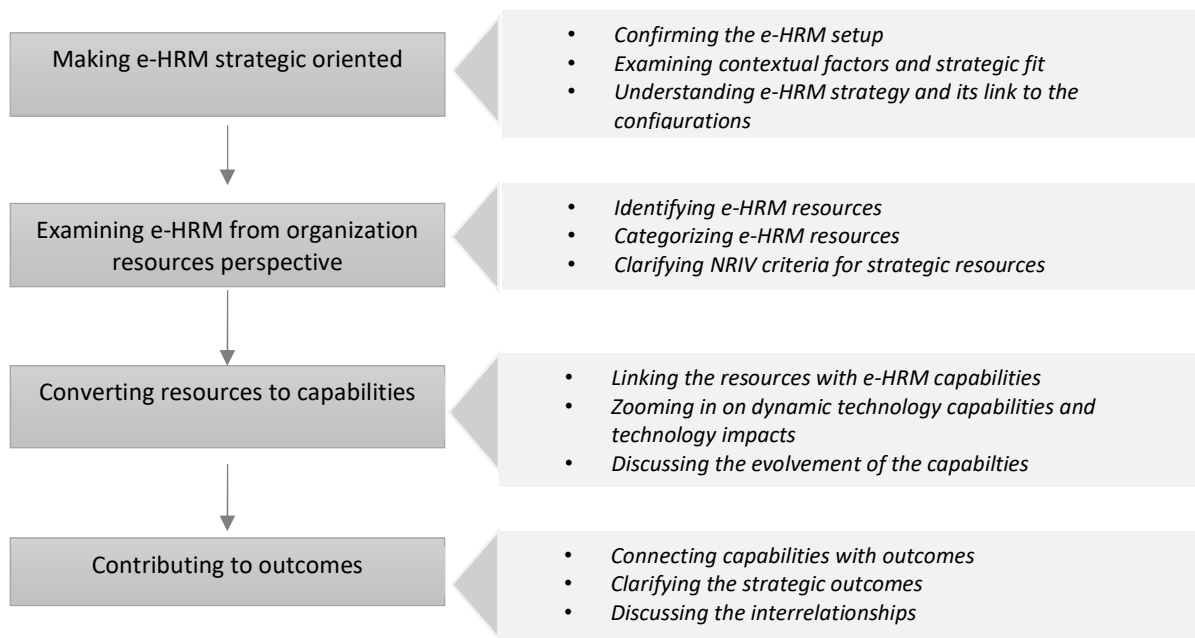


FIGURE 8 FINDINGS AND DISCUSSIONS STEPS

First, it reviews the e-HRM setup in the selected case study according to the conceptualizations from the existing literatures and tries to map the findings to the research frameworks. While acknowledging the importance of the 'fit' between e-HRM and its context, it examines the contextual factors and e-HRM, as well as the link between cooperate strategy and e-HRM strategy to understand how e-HRM could become strategically oriented. It clarifies the details of e-HRM strategy and e-HRM strategic tasks that support to realize the 'strategic orientation'. Second, it identifies the list of e-HRM resources, clarifies the NRIV criteria according the RBV to

understand the strategic aspects of these resources. Third, following the resources-based model, it links the resources with the key strategic capabilities, in particular, discusses how e-HRM technologies support the evolvement of the capabilities by renewing the resources. Forth, it studies the interrelationships between the strategic capabilities and the outcomes by connecting those capabilities with the e-HRM outcomes, discussing how these outcomes are actually achieved. The later chapter (chapter 5) connects dots by putting the themes together to develop a global framework to address the research questions.

Level 1 codes	Level 2 codes	Themes	Aggregated Dimensions
<ul style="list-style-type: none"> • <i>HR transformation, business strategy alignment, implementation changes</i> • <i>Employees, line managers, HR professionals, executives and senior leadership, teams, organisations</i> • <i>Internet, cloud computing, artificial intelligence, social media, mobile, analytics, machine learning, etc.</i> • <i>Employee experiences, efficiency, transparency, compliance, workforce motivation, talent acquisition and retention, data asset, etc.</i> 	<p>Context, strategy, task, actors, technology, consequences, contingency influence</p> <p>Strohmeier (2007)</p>	e-HRM setup	<p>Making e-HRM strategic oriented</p>
<ul style="list-style-type: none"> • <i>Industry trends, competition, regulations</i> • <i>business strategy</i> • <i>organisational culture, technology readiness, stakeholders' interests, etc.</i> 	<p>External situational factors, internal organizational factors, stakeholders, business and HR strategy</p> <p>Fındıklı and Bayarçelik (2015),</p>	Contextual factors	
<ul style="list-style-type: none"> • <i>Supports our people strategy and business priorities</i> • <i>Fundamentally changes the way in which performance results</i> • <i>business strategy alignment, strategic tasks, competitive advantage, are discussed and managed</i> • <i>A major transformation to the cloud, and that will need a major skill shift of our employees,</i> • <i>Strategically stay competitive from knowledge, skills, expertise, employee motivation perspective</i> • <i>Transformation of our workforce, transformation of our HR</i> 	<p>e-HRM Goals</p> <p>e-HRM implementation</p>	e-HRM strategy	

<ul style="list-style-type: none"> • <i>Effective end-to-end process that contributes to the bigger picture and company strategy</i> 	<p>Boselie and Brewster (2013a), Paauwe and Boon (2018), Strohmeier (2007)</p>		}
<ul style="list-style-type: none"> • <i>Core HR and strategic HR</i> • <i>Employee and organisational data, payroll, total rewards, compensation planning, onboarding, executive and professional recruiting, learning, social collaboration, etc.</i> 	<p>Operational, relational & strategic e-HRM tasks</p>	e-HRM configuration	
<ul style="list-style-type: none"> • <i>Huge amount of data and information that brings insights</i> • <i>All the knowledge behind these business processes is also part of the system</i> • <i>Intangible contents such as best practices</i> • <i>Uniqueness internally and externally</i> • <i>Great asset of the company</i> 	<p>Valuable, unique, inimitable and imperfectly substitutable resources,</p> <p>Physical resources, technology resources, organizational resources, human resources, innovation resources, reputational resources,</p> <p>Barney (1991), Madhani(2010) Marler and Fisher (2013)</p>	<p>Resource classification</p> <p>NRIV criteria</p>	} Understanding e-HRM as an organization resource
<ul style="list-style-type: none"> • <i>Completion of HR tasks (employee and organisational information, recruiting, onboarding, payroll, etc.</i> • <i>Employee services, management services (transparencies, workforce planning)</i> • <i>Business process standardisations and data-driven decision-making</i> • <i>Plan the workforce to cope with extremely dynamic and ever-changing business priorities</i> • <i>Combine technology and the psychology to deliver the experiences that every human wants</i> • <i>Continuously optimise our HR processes and maximise their efficiency</i> • <i>Capacity allocation is reviewed and adjusted in real time to maximise the demand and supply match</i> 	<p>e-HRM capabilities</p> <p>Organisational capabilities, operational capabilities, dynamic capabilities</p> <p>Helfat et al. (2009), Teece et al. (1997)</p> <p>Mclaughlin(2017)</p>	<p>e-HRM capabilities</p> <p>e-HRM Technology categorization, and impact</p> <p>Development of Dynamic technology capabilities</p>	
<ul style="list-style-type: none"> • <i>Business applications, process modelling, artificial intelligence machine learning,</i> 	<p>Technical foundations, SMAC technologies,</p>		

<p><i>data analytics, big data, RPA, Chatbot, mobile APP, Portal, Social Media JAM</i></p> <ul style="list-style-type: none"> • <i>Simplify HR processes, globally consistent and compliant</i> • <i>Easy to consume, modern, personalised and mobile ready</i> • <i>Foundation and platform for business process to run</i> • <i>Driving forces for business innovation</i> • <i>Integrated data driving decision</i> • <i>Implement the latest technologies to differentiate our business</i> • <i>Bring different experiences</i> 	<p>Key enabler of digital transformation, driving force of business innovation digital ecosystem for innovations</p> <p>Betchoo (2016), Langen (2016), Laskowski (2021), Stone et al. (2015)</p>	
<ul style="list-style-type: none"> • <i>Shift from a 'supporting' role to 'partner' of our business unit</i> • <i>Strategic HR tasks (talent acquisition, performance management, workforce planning, decision support)</i> • <i>Free up the capacity from the operational tasks to focus more on strategic activities</i> • <i>Strategic planning and decision support</i> • <i>Employee experiences and motivation</i> • <i>become more competitive in the market</i> 	<p>Strategic benefits of e-HRM, transformational consequences, HR business partner, Employee experiences</p> <p>Transformational entity</p> <p>Bondarouk and Ruël (2013), Strohmeier (2007)</p>	<p>Strategic outcomes of e-HRM</p> <p>Producing strategic outcomes</p> <p>Contributing to the strategic outcomes</p>

TABLE 9 CODING AND DATA ANALYSIS

This section illustrates the practices and findings with quotes that have been selected to convey the most powerfully opinions that were expressed by interviewees, table10 provide additional quotes. To secure anonymity, the codes (table 5) are used to depict the role of the interviewees.

Themes	Supporting quotes
e-HRM setup	<ul style="list-style-type: none"> • <i>Digitizing HR is more than building a technical system (BSM1)</i> • <i>Digitization of HR is a journey, the way of how HR is managed is completely changed. We have to put our employees in the centre of everything that we do. We have to understand how things around us are evolving, and define a strategy that differentiate our workforce, and win the talent war. (HX1)</i> • <i>Developing functions and features to meet the HR operation needs is essential but only part of the big picture (BX1)</i> • <i>Technology is an essential part of our HR transformation (HRM3)</i> • <i>How our HR could support our key HR function is the most critical question for our HR team(E11)</i>

	<ul style="list-style-type: none"> Defining the objectives and strategy for our HR digital transformation is crucial (HX2)
Contextual factors	<ul style="list-style-type: none"> Things such as market condition, Industry, legal situations, culture can't be ignored when we define what we try to achieve for our HR transformation (BSM4) Being compliant with the local legal regulation is a big task for many of us (HRM2) The social culture plays a role in our design of the system, we have to respect the local culture that influence the way how people use the system. (HRM1) We emphasis the alignment between the business strategy and HR strategy, and for the same, we need to have such an alignment for our HR digitization (HX1) The decision committee of our HR digital transformation sets the direction and make important decisions on how the system should be planned, built and used. (HRM4) As a software company, we always aim to use the latest technologies, and make things fancy..., it's a culturing thing, but this has impact on how we design and implement the system. (BSM3)
e-HRM Strategy	<ul style="list-style-type: none"> The HR digital transformation needs to define clear objectives and approach (HX2) The strategy of our HR digital transformation should set the goals and explain how we achieve the goals... the strategy paper of our HR transformation explains the direction and how go get there (HX1) The functional scope of the HR system was based on the strategy defined for the system, as well as the expectation from the stakeholders, such as the HR function department, and end-users from other lines of business. (E08) We did a feasibility study for every major HR function that we plan to build in the system; not everything defined in the plan could be realised but it is important to know this in advance for a proper implementation strategy. (E12) The strategy of our HR digital transformation needs to be aligned with our business strategy... HR digital transformation is part of our HR strategy. (HX2) The detail of setup of our HR systems only make sense if we have a clearly defined strategy (HX2)
e-HRM Configuration and tasks	<ul style="list-style-type: none"> If you would like to analyse if the employee salary increase is in line with the external benchmark in the industry, you need to have the compensation and payroll historical data and external market data. This means compensation and payroll need to work properly to perform the analytic on top. (HRM2) There is a big focus on 'integration', this means all the HR functions need to collaborate the maximize the value that the system could create. (HRM3) What should be implemented in the system is not a technical question, it needs to support the business needs and company strategy (HRM1) Each function in the system needs to serve one of multiple business purposes (E11)
e-HRM as an organization resource	<ul style="list-style-type: none"> We have a huge amount of data and information in the system. If we use these data and information properly, it could bring us so many insights that could help us to make the right business decision.... We have been optimising our business processes over many years, and we are still doing so... and our

	<p><i>business processes are always standardised and supported by the system; therefore, all the knowledge behind these business processes is also part of the system. This knowledge helps us to understand ourselves and improve ourselves. (HX1)</i></p> <ul style="list-style-type: none"> • <i>The system holds the employee information, organisational information and other data generated from various HR applications. Business process embedded in e-HRM: many end-to-end HR business processes reflect how HR is managed and executed. Most of these processes are also embedded in the system. (HRP3)</i> • <i>Things such as 'being consistent, transparent, effective and accurate' have become part of the working culture here. Our employees are used to working with the system to do 'self-services' instead of relying on HR for every single request. They naturally see such a system as an important resource that they could rely on. (HRM2)</i> • <i>We have a clear objective of 'standardising and simplifying the HR process globally' by leveraging the best practice approach. And this best practice we concluded are great asset and resources of our company (HRP3)</i> • <i>The HR system also has intangible contents such as how complicated HR projects are managed, latest technologies are adopted, the working behaviours by working with the system, etc. (HRM2)</i>
NRIV criteria of e-HRM	<ul style="list-style-type: none"> • <i>We want to leverage our HR system and technologies to have a recruiting engine to support us to win the talent war. This means our recruiters and system should be able to effectively build our talent pool and continuously stay connected with our talents, know their movements and approach them whenever needed. And we want to give our candidates very unique hiring and later onboarding experiences that others could not offer. (HX2)</i> • <i>Being in the industry for over 40 years, and with the largest scale of human resources in the industry, we have much uniqueness internally and externally. All this uniqueness is reflected in our e-HRM, and our e-HRM is a great asset to our company. (HX2)</i>
e-HRM capabilities	<ul style="list-style-type: none"> • <i>Many of our decisions are triggered by the data and the insights from the data, so-called 'data driven', for instance, we analyse the skills sets of our employees in the HR system, and compare the result with the demand from our product innovation road map, to decide where to invest for employee upskilling and training.... Our innovation road map has never been static, which means we need to have the capability to constantly identify the gap between what is needed and what we have ... and make decisions on our employee training. (HX1)</i> • <i>One of my biggest challenges is to manage the demand and supply, meaning I need to plan the workforce to cope with extremely dynamic and ever-changing business priorities and workload ... It is more than a capacity match. It is about skills, people availability, impact on the ongoing project, etc.... This can be an extremely complicated process.... It would be impossible to manage this without support from a powerful and flexible IT system, such as our HR system. (BX2)</i> • <i>The capabilities of our digital HR cover many aspects, processes, data analysis, many of them have impact on the strategic position of HR (HRM3)</i>
e-HRM Dynamic Technology capabilities	<ul style="list-style-type: none"> • <i>This was not possible even a few years ago. Technically they were not able to store such a huge volume of data, and there was no such tool that could perform analytics on such a data volume. This has become possible with the latest big data, cloud computing and analytic technologies. (BSM4)</i>

	<ul style="list-style-type: none"> • <i>We want to simplify our HR processes, make them globally consistent and compliant. We needed ONE HR system, with globally aligned processes where possible, while adhering to legal/local regulations. This will become increasingly more important with the GDPR law that will be in effect next week! Our company, headquartered and operating in Europe, always understand the implications of data privacy but it's even more critical based on the financial fines that can be incurred. It's imperative and we need our technology to help us remain compliant. (HX2)</i> • <i>I can do most of the HR activities over my mobile phone, raising my leave request, viewing my payslip, applying for training, etc. (E1)</i> • <i>The most recent technology shift – Big Data/Cloud/Machine Learning/AI – changes the way an HRM system is set up and interacts with people, and its strategic capabilities, such as analytics, planning, flexibilities, etc. (HRP3)</i> • <i>Machine learning technology makes our HR system smarter. Whenever I log on to my HR system, the HR chatbot works as my assistant and asks how it could be of any assistance. That gives me a feeling that I am served by the system, which is a great experience. (E10)</i>
Strategic outcomes	<ul style="list-style-type: none"> • <i>Today, the HR needs to have a deep understanding of the business, and partnering with business team to achieve the success together (HX1)</i> • <i>Digitization of HR transforms the role of HR to be more strategic and involve more in the strategic activities (HRP2)</i> • <i>HR being a business partner is not something new, many organizations are adopting this, but it would be very difficult without digitizing HR (HPR1)</i> • <i>To achieve a truly integrated strategy, the partnership between the CHRO and CFO is essential. It helps us understand the connections of financial and non-financial indicators and works to support the corporate strategy. This allows HR and finance to lead the way, providing proactive business health checks and decision-making for the entire workforce. (BX2)</i> • <i>On the one hand, we would like to understand the psychological needs of the user, like I accomplished something, I made an impact, I learned something, and so on. On the other hand, we look into the latest technologies. And we believe the focus on both technology and psychology can deliver the experiences that every human wants from their HR technology. ... We would like to get our HR IT system more human focus. Therefore, we constantly study questions like what makes for a great experience, and how technology can support the experience, like making things feel personal.... enabling me to get in, easily find what people need and then get out quickly, and helping me see opportunity everywhere. (HRM4)</i> • <i>Building upon this individualised experience is creating those experiences that allow them to get in and out. By leveraging what we know, there is no reason to duplicate data entry. It is also leveraging progressive disclosure. You don't need everything on a screen at once, just what you need (Delta Airlines check-in example). (HRP3)</i> • <i>We believe that positive experiences that we achieved on e-HRM help uncover opportunity for people – in their careers, their development or ways to complete tasks.... It allows spending mental capacity on things that matter, rather than navigating systems to complete tasks that most people see as a requirement as opposed to the value added it should be.... HR system moves to a system of engagement. Reimagining our user experience is a major step in the evolution. (HX1)</i>
Producing strategic outcomes	<ul style="list-style-type: none"> • <i>HR digitisation means HR is managed with the latest information technology. Therefore, our knowledge, our experiences, our best practices are part of the</i>

system. All the data and information accumulated by all the business processes over many years is a great asset that helps us to differentiate ourselves ... and helps us to become more competitive in the market. (BX1)

- *By transforming our business model, we doubled our revenue and number of employees in the space of five years. Each new business required very different governance, skills and organisational structures. We estimate that two times the revenue growth increased complexity by ten times. Using our software solution internally to drive our business and manage our workforce greatly helps in managing complexity and enables us to realise our Run Simple operating principle. (BX2)*
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TABLE 10 ADDITIONAL SUPPORTING QUOTES

4.1 Making e-HRM strategic oriented

This section aims to have an integrated view of the key factors influencing the strategic orientation of e-HRM, contributing to the understanding on how e-HRM is made strategic oriented. It firstly clarifies the e-HRM setup in S with the existing conceptualizations and research framework, it then zooms in on the contextual factors shaping the direction of e-HRM, and argues the strategic ‘fit’ between e-HRM and its environment. It discusses how e-HRM strategy is aligned with the business strategy and drive the detailed configuration of e-HRM to materialize the ‘strategic orientation’. Finally, it points out that the strategic orientation does not equate to the actual realisation of e-HRM outcomes, however e-HRM should have a proper e-HRM strategy itself to be strategically oriented and to achieve the desired goals.

4.1.1 Strategic ‘fit’ of e-HRM

4.1.1.1 e-HRM Setup

The case study examines how the employees, HR professionals, managers and executives in company S view their e-HRM set-up, and to discuss how such a e-HRM picture is related to the definition of e-HRM from the existing research. This helps to conduct this study under the existing conceptualization and research frameworks.

At company S, e-HRM is viewed as more than a stand-alone technical system. While acknowledging technology as the essential element of e-HRM, the participants described a more

comprehensive picture of e-HRM – a system that consists of multiple elements that goes beyond a pure technology stack.

[The] HR system for us is more than a technical system, it's about our HR best practices, how our people strategy is implemented, how our HR supports and enable employees ... how people engage with the organisation, it is part of our company digital transformation... (BX1)

A business executive shared his view of the overall picture, arguing that e-HRM goes beyond being just a system. He describes a comprehensive picture of e-HRM – a system that consists of multiple elements – that provides a chance to revisit the definition and research framework of e-HRM. At company S, e-HRM goes beyond a stand-alone IT system. It is seen as consisting of many elements, such as context, tasks, actors and technology, that are interconnected and collaborative. e-HRM has its own strategy that explains the objectives and the ways to achieve the objectives. Meanwhile, employees are concerned about specific tasks that they perform through e-HRM, their experiences around these tasks and the outcomes at the individual level, while managers and executives focus more on macroenvironmental factors, strategic topics around planning, implementation and adoption, as well as the outcomes at the organisational level. Table 11 provides a summary of the key elements of e-HRM concluded from the data analysis

e-HRM key elements	keywords from data analysis
Context	Industry trends, competition, business strategy, regulations, organisational culture, technology readiness, stakeholders' interests, etc.
Strategy	HR transformation, business strategy alignment, implementation, change
Tasks	Employee and organisational data, payroll, total rewards, compensation planning, onboarding, executive and professional recruiting, learning, social collaboration, etc.
Actors	Employees, line managers, HR professionals, executives and senior leadership, teams, organisations

Technology	Internet, cloud computing, artificial intelligence, social media, mobile, analytics, machine learning, etc.
Consequences	Employee experience, efficiency, transparency, compliance, workforce motivation, talent acquisition and retention, data asset, etc.

TABLE 11 KEY ELEMENTS OF E-HRM

The findings from the case study could be supported by the e-HRM definition from Bondarouk and Ruël (2009), who claim that e-HRM 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’. (p.507) The existing research framework provides a similar picture that explains the key elements of e-HRM. For example, Strohmeier (2007) proposed a framework based on the definition of e-HRM that provides a good explanation of the key factors and their links. Context, configuration and consequences are the three major sections that reflect the multilevel nature of e-HRM. The micro and macro levels are also described in each section to reflect both individual and organisational aspects. Strategy and technologies are explained as part of the e-HRM configuration

Marler and Fisher (2013) argued that HRIS is a system of HR information storage and management that does not function much outside the HR department. It could be questioned as to whether an HRIS is only for the HR department. At company S, the HR systems serve the entire employee population, and many HR tasks are employee self-services that do not require direct involvement of HR staff members. Aspects of the system, such as recruiting, also reaches external future employees. Therefore, it could be argued that HRIS also serves both internal and external HR functions and/or practices. Overall, it is a technical stack that support the accomplishment of HR practice and process. Marler and Fisher (2013) described e-HRM as a broader construct and considered HRIS to be part of e-HRM. Therefore, it is in line with the finding that e-HRM goes beyond a technical system. Sareen and Subramanian (2012) claimed that e-HRM is an integration of people, processes and technology. Most researchers view e-HRM as a way of managing HR through technology. Besides the IT system itself and technology – as the essential parts of e-HRM – the non-technical aspects, such as internal and external social factors, actors and consequences,

need to be considered to understand e-HRM as a whole. To examine the strategic aspects of e-HRM – including how e-HRM is influenced to be strategically oriented to achieve strategic benefits – it is necessary to look at a bigger picture instead of any isolated factors. In particular, exploring the contexts of e-HRM and the collaborations between e-HRM and its context would be meaningful in terms of gaining more insights on the strategic orientation of e-HRM.

4.1.1.2 Contextual factors and ‘Fit’

e-HRM does not exist independently of contexts (Strohmeier, 2007). The e-HRM at company S is context dependent rather than universally applicable. The executives of the company S acknowledge that organisation resides in dynamic contexts and e-HRM needs to cope with the changes

Things around us are constantly changing. Our company has to react to the dynamics in the changing world to be competitive, we want to leverage the latest technologies embedded in our HR system to react in real time. (HX1)

The interviews indicate that the context at company S consists of a few blocks, namely, external situational factors, internal organisational factors, business and HR strategy, and stakeholders’ interests.

Contextual Factors	keywords from data analysis
External situational factors	Market condition, Industry, customers, social, legal situations, culture
Business and HR Strategy	Company business goals, roadmap to achieve goals, HR strategic objectives, HR transformation goals
Stakeholders	Decision committee, HR leadership, business executives, employees, line managers, HR professions and experts
Internal organizational factors	Company values, organisation structure; HR functions; workforces, investment in e-HRM; and e-HRM leaders, technology

TABLE 12 KEY FACTORS

External situational factors

External situational factors set the external environment in which a company's e-HRM sits, such as industry, market condition, customers, social, legal, culture and regulations. The idea of fit determines what qualities e-HRM should possess as required collectively by industry and market conditions, social and cultural factors, laws and regulations. Organisations choose e-HRM systems and services based on the industrial environment.

Could external technology trends exemplify how industry trends influence e-HRM? As e-HRM technology has experienced rapid development and growing acceptance among industries, the adoption of 'cloud' technology as opposed to other technology methods has become a popular way to provide leading delivery (KPMG, 2016). More and more organisations are replacing their existing HR systems with cloud-based solutions. Cloud HR systems promise several significant benefits, one of which is enabling HR to add value to an organisation's business. However, the simple acquisition of the latest HR system does not guarantee the realisation of the expected benefits, which may be the reason why company S's HR transformation aims to comply with the prominent market trends and constantly adapts its HRM systems to better fit in the market.

Most of the companies have been investing in building an HR application system, and in recent years, there has been a trend of putting systems in the 'cloud' instead of hosting them locally in the company in order to leverage the modern technologies and achieve cost benefits at the same time. (BSM2)

Legal regulations are frequently referred to because compliance is regarded as a key to HR systems. Quick responses are expected should there be any amendment of regulations or because they are to be followed as a matter of course. e-HRM does not fit the situational factor if it is unable to support global compliance which has to be realised timely and accurately. Social and cultural factors are also important: they vary from country to country and also, to a large extent, determine e-HRM practices. Olivas-Lujan et al. (2007) and Parry and Tyson (2011) have confirmed that social and cultural factors are capable of shaping and reshaping e-HRM. At the time of the interviews and during the writing of this thesis, the COVID-19 pandemic was sweeping across the globe. Many participants took this as an example to explain how external situations

could shape HR systems. In response to the spread of the virus, people have been encouraged to work from home. New functions have been added to the HR systems at company S to support the shift of workplace. Some even think this might be the opportunity to accelerate the progress towards mobile HRM systems.

Business and HR strategies

Strategy is the planned deployment of resources and activities intended to enable an organisation to achieve its goals (Wright and McMahan, 1992). Business and HR strategies consist of multiple components, including determination of the overall strategic objectives and more specific goals, as well as plans for the realisation of the goals and objectives. The story of company S is a vivid example of how business and HR strategies are closely related. In 2010, company S set an ambitious goal to double its market value over 5 years while transforming its business model to focus more on innovation and value creation across all stakeholders. This first step of goal setting clarifies what the company expects itself to achieve within a certain period of time. To achieve its goals, company S established several strategic pillars, including becoming a cloud company and delivering faster, lower-cost innovation to customers across all market segments; accelerating innovation through both organic growth and strategic acquisitions; simplifying how they do business with customers, how they run their internal business processes and how people work; and adapting their culture and their people strategy to the new market reality. Based on the business goals, strategy is planned accordingly taking into consideration every aspect involved in the realisation of these goals.

As the organisation was trying to become a cloud company, the HR transformation plan was consistent with the main business goal, and the employees were also involved in realising business objectives in multiple ways. First, in the same way as the overarching goal is supported by strategic pillars, each employee also plays their part in achieving different levels of goals. Viewable and measurable individual objectives are closely linked with the company's business objectives via the support of e-HRM systems. Second, a people and talent strategy is a major component of business strategy. Because company S is a technology company, talent

management has been one of the highlights of its HR transformation. The company recognised that it was facing a challenge where it lacked a comprehensive view of its talent landscape. They were running multiple systems, which made it difficult to bring talent to the forefront. The interviewees admitted that the biggest challenge for company S was getting the right people working on the right things in the right way and providing them with the right development opportunities so that they could reach their business goals and career aspirations. An HR manager provided insights on how e-HRM equips organisations in a talent war:

The talent war in the software industry puts huge pressure on talent acquisition strategy and execution, which raises the expectation on our HR system.... it has to be equipped with the latest technologies and unique business practice to achieve the results. (HRM1)

By establish e-HRM and leveraging the technologies, the company then had an end-to-end integrated solution for talent management and the ability to use workflows, content and data to continuously improve its business results through its people. Last, company S included employee branding among current and prospective employees in the business strategy. Talent acquisition has been another highlight of company S's HR transformation. The company aims to adapt to meet the rapidly changing expectations of candidates and implement interactive, consumer-like tools throughout the application process (literature on employee branding). It is not difficult to summarise the pattern of business strategy development at company S. It is clear about all the challenges it faces and is capable of leveraging e-HRM to achieve its business objectives.

Stakeholders' interest

Stakeholders are another key factor that places significant impacts on e-HRM strategy and scope. Multiple stakeholders influence different aspects of the e-HRM, such as its objectives, configurations and implementations. An HR manager described how the stakeholders in the company directly influenced the overall direction of e-HRM.

The leadership structure changes in the company have a major impact on the direction and strategy of the e-HRM system.... Our HR system has many internal stakeholders, such as our line of businesses, our employees. We have to ensure that the interests of these stakeholders are properly taken care of. (HRM4)

The stakeholders mentioned in the interviews are the sum of every user of the e-HRM systems at company S, including employees, managers, executives and HR professionals. The interviewees appeared to attach varying importance to different stakeholder groups and thought that they bring varying levels of impact on the HR systems. HR professionals stand out as a group of stakeholders because they are the most frequent users of e-HRM systems and might experience greater influence exerted by these systems. Therefore, they consider themselves a critical stakeholder because of their frequent use of HR systems, and their effort to provide feedback and ideas on innovations of HR systems. This view is supported by the fact that in the literature most research on stakeholder influence over e-HRM focuses closely on the function of HR practitioners but less on employees. Many employees of company S also think that employees are the critical stakeholders of e-HRM. The HR systems are closely related to the employees' everyday work and it is believed that employee experiences are highly valued by the company. In many cases, managers and executives have a direct, important impact on e-HRM strategy and its activities. They are positioned as decision-makers during the e-HRM strategy formulation and implementation processes and, therefore, are also regarded as one of the most important stakeholders of e-HRM.

Strohmeier (2007) argued that any changes to the institutional environment could lead to corresponding changes in e-HRM. Thus, organisations must constantly adapt themselves to fulfil the expectation of the institution. He used the new institutional theory in explaining how the stakeholders' interests, which also include institutional contexts, influence the strategy and configurations of e-HRM. e-HRM strategy and its implementation cannot be static if the interests of the stakeholders continue to evolve. e-HRM has to adapt itself to accommodate the institutional environment. On the other hand, the institutional environment, including the interests of the stakeholders, continues to shape e-HRM strategy formulation and configurations. More specifically, in the case of company S, there is a steering committee set up for their HR digital transformation initiative. The steering committee not only sets the strategic directions but

also acts as the final decision-maker for any major issues or escalations from the transformation project.

Internal organisational factors

The internal context of e-HRM sets the environment within the organisation to which it belongs. Internal organisational factors of e-HRM are composed of an organisation's structure; HR functions; workforces; investment in e-HRM; and e-HRM leaders, values and technology. Unlike Strohmeier's (2007) e-HRM framework, in this research technology is considered a component of the e-HRM internal context rather than a component of e-HRM itself because technology does not influence HRM until it has been integrated. Moreover, integration is a key process that needs to be understood (Bondarouk and Brewster, 2016). Corporate culture and values are also important components of the internal context of e-HRM. A comment from a line manager indicates the influence of organisational culture:

We are a company that believes in transparency and openness, and having a system that supports a consistent business process, consistent data and information is so crucial to us.
(BSM3)

The values held by the organisation are reflected in the design, implementation and usage of the e-HRM systems. Many common practices within e-HRM systems are predefined by the organisation's agreed values promoted among its employees, and the existence of some potential issues is pre-empted by the e-HRM systems.

According to the contingency theory, the internal and external contexts can be viewed as contingencies of e-HRM. Since the early stage of SHRM research, contingency theory (Lawrence and Lorsch, 1967) has been employed to study the relationship between HRM and its contexts (Boselie and Brewster, 2013a). Contingency theory has also been introduced to understand how contextual factors influence e-HRM (Ruël and van der Kaap, 2012). According to Boselie and Brewster (2013), contingency theory takes into consideration the role of both internal and external organisational contingencies in the shaping of HRM. The notion of 'fit' is greatly emphasised in the discussion on contingencies; fit is also an important referent in this research. Contingency theory, therefore, can be adopted in this research to explain how fit is achieved

between e-HRM and its internal and external contexts as well as why e-HRM needs to be flexible enough to cope with the dynamic fit led by changing contexts. Such a ‘fit’ among the different contextual factors could be presented by figure 9. According to Delery (1998), the notation of ‘fit’ could be either horizontal fit that exists among e-HRM tasks and vertical fit that concerns the interrelation between contexts and HR practices. In order for e-HRM to cope with the dynamic environment, the design and configurations of the e-HRM have to ‘fit’ the environment. The elements of e-HRM not to be isolated and function on a stand-alone basis. Instead, they collaborate and influence each other in most of the e-HRM scenarios. Moreover, the contextual factors identified at both the micro and macro levels (Ruël and van der Kaap, 2012) help to not only understand the complexity of e-HRM, but also examine its strategic orientation.

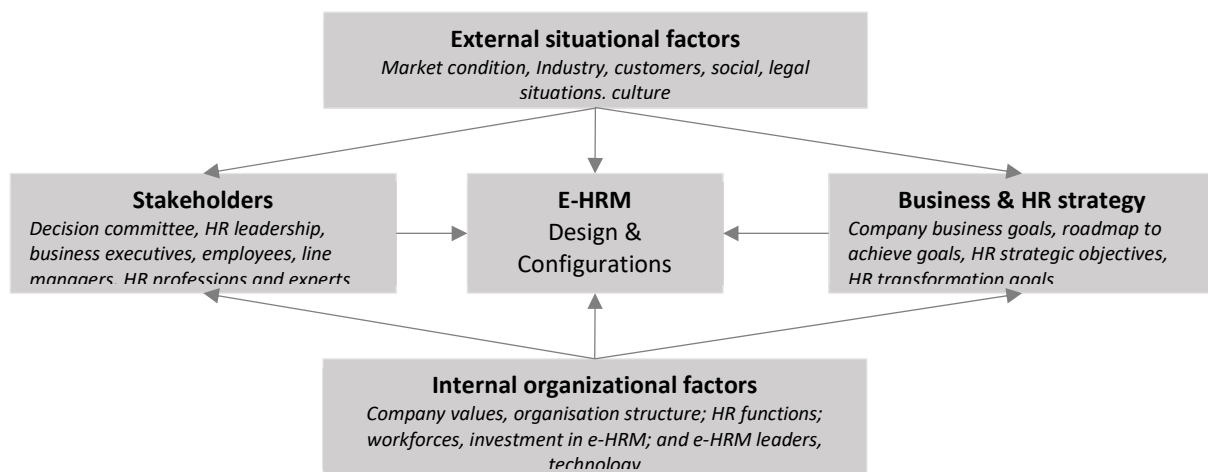


FIGURE 9 E-HRM CONTEXTUAL FACTORS AND ‘FIT’

The contextual factors shape the how e-HRM is designed, configured and implemented. As discussed in the previous chapters, in the e-HRM context, strategic orientation could be translated into the strategic values that the firms set for e-HRM (Bondarouk and Ruël, 2013) such as enabling the strategic role of HR (Al-Harazneh and Sila, 2021) or evaluating the contribution of e-HRM to sustain a firm’s business performance (Njoku et al., 2019). The contingencies of e-HRM, specifically the key factors identified largely influence such an orientation. If HR in a company is positioned strategically as the business partner, and company views HR as a strategic asset, e-HRM will be built to fulfil such an intent.

While the influence of the external and internal contexts on e-HRM is clear, it might also be wise to acknowledge the possibility of the reverse relationship. Indeed, the technical capability of e-HRM may have an impact on an organisation's set-up and how HR works with other organisations. e-HRM may shift the role of HR to a more significant one in terms of company performance and business strategic support. Meanwhile, e-HRM could reinforce the corporate culture and consolidate the building of an organisation's identity. Moreover, the stronger planning and analytic capability of e-HRM can possibly redefine the best practice in the industry and thus initiate contextual changes. To conclude, neither e-HRM itself nor its internal and external contexts remain static forever. The perceivable mutual influence between e-HRM and its contexts favours a constant negotiation between the two, a phenomenon called 'dynamic best fit'. However, a lot of previous research has focused on the arrow pointing at e-HRM from its context (Strohmeier, 2007). How e-HRM shapes its context is an issue that is worth further exploration.

4.1.2 Strategic Configuration of e-HRM

4.1.2.1 *e-HRM strategy*

After the understanding the contextual factors and their 'fit', the next steps would be to understand the strategy of the e-HRM itself that describes the goals and the roadmap to achieve the goals, as well as the configuration of e-HRM that is typically derived from such a strategy. the configuration of e-HRM could be viewed as the realization approach of the e-HRM strategy. As an example, if one of the goals defined for e-HRM is to manage talent acquisition strategically, then this needs to be reflected in the corresponding e-HRM configuration, therefore an e-recruiting needs to be set up in the way that supports such a goal. The case study reveals that company S has a dedicated e-HRM strategy that defines the tasks that may produce its desired outcomes. However, the strategic orientation only gives the desires with strategic intentions and does not guarantee the final outcomes. Moreover, the final outcomes could be subject to a realisation process to achieve. Therefore, it is important to distinguish strategic orientation from the actual strategic outcomes.

The finding from the case study shows that e-HRM at company S has a dedicated strategy derived from the company's business and HR strategies. e-HRM strategy defines the goals and the implementation approach how these goals could be potentially achieved. More specifically, e-HRM strategy could be viewed as part of HR strategy. Meanwhile, e-HRM strategy establishes the connection between business strategy and the objectives of e-HRM, as well as its implementation. In order to achieve the 'strategic goals' through a transformational e-HRM, e-HRM strategy is defined in the way that the key strategic aspects are considered under the alignments with business strategy.

At company S, e-HRM is strategically positioned as an essential part of the HR transformation. As stated in Chapter 3, the HR transformation at company S has three objectives: 1) to simplify HR processes and to make them consistent, 2) to create better consumer experiences for employees and 3) to utilise integrated data to drive decision-making. Here, the strategic orientation of e-HRM also works as the connecting point between organisational business and e-HRM strategies. The objectives defined for the e-HRM reflects its strategic consideration. Specifically, the objective of simplifying HR processes and making them globally consistent is largely related to the standardization and efficiency. This would allow HR to free up the capacity for more strategic tasks (Nurshabrina and Adrianti, 2020, Parry and Tyson, 2011). The goal of creating better consumer experiences for employees intends to lead to better motivation and productivity, and capability of innovation (Farhan et al., 2021, Shrivastava et al., 2022). The intention of utilizing integrated data to drive decision-making indicates the link to strategic decision (Nanda and Randhawa, 2020) and HRM transformation where the decentralisation and delegation of managerial decision-making to the frontline (Njoku et al., 2019).

Strohmeier (2007) described e-HRM strategy as a component of HRM strategy and argued that e-HRM strategy should define the objectives of e-HRM and its implementation. Such a description describes the existence of e-HRM strategy and also explains the content of the strategy, mainly objectives and how e-HRM is implemented to achieve the objectives. Lockett et

al. (2009) argues that e-HRM itself could be defined strategically, but it does not create value by itself. It is not the unique HR base itself that creates value, but rather the functionality of e-HRM and how it is defined and used. Besides objectives, e-HRM strategy also involves decisions concerning implementing e-HRM. Company S believes its business objectives should be reflected in the design, implementation and adoption of e-HRM systems. Implementation focus on how the desired objectives will be realised. The interviewees discussed many different aspects of the implementation, such as project set-up and governance model, implementation methodology, change management, end-user acceptance, migration of data in legacy systems, future system maintenance and policies. A manager emphasised the importance of implementation:

Without a good implementation, no matter how good the system is, it would not be able to create values; implementation is actually a value creation process ... and it differentiates us from others who might be on a similar system. (BSM4)

Each organisation may have to customise its e-HRM based on its own needs and requirements. Because there is no standard e-HRM to adopt and implement (Rahman and Aydin, 2020), there are several challenges to implementing e-HRM. As part of e-HRM strategy, describing how e-HRM should be implemented in specific contexts is crucial. Somendra et al. (2012) took a contextual approach and developed a conceptual e-HRM implementation framework that suggests e-HRM implementation should consider informational, interactional and/or transformational aspects of e-HRM (Lengnick-Hall and Moritz, 2003); benefits of an e-HRM system; and contextual factors such as technology, employees and organisational communications. Rahman and Aydin (2020) examined the benefits, barriers and risks of e-HRM implementation based on different dimensions: technological, environmental, organisational, political, economic, legal and social. Regardless of how the implementation itself is examined, the significance of the implementation to achieve the desired results of e-HRM is widely acknowledged. Somendra et al. (2012) proposed that an organisation should go for a higher-level e-HRM implementation – transformational – to achieve better HRM performance and strategic gains. Obviously, higher-level implementation is much more complex and challenging. e-HRM strategy should define the directions and objectives, how to reach the destination and what key factors need to be considered.

According to Marler and Parry's (2008b), e-HRM could either lead to a more strategic role of HR in business strategy, or could be the result of strategic HR orientation aligned with business strategy. According to the authors, in some cases, the implementation of e-HRM may be the result of HR strategy, however, the causal ordering may be better predicted by other contextual contingencies. For example, e-HRM may proceed with HR strategy in younger firms, in less developed countries or in certain industries. However, in mature companies, more developed countries or other industries, the reality might be a reversed causal relationship. The findings of this case study is closer to the later circumstance, e-HRM strategy as part of HRM strategy, is the result of business strategy and HR strategy. In such a case, the business strategy serves more as a contingency. Delery (1998) defines the alignment business strategy and HR strategy as 'Horizontal fit'. The horizontal fit ensures the HR's consideration of business priorities and these priorities are reflected in the HR strategy. e-HRM strategy part of as HR strategy ensure both business and HR priorities are reflected in the e-HRM direction and implementation. What defined in e-HRM strategy could be translated into e-HRM configuration and list of tasks that need to be accomplished. The list of tasks are the execution bodies of the e-HRM strategies. Figure 9 below illustrates such a finding from the case.

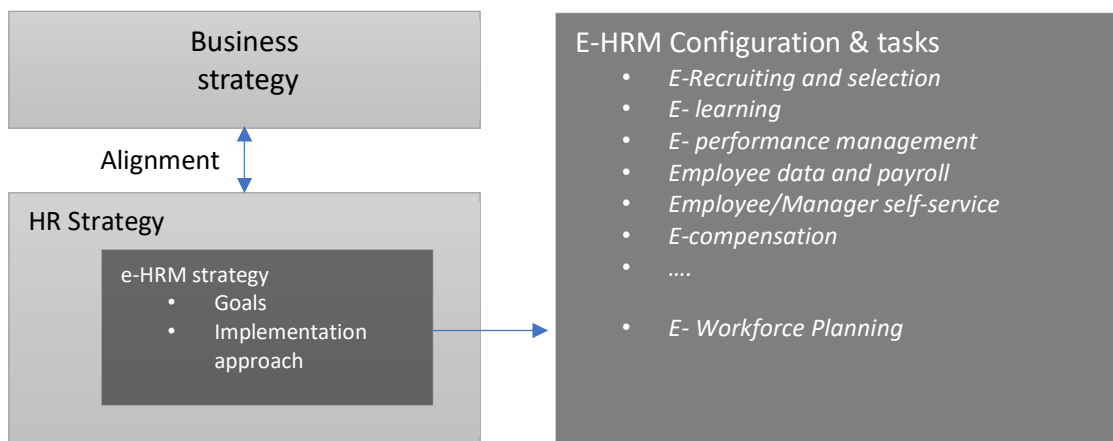


FIGURE 10 ALIGNMENT: BUSINESS STRATEGY, HR STRATEGY AND E-HRM STRATEGY

The case study confirms the existence of e-HRM strategy and its connection to business strategy. e-HRM strategy can be generalised as the planned deployment of e-HRM resources and e-HRM

activities intended to enable an organisation to achieve its goals. e-HRM strategy defines the desired outcomes of e-HRM, especially transformational consequences, as well as how to achieve these outcomes (Strohmeier, 2007). It considers stakeholders' interests, the implementation of e-HRM to achieve its capabilities and how the design and content of key e-HRM activities are strategically oriented. It is composed of the objectives that e-HRM is expected to achieve; the decisions, policies and implementation of e-HRM; and management and risk control. In particular, transformational e-HRM also has a strong focus on strategic aspects and emphasis on the strategic benefits (Somendra et al., 2012); therefore, e-HRM strategy needs to be defined so that it is strategically oriented. However, being strategically oriented is not a guarantee of achieving desired strategic outcomes. There needs to be a value realisation process which is the implementation process that realises the outcomes. The way e-HRM is implemented is defined as part of e-HRM strategy. Generally, e-HRM strategy is a critical piece to support the decision-making process that leads to certain e-HRM arrangements and activities to achieve the final outcomes.

4.1.2.2 e-HRM configuration and tasks

e-HRM strategy at company S sets the direction and scope of e-HRM from the point of focus as well as implementation and adoption. e-HRM strategy also has a direct impact on the types of key tasks and activities defined in the e-HRM system. The interviewees mentioned and explained many e-HRM activities and functions used to address specific HR business needs, including recruiting, learning, performance management, payroll and onboarding. Other activities engaged with managing more complicated tasks, including workforce planning, workforce analytics and employee satisfaction analysis, among others. Strohmeier (2007) explained that e-HRM activities include HRM tasks that are carried out electronically, such as payroll, e-learning, e-recruiting or e-selection. Galanaki et al. (2019) argued that e-HRM supports HR tasks with a direct impact on corporate strategic objectives, while Martini et al. (2020) further explained that e-HRM could possibly play a strategic role in the organisations through its configuration and activities.

At company S, the terms ‘Core HR’ and ‘Strategic HR’ are used to distinguish different levels of activities. ‘Core HR’ refers to ‘must-do’ operational activities, such as employee information, payroll and time recording, that are believed to be the foundation in the e-HRM application landscape. ‘Strategic HR’ refers to activities such as performance management, recruiting and development learning that are more related to management and strategic outcomes. S company also describes activities such as workforce analytics and workforce planning as ‘intelligent HR’ because they rely heavily on big data and analytic technologies. The application landscape of e-HRM at company S is illustrated in Figure 10 (SAP, 2020, p. 12).

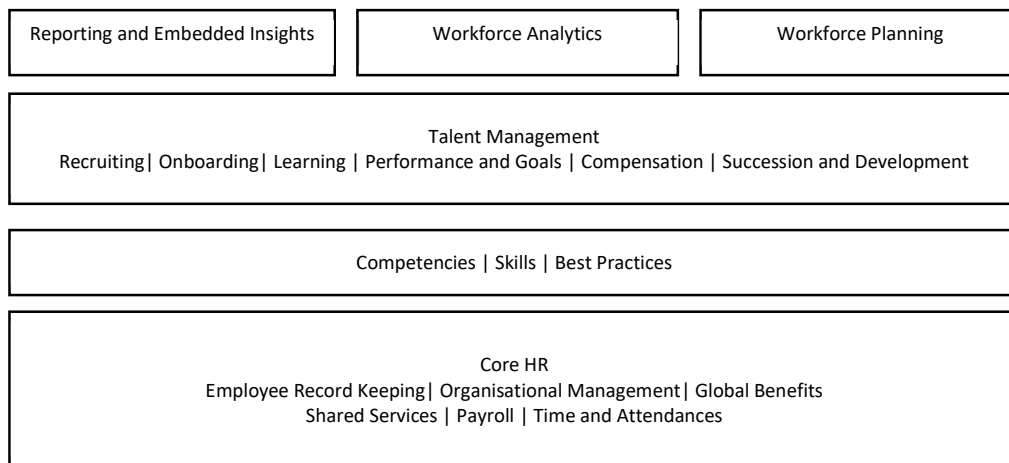


FIGURE 11 CORE HR VERSUS STRATEGIC HR TASKS

Though Company S defines e-HRM activities as either core or strategic, considering the activities that have an impact on e-HRM strategy. In the past, there were opinions that advanced strategic or decision-support oriented application in e-HRM were lacking (Kinnie and Arthurs, 1996, Teo, 2001). However, the findings from company S paint a different picture. From e-learning, e-recruiting to workforce management and planning, company S has defined and implemented many strategic e-HRM tasks. However, recently, scholars have found a significantly increased implementation of e-HRM activities (L’Écuyer and Raymond, 2020, Njoku et al., 2019, Shamaileh et al., 2022. According to Bissola and Imperatori (2013), e-HRM practices could be grouped into operational, relational and transformational categories. Transformational e-HRM aims to contribute strategically to organisational performance and change the role of HR itself through

practices that include restructuring, outsourcing, knowledge management, organisational development, talent management and those with direct strategic impacts. The diagram below maps the key e-HRM activities at S with the categories defined by Bissola and Imperatori (2013).

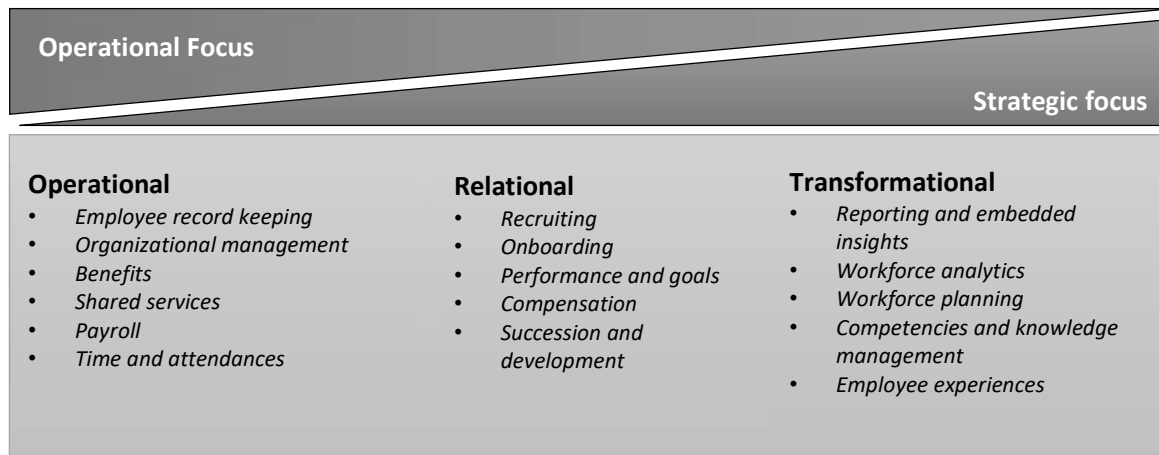


FIGURE 12 CATEGORIZATION OF E-HRM TASKS

Many interviewees stated that integration and collaboration among different activities are crucial. Activities should collaborate to drive the end-to-end process to realise value. For instance, compensation has to be tightly integrated with payroll and employee records. Although e-HRM activities could be defined as a stand-alone task, company S has implemented most of the functions in a way that they are integrated and able to collaborate to achieve the end-to-end benefits. The interviews used the term ‘suite’ to describe the composition of all different types of activities. Each task was then seen as a ‘subsystem’. A senior executive provided an example of how the ‘hire to retire’ approach achieved the desired strategic benefit of effectively managing talents end-to-end:

From approaching candidates recruiting talents to onboarding the new employees, training and upskilling, performance management, all the way to compensation, each step is performed by an individual HR function. However, the collaboration among different activities based on a common data model and consistent user experiences leads to an effective end-to-end process that contributes to the bigger picture and company strategy. (HX2)

Delery (1998) emphasises the importance of 'Horizontal fit' that exists among HRM practices, the author argued that to measure fit, a detailed description of how practices work together to achieve organisational objectives is both necessary and important. The relationships between different HRM practices could be either 'additive' (p. 293), meaning they have independent effects on HRM outcomes, or 'interactive' (p. 293), meaning that some practices may replace others to achieve the same goal, but synergism may also exist among those HRM practices. In the context of transformational e-HRM (Njoku et al., 2019), transactional or operational e-HRM activities such as employee records or payroll remain necessary and critical, but they are insufficient to transform the role of HR. Strategic e-HRM tasks should be implemented to realise the capabilities contributing to an organisation's strategic goals.

Njoku et al. (2019) argued the strategic e-HRM activities are pivotal to the contribution of e-HRM to sustaining business performance; however, these activities should complement each other instead of being used alone. Such a concept is reflected in company S's e-HRM strategy and design, namely 'hire to retire' that has been designed to cover an employee's entire life-cycle. It goes even beyond HR and expects e-HRM to operate seamlessly with finance and other lines of business. Some of these integrations or collaborations are easy to understand. For example, any strategic e-HRM needs employee information, meaning any strategic activity could only be built on top of core activity such as employee information recording. Many organisations have introduced the culture of 'pay for performance' that requires the e-HRM task of 'performance management' and 'compensation planning' to work seamlessly together. Workforce planning is another example where the information from different e-HRM tasks need to be consolidated into the views of planning to simulate situations to come. Bondarouk and Brewster (2016) also indicated that e-HRM focus all integration mechanisms and all the contents of HRM that are transformed through IT. While e-HRM strategy can differ in content and format among organisations, having a clearly defined e-HRM strategy is crucial to ensure collaboration among different e-HRM tasks, as it defines both what and how for the e-HRM tasks. Implementation of strategic e-HRM tasks turns

the strategic orientation into a reality, with tangible outcomes. e-HRM strategy that defines both what and how for e-HRM tasks plays a critical role in such a value realisation process.

4.1.3 Distinguishing strategic orientation from strategic outcomes

There has not been much evidence that shows perceived traits of strategic orientation equates to the actual realisation of e-HRM outcomes. e-HRM should have a proper e-HRM strategy itself to be strategically oriented and to achieve the desired goals of e-HRM. An appropriate alignment of HRM practices and e-HRM strategic orientation can significantly and positively influence organisational outcomes (Collings et al., 2010). Previous studies have examined different scenarios in terms of the relationship among business strategy, HR strategy and e-HRM. For example, from their qualitative research Marler and Parry (2008a) concluded that e-HRM does not act as the mechanism through which HR strategy transforms HR into a business partner. However, they argued that either e-HRM facilitated by proper HR strategy shifts the role of HR or HR as part of the organisational business strategy realises e-HRM through HR strategy. This could mean that e-HRM itself is not able to transform HR'S role without HR and business strategies.

Although it is pervasive in the entire conversation around e-HRM, strategic orientation can be, but is not necessarily, supported by e-HRM strategy and cannot be easily converted into strategic outcomes of e-HRM. Therefore, strategic outcomes become a separate point of the focal discussion. Strategic outcomes are the actual outcomes or consequences of e-HRM deployment and implementation. Strategic orientation can be viewed as a prerequisite of having strategic outcomes but does not guarantee the achievement of desired strategic outcomes. Meanwhile, strategic outcomes in many cases correspond with strategic orientation. For example, the strategic orientation of e-HRM does make it possible for HR practitioners to get involved in more strategy-related issues. Although e-HRM could free up some capacity from administrative tasks, HR practitioners do not automatically take up strategic roles without an appropriate e-HRM strategy to sustain the transition. The strategic outcomes of e-HRM also include strategic

planning and decision support, employee experiences and motivation. Section 4.4 provides a discussion about the strategic outcomes of e-HRM.

This section distinguishes strategic orientation from strategic outcomes and discusses the concept of e-HRM strategy as well as its alignment with an organisation's business strategies. Figure 12 illustrates the interrelations between the above constructs in providing a framework explaining the strategic orientation of e-HRM in its changing contexts. First, e-HRM typically formulates its own strategy, which is derived from business and HR strategies. The strategic orientation of e-HRM is reflected in e-HRM strategy, which defines the objectives of e-HRM and thus the scope of the function and key tasks to achieve the objectives. Second, the stakeholders' interests influence the strategy and task levels. Specifically, the senior leadership of the organisation typically formulates the business and HR strategies, which could be a direct input of e-HRM strategy. Moreover, e-HRM strategy is directly influenced by the stakeholders' interests (i.e., shareholders and the company's senior leadership). Third, both external situational factors and internal factors shape the stakeholders' interests, the organisation's business and HR strategies and, subsequently, e-HRM strategy and e-HRM tasks. Internal factors, such as situations around workforces, investment and technology availability, have a major impact on how e-HRM tasks are defined and executed.

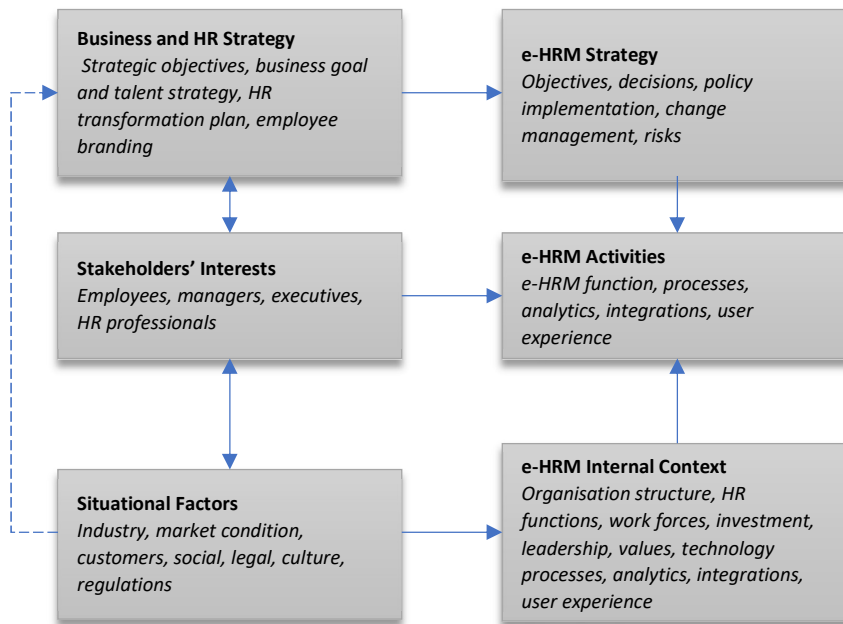


FIGURE 13 THE STRATEGIC ORIENTATION OF E-HRM IN CHANGING CONTEXTS

4.2 Understanding e-HRM from a resource perspective

e-HRM being strategic oriented describes the intent of making e-HRM move towards the strategic end, however doesn't guarantee desired strategic benefits. This section starts to looking into the value realization process for e-HRM. As the first step, it adopts the resource-based view theory to understand the type of the organization resources that e-HRM involved, contribution from e-HRM and the role it plays.

4.2.1 E-HRM resources clarification

Company S has been running its key HR business processes on various HR systems for over 30 years. It uses the term 'HR digital transformation' to describe the process of transforming traditional e-HRM to a more sophisticated and modern e-HRM. It has multiple aims, including serving talents more effectively; encouraging agility to cope with the new business strategy; creating a more intuitive user experience; and promoting faster innovation cycles and smarter applications that leverage new technology such as mobile devices, analytics and the cloud. According to (Lazazzara and Galanaki 2020), e-HRM could offer resources by itself or as levers to enhances value of other resources. In company S, e-HRM could be either a physical or technology

resource for organization or a 'lever' that enhance the value of other resources such as organizational resources, human resources, innovation resources, reputational resources etc.

Many participants describe e-HRM as different type resources such as processes, information, assets, and information knowledge controlled by the organizations, among others. Similarly, to many other organisational resources, e-HRM is utilised by its stakeholders to perform defined activities and create values at different levels across the organisation:

We have a huge amount of data and information in the system. If we use these data and information properly, it could bring us so many insights that could help us to make the right business decision.... We have been optimising our business processes over many years, and we are still doing so... and our business processes are always standardised and supported by the system; therefore, all the knowledge behind these business processes is also part of the system. This knowledge helps us to understand ourselves and improve ourselves. (HX1)

As highlighted by this executive, with the development of the new data and analytic technology, the information and data associated with e-HRM have also become a source of value creation. The utilisation of e-HRM systems generates information that is otherwise inaccessible. Such information is valuable in that it provides the basis for business insights. For example, easy visualisation of employee information is available within e-HRM, which enables decision-makers to make management decisions based on the facts and needs of the organisation.

Many of the interviewees believe that e-HRM supports the strategic deployment of HR policies and practices leading to a better HR performance. Although this research did not employ a quantitative approach, it is worth mentioning that previous research has 'consistently found a statistically significant relationship between HRM decisions and firm performance' (Saa-Perez and García-Falcón, 2002, p. 127), meaning appropriate HR policies and practices are also a source of gaining benefits leading towards performance competitive advantage. The company has the intention of utilising HR practices and policies described in its e-HRM systems to sustain its

advantages. Many so-called ‘best practices’ have been introduced as part of the adoption of e-HRM. These best practices are typically adopted by many organisations in similar patterns with adjustments to reflect the organisational specifics. This is an example for e-HRM being a lever enhancing the value of other resources.

There are different ways of grouping and categorising the resources. Madhani (2010) views the resources in two categories, tangible resources such as financial, physical resources, technological resources, and organizational resources, and intangible resources such as Human resources, innovation resources, and reputational resources. Both resources categories are identified in the case study.

A specialist from HR shared service centre highlights some tangible contents of e-HRM such as information and data from HR applications and IT infrastructure:

The system holds the employee information, organisational information and other data generated from various HR applications. Business process embedded in e-HRM: many end-to-end HR business processes reflect how HR is managed and executed. Most of these processes are also embedded in the system. (HRP3)

Another HR manager describe the intangible contents as following:

The HR system also has intangible contents such as how complicated HR projects are managed, latest technologies are adopted, the working behaviours by working with the system, etc. (HRM2)

Following the approach from Madhani(2010), type of e-HRM resources , e-HRM contributions could be summarized in the table 12 blow.

Resources Categories	Type of resources	Example of e-HRM contributions
Tangible	Physical resource	IT infrastructure
	Technology resource	Data, Technologies utilized
	Organizational resources	Business planning control, business processes, knowledge building decision support
Intangible	Human Resources	HR information and data

	HR managerial process Organizational setup Organizational culture
Innovation Resources	Employee knowledge, expertise, innovation process and culture, organizational knowledge acquisition
Reputational Resources	Employer branding, reputation as a socially responsible corporate

TABLE 13 E-HRM RESOURCES CLASSIFICATION

Having a holistic understanding of the e-HRM resources bring the possibility of using resources-based model to explain e-HRM's value realization process. However, it is also crucial to understand the characteristic of these resources contributing to the strategic position of e-HRM.

4.2.2 NRIV criteria of e-HRM

According to RBV, resources that are valuable, rare, inimitable and non-substitutable (Barney, 1991) make it possible for organizations to achieve superior performance and stay competitive. And these resources must fulfil such a VRIN criteria which is also discussed in the literature section.

Most of the interviewees acknowledged that e-HRM is an important company resource that contributes strategically. To further explore the attributes of such resources, one interview question invited the participants to give their opinion on whether they see e-HRM as valuable, rare, imitable and organisation specific. Table 14 summarises the interviewees' responses in terms of their view of e-HRM as a company resource.

Participant (number)	Employees (12)		HR (6)		HR managers (4)		Business managers (4)		Executives (4)		Total		Acknowledgment ratio
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	
Is the HR system													
Valuable?	10	2	6	0	4	0	4	0	4	0	28	0	93.3%
Rare?	9	3	5	1	3	1	3	1	4	0	24	6	80.0%
Inimitable?	8	4	4	2	3	1	3	1	3	1	21	9	70.0%

Organisation specific?	11	1	6	0	3	1	3	1	4	0	27	3	90.0%
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TABLE 14 PARTICIPANT ACKNOWLEDGEMENT OF E-HRM SYSTEM CHARACTERISTICS

Over 90% of the participants believe e-HRM is valuable and the same percentage think e-HRM is organisation specific. Some 80% of the participants acknowledge that e-HRM as a company asset is rare, while 70% believe it is inimitable. e-HRM as part of HRM is largely viewed as a company asset and also one of the organisational strategic resources. Seen as a component of organisational resources, e-HRM itself is complex, distinctive and dynamic, so that it is organisation and context specific and could not be easily replaced by an alternative. Therefore, e-HRM adds value to an organisation in a specific way, and it is impossible to duplicate e-HRM from one organisation to another.

Table 14 shows that the participants refer to e-HRM as being valuable, unique, inimitable and difficult to replace, which leads to its connection to what is discussed by the RBV for organisational resources. As reviewed in Chapter 2, the RBV believes that organisational resources are valuable, unique, inimitable and imperfectly substitutable (Barney, 1991), and in a way views e-HRM together with HR as an organizational resource of sustaining the competitive advantages of organisations (Lazazzara and Galanaki, 2020). The RBV (Barney, 1991) points out that HRM can develop sustained competitive advantage only by creating value in a way that is rare and difficult for competitors to imitate. The interviewees frequently referred to competitive advantages when reflecting upon what e-HRM has brought to their organisation. They acknowledged that competitive advantages do not come into being without the support of proper organisational resources.

As an integrated part of HR, e-HRM could be utilised as an organisational resource to achieve strategic benefits and subsequently organization performance. The premise of such a statement, however, is that a firm's e-HRM is an organisation resource. Uniqueness is the first distinctive characteristic of an organisation resource. The uniqueness of e-HRM at company S is mirrored by the organisation's expectations of e-HRM and how it is integrated with the organisation's life. e-

HRM at company S is employed with the expectation of realising the HR digital transformation across the organisation. To be more specific, company S expects e-HRM to perform both operational tasks and tasks that add value. For example, facilitating large-scale process standardisation across the entire organisation is one of the goals e-HRM is expected to achieve while performing operational tasks. This expectation is tailored to the specific conditions of company S as a great amount of information is generated and needs processing every day, and compliance and accuracy become the key to the task. However unique e-HRM is to each organisation, this term is only the aggregate of the resources it entails. In other words, it is the content of e-HRM as an organisational resource that make e-HRM itself unique. A discussion on the content of the resource adds insights into understanding the resource as a whole. Each part of e-HRM as an organisational resource – human capital policies and tasks described in e-HRM, information and data associated with e-HRM systems, adopted technologies and the knowledge and experiences from actors – is critical in making e-HRM a truly useful and properly utilisable resource.

Newly emerging technologies such as SMACi challenge older kinds of e-HRM and bring new opportunity to revolutionise the forms of e-HRM. Technology is traditionally considered a source of competitive advantage and is becoming easier to imitate (Becker and Gerhart, 1996). However, this does not check the effort made to adopt the latest appropriate technology. The interviewees believe that company S's cloud transformation journey and its introduction of analytical technologies have enabled the company to maintain its leading position in the industry. Meanwhile, the high level of stickiness between e-HRM and its consumers created by the tight coupling between HR business and technology guarantees the position of technology as a driving force of competitive advantage, especially in the context of e-HRM. They are very organisational context specific, and therefore difficult for others to simulate.

People differ in their capacities and abilities (Saa-Perez and García-Falcón, 2002). Even though e-HRM systems might be physically imitated by different organisations, it is almost impossible to duplicate the knowledge and experiences of the actors of e-HRM to create a homogeneous

people setting in a new environment. This point is exemplified well in company S's sustained talent and people policies. The company expects e-HRM to give it a competitive edge in the talent war by creating a unique user experience and providing talent market insights so that the company will have a unique talent arsenal that is hard for its competitors to imitate. Furthermore, its people policy facilitated by e-HRM reduces the mobility of employees to other organisations so that they sustain a competitive advantage in terms of people and talent.

While being unique, e-HRM as an organisational resource can never be static. Instead, e-HRM is dynamic and goes through constant changes. In the same way as the context sensitivity of e-HRM minimises the duplicability of e-HRM in different organisations, the changing contexts of e-HRM also determine the fact that e-HRM needs to be in a state of constant evolution in response to the changes in its internal and external contexts. e-HRM also needs to reflect the changes in HRM practices and policies. Technological development is another reason why e-HRM cannot halt on its way to adaption.

4.3 Converting resource to capabilities

The RBV points out that HRM can develop sustained competitive advantages only by creating value in a way that is rare and difficult for competitors to imitate. It also explains the strategic aspects of e-HRM in a strategic management context from the perspective of sustaining a competitive advantage. Stemming from the RBV, the capabilities perspective goes a step further and explains how e-HRM could be used to sustain competitive advantages. According to Grant (1991) resources need be converted to capabilities for organization, the next step is to understand the capabilities from such a conversion. Organisational capabilities (Teece et al., 1997) are a critical step in converting organisational resources into competitive advantages. Because organisational capability is developed from organisational resources, e-HRM in this case becomes the resources to generate organisational capability, which subsequently results in the strategic value of e-HRM. e-HRM itself encompasses a set of operational and dynamic capabilities to achieve certain business purposes (Helfat et al., 2009, Winter, 2003). Meanwhile, the development of the technology constantly enhances the existing capabilities of e-HRM and

creates new capabilities. Technology itself is changing fast and impacts e-HRM strategy, actors and activities. The case study looked into the role that technologies play in the e-HRM and how it enables or even drives the development of both operational and dynamic capabilities of e-HRM.

A preview of organisational capabilities here helps to understand the value creation process on a fuller scale. e-HRM features technology and the development of technology constantly enhances the existing capabilities and creates new capabilities. The operational capabilities of the HR function are enhanced by simplified administrative processes, reduced time required for HR transactions such as tracking job records, managing the employee payroll and running benefit programmes. The development of e-HRM is supported by the shift in the time spent on HR administrative work to strategic tasks such as designing HR policies, business planning, performance management and human capital development, among others. New capabilities become realistic through the adoption of the latest technologies, such as real-time information access, fast decision-making, integrated workforce planning and intelligent recruiting, among others. Most of these capabilities are dynamic and contribute to the strategic orientation of e-HRM.

Towards the strategic end, HR intends to be positioned as a business partner, and the company wants to make its HR a competitive advantage. This requires e-HRM to produce capacities that not only support the administrative tasks, but also manage the people and resources dynamics, and furthermore react to the external and internal talent market changes with the new capabilities that are required and necessary. Technology co-evolves with e-HRM to produce these organisational capabilities and to achieve the desired outcomes.

4.3.1 e-HRM capabilities

The term 'capability' refers to the ability to perform a particular task or activity (Maatman et al., 2010). Although this term was not explicitly used by the interviewees in this research, the idea of generating organisational capabilities for HRM was pervasive throughout the conversation concerning e-HRM outcomes. For example, the ability to respond to external changes and

challenges was mentioned as one of the characteristics of the e-HRM systems at company S, and has been believed to be one of the organisational capabilities in many other studies on e-HRM. Due to its adoption of technology, e-HRM itself encompasses a set of capabilities to achieve certain business purposes. These capabilities include operational and dynamic capabilities (Helfat et al., 2009, Winter, 2003). Meanwhile, the development of technology constantly enhances the existing capabilities of e-HRM and creates new capabilities. For example, big data technology may bring additional data analytic capabilities that allow an organisation to have more insights into their products, customers and employees, and thus to make business decisions faster. Intelligent technology such as machine learning make the e-HRM smarter in reacting to the needs of the service from the employees. UI technology improve the level of interactions between e-HRM and its end-users and raise the acceptance and satisfaction level of the end-users.

At company S, e-HRM consists of many tasks that serve different HR needs including data recording, payroll, compensation, recruiting, performance management and business planning, among other functions. Some of the tasks performed through e-HRM reduce HR efforts on administrative tasks and enable practitioners to focus more on more strategic development-related tasks such as talents acquisition, HR policies, performance management and business planning. The interviewees described many capabilities of the e-HRM at company S. Some capabilities enable and help the employees or organisation to complete operational tasks, namely those 'must-do' activities, such as process or service deliveries. An HR executive who had worked with an HR system for many years provided some examples in the interview:

Having all employees and organisational information maintained in a consistent format in a central database ... helping employees perform self-service tasks, such as viewing a payslip, raising leave requests, requesting HR services, recording working time, etc. ... helping HR professionals to complete their business tasks, such as recording employee info, running payroll, maintaining organisational structure ... legal reporting according to the regulations of government authorities... (HRP3)

Meanwhile, they also pointed out that some functions are designed and implemented in order to provide capabilities that go beyond administrative tasks and entail more of a ‘strategic’ orientation of HR:

On top of fulfilling the core HR functions, our HR system always aims to create impact even on a strategic level, such as standardising the global business process, providing end-to-end transparencies ... the system offers the possibility of doing data analytics to support decision-making ... business planning and simulations, Employee experience creation is a very strategic direction the company has set for HR ... Of course, some key strategic functions such as succession planning and talent acquisition have strategic importance for the entire company. (HX1)

Section 2.2.3 explains five different types of capabilities concluded by ISG (2019), namely strategy capability, process capability, service delivery capability, analytic capabilities, direct access capabilities. the list of the e-HRM capabilities could be mapped to such a classification. One e-HRM capability may have multiple purposes therefore belongs to more than one types, positioning. Table 15 provides a summary of the findings on capabilities offered by e-HRM at company S.

e-HRM capabilities	Tasks to accomplish	Capability Categories (ISG, 2020)
HR administration	Employee information, payroll, time recording and management	Process, direct access, service delivery
Workforce management	Onboarding, benefits management, compensation, offboarding, employee relationship	Strategy, Process, service delivery
Talent management	Recruiting, learning, performance management	Strategy, Process, direct access, service delivery
HRM reporting	HRM legal reporting, operational reporting, management reporting	Strategy analytic, service delivery
HRM analytics, decision-making	Workforce analytics	Strategy, Analytical

HRM strategic and operational planning	Workforce simulation, strategic and operational planning, people score card	Strategy, process, Analytical
Employee collaboration and community	JAM, internal employee communities and interests' group	Process, Direct Access, service delivery
Employee self-services	Employee/management portal	Strategic Process, Direct Access, service delivery
Collaboration with other lines of business	Data integration, process integration	Strategy, Process

TABLE 15 E-HRM CAPABILITIES

Organisations need certain capabilities to realise the strategic benefits. As resources facilitate organisational capabilities, according to the resource-based model, it is important to not only identify the firm's capabilities but also 'identify the resource inputs to each capability and the complexity of each capability'. As discussed before, e-HRM could be resource by itself or a 'lever' to enhance the value of other resources. Some quotes from the interview indicate such a link between the resource inputs and capabilities. the figure 14 illustrates the conversion from the e-HRM resources to the capabilities. Meanwhile, to identify and respond to the need or opportunity for change and take actions accordingly, new dynamic capabilities could also be developed to reflect that the organisation's ability to achieve innovations and their competitive advantages are based on internal and external situations. This will be discussed in the later sections.

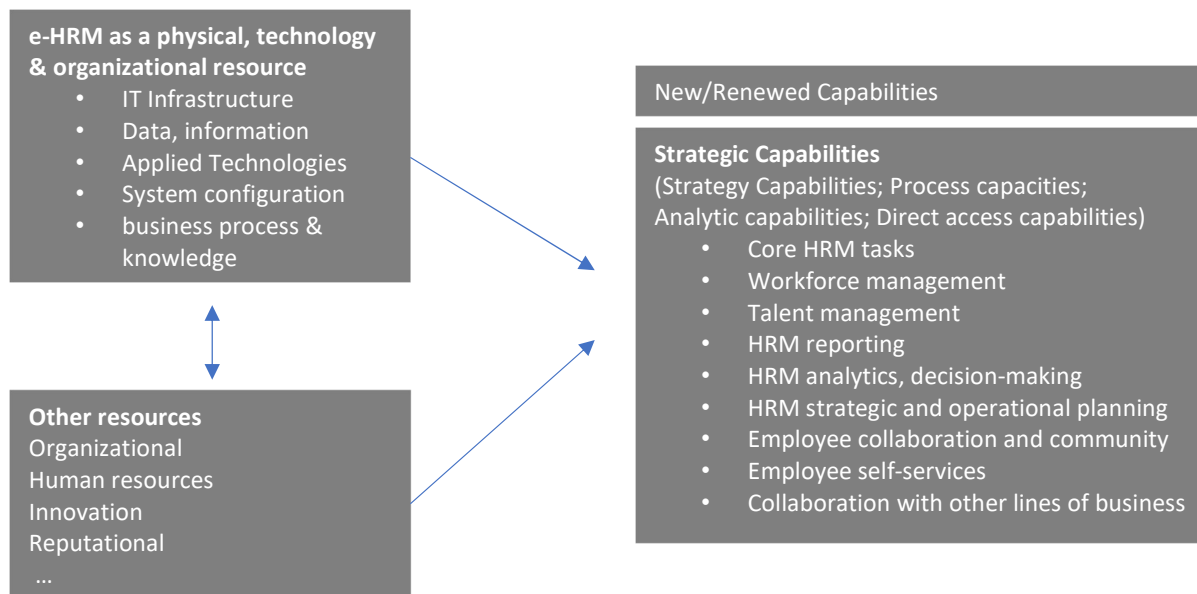


FIGURE 14 CONVERSION OF E-HRM RESOURCES TO CAPABILITIES

4.3.2 Dynamic technology capabilities

After understanding the overall picture of capabilities of e-HRM, to further examine their impact on strategic impacts on the organization. With the technology focus of e-HRM, it would be worthwhile looking into a specific set of capabilities that are technology relevant with potential impacts on organization's strategy and its implementation. In this context, the concept of 'dynamic technology capabilities' is defined by Mclaughlin (2017) as a sub subset of dynamic capabilities comes into the picture. According to Mclaughlin(2017), dynamic technology capabilities refer to 'those capabilities that are either influenced by technology, or influence how technology is used to build competitive advantage, or improved performance for an organization; (p. 68). Mclaughlin (2017) also argues that its output, and focus for dynamic technology capability remain same, which is to improve the competitiveness of the organisation.

Many e-HRM tasks are largely dependent on technology and rely on technologies to accomplish the tasks effectively. For example, e-payroll typically needs a powerful calculation engine to calculate salaries for large number of employees and has almost zero tolerance for any mistakes. Any major computing technology innovation or development could make significant progress regarding its efficiency and accuracy. However, the way payroll is calculated is based on certain

calculation rules defined according to HR policies and regulations; thus, the calculation itself could be mission critical but focus on execution of the task. In such a case, technology does not define how the calculation should be performed. Such a process is typically defined from an HR business perspective and the role of technology is to enable such a process to perform electronically or digitally in an online system. Therefore, technology could be viewed as an enabler. However, some technology development could disrupt the way HR business is conducted. For example, the introduction of the Internet in the 1990s completely changed how the HR recruiting department approaches candidates. Indeed, geographic location was no longer a major limitation due to the global online connection. The global workforce and talent pool could be accessed from anywhere in the world. Therefore, the Internet has fundamentally changed the approach of HR recruiting and its scope (Agrawal, 2017, Furtmueller et al., 2011). Similarly, big data is dramatically changing HRM business planning processes, including workforce planning that involves a large amount of data processing and simulation. Intelligent technologies such as machine learning could produce the business insights from the big data, and drive the business decision (Škudienė et al., 2020). For the SHRM tasks, such as talent acquisition and business planning, e-HRM technologies could play a role that goes beyond 'enabler' but a 'driver' for the new capabilities for the organisations.

Regardless of how technology is defined in the e-HRM picture, all HRM tasks are accomplished with the support of technology; therefore, technology decides what an e-HRM task is technically capable of. The e-HRM capabilities are largely influenced by the technologies adopted for e-HRM. Hence, if technology evolves dramatically, then what HRM could achieve also evolves. From an e-HRM perspective, new capabilities might be developed with the adoption of new technology and this may produce consequences that were impossible in the past. The e-HRM capabilities are largely influenced by what and how technologies are adopted, and how they evolve.

4.3.2.1 Categorizations of e-HRM technologies

Understanding the role of e-HRM technology may help to examine how it influences the organisational capabilities. e-HRM is expected, on the one hand, to simplify HR processes and to

reduce operational transactional workload, and on the other hand, to help the company manage the external dynamics and allocate its resources, processes and capabilities to achieve strategic outcomes. In doing so, e-HRM needs a deployment and roll-out process to realise and develop its organisational capabilities. Depending on how e-HRM is defined and implemented, organisational capabilities can be either operational or strategic. Furthermore, operational capabilities can also be shifted to strategic capabilities. As mentioned previously, the operational capability of reducing the time required for administrative tasks can be shifted to strategic capability because HR practitioners are given more time and resources to participate in the strategy planning process. In some cases, a few operational capabilities work in conjunction and create new strategic capabilities. For example, the capability of having all employee and organisational information maintained in a central database in a consistent format combined with the capability of generating legal reporting according to the regulations from government authorities enables the existence of a strategic capability, namely standardising the global business process, which has become one of the competitive advantages of company S.

Although there have been some studies on the effects of the adoption of specific technologies in e-HRM (Coppola and Myre, 2002, DeRouin et al., 2005, Stone et al., 2013), very few studies have been conducted to understand the actual components of the technologies that have been applied, and can be applied, in e-HRM or how these technologies are categorised accordingly. The newly emergent SMACi technology is experiencing rapid development, and each type of these technologies has developed subcategories. In classifying technology in e-HRM, merely listing the names does not seem to be sufficient because such a list does not provide much insight beyond the names. Moreover, different technologies are often adopted together and work collaboratively to enable or help HRM applications to achieve specific outcomes. A classification that follows a certain pattern should have more sustained applicability. As argued by Ruël et al. (2004), technology is the 'mechanism or platform' (p. 366) that facilitates the actualisation of organisational purposes, which include, but are not limited to, the HR functions. Therefore, categorisation based on the purpose of the implementation of technology appears to be more appropriate.

Almost every interviewee mentioned the technology aspect, while some highlighted some technology-specific terms such as ‘cloud computing’, ‘machine learning’, ‘artificial intelligence’, ‘user interface technology’, ‘mobile big data’ and ‘analytics’. While many different technologies have been adopted to support and serve different business needs, none of the interviewees defined categorisations of technologies in the e-HRM space at company S. A purpose-based categorisation is proposed as part of the qualitative data analysis of this research. This approach yielded four technology categories, namely foundation technology, intelligent technology, user interaction (UI) technology and collaboration technology (Table 15).

Technology categories	Technology terms from interview data analysis
Foundation technologies	Database, Cloud computing, JAVA, ABAP, data Centre infrastructure
Application technologies	Business application, business process modelling, management reporting
Intelligent and data technologies	Artificial intelligence, machine learning, data analytics, big data, RPA, big data,
UI technologies	Chatbot, mobile APP, portal, UI5, Fiori
Collaboration technologies	Social media, JAM, online communities

TABLE 16 TECHNOLOGY CATEGORIES

First, foundation technology serves as the base for building any applications to support HRM processes. Foundation technology lays the basis for any HR practice to be carried out digitally and is the very basic technology method adopted in e-HRM. It is employed to serve ordinary HR purposes and sustain the daily operation of organisations through e-HRM. Second, intelligent technology brings intelligent and smart capabilities to the application of e-HRM and HRM processes. This technology enables e-HRM to create more value beyond the completion of ordinary HR tasks. Next, UI technology enables different types of interaction between e-HRM and its users. This technology focuses on e-HRM users and enables e-HRM to make more sense in the interaction between humans and devices to achieve better outcomes of e-HRM. Finally,

collaboration technology helps communities to exchange ideas or even to work collaboratively. While UI technology optimises user and device interaction, collaboration technology enables communication among users. An example is e-recruiting, which is an essential part of e-HRM. Foundation technology, such as data storage and the network and technology platforms, can build the applications and store the data. Intelligent technology offers the analytics and reporting for the candidates and decision support. UI technology gives the end-user access to the e-recruiting and guides through the process, and collaboration technology can support communications – for example, the collaboration between recruiters and candidates through social media and others.

In response to the trend of human focus in e-HRM, UI and collaboration technologies are adopted as they both entail a human focus that was previously regarded as an asset for e-HRM. It is difficult to assign any specific technological method under a single technology category because many general technologies are employed for more than one purpose. For example, mobile technology could address both UI and collaboration. To summarise, such classification provides a picture of the types of technologies and addresses the question of what technology refers to in the discussion of e-HRM.

4.3.2.2 Impacts of technology

Technology development and the utilisation of technological methods in e-HRM rarely remain static. For many years, HR has adopted various forms of IT to achieve its goals (Lengnick-Hall and Moritz, 2003, Parry, 2011, Ruël and van der Kaap, 2012). Although technology in e-HRM still supports certain fundamental HR functions, such as payroll, training and information management, it is no longer confined within these HR functions for which it was originally adopted. More recently, the new wave of revolutionary technologies (SMACi) has provided a platform for significant changes in the way people work and has brought about new topics of discussion, such as work-life balance with IT systems, working with social media and dealing with workplace surveillance. The impact of technology on the way people work has both bright and dark sides (Holland and Bardoel, 2016). New digital technologies enable greater integration of

multiple HRM processes and increase the flexibility of e-HRM functions. They have been radically disrupting HR and continue to redefine the future of HR functions. In such a process, opportunity resides together with challenges.

The interview questions asked the participants to describe their understanding of the technologies used in the HR system; how these technologies influence HRM processes, tasks and outcomes; and how the capabilities offered by e-HRM are related to the technologies and its advancements. Some interviewees viewed technology as an enabler of e-HRM activities or configuration. The interviewees view technology as either part of the e-HRM or an external factor that supports the e-HRM task and subsequently influences e-HRM and its outcomes. Many of them also highlighted the fact that those technologies have been changing dramatically, making major impacts on e-HRM and its capabilities and moving e-HRM beyond traditional HCM approaches, where employees have been treated more as assets, the provided with experiences they would like to have. Many of the participants view technology as an essential part of the e-HRM at company S, while some others see technology as the foundation or the platform based on which the key HR business and tasks are performed. An HR manager in charge of the HR system administration and a business line manager expressed this view:

Our HR system is a combination of our key HR business processes and the latest modern technologies.... They are closely coupled. (HRM2)

Technology builds the foundation and platform for a business process to run. It also innovates business tasks. Any major innovation made on the technologies side could result in a major innovation on the business side as well. (BSM2)

Many participants stated that the role of technology in the e-HRM context could be more than just an enabler. Technology could be transformed into a driving force to initiate changes and develop completely new capabilities for e-HRM to produce very different outcomes. A senior executive stated:

What the HR system is capable of doing evolves together with the technology shift. The speed of technology innovation is hard to imagine. Technology has become one of the driving forces for our business innovation. (BX2)

This section focuses on the interrelations between technology and the components of e-HRM and analyses how technology impacts e-HRM or how the two constructs might impact one another. According to Strohmeier (2007), e-HRM consists of strategy, activities, actors and technology. However, as mentioned previously, technology is considered a contextual factor in this research so that the discussion can move beyond specific technology methods. Therefore, the components of e-HRM are refined as e-HRM strategy, activities and actors. Contingency theorists (Lawrence and Lorsch, 1967, Schuler and Jackson, 1987) have argued that contextual factors influence how HRM is shaped. Technology, as one of the contextual factors of e-HRM, also impacts the components of e-HRM. The RBV provides an alternative perspective to examine the resources organisations are endowed with. Based on contingency theory and the RBV, the following section discusses how technological evolution has impacted e-HRM strategy, activities and actors.

The impact of technological evolution on e-HRM strategy

Technological evolution acts as a major input for the formulation of e-HRM strategy. When the overall business strategy is planned, its deployment also entails HRM and e-HRM strategies. Moreover, technology is indispensable in the implementation. HR systems are an essential part of e-HRM strategy and are expected to bear great importance in successfully realising the business strategy. Therefore, technology is considered when planning a strategy and acts as either an enabler in implementing a business strategy or a driving force for further development of the strategy.

Highlighted by an HR executive on the strategic relevance of the e-HRM technology

How to implement the latest technologies to differentiate our business is a very strategic piece of our HR strategy. (HX2)

The implementation of technology is regarded as equally important as technology itself. In this case, the notion of 'fit' is worth considering (Delery, 1998). Delery (1998) argued that technology plays a role in both the vertical fit between the context and HRM functions and the horizontal fit among HRM practices. Because e-HRM is context sensitive, the adoption of proper technology ensures the realisation of expected HR functions. Meanwhile, appropriate technology should also be introduced to facilitate the seamless integration and collaboration between different HR practices. Therefore, it could be argued that the technology consideration should be part of e-HRM strategy. This view is supported by company S case study. The HR digital white paper (SAP, 2020) highlights not only technology such as big data, cloud computing and machine learning that are planned to be deployed, but also how the benefits are likely gained from the deployment of this technology, such as real-time decision-making, improvement of the employee experience, etc.

The impact of technological evolution on e-HRM activities

Technological evolution is capable of redesigning and refining some HRM approaches, such as recruiting, training and performance management. For example, technology-assisted recruiting helps to build a talent pool and keep track of the pool, which enables HR practitioners to make smarter recruitment decisions and provides candidates with unique recruitment experiences. Previous research has also reached a similar conclusion that technology does bring many benefits by shifting the way in which HRM processes are completed (Lengnick-Hall and Moritz, 2003, Meijerink and Bondarouk, 2013, Ruël and van der Kaap, 2012).

Besides its impact on the HR function, technological evolution has changed how business is done and how decisions are made. Real-time data access enables employers to attain required information more easily. The results generated by analytic technology and data mining have become an important source that is worth serious consideration in making business plans and decisions. Intelligent technology takes the advantages of analytics one step to enable intelligent business process management and real-time decision-making are possible. e-HRM activities, however, also pose requirements on technology. The nature of HR functions sometimes brings

challenges that the employed technology had not been devised to handle. Therefore, technology is constantly on the way to adapting itself to its application in specific e-HRM contexts. A senior executive described the role of technology as following:

Technology has fundamentally changed how we work. Every one of us lives with technology in one way or another, and the impact from the technology goes far beyond automating the process and making things efficient. If you look at how technology redefines some industries such as automotive and retail, you can also imagine how technology redefines HR information systems. (BX1)

The impact of technological evolution on e-HRM actors

There are two categories of e-HRM actors: individual and collective. Individual actors are the everyday users of e-HRM systems. These people are the sum of the individuals in an organisation, including every ordinary employee, line manager and executives. Collective actors refer to organisations that adopt e-HRM and are accordingly influenced by it (Al-Harazneh and Sila, 2021, Strohmeier, 2007). The employee group sees technology as enabling e-HRM to fulfil their individual service needs, to improve the efficiency of business tasks and to create a good employee experience, while the management group sees the major role that technology could play in supporting strategic decisions that potentially shape the strategic role that HR plays in the organisation. End-users such as employees and business managers are less concerned about the foundation technologies and more interested in application technologies, intelligent data technologies, collaboration and UI technologies.

For example, many employees mentioned their desire to use mobile devices instead of going to their PC to fulfil any business task. An employee working in an HR SSC gave an example of leveraging chatbot as the first service to interact with employees who request services from HR. The employee commented:

Our end-users are so used to doing things on their mobile devices, and they want to be supported anytime and anywhere. Sometimes, they even care more about the simplified and friendly user experiences than the function itself. (HRP2)

A business manager explained the impact of technology on employees.

The latest technologies could bring completely different experiences to our employees ... that shifts the role of our employees in front of the HR system from a 'technical end-user' to a 'services consumer'. (BSM1)

e-HRM frees up HR practitioners from administrative work and enables them to participate in tasks beyond commonly conceivable HR practices. Besides the completion of HR functions, technological evolution has also brought many changes for employees outside the HR sector. For example, thanks to the facilitation of mobile technology, HR services are now available at one's fingertips regardless of time and location. Meanwhile, improvements in technology are constantly made to minimise the effort required to familiarise users with e-HRM systems, which decreases the barrier to the full utilisation of e-HRM. Line managers and executives also take advantage of e-HRM because it drives better decision-making. The interrelation between technological evolution and e-HRM actors, however, does not appear to be one directional. e-HRM users also have expectations regarding the stability, accessibility and comprehensiveness of the systems, which in turn become a source of improvement for e-HRM and its technologies. Meanwhile, as the notion of 'experience management' has gained popularity, technology has also become one of the means to achieve desirable employee experiences. In many cases, new technologies are adopted beyond the purposes of realising HR functions. Digitisation, currently a popular trend in organisations, is typically a company rather than an HR initiative and thus goes beyond the traditional HR scope. The introduction of new technology could influence the communication and culture of an organisation. Many collaboration tools and technologies have been introduced during the COVID-19 pandemic, a phenomenon that has accelerated the development of the new working model for the organisation. HRM decision-making relies more on the data and information from the system, organisations appear to be more concerned with the impact of technology as strategic tasks such as in decision-making and strategy planning heavily rely more and more on the technologies. In addition, they have expectations on how they want to be supported for the decision-making. Therefore, collective actors are not only influenced by but also pose demands on, technology in e-HRM.

A key issue involved in e-HRM technology is acceptance from the actors. If technology is the gear that speeds up HRM, technology acceptance is the lubrication that reduces friction and ensures such facilitation works smoothly. As organisation expects technology to be well accepted among employees while employees expect technology to be capable of providing satisfactory HR services. The prerequisite to improve the acceptance and satisfaction level is to understand how well employees are taking to technology in their workplace and how satisfied they are with it. Company S has adopted technology to analyse employee satisfaction levels, which enables it to improve its services. Employees also believe e-HRM would be easier to use and more useful if it could include more HR functions to reduce manual work and extra efforts in either learning to use the system or using the system for the sake of using it. Erdoğan and Esen (2011) found that perceived ease of use and perceived usefulness of technology are positively correlated with the employees' positive belief about technology and their tendency to be the first to use new technology. This might help us to understand why the interviewees from company S reported varying levels of reactions to the e-HRM technologies. Disruptive technologies dramatically redefine both the 'ease of use' and 'usefulness' of e-HRM. Many technologies that did not exist in the past have become realities today so that e-HRM systems can improve in terms of accessibility, comprehensiveness and user-friendliness. It is also reasonable to believe that current e-HRM will be redefined by future technologies and become more useful and easier to use.

In many definitions of e-HRM, technology is regarded as a component of e-HRM itself. Strohmeier (2007) considered technology as a part of the e-HRM configuration along with other components of e-HRM – actors, strategy and activities. In some other views of e-HRM, however, technology is considered part of the e-HRM context (Bondarouk and Brewster, 2016). A major distinction between the two views of technology is that the former discusses the role of technology in e-HRM in specific cases while the latter places technology in a more general place that applies to a wider range of situations. Besides the placement of technology in the e-HRM or its contexts, some researchers have argued that technology itself opens up two layers of sub-contexts, namely physical objects and procedural dimensions (Orlikowski and Scott, 2008a). Physical objects are

the concrete components of technology, such as hardware, software, wires, networks and infrastructures, while procedural dimensions include HRM policies and rules facilitated by technology. This research views technology as a contextual factor of e-HRM in understanding the integration of HRM and technology. It also has a specific focus on the physical layer of technology, that is, the concrete components of technology to comprehend the complexity of technology. By definition, e-HRM places much emphasis on technology. Although the development of modern technology has greatly facilitated HRM in general, the requirements for technology are still constantly negotiated through its application in HRM. Technical issues such as system stability, data security and accuracy were the participants' major concerns for e-HRM systems.

Based on the above discussion, it is not difficult to conclude that the interrelations between technology and e-HRM components, namely strategy, activity and actor, go beyond the simple description of being unidirectional. Although the starting point of the discussion in this section is technology, it might also be wise to conclude that technology and the three components of e-HRM generate a mutual impact on each other. Furthermore, each of the three components of e-HRM does not function alone under the impacts brought by technology. Strategy, activity and actor are always closely connected together with e-HRM technology. Figure 7 illustrates the key points of the discussion in this section. Technology as a contextual factor of e-HRM impacts each of its component. In this process, the best fit between the two constructs is critical because it is capable of creating more successful HRM. e-HRM facilitated by technology generates corresponding organisational HRM capabilities. The following sections focus on organisational capabilities that are linked to e-HRM technologies.

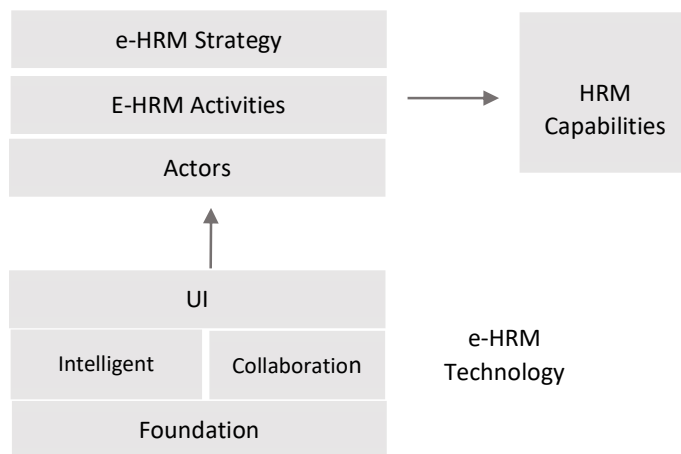


FIGURE 15 THE ROLE OF TECHNOLOGY IN E-HRM

4.3.2.3 Development of dynamic technology capabilities

The interviewees recognised that many capabilities have constantly evolved while others have emerged due to contextual or technological changes, meaning these capabilities are never static. In other words, these capabilities are ‘dynamic’ in the sense that they are constantly in flux, and this also plays into how they are embedded in systems.

The previous sections discussed the changing e-HRM contexts and their contingency impact. Changing contexts require HR to be adaptive and flexible at the strategic and operational levels. The dynamic capability of e-HRM explains the adaptiveness and flexibilities of e-HRM and how it could manage changes internally and externally. Many strategic HR activities, such as talent acquisition and performance management, could never be static in a changing environment. Therefore, the capabilities of e-HRM have to be dynamic to perform these activities successfully, which means that e-HRM should have corresponding capabilities to achieve its desired goals. If the goals set for e-HRM go beyond operational efficiency, and aim at strategic benefits, and need to be achieved in a changing environment, the dynamic capabilities of e-HRM become a prerequisite.

As discussed earlier, the development and application of technology in e-HRM renovate existing capabilities and generate new capabilities. The capabilities facilitated by new technology accelerate a shift of focus from fulfilling business transactions to more strategic ends, such as

intelligent business processes management, real-time decision-making and employee experience creation. Technology helps the organisation develop dynamic capabilities to integrate, build and reconfigure internal and external resources and competencies to address challenges posed by the rapidly changing environments. One manager provided an example of how technology develops new capabilities for the organisation.

Utilising integrated data to drive decision-making is crucial to us ... integrating HR with finance, operations, etc. to help steer critical business decisions. What are the financial implications of a hiring freeze at current points in time? What location hiring strategy should we target based on high-cost/low-cost locations? Data need to be real-time and inclusive of contingent labour. Managers need to be empowered to use the data and make the decisions as well. (BSM2)

When comparing the current time with the years before SMACi technology was widely used, many new e-HRM capabilities have been developed by the latest technological advancements. In this case, the employee benefits from the new capability of real-time communication and intelligent services. Cloud and mobile technologies together facilitate the new capability of real-time information access. Given that the daily operation of organisations is sustained by operational capabilities, dynamic capabilities enable organisations to identify opportunities, design and redefine their business model, commit their resources and realign their structure and culture (Teece, 2018). In contrast to operational capabilities, these capabilities entail a strategic trait and together contribute to the strategic orientation of e-HRM. Taking the standpoint of e-HRM technologies, the concept of 'dynamic technology capabilities' from Mclaughlin (2017) or ITDCs from Mikalef and Pateli (2017) could be a good explanation for how technology influence and develop organisational capabilities, such as the capability of offering better services to their employees. Meanwhile, the essence of dynamic capability lies in changing ways of allocating and combining resources and processes. These capabilities aim at increasing productivity, value creation potential and innovation ability.

Other technology or combinations of technologies also bring about the capabilities of fast decision-making, integrated workforce planning and intelligent recruitment. According to Marler and Parry's (2016) definition, data analytics-driven HR refers to HR practices 'enabled by information technology that uses descriptive, visual, and statistical analyses of data related to HR processes, human capital, organizational performance, and external economic benchmarks to establish business impact and enable data-driven decision-making'(p.2233). HR analytics is capable of generating valuable information based on original HR data, which facilitate performance management and decision-making (Aral et al., 2012, Mishra et al., 2016). The company S case study provides a very similar example compared with Marler and Parry's (2016) study. As discussed in the previous sections, under certain circumstances, technology could be a driving force to decide what HR tasks could be achieved, therefore becoming a decision factor of a capability. For example, HR analytics and business planning tasks are typically highly strategic relevant; however, the recent development of technologies, such as big data, artificial intelligence could fundamentally change the way data are collected, analysed, interpreted and presented, even the level of intelligence of supporting decision making. Therefore, analytic and planning capabilities could be driven by technological evolution. Figure 8 describes the findings from the interview and documents illustrating how the capability of decision making develops along with the technological evolution at company S.

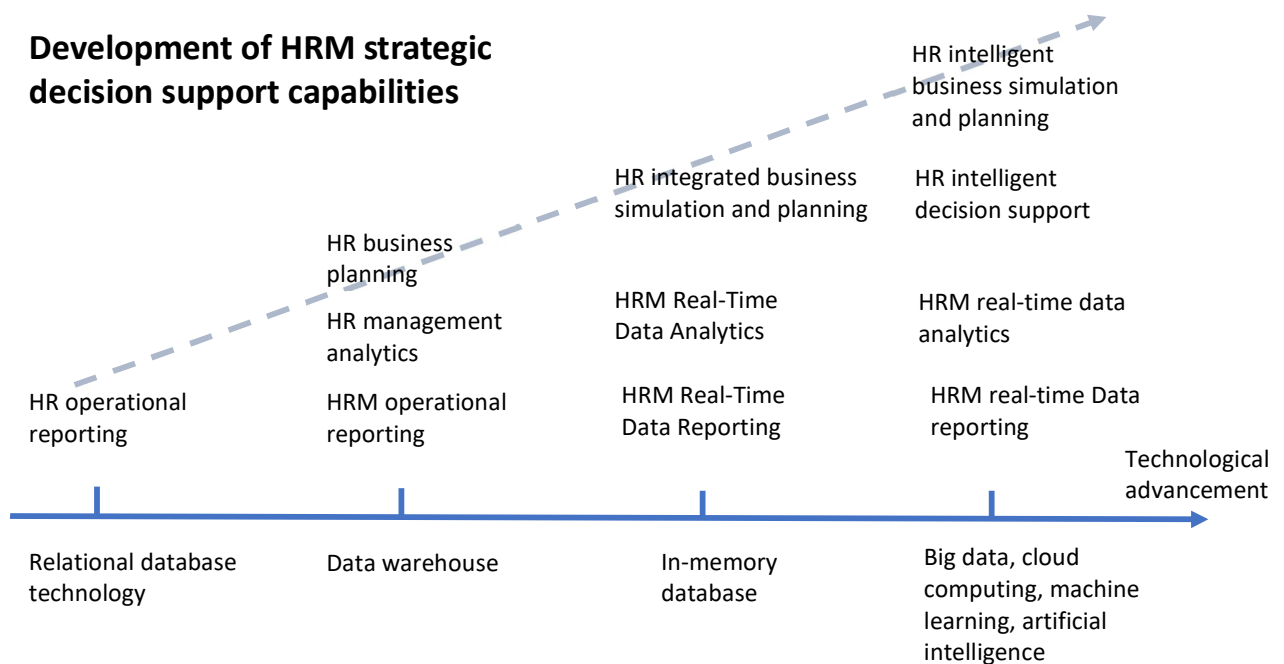


FIGURE 16 DEVELOPMENT OF HRM STRATEGIC DECISION SUPPORT CAPABILITIES

The decision support capabilities in this case are either influenced by technology or influence how technology is used to build competitive advantage of the company. According to Mclaughlin (2017), dynamic technology capabilities, such as decision-making capabilities, could be viewed as a subset of dynamic capability. Therefore, its output and focus on dynamic technology capability remain same, which is to strategically improve the competitiveness of the organisation. This view helps explain the relationship between technology and dynamic capability for managers.

If taking resource-based model, the table 16 below summarizes a list of technology dynamic capabilities identified from the case study, and map them with the capability model from ISG (2019). FOR each capability, the corresponding technology resources inputs are also identified,

Dynamic technology Capabilities	Capabilities category (ISG, 2019)	Sample tasks	Facilitated by Technology resources
User experiences and design	Access	Employee accessing HR information anytime, anywhere	Chatbots Social media

		through social media entry, or interact with chatbots	Mobile Virtual reality
Real-Time analytic and reporting	Analytic	Business data are accessed, analysed and reported real-time to support decision making	Big data, Cloud, analytics
Business planning	Strategy	Integrated business planning based on	Big data, Cloud, Artificial intelligence
Process automation	Process	HR processes are largely automated to accomplish HR tasks with human interactions	RPA Technologies Artificial intelligence Machine Learning
Process intelligence	Process	Transactional HR processes are embedded with business intelligence, such as automatically identify payroll errors, suggestion training based on the roles and responsibilities etc	Big data Artificial Intelligence Machine Learning
Prediction & simulation	Strategy	Predicting 'What ..If' scenarios to simulate the possible business outcomes based on data models and large volume of business data	Big data Artificial Intelligence Machine Learning

TABLE 17 E-HRM TECHNOLOGY DYNAMIC CAPABILITIES

Berber et al. (2018) argued that with ever-changing technology, the primary task of e-HRM has not necessarily changed – such as optimising procedures to carry out HR activities, reducing costs and providing better-quality services – but the way the function accomplishes the task has changed by using the latest technology. At the same time, the application of IT has enabled employees to devote more time to the activities greater value to the originations. Njoku et al. (2019) specifically argued that new technology – web-based front-end – is an aspect of transformational e-HRM that enables an organisation to operate a transformational HRM role, therefore making transformational e-HRM to contribute to organisational performance

The discussion in this section moves to the climax of the e-HRM story, namely how e-HRM produces organisational capabilities. The theme discussed in the previous sections, e-HRM

contextual factors such as business and HR strategies, stakeholders, internal external situational factors, e-HRM strategy, activities, e-HRM technologies could now be linked together (Figure 17). Adopting the resource-based model, the e-HRM could be viewed as a resource itself or a lever enhancing the value of other resources, and these resources could be converted into organisational capabilities which could be either operational and dynamic. And dynamic technology capabilities, as a type of dynamic capability, are facilitated by technology resources (table 17) contributing to the outcomes of e-HRM.

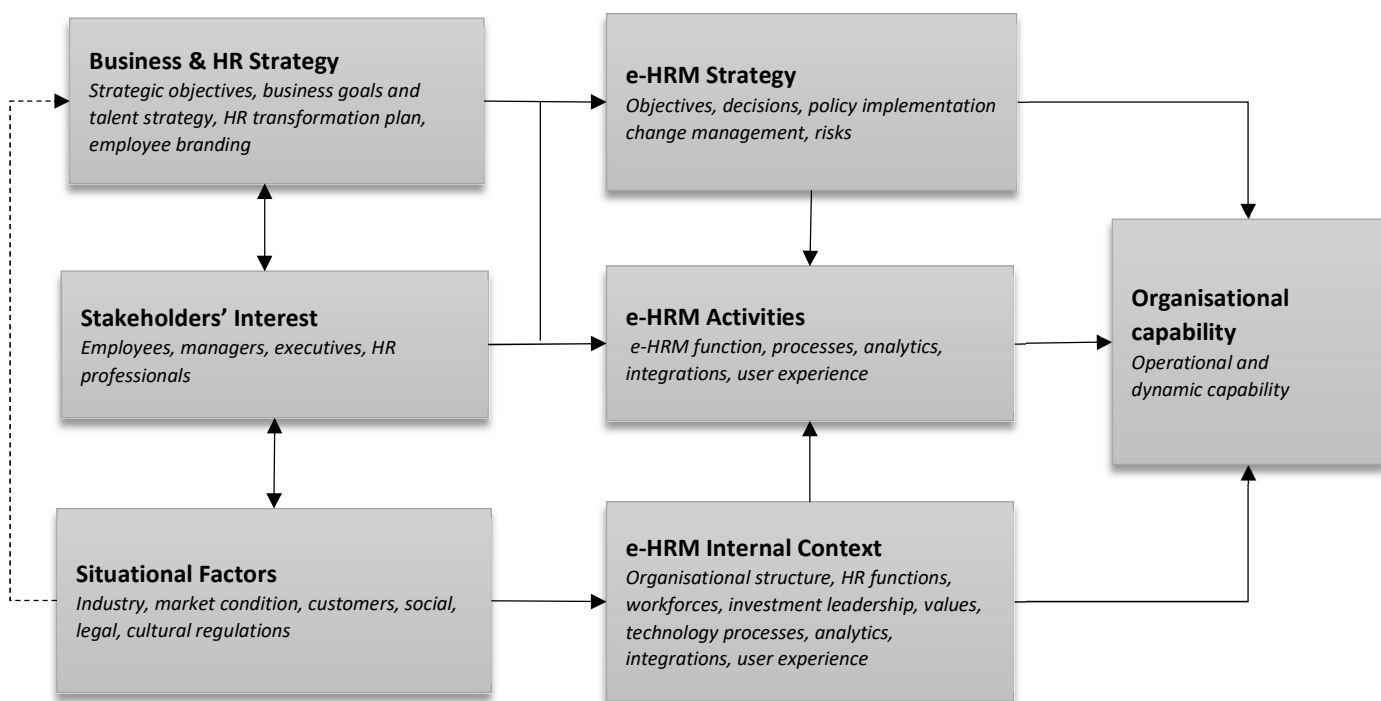


FIGURE 17 CONTEXT, E-HRM AND ORGANISATIONAL CAPABILITY

4.4 Contributing to strategic outcomes

Understanding strategic capabilities leads to the next step of the discussion – to examine how e- these capabilities contribute to the strategic outcomes. The company S case study tries to clarify the meaning of the strategic outcomes in its e-HRM context, from a general understanding to some specific strategic benefits that company S looks for. Based on the findings, the study also

tries to observe the relationship between dynamic capability and strategic outcomes at company S, and further discusses how the strategic outcomes could be finally achieved.

4.4.1 Strategic outcomes of e-HRM

The interviewees brought up many facets of the strategic outcomes or benefits of the e-HRM at company S. They referred to 'freeing up the capacity of administrative tasks for strategic tasks' (E11), 'linking with company business strategy and e-HRM strategy' (BSM2), 'strategic goals setting for the e-HRM' (HRM4), 'strategic consideration of key e-HRM tasks' (HRM3), 'involvement of senior management and stakeholders' (BSM1), 'strategic planning and decision support' (HRM4), 'the strategic role of HR' (HRP2), 'employee experiences and motivation' (E9) and 'human resource management as a competitive advantage' (HRM3). These comments show the link between the strategic orientations of e-HRM and its outcomes and the ways in which this link is articulated by different groups based on the scope of their role and involvement with e-HRM.

4.4.1.1 HR as a business partner

For many HR practitioners, e-HRM means bringing improved efficiency in the daily operation of HR tasks. Meanwhile, effectiveness is also among the list of expectations for e-HRM practices such as e-selection, e-recruiting and e-learning. However, these electronic processes are not without drawbacks. For example, at company S, although a large number of online courses provide much convenience for employee learning, disorganised course names might add a burden to employee training because the accessibility and user-friendliness of an e-learning system can be a critical issue in its actual utilisation. The fault is not with the idea of e-learning systems but with how the system is designed and organised. This level of consequence moves beyond the individual level and rests on the organisational level.

Early research on e-HRM consequences argues that there is a minimal relationship between e-HRM and transformational consequences (Tansley et al., 2001), while some other research has identified evidence of e-HRM enabling HR practitioners to shift to a more strategic role or at least

confirmed such a possibility. Researchers have found that HR professionals spent more time on transformational activities (Gardner et al., 2003) and HRM has made HR a strategic partner (Haines and Lafleur, 2008, Panayotopoulou et al., 2007) while some HR professionals have also taken the role of a change agent (Haines and Lafleur, 2008). Furthermore, e-HRM also realises the alignment between multiple HRM factors such as the alignment between HRM and corporate strategy (Ruël et al., 2004), between HR functions and organisational objectives and between corporate and employee goals (Panayotopoulou et al., 2007). The strategic outcome of e-HRM at company S can be interpreted at the organisational and employee levels. An organisation would like to leverage e-HRM to not only fulfil operational and strategic tasks but also transform HR function to be the business partner, and moreover, to differentiate the workforce and HRM to achieve a competitive advantage. At the employee level, company S intends to offer good experiences to its employees to sustain their motivation. This approach is consistent with the objectives set for e-HRM as part of their e-HRM strategy.

In this research, it is also true that e-HRM in the SHRM context enables a strategic shift regarding the role of HR. First, e-HRM creates more time and capacity for an HR professional to engage in a strategic tasks and even strategic decision-making (Strohmeier, 2007). Some interviewees regarded the strategic role of HR as an important outcome of e-HRM. The participants observed a shift in the role of HR from its original functions to become a business partner that involves more decision-making processes. An HR manager expressed their view on the consequences of adopting e-HRM:

The role of our HR department has been experiencing a fundamental shift from a 'supporting' role to a 'partner' of our business unit. Our 'HR business partner' organisation set-up reflects our role change. The adoption of the latest technologies allows us to free up the capacity from the operational tasks to focus more on strategic activities. (HRM2)

e-HRM enables HR practitioners to access and retrieve data with simple clicks. Many previously unimaginable functions are now considered basic functions of e-HRM systems. Thus, HR practitioners are afforded more time and effort to spend on projects that are more relevant to

organisational performance: staff development, talent management and targeted training programmes, among others (Lawler and Mohrman, 2003, Lengenick-Hall and Moritz, 2003). Strategic decision-making is another business area in which HR practitioners have become involved. At company S, e-HRM enables HR practitioners to generate real-time reports on performance, workforce, and other factors. These reports in turn can facilitate strategic decision-making (Jamrog and Overholt, 2004). The third level of transformational consequence – allowing HR specialists a place in the executive strategy decision-making – is based on the previous two levels. The idea behind this argument is that as HR practitioners can work with increased efficiency and effectiveness and generate insightful HR reports, the credibility of HR practitioners grows accordingly and they are perceived to be in a more strategic position than before (Lawler and Mohrman, 2003). This is also how HRBP at company S has ascended to have a place in decision-making processes. Therefore, the role as business partner means HR shifts its effort more on relational and transformational tasks instead of operational tasks (Lawler and Mohrman, 2003, Lengenick-Hall and Moritz, 2003). However, this does not neglect the necessity of the operational tasks. In the case of S, most of operation tasks are executed by e-HRM with the technology supports, therefore have become highly standardized, automated and efficient. This builds the foundation to allows HR to have the capacity for strategic tasks.

The question is how is the HR business partner role different to the traditional operation HR role, In the case of S, based on the transformation goals defined for e-HRM, there are three characteristics identified for the role of HR business partner

The first is about the focus on the business instead of HR only. One of the strategic goals of e-HRM in S are stated is that simplifying HR processes and to make them globally consistent. This means for S to have one HR system and global HR processes wherever possible across all different countries, so that the speed in selecting best internal and external talent is increased and daily activities are aligned with the business strategy. This involves integrated planning between HR and business unit, join decision making and execution. The HR managers in the interview explained how the e-HRM supports the workforce management and business planning.

Our HR workforce and capacity allocation are reviewed and adjusted regularly, which maximises the demand and supply match; such a capability creates the real tangible value for our business. (BSM3)

The capability of integrating our business planning with our HR workforce planning ensures the strategy fit between HR and business. (BSM2)

The second is about 'data driven', utilising integrated data to drive decision-making, including simplifying planning, reporting and predictive analytics in one analytical solution, providing faster blending and analysis of workforce data with business, finance and operations, creating real-time workforce insight and empowering managers to make data-driven people decisions.

An employee who worked as a data analyst explained:

The data is created ... and can be analysed in real time ... Business decision-making can be based on real-time data today, while in the past, we always needed a few days, or even weeks, to get data ready for simple reporting.... [We can] utilise integrated data to drive decision-making and further, and more importantly, align daily activities with the company strategy. (E2)

The third is to focus on the experience management and create better consumer experiences for employees, including the contingent workforce, which might be achieved through an easy-to-consume, seamless and modern user interface that is mobile, and a unified onboarding and learning process for all workers.

An HR manager described the newly developed capability to create employee experience:

On the one hand, we would like to understand the psychological needs of the user, like I accomplished something, I made an impact, I learned something, and so on. On the other hand, we look into the latest technologies. And we believe the focus on both technology and psychology can deliver the experiences that every human wants from their HR technology. ... We would like to get our HR IT system more human focus. Therefore, we constantly study questions like what makes for a great experience, and how technology can support the experience, like making things feel personal.... enabling me to get in,

easily find what people need and then get out quickly, and helping me see opportunity everywhere. (HRM4)

The three characteristics identified from the case study help to explain how HR, as the role of business partner' would do differently. And if all the e-HRM strategic tasks are designed, and implemented in the way that these 3 characteristics are considered, then the role of HR would be shaped by e-HRM moving towards a 'business partner'. These findings could be further summarized in the figure 18.

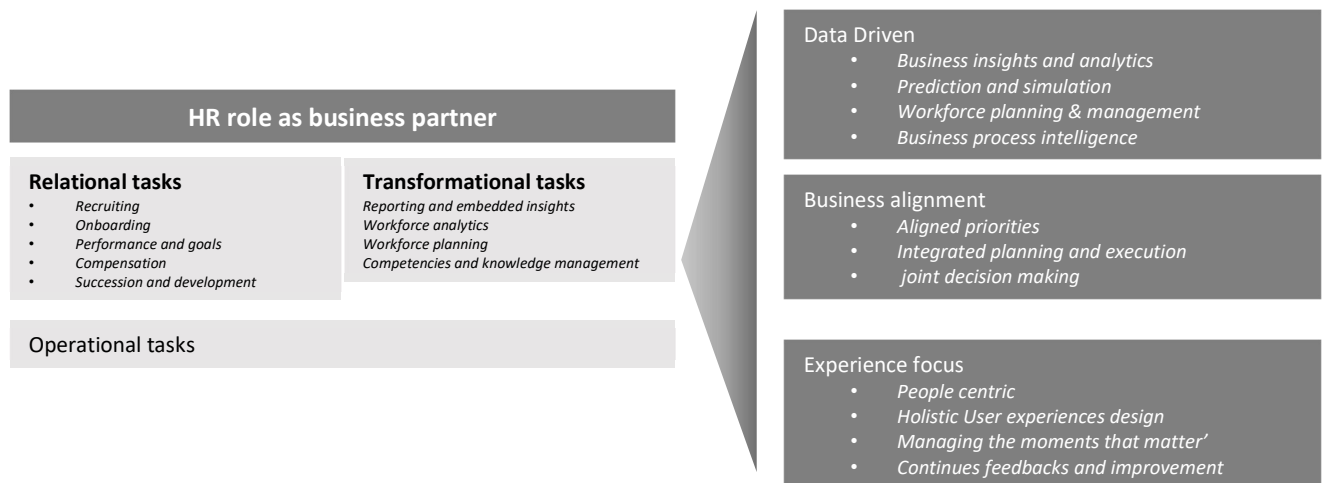


FIGURE 18 HR ROLE AS BUSINESS PARTNER

4.4.1.2 Employee experience and motivation

Strohmeier (2007) concluded that there are three types of e-HRM consequences at the macro level and proposed that individual consequences appear at the micro level. For individual employees at company S, the most straightforward impression of e-HRM is that it makes work easier in the sense that they can help themselves with many HR tasks through e-HRM systems. The organisation also has to consider what it aims to create for individual employees through e-HRM. This level of e-HRM consequence is what Strohmeier (2007) calls 'individual consequence'. It focuses on the reactions of individual employees towards e-HRM and what they receive from e-HRM.

At company S, such an individual consequence has become a strategic concern for the company. In initiating the transition from traditional HCM to human experience management, it could be argued that if things are not being reconsidered, the value associated with current HR technology will begin to flatten. Such an argument leads to two possible steps to take. One is to expand the focus of HR technology to include a human focus. The second is to move beyond the traditional HCM paradigm towards a human experience management approach so that the position of humans against the organisation is shifted. It means designing for employees based on their behaviour as well as what motivates them. It also means leveraging technology in a new way by breaking down silos to deliver an end-to-end experience that engage the workforce. Therefore, it could be argued that the 'employee experience' could be 'transformational'. Accordingly building a positive 'employee experience' could be a kind of 'transformational consequence' of e-HRM. Company S says it believes that if employees are not motivated by the adoption of e-HRM, then the system will be less effective at the individual level and the outcomes at the operational and strategic levels will be questionable. In this respect, good employee experiences are seen as potentially real assets and valuable resources for company success.

Experience management (Bergmann, 2003) is not new as it emerged alongside the appearance of all kinds of modern IT. Just like Plaskoff's (2017) principle of employee experience, employee experience management also starts with the step of deep understanding of people and their needs, and incorporates the principle of embracing 'expansive and holistic thinking' (p. 138). For company S, employee experience management starts with the exploration of the feelings and psychological needs of the users and ponders how HR technology can support these needs. Furthermore, it covers every stage of an employee's career process, including hiring, onboarding, learning, performance, pay and benefits. The combination of operational and experience data provides organisations with insights into taking the right step in bridging the possible gap between organisation and employee expectations.

HR professionals and executives emphasised that e-HRM must deliver 'experiences' to prospective new hires and employees that match the best customer experiences. This was seen as rethinking how to leverage HR technology in a way that focuses first on employee experience. The quote below from an executive provides an insight into the links among strategic, operational and individual outcomes:

We also believe that the strategic benefits can only be achieved if operational benefits are realised and our employees are willing to adopt the system and technologies that we introduce. (HX2)

An HR manager addressed this more directly:

One of the top priorities for us is to motivate our employees to adopt our system by offering them great experiences. If they don't adopt the system with a good level of satisfaction, very little can be achieved, and the system won't be that meaningful. (HRM2)

Yohn (2016) believes that the employee experience needs to be carefully designed as a consumer experience and organisations already know the way to improve the employee experience – applying their strategies and principles of the consumer experience in designing HR practices. In this context, many studies try to identify the key factors for creating effectiveness and promoting service experience. For example, in a study on prospective job applicants, Williamson et al. (2003) surveyed applicants and concluded that the perceived usability of a website, which influences the applicants' perception of organisational attractiveness, is influenced by both website orientation and outcome expectancy. In examining employee satisfaction towards products marketing on a company's Intranet, Huang et al. (2004) developed a model that included convenience, delivery, interface, accuracy, price and security to measure the success of a business-to-employee system. Anjum and Islam (2020) discussed the employee's behavioural intention to adopt e-HRM. Nurlina et al. (2020) took another perspective to understand the influence of e-HRM influence on HRM service quality and employee performance. Ismail et al. (2021) specifically discussed employee satisfaction with e-HRM performance through research in the Malaysian banking sector. For e-HRM to achieve the strategic outcome of 'employee experiences', it needs to not only put forward the importance of taking care of the employee

experience as part of the strategy consideration, but also identifying the specific contextual factors, and reflect them in the e-HRM design, as in practice, employees and consumers reside in various environments and differ a lot in how they relate to organisations.

Traits with a strategic orientation are also observable in the designing and goal setting of e-HRM as well as in the deployment of technology in e-HRM. As mentioned by many previous studies (Plaskoff, 2017, Yohn, 2016), employee or user experience of e-HRM has become a major concern in the above process. Across the different interviewee groups, there is the common focus of creating an employee experience and having employee buy-in at an individual level. It helps organisations to shift the focus from transactions to reinvent human experience in ways that accelerate business growth. Its meaning is twofold. On the one hand, it means designing for employees based on their behaviour and what motivates them. The focus on the 'employee experience' is at the core of experience creation so that e-HRM systems serve people instead of the other way around. In this case study, company S believes that the practices of traditional HCM prioritise organisations over employees because they are record systems that are imposed top-down, while 'experiences' is a new category that reflects the evolution of HCM and the need to help organisations shift the focus from transactions to reinventing human experiences in ways that accelerate business growth.

4.4.2 Producing strategic outcomes

4.4.2.1 e-HRM as a transformational entity

As discussed previously, it is not the unique HR base itself that creates value, but rather the activities of e-HRM and how they are defined and how they are used together to complete the job (Lockett et al., 2009). It is also true that even with its strategic orientation, e-HRM does not necessarily lead to strategic consequences. The micro-level individual consequences, as well as the macro-level operational and relational consequences, are all outcomes of e-HRM that do not entail many strategic straits. However, e-HRM transformational consequences do satisfy the criterion to be called 'strategic' because they involve many strategic components as discussed above. Besides transformational consequences, the other components of e-HRM strategic

outcomes are what the RBV proposes, namely competitive advantages and organisational performance. In other words, the actual strategic outcomes of e-HRM are mainly twofold. From the perspective of organisations, the strategic outcomes of e-HRM are exemplified by the achieved competitive advantages, while from the perspective of HRM within organisations, e-HRM enables the role of HR to reside in a more strategic position.

Following the resource-based approach (Grant, 1991), the figure 18 illustrates the key e-HRM resources identified, and the capabilities including technical dynamic capabilities converted from the resources and strategic impacts and outcomes produced from the capabilities.

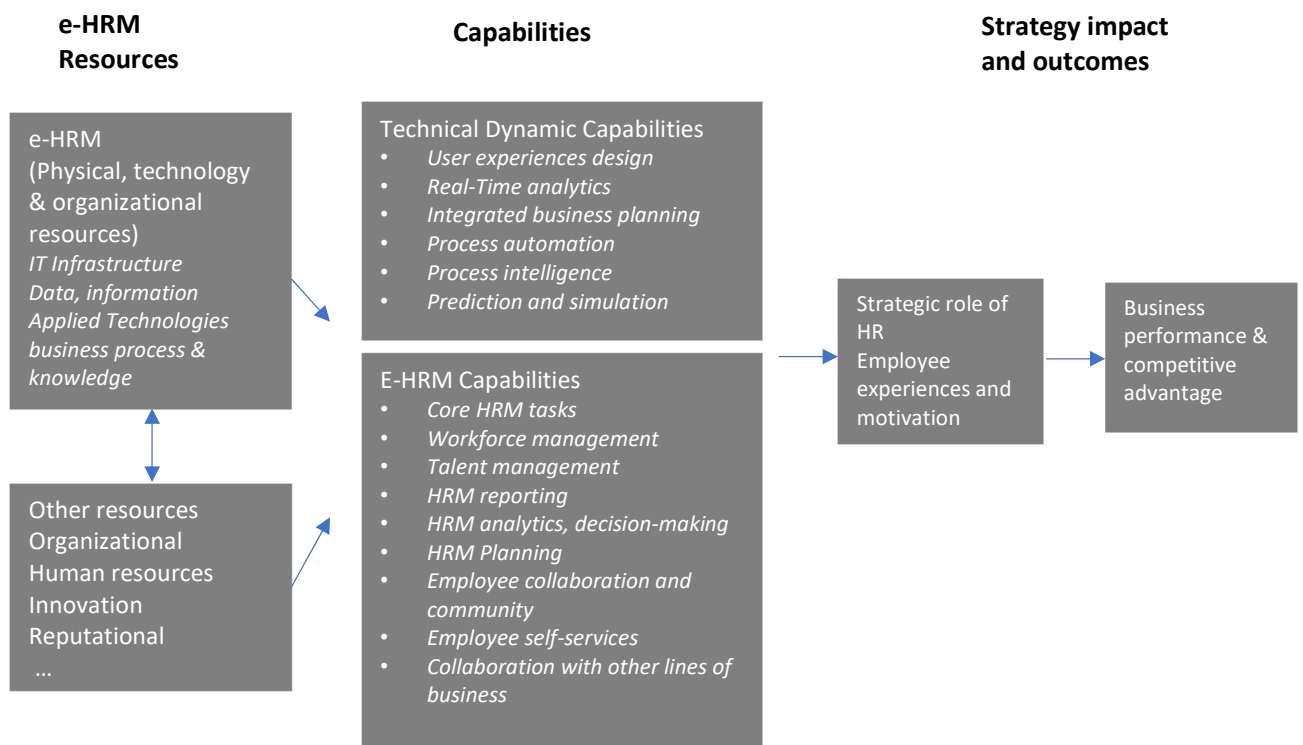


FIGURE 19 E-HRM RESOURCE AND CAPABILITIES

This process involves much strategy implementation that falls into the five steps concluded by Grant (1991). Based on the RBV perspective, the first step to create value through resources is to identify resources capable of creating value (Grant, 1991). Company S is clear with its

identification of physical, technology and organizational resources of e-HRM. It has been very careful with the roll-out of each e-HRM system and has paid much attention to user acceptance among its employees. Following the identification of resources, the introduction of IT to realise analytic functions is a significant step that company S has taken to exploit the opportunity to better utilise the resources. Information is generated, collected and analysed to create value beyond ordinary HR tasks.

As resources facilitate organisational capabilities, the next step is to identify the resource inputs to each capacity and the complexity of each capacity. This step is critical in the conversion of resources into competitive advantages. The following section discusses the relationship between resources, organisational capabilities and competitive advantages in detail. A preview of organisational capabilities here helps us to understand the value creation process on a fuller scale. e-HRM features technology and the development of technology constantly enhances the existing capabilities and creates new capabilities. The operational capabilities of the HR function are enhanced by simplified administrative processes, reduced time required for HR transactions such as tracking job records, managing the employee payroll and running benefit programmes. The development of e-HRM dynamic capabilities is supported by the shift in the time spent on HR administrative work to strategic tasks such as designing HR policies, business planning, performance management and human capital development, among others. New capabilities become realistic through the adoption of the latest technologies, such as real-time information access, fast decision-making, integrated workforce planning and intelligent recruiting, among others. Most of these capabilities are dynamic and contribute to the strategic orientation of e-HRM.

The next move is to implement strategy that can best exploit the organisation's resources and capabilities. This is a stage where the deployment and implementation of e-HRM become critical. The interviewees did not emphasise the final step of identifying the resource gap, but the interviews still contained clues to the effort made to fill the resource gap. Some of the interviewees also provided suggestions for the future development of e-HRM at company S. For

example, although e-HRM systems create many conveniences for daily work, it is also expected that the systems should not create artificial distance among individuals or be used simply for the sake of being used, which coincides with the conclusion reached by Stone et al. (2015) that e-HRM is not without defects.

The resources-based approach also suggests a step is to identify any resource gap so that more resources can be created accordingly. Although such a step does not seem to be directed towards the implementation of strategy, it is important because it points towards resources, the basis upon which new capabilities and competitive advantages are sustained. In this study, it means the revised strategy will identify the gaps of e-HRM as a resource, the renewed resources facilitate new dynamic capabilities to cope with the changes.

As a vivid example at S could be building of a human capital pool at company S, as part of the strategic role of HR. The capabilities, such as talent management, facilitated by e-HRM resources and others, gathers knowledge about the organisation itself and the market. Assisted by the other analytic capabilities from analytic tool incorporated in the e-HRM systems, HR can identify potential talents for the organisation more efficiently and effectively and make recruitment decisions with strategic concerns. Prior to the stage where candidates join the organisation, both organisation-individual and HR-candidate interactions are established based on the tool such as social media or virtual reality technologies, therefore a user experience is created through the corresponding capabilities. Decisions made based on intelligent business increase the possibility of organization attracting talent who meet the organisational standards and satisfy its needs so that the organisation's competitive advantage in terms of its human capital pool is guaranteed. By doing this, HR transform its role towards more strategic end.

Such a process involves considering the internal and external environments. There are two prominent features of strategic outcomes as defined by the fact that e-HRM is closely intertwined with the contexts in which it exists. First, strategic outcomes are organisation specific and context dependent, meaning they cannot be easily transferred from one organisation to another. This characteristic is particularly true for the dimension where e-HRM is explored in a cross-

organisational conversation. e-HRM might display a strategic orientation or be employed towards a strategic end, but the outcomes of e-HRM can vary from one organisation to another. The actors and situations involved in e-HRM are not easily duplicatable even within the same company, let alone being simulated in a context where the settings are very different. The digital HR transformation at company S receives its momentum from the sustained strategic planning, goal setting and technology investment so that it continues to transform the HRM of the organisation. If this same transformation plan is implanted into an exotic soil – that is, a different organisation – it is not possible to guarantee that the planning of the investment in, and implementation of, e-HRM will have the same effects as it does at company S. Given that the people composition is also difficult to imitate, the individual acceptance and expectation of e-HRM is quite variable, so duplication of individual and relational consequences also becomes difficult. Technological innovation and investment also make e-HRM outcomes difficult to imitate. Nevertheless, there is no denying that an organisation could employ e-HRM for similar purposes and achieve shared goals. The point here is that, however valuable, unique and inimitable (Barney, 1991) any organisational resource is, the same is also true for e-HRM strategic outcomes. Second, e-HRM strategic outcomes could never be static due to the dynamics of their internal and external contexts as well as institutional changes. The famous notion of best practice, which assumes that certain HR practices are universally implementable and a combination of best practices would increase organisational effectiveness regardless of the place, location or context, is often considered when an organisation looks up to industry standards. In contrast, according to the contingency school (Findıklı and Bayarçelik, 2015, Lawrence and Lorsch, 1967) of HRM, 'best fit' should always be emphasised. The best-fit approach holds that the effectiveness of HR practices is context specific. Fit differs across different sectors, institutional contexts and cultures. Theoretically, the best-fit approach is more convincing and there has been increasing evidence of the benefits of the best-fit approach (Paauwe and Boon, 2018). Nevertheless, it is quite inaccurate to conclude that the best-practice approach should be discarded. Instead, company S believes that best practices should be generalised, introduced, aligned with organisational contexts and properly leveraged so that a best fit is achievable between best practices and the organisation. As the factors of the internal and external contexts can, and needs, to change from

time to time, such best fit also needs to be dynamic. Best fit is constantly engaged in adoption and adjustment. Researchers even believe that the competitive advantages an organisation achieves are dependent upon the fit of internal activities and strategic positioning in the market (Marler and Fisher, 2013). Now that the ‘what’ question of strategic e-HRM outcomes is clear, the next step is to explore ‘how’ these outcomes are achieved.

4.4.2.2 From dynamic capabilities to strategic outcomes

Now that the process of converting e-HRM resources to capabilities is clear. Next step would to look at the final step to discuss the relationship between dynamic capability and organisational performance, which had previously remained unaddressed.

The understanding of such a relationship is also a key to better convert dynamic capability into actual desired outcomes. As discussed in the literature review, Eriksson (2014) concluded four types of possibilities: a straightforward direct relationship where dynamic capability links directly to the consequences and organisational performance, a less direct relationship influenced by other factors, a direct relationship where dynamic capability works as the mediating factor between organisational resources and processes, and finally an indirect relationship where dynamic capabilities create changes in operational capabilities and, consequently, influence organisational performance.

Both direct and indirect relationships between dynamic capabilities and outcomes have been observed at company S. Dynamic capabilities facilitate operational capabilities and, consequently, create desired outcomes. Many of the operational capabilities reported by the participants are supported by dynamic capabilities.

Relationship	Type	Examples in Case Study
Direct	Direct impact	HR data analytics (Analytic capabilities) <i>HR data analytic helps to provide the transparency of the workforce and develop business insights</i>

Direct	Less Direct impact influenced by other factors	Employee Self Service (Service Delivery capability) <i>Has a direct impact on employee satisfaction. Employees are able to consume the HR services in a more effective way through Web and mobile. But this is also influenced by the factors such as infrastructure readiness, usability of the system etc.</i>
Indirect	DCs as mediating factors	Integrated business planning (service and process capabilities) <i>The business and workforce data from e-HRM could be the resource of value, the capability of integrated business planning is able to consolidate the data and utilize the historical data to support the future planning and simulation.</i>
Indirect	Indirect impact: DCs create changes in OCs influence the outcome	Visual Onboarding: <i>The capability of adopting latest technology (Technical DC) such as Virtual Reality improves the experiences of remote onboarding during the COVID time. The create positive impact on employee experiences and company branding. The employee onboarding as part of the company process operational capability is enhanced by DCs and influenced the strategic outcome</i>

TABLE 18 EXAMPLES INTERRELATIONSHIPS BETWEEN DCs AND OUTCOMES

Although both transformational consequences and organisational competitive advantages and performance could be seen as strategic e-HRM outcomes, it is actually through transformational consequences that the dynamic capability of e-HRM is translated into competitive advantages. Nevertheless, competitive advantages do not solely stem from transformational consequences. As the macro- and micro-level consequences are not entirely separable from one another, it is the convergence of all the e-HRM consequences that leads to organisational competitive advantages and desired performance. This statement is true in many aspects of HRM.

The discussion in this section focuses on one of the key terms of the research questions – strategic e-HRM outcomes. Figure 19 illustrates the actual conclusion on the relationship among dynamic capability, operational capability and strategic e-HRM outcomes

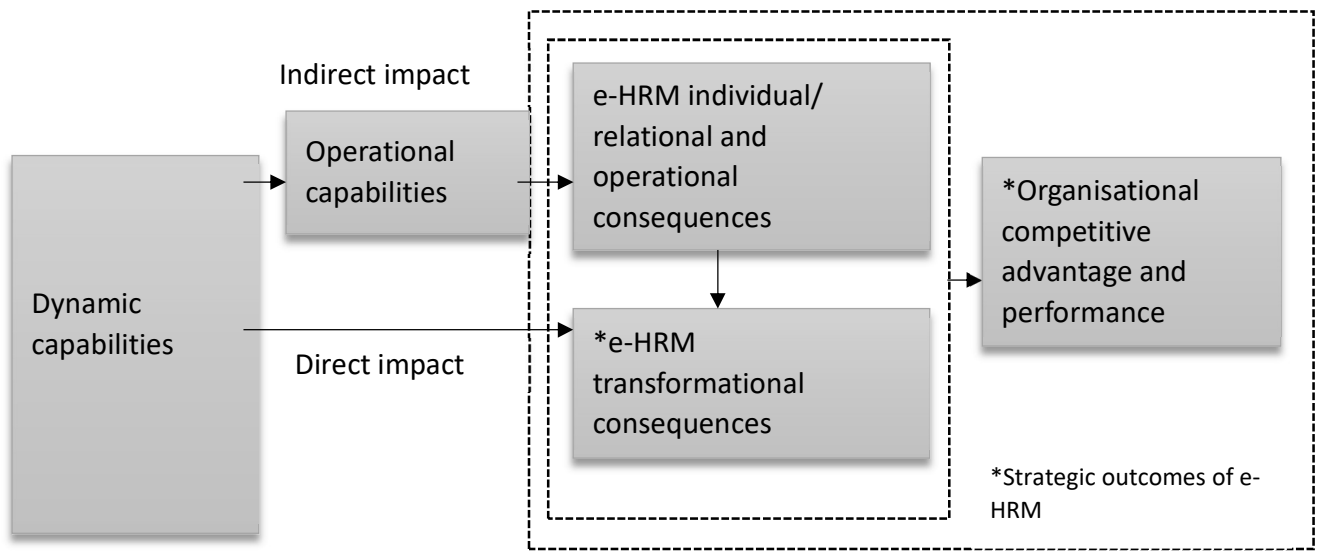


FIGURE 20 STRATEGIC OUTCOMES OF E-HRM

5 Towards a Framework

Each of the sections in Chapter 4 focused on different parts of the e-HRM story. The discussion started with a focus on the strategic orientation of e-HRM and its changing contexts, arguing that the strategic orientation is shaped by both its internal and external contexts. Moreover, e-HRM is not necessarily strategic unless there is a proper e-HRM strategy. After depicting the contexts of e-HRM, the chapter then focuses on the resource aspect of e-HRM, clarifying e-HRM could be resources that later converted to various capabilities, as part of the discussion technology – another significant component of the e-HRM story – and proposed a purpose-based categorisation of technology. The focal point was on how technology influences and co-evolves with e-HRM and how disruptive technology renovates e-HRM and developed the dynamic technology capabilities. The conversation then continued through the exploration of e-HRM consequences and its realisation process. While the discussion on e-HRM contexts and technology is facilitated by outside-in contingency theory (Fındıklı and Bayarçelik, 2015, Lawrence and Lorsch, 1967), the final part of Chapter 4 explains e-HRM through the inside-out perspective of the RBV (Barney, 1991), where e-HRM can be viewed as an organisational resource capable of facilitating both operational and dynamic capabilities to produce the strategic outcomes.

At this point, however, the integrated picture of e-HRM and strategic outcomes remains unaddressed. More specifically, although the constructs in the e-HRM story have been presented, there are still issues concerning the interrelations of these components, especially on a global level. Therefore, this chapter combine the previous discussion to move towards a framework of e-HRM and strategic outcomes. The Harvard model (Beer et al., 1984) is frequently referred to in both SHRM and e-HRM research (Bondarouk and Brewster, 2016, Paauwe and Farndale, 2017, Strohmeier, 2007), and the necessity of exploring e-HRM strategic outcomes in a SHRM framework has been stated in Chapter 1. The Harvard model has also been mentioned as the SHRM model to which this research refers because it provides an overview of the process in which strategies of HRM are formed. Because this research intends to explore e-HRM and

strategic outcomes, the Harvard model has been employed to determine how to track the formation of e-HRM strategies. The Harvard model considers both stakeholders' interests and situational factors based on which HRM policy choices are made, and these two concepts are also important factors in the e-HRM story. Meanwhile, the model prescribes the HR outcomes and long-term consequences of SHRM so that the model is 'both descriptive and prescriptive' (Paauwe and Boon, 2018, p. 53). Therefore, with reference to it, the outcomes or consequences of e-HRM are also afforded space in the strategic e-HRM framework that this research aims to propose.

There is a figure 20 at the end of Chapter 4 to summarise the key discussion points. Figure 21 is a global framework based on all the figures from the previous discussion and with reference to the Harvard model. The framework comprises four main parts. The blocks on the left side of the framework show the external contexts of e-HRM and the interrelation among the three components. In the Harvard model, stakeholders' interest and situational factors both influence HR policy choices. In Figure 20, however, a broader term – 'Business and HRM strategy' – is used in the place of HR policy choices because the former more explicitly incorporates the idea of strategy thinking and considers the choices and decisions made both on the HRM level and on the organisational level.

External context is the idea of e-HRM itself comprises e-HRM strategy, activity and actors (Strohmeier, 2007). Given that this research argues that e-HRM brings consequences and strategic outcomes through the capabilities it creates, a block for operational and dynamic capabilities connects e-HRM and its consequences. Although the distinction between long- and short-term outcomes is not specifically made, the idea of levelled consequences remains and the possibility that e-HRM strategic outcomes influence e-HRM is indicated. What follows is a detailed discussion of how the framework is formulated in its response to the two research questions: *How could e-HRM be strategically oriented? How does e-HRM produce strategic outcomes?* As divided by the dotted line in the middle, the left side of the framework mainly addresses the issues around the strategic orientation of e-HRM while the right side focuses on

the forming of e-HRM strategic outcomes. Each discussion point is concluded with a short statement on the key conclusion.

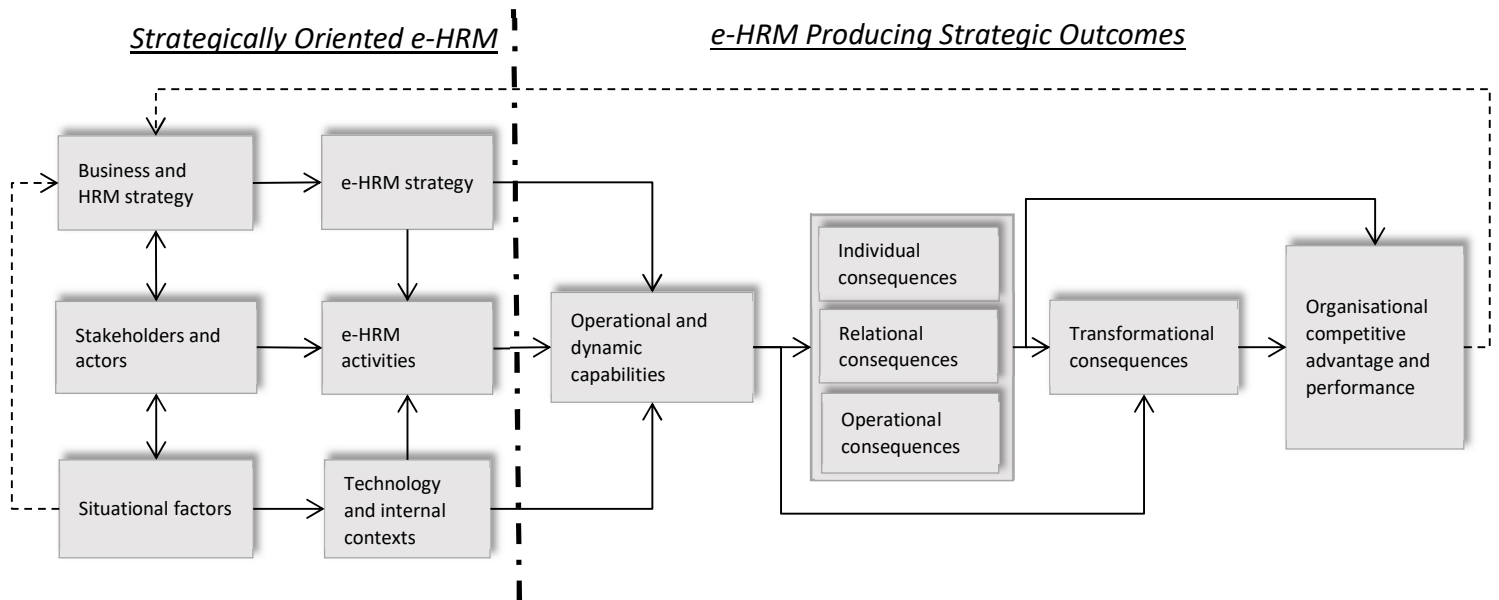


FIGURE 21 STRATEGIC CONTRIBUTIONS OF E-HRM

5.1 Strategically oriented e-HRM

From the outside-in perspective of contingency theory, the research question ‘How could e-HRM be strategically oriented?’ examines the mechanism through which e-HRM becomes strategically oriented. Contingency theory (Lawrence and Lorsch, 1967) places much weight on how the environment becomes the contingency influencing the implementation of e-HRM. The fit between the internal and external environments of an organisation has been emphasised during that stage of research. The answer to this research question will identify the main factors and their interplay in the formation of e-HRM strategic orientation. Paauwe and Boon (2018) argue that the content, process and implementation are the three key points in measuring how SHRM is. The discussion also considers three points in its evaluation of the strategies for e-HRM: changing contexts, strategic orientation and expectations.

1. Changing contexts: the contexts of e-HRM are constantly changing, which leads to changing expectations of e-HRM in organisations.

The first step to answer how could e-HRM be strategically oriented is to explore the e-HRM contexts. Stories – including the e-HRM story – happen within backgrounds. While stories usually happen in a context with fixed settings, the e-HRM contexts change constantly; hence, organisational expectations for e-HRM also change accordingly. There are two layers of e-HRM contexts, one is external and the other one is internal. The external context of e-HRM consists of three components: business and HRM strategy, stakeholders' interest and situational factors. These components interact with each other and together influence e-HRM.

The external situational factors influence the formulation of a company's business strategy and HR strategy in different ways (Barney, 1991, Olivas-Lujan et al., 2007, Parry and Tyson, 2011). Such interaction, however, is neither the focus of, nor confirmed, in this research, so a dotted arrow has been used in Figure 20 to indicate the potentially existing influence that the situational factor exerts on business and HRM strategy.

Similarly, to the Harvard model of SHRM, stakeholders are also an important component of the external context of e-HRM. However, instead of being specific in classifying all the stakeholders as the Harvard model does, this research has focused on the core groups of stakeholders, namely employees, HR practitioners and managers and executives. There is a mutual influence that can be observed between situational factors and stakeholders. On the one hand, stakeholders like senior leadership can be influenced by situational factors such as industry and the market environment. On the other hand, stakeholders can influence situational factors. For example, leaders of the leading companies of an industry could be considered leaders of the industry and therefore influence trends.

Stakeholders who are the actors of e-HRM play a role in defining and executing business and HR strategies, and together they ensure that HR practices are focused on achieving business objectives as stated by the organisation, that HR function is involved in the process of strategy

formulation and that HR practices are consistently implemented in the organisation such that the intended goals can be achieved (Pauwe and Boon, 2018).

The internal context of e-HRM comprises organisation structure, HR functions, workforces, investment in e-HRM, the e-HRM leadership, the e-HRM values and technology. Just as with the e-HRM external context, the components of the e-HRM internal context are also interrelated. At this point, contingency theory becomes something to refer to in sorting out the relations among all these components and how they influence e-HRM. Contingency theory has been introduced in many e-HRM studies (Ruël and van der Kaap, 2012) in an attempt to understand how contextual factors influence e-HRM. The notion of fit is constantly emphasised by contingency theory. It argues that e-HRM has to be flexible and dynamic to be able to cope with the dynamics of the changing contexts. Besides the influences that e-HRM contexts exert, it is also possible that the involvement of e-HRM can change the context. For example, stakeholder acceptance of e-HRM and industry best practices could all be influenced by e-HRM itself. The perceivable mutual influence between e-HRM and its contexts enables the constant negotiation between the two and such fit is what can be called 'dynamic best fit'.

2. Strategic orientation: the strategic orientation of e-HRM is defined as part of e-HRM strategy that could be derived from the business strategy.

The strategic orientation of e-HRM concerns the arrow pointing from 'Business and HRM strategy' to 'e-HRM strategy' in Figure 11. The strategic orientation is an attribute or the intention of e-HRM. Although it is pervasive in the entire conversation around e-HRM, strategic orientation can be, but is not necessarily, supported by e-HRM strategy and cannot be easily converted into strategic outcomes of e-HRM.

e-HRM strategy is typically derived from business and HR strategies and should have a good fit with them. Based on the business goals, strategy is planned accordingly with regard to every aspect involved in the realisation of these goals. Therefore, the notion of fit is again emphasised. With its consistency and alignment with business strategy, HRM strategy ensures the strategic

orientation of e-HRM and e-HRM supports the strategic decision-making and shapes the HR and business strategy. e-HRM strategy formulation is also heavily influenced by its stakeholders. Any changes to the institutional environment could lead to corresponding changes in e-HRM configuration (Strohmeier, 2007), which is why stakeholders' interest is an important concern of e-HRM strategy.

3. Expectations of e-HRM: the expectation of e-HRM goes far beyond the fulfilment of isolated HR functions, moving towards a more strategic end.

An obvious link between e-HRM strategy and e-HRM activities is that these activities are designed and implemented as defined by e-HRM strategy with its goal of realising expectations. Based on the specific content and goals of e-HRM strategy, multiple activities might be designed and incorporated into e-HRM. Because e-HRM strategy defines the strategic orientation of e-HRM, this orientation is also transferred to e-HRM tasks. e-HRM activities, as part of the e-HRM configuration of Strohmeier's (2007) e-HRM research model, are a construct that focuses on the actual components of e-HRM or what is being done in e-HRM. HR functions are the basic components of e-HRM activities. Besides being able to perform routine HR tasks, e-HRM systems are also expected to add value to HRM. In this way, the expectation of e-HRM goes far beyond the fulfilment of isolated HR functions and moves towards a more strategic end that encompasses analytics, planning, real-time decision-making support, total workforce planning and repositioning the role of HR, which can all be supported by e-HRM technology. A prominent advantage of digital HR is that everything is stored in systems that provide a reference for analysis beyond common HR functions, which possibly benefits all stakeholders of e-HRM.

It is worth mentioning that, at the individual level, successful adoption of e-HRM activities such as the employee experience has been a key to the success of e-HRM, a phenomenon that is related to the overall employee satisfaction and motivation, both of which are strategic topics for HR. The employee experience is regarded as 'critical', and many actions have been taken by organisations to improve the HRM system user experience. While a good design might facilitate

the implementation of strategy and the realisation of expectations, obscure designs could become barriers to the proper utilisation of HR functions and lead to poor outcomes.

The implementation of e-HRM is also one of the prime concerns of e-HRM strategy. A well-devised e-HRM strategy is not carried out satisfactorily if it is not properly implemented by e-HRM. However, implementation is understood in two senses: implementation strategy as part of business strategy and the actual actions of implementation. Many factors need to be taken into consideration during the process of implementation. If organisations expect the existence of e-HRM to be converted into organisational capabilities, implementation is one of the key steps in such a process.

5.2 Realizing strategic outcomes

Now that the process of how e-HRM becomes strategically oriented is clear, it is apt to delve into the second half of the framework, which concerns the actual outcomes of e-HRM, especially strategic outcomes – should there be any. Moreover, the fact that endowment of strategic orientation highlights the significance of the story that happens on the right side of the strategic e-HRM framework because the question of how e-HRM produces strategic outcomes helps to complete the circle made by the two nodes, namely e-HRM and strategic outcomes. In contrast to the last research question (How could e-HRM be strategically oriented?) where contingency theory was used to explore the influence of contexts over e-HRM, the RBV is employed here to examine the process from an inside-out perspective. The RBV considers HR as the most important component of HRM because these resources are valuable, unique, inimitable and imperfectly substitutable (Barney, 1991). It explains the relationships between e-HRM configurations and consequences, and in a way views HR as a powerful method of gaining organisations competitive advantages in the market, (Lazazzara and Galanaki, 2020).

1. *Organisational resources: e-HRM performs as part of the important company resources or a lever enhancing other resources*

e-HRM itself could be viewed as a set of resources or a lever (Lazazzara and Galanaki 2020) to enhance other resources for organizations. According to the RBV, HRM can develop a sustained competitive advantage only by creating value in a way that is rare and difficult for competitors to imitate. As an integrated part of HR, e-HRM could be a source of a sustained competitive advantage. Uniqueness is the first distinctive characteristic of an organisational resource; it is reflected in the design, content, implementation and expectation of e-HRM. However unique e-HRM is to different individual organisations, this term is only the aggregate of the resources it entails. In other words, it is the content of e-HRM as an organisational resource that makes e-HRM itself unique. A discussion on the content of the resource adds insights into understanding the resource as a whole. With e-HRM as an organisational resource or a lever to enhance other resources – human capital policies and tasks described in e-HRM, information and data associated with e-HRM systems, adopted technologies and the knowledge and experiences from actors – is critical in making e-HRM a truly useful and properly utilisable. Lastly, people differ in their capacities and abilities (Saa-Perez and García-Falcón, 2002). Even though e-HRM systems might be physically imitated by different organisations, it is almost impossible to duplicate the knowledge and experiences of the actors of e-HRM to create a homogeneous people setting in a new environment.

2. Capabilities: the capabilities converted from e-HRM resources are the factors between the e-HRM and its outcomes.

e-HRM capabilities are the core factor between the e-HRM and its outcomes. The RBV points out that HRM can promote a sustained competitive advantage only by creating value in a way that is rare and difficult for competitors to imitate. Stemming from the RBV, the capability perspective goes a step further and explains how e-HRM could be used to sustain a competitive advantage. The value creation process of organisational resources is facilitated by e-HRM operational and dynamic capabilities. The capability perspective also explains the strategic aspects of e-HRM in a strategic management context from the perspective of sustaining a competitive advantage. Organisational capability (Teece et al., 1997) is a critical step in converting organisational resources into a competitive advantage. Because organisational capability is developed from

organisational resources, e-HRM becomes the resource to generate organisational capability and subsequently results in the strategic value of e-HRM. Each e-HRM component has a different influence. First, e-HRM strategy indicates the organisational capability that e-HRM should have to achieve the desired outcomes. Because e-HRM strategy defines the desired outcomes of e-HRM, it is naturally also relevant to the capabilities that e-HRM should produce. Although not entirely defining e-HRM capabilities, e-HRM strategy entails at least some capabilities that e-HRM must have. The dynamic capability of e-HRM ensures the fit between what e-HRM is capable of and the market dynamics. The best fit is constantly engaged in adoption and adjustment. Researchers even believe that the competitive advantage an organisation achieves depends on the fit of internal activities and strategic positioning in the market (Majhi et al., 2021, Marler and Fisher, 2013, Mikalef et al., 2020). The dynamic capability of e-HRM and the new capabilities the e-HRM creates (most of which are dynamic) make it possible to keep the dynamic fit between e-HRM and its contingency. Here is the point where the inside-out and outside approaches facilitate each other.

Second, the key activities of e-HRM define what e-HRM could achieve technically and functionally. The key activities are realised by the operational and dynamic capabilities of an organisation. Operational capability allows an organisation to operate its daily business properly (Winter, 2003). These are the basic HR functions that satisfy the day-to-day operation of an organisation. Dynamic capability allows an organisation to purposefully create, extend or modify its resource base (Helfat et al., 2009). The most direct and basic capability that e-HRM creates is operational. It is more closely related to the actual daily operation of e-HRM. Although operational and dynamic capabilities are believed to be two different levels of capabilities (Teece et al., 1997), it still seems very difficult to separate one from the other. In many cases, dynamic capability is derived from operational capability.

Lastly, technology realises these capabilities, renovates these capacities and develops new capabilities to support e-HRM strategy. Technology enhances the operational capability of the HR function by simplifying administrative processes, reducing the time required for HR

transactions such as tracking job records, managing the employee payroll and running benefit programmes. Technology supports the development of e-HRM dynamic capability by reducing the time spent on HR administrative work and enabling HR practitioners to focus more on strategic tasks such as designing HR policies, business planning, performance management and human capital development. New capabilities could be realised through the adoption of the latest technologies, such as real-time information access, fast decision-making, integrated workforce planning and intelligent recruiting, among others. Most of these capabilities are 'dynamic' and they all contribute to the strategic orientation and outcomes of e-HRM.

3. Technology: the latest technology renovates the e-HRM system and redefines dynamic technology capabilities for e-HRM

HRM becomes e-HRM because of the introduction of technology (Bondarouk and Ruël, 2009, Ruël et al., 2004, Strohmeier, 2007). The latest technology completely renovates the e-HRM system and redefines what e-HRM is capable of, meaning that situational factors also influence e-HRM technology and thus e-HRM as a whole. At the current stage, SMACi technologies have been fundamentally reshaping e-HRM. Such technological classification is based on the essence of the technology itself and renders clarity in specific discussion on technicality. However, sustained applicability is more relevant if e-HRM technology is categorised based on the purposes they serve. Therefore, there are four types of e-HRM technology: foundation technology that serves as the platform foundation to build any applications to support HRM processes; intelligent technology that brings intelligent and smart capabilities to the application of e-HRM and HRM processes; UI technology that enables different types of interaction between e-HRM and its users; and collaboration technology that supports communities in exchanging ideas or even working collaboratively. Instead of functioning separately, one or more of these technologies work together in realising single or multiple purposes of e-HRM activities.

e-HRM comprises technology, e-HRM strategy, activities and actors. However, technology also stands out as a factor that shapes e-HRM and what e-HRM is capable of by developing and renewing the dynamic technology capabilities. In e-HRM, technology and the other components

exert mutual influence on each other. Technology links e-HRM with overall HRM strategy and is involved deeply in the implementation strategy. Technological evolution redesigns many e-HRM activities, such as recruiting, training and performance management. It also reshapes planning and decision-making as real-time data access, analytics and data mining are available at hand. Technology development sustains the operational and dynamic capabilities. Technological innovations constantly create new e-HRM dynamic technology capabilities. In the meantime, it also ensures that the strategic orientation of e-HRM is sufficiently supported.

Furthermore, acceptance of the technologies could be a key issue in terms of e-HRM success. Technology creates new experiences for individual e-HRM users by creating a more friendly user interface and deeper logic so that seamless interaction between users and IT systems is possible, which further develops the organisational dynamic capabilities and supports the strategic orientation of e-HRM. Although the actual adoption of new technology goes beyond the realm of HRM and digitisation is typically a company initiative instead of an HR one, e-HRM technology still receives much attention from the organisation as a collective actor that values the impact that technology brings to the organisation as a whole.

4. *Consequences: the e-HRM capabilities produce the individual and operational consequences, subsequently achieving transformational consequences for the strategic end.*

e-HRM consequences appear at the micro and macro levels (Strohmeier, 2007). The micro-level consequences are individual consequences that focus on what e-HRM brings to individual participants of e-HRM. The macro-level consequences consist of operational consequences that are related to gains in organisational efficiency and effectiveness, relational consequences that centre around the improved HR services for both internal and external stakeholders, and transformational consequences relating to organisational strategy and change management. Although these are considered e-HRM consequences, the mere existence of e-HRM does not lead to consequences. It is the organisational capabilities realised by e-HRM that produce individual and operational consequences and subsequently achieve transformational consequences for the

strategic end. Transformational consequences and organisational competitive advantages and performance make up the strategic outcomes of e-HRM.

Desirable e-HRM consequences are generated due to the synergy of the operational and dynamic capabilities of e-HRM. For example, through its operational capability, e-HRM makes employee self-services available to each participant of e-HRM, and the dynamic capability of e-HRM makes it more reasonable to talk about improved employee experience and enhanced motivation. e-HRM capabilities also create operational consequences that are more directly related to the job of HRM practitioners. e-HRM enables HR to complete operational tasks such as maintaining employee information, managing payroll and time recording.

Transformational consequences can only be achieved if e-HRM is successfully adopted by individuals and basic operational consequences and goals are achieved. e-HRM creates more time and capacity for HR professionals. At this point, the consequence is still operational. However, the extra time afforded to HR professionals makes it more likely for them to engage in strategy-level tasks and even strategic decision-making (Strohmeier 2007), a phenomenon that is considered a transformational consequence. Besides time, HR practitioners are equipped with access to strategic decision-making, which is another business area in which HR practitioners are involved (Bondarouk and Ruël, 2009, Marler and Fisher, 2013, Orlikowski and Scott, 2008b, Ruël et al., 2004, Strohmeier, 2007). Based on these two transformational consequences, a third consequence is realisable: allowing HR specialists a place in the executive strategy decision-making.

Although both transformational consequences and organisational competitive advantages and performance are strategic e-HRM outcomes, it is actually through transformational consequences that the dynamic capability of e-HRM is translated into competitive advantages. Nevertheless, competitive advantages do not solely stem from transformational consequences. As the macro- and micro-level consequences are not entirely separable from one another, it is

the convergence of all the e-HRM consequences that leads to organisational competitive advantages and desired performance.

There are two prominent features of strategic outcomes as defined by the fact that e-HRM is closely intertwined with the contexts in which it exists. First, strategic outcomes are organisation specific and context dependent, meaning they cannot be easily transferred from one organisation to another. E-HRM might display a strategic orientation or be employed towards a strategic end, but the outcomes of e-HRM can vary from one organisation to another. Second, e-HRM strategic outcomes can never be static due to the dynamics of its internal and external contexts as well as institutional changes.

5. Back to the beginning: e-HRM has mediating effect on cooperate strategy itself and situational factors through its capabilities and consequences

The discussion on e-HRM strategic outcomes can be linked back to the beginning of the e-HRM story. In the map of research questions, e-HRM and its consequences interact in a two-way direction, with the factors connecting the two nodes. The discussion hitherto has covered the arrow pointing from e-HRM to its factor e-HRM capabilities, as well as how the relationship extends to the strategic outcomes. The arrow between e-HRM and the factors business and HR strategy, stakeholders' interest and situational factors in the lower half of the map has also been addressed with substantial discussion. Nevertheless, it is not difficult to find that the relation between e-HRM strategic outcomes and e-HRM contexts, especially the external context, is barely mentioned. It is possible that the strategic outcomes of e-HRM can create a further impact on the company's business strategy and indirectly influence the situational factors outside of the organisation. However, such a relationship is marked with a dotted line because it has not been the focus of this current study and requires further exploration.

6 Conclusion, Implications and Future Directions

6.1 Conclusion

The earliest e-HRM started with the employment of IT to support HR administrative tasks. Currently, the notion of e-HRM has gone much further beyond an operational IT system. e-HRM is a way in which HR is managed. More specifically, it leverages technology to develop and enhance the capabilities to allow HR to achieve both operational and strategic benefits. Compared with SHRM that has been a long-standing research topic, e-HRM research is still less mature, and research concerning the strategic aspects of e-HRM is scarce. However, the research frameworks and theories of SHRM could also very well provide a reference for research in e-HRM. There are a few key findings concluded from this research

First, to address to strategic aspects of e-HRM, it is crucial to understand the distinction between strategic orientation and strategic outcomes so that the foundation for the discussion of actual strategic outcomes is concrete. Strategic orientation is the intention or the attribute of e-HRM while strategic outcomes are the actual consequences of e-HRM. These consequences can be either accomplishments or undesirable results. e-HRM that entails strategic orientation might be capable of achieving the desired strategic outcomes with the support of a proper e-HRM strategy.

Second, both the internal and external contexts of e-HRM play a role in the shaping the strategic orientation of e-HRM. Situational factors such as legal regulations, social and cultural factors, stakeholders' interests and business and HR strategies influence e-HRM. Meanwhile, internal factors such as organisational structure, HR functions, workforces, investment in e-HRM and e-HRM leadership all work to shape e-HRM. Because the context of e-HRM is constantly changing, dynamic best fit resides between pairs of constructs and such fit is extended to other constructs so that all of them are interconnected. First, there is a best fit between e-HRM strategy and HR strategy because e-HRM strategy can be derived from HRM strategy. Such a best fit is directed to e-HRM activities because they are defined under e-HRM strategy and are themselves part of the execution of the strategy. Next, there is a best fit between stakeholders' interest and e-HRM strategy as well as e-HRM activities. Finally, a best fit exists between internal and external

contexts because they change constantly. Because e-HRM is largely context-dependent, it needs to adapt to the changes happening in the external and the internal contexts. Meanwhile, stakeholders' interest may also be influenced by situational factors and subsequently exert an impact on e-HRM. The situational factors shape the strategy of e-HRM so that e-HRM strategy is always dynamic and constantly changing. The strategy of e-HRM has a direct impact on the configuration and key activities of e-HRM.

Third, e-HRM should have its own strategy that supports the firm's HR and business strategies. Theoretically, this is where e-HRM, SHRM and strategy management start to emerge. e-HRM needs to be facilitated by a strategy to achieve and sustain its strategic orientation, in which process e-HRM is constantly negotiating with both its internal and external contexts to achieve the best fit. Having an e-HRM strategy helps to define the key e-HRM activities that serve the operational and strategic needs of the company. The key e-HRM tasks could be categorized into categories of operational, relational and transformational with the increase strategic focus

Fourth, the research indicates that the linkage between e-HRM and its strategic outcomes lies in the analysis of e-HRM as a source of sustained advantages. Based on the RBV, the analysis of e-HRM as an organisational resource started with why e-HRM is unique and difficult to imitate. e-HRM is implemented and incorporated with the unique combination of organisational expectations. Human capital policies and tasks described in e-HRM are formed based on the unique situations of individual organisations, meaning that they are difficult for competitors to imitate. Moreover, the tangible information and data associated with e-HRM and technology adopted only make sense in the specific organisation where the information is generated. Meanwhile, the heterogeneity of the labour market also makes it difficult for different organisations to duplicate the exact knowledge and experiences people have about e-HRM and work in general. The specific content of e-HRM as an organisational resource includes the human capital policies and the tasks described in e-HRM, the information and data associated with e-HRM systems, the technologies adopted for e-HRM, as well as the knowledge and experiences of e-HRM actors. These all become valuable assets in enabling HR to become a business partner.

Therefore, the research argues that e-HRM could be viewed a resource of the organization or a lever enhancing other resources. Though there many different ways to describe or categorize the resources. And resources could have either tangible or intangible, it's crucial to identify the key resources that meet the NRIV criteria so that these resources could be the source of described strategic outcome and competitive advantage for organizations. And the described outcomes could only be achieved if these resources need to be converted to the capabilities.

Fifth, the research points out the notion of organisation capability is of great significance in the discussion of e-HRM. the resource concludes the list of capabilities converted from the e-HRM resources. Operational capability enables the daily operations in organisations, and dynamic capability refers to the capacity of an organisation to purposefully create, extend or modify its resources and generate new capabilities. Technological innovation also creates new capabilities, the majority of which are dynamic, in particular, dynamic technology capability from e-HRM. Technology has also initiated a shift in the role HR plays in organisations. HR gets increasingly involved in company performance and strategic support and gradually becomes an appreciated business partner. It is believed that organisations that adapt to the capabilities of technologies to manage their HRM will be more successful. e-HRM itself is a strategic resource for organisations. Because e-HRM as a resource can be strategically oriented but does not create value itself, organisational capabilities are the key step through which e-HRM sustains an organisational competitive advantage.

Sixth, the research argues Technology plays a role as either an enabler or a driver for development of the e-HRM capabilities to achieve the desired strategic outcomes. Technological development and the utilisation of technological methods in e-HRM rarely remain static. Dynamic technology capabilities are constantly developed and renewed. Technology impacts both individual and collective actors so that new experiences are created and digitisation becomes an initiative that organisations are likely to take. Organisations that are capable of achieving the best fit may better leverage the opportunity brought by new technology. The influence of ever-changing technology is evident on e-HRM strategy, activities and tasks as well

as ITDCs, as technology enhances operational capability, facilitates dynamic capability and helps to develop new capabilities.

Finally, this research clarifies the actual meanings of e-HRM strategic outcomes. The strategy outcomes could be described as twofold. On the one hand, e-HRM frees up the HR capacity and allows HR to focus more on strategic tasks or even become a business partner, and helps an organisation to shift the focus from transactions to reinventing employee experiences in ways that accelerate business growth. The research also points out that, in e-HRM context, the role of HR business partner has characteristics of 'data driven', 'business alignment' and 'experiences focused'. Both transformational and non-transformational consequences of e-HRM have to be achieved to finally create organisational competitive advantages and desired performance, which differ from e-HRM outcomes as the latter comprise more components that are not necessarily always strategic. Further to the strategic outcomes from HR perspective, e-HRM supports HR as a NRIV resource sustaining a competitive advantage to the company. Therefore, from organizational standpoint points out the strategic outcomes of e-HRM could be further described as e-HRM transformational consequences and organisational competitive advantage and performance.

Starting with the two research questions and based on the findings and discussion, this research has examined the mechanism by which e-HRM produces strategic outcomes. This research has gradually revealed the interrelations among elements of e-HRM and has proposed a framework to explain how e-HRM becomes strategic and how the strategic outcomes are ultimately achieved. The framework has been developed in reference to the Harvard model of SHRM, tailored to fit the e-HRM research contexts, and concluded based on the findings from this research.

The research question on the strategic orientation of e-HRM has been addressed by examining the components of e-HRM and the interrelation between the external and internal contexts, such as business strategy, stakeholders and e-HRM. The framework concludes that the e-HRM

contexts are constantly changing, which leads to changing expectations of e-HRM in an organisation. Internal and external contexts such as stakeholders' interests are important factors to consider to develop e-HRM strategy, activities and execution. The strategic orientation of e-HRM is defined as part of e-HRM strategy, which can be derived from business strategy; the expectation of e-HRM goes far beyond the fulfilment of isolated HR functions, moving towards a more strategic end.

Following the strategic orientation of e-HRM, the process of producing strategic outcomes introduced by the framework answers the second research question. e-HRM is an organisational resource that creates capabilities and leads to e-HRM consequences. Among these consequences, transformational consequence alongside organisational competitive advantage and performance are the actual strategic outcomes of e-HRM. The framework indicates that the latest technological developments could completely renovate the e-HRM system and redefine what e-HRM is capable of; the capabilities of e-HRM create the connections between e-HRM and its outcomes; the organisational capability realised by e-HRM directly produces the individual and operational consequences, subsequently achieving transformational consequences for the strategic end; e-HRM represents as an important company resource that repositions the role of HR and develops an organisational competitive advantage; and the transformational consequences further impact a company's business strategy and competitive advantage, and may influence the situational factors outside of it.

Practically, such a framework provides companies with a reference to better understand the strategic potential of e-HRM and to make decisions and choices about their e-HRM practices that embed strategic thinking. Companies should look at a broader e-HRM picture including internal and external situational factors and stakeholders instead of viewing e-HRM as just a technology to accomplish specific tasks. Hence, a company should develop a dedicated e-HRM strategy that supports its business and HR strategies. In addition to the operational capability, a company should evaluate the dynamic capability that could be developed from their e-HRM activities by leveraging the latest technology. Moreover, e-HRM can only support a company to gain its

competitive advantage if it is implemented as a strategic organisational resource. Besides spending millions of dollars and years of efforts, having a integrated and strategic view on how e-HRM is planned, implemented and operated is crucial for companies to achieve their desired strategic benefits.

6.2 Research implications

6.2.1 Theoretical implications

This research makes three contributions to the domain of e-HRM. First, it clarifies the notion of strategic orientation for e-HRM and explains that a value realisation process is required to achieve the actual results. Second, it proposes a contextual model to illustrate how e-HRM could become strategic and how the described strategic benefits are ultimately achieved. Third, it extends the application of SHRM theory to e-HRM to support the explanation of the proposed model.

One of the major contributions of this research is that it clarifies the notion of strategic outcomes and distinguishes it from strategic orientation. Strategic orientation is the attribute or intention of e-HRM, which could be supported by e-HRM strategy. Strategic outcomes are the actual outcomes or consequences of e-HRM deployment and implementation. They are the result of HR becoming a strategic business partner, HRM becoming a competitive advantage and e-HRM itself being a strategic asset. e-HRM needs to be strategically oriented to realise its strategic outcomes. Strategic orientation can be viewed as a prerequisite of having strategic outcomes but does not guarantee the achievement of the desired strategic outcomes.

There is a realisation process from strategic orientation to strategic outcomes. It is not the unique HR base itself that creates value, but rather the activities of e-HRM and how they are defined and used (Lockett et al., 2009). Certain conditions need to be fulfilled to realise value at the micro and macro levels. The value creation process includes deployment, implementation and roll-out. e-HRM should have a strategic aspect as it defines the desired outcomes of e-HRM as well as how to achieve these outcomes (Strohmeier, 2007). Business and HR strategies and e-HRM are closely

interrelated; therefore, the alignment among them becomes important. On the one hand, e-HRM strategy and its consistency and alignment with business and HRM strategies ensure the strategic orientation of e-HRM. On the other hand, e-HRM also supports strategic decision-making and shapes the HR and business strategies. Moreover, e-HRM strategy decides the strategic orientation as it defines the desired transformational consequences of e-HRM and influences the design and content of key activities, making them strategically oriented. e-HRM should consider both stakeholders' interests and the implementation of e-HRM in realising its capabilities.

Given the circumstance that understanding of the e-HRM value realization process is still fragmented, and there are limited insights into the relationship between e-HRM and its strategic outcomes, this research contributes to address a few knowledge gaps identified in the e-HRM strategic domain by leveraging the established theories from SHRM to contribute to address First of all, this research identifies a list of contextual factors sharpening the strategic orientation of e-HRM. Contingency theory (Lawrence and Lorsch, 1967) places much weight on how the environment becomes the contingency influencing the implementation of e-HRM. The fit between the internal and external environments of an organisation has been emphasised. This research has examined the dynamic fit between e-HRM and its contexts and has added an example of introducing contingency theory in e-HRM research. Meanwhile, this research argues that the institutional factors are interrelated with the configurations of e-HRM. The structures, programmes and practices of either e-HRM or SHRM in an organisation can attain legitimacy through the social construction of reality (Wright and McMahan, 1992). Second, this research leverages the resource-based view to verify the resource nature of the e-HRM and clarifies the list of the tangible and intangible resources associated with e-HRM. It verifies the NRIV criteria of e-HRM based on RBV therefore further confirms the strategic impact of e-HRM as a resource. Last, the notion of capabilities stems from the RBV, but it takes it one step further. Organisational capability comprises operational and dynamic capabilities. Dynamic capability describes the capacity of an organisation to purposefully create, extend or modify its resource base (Helfat et al., 2009). This research not only studies the list of capabilities that contribute to company's

performance, but also tries to gain insight into how the resources are deployed and how they are converted into dynamic capability of e-HRM.

Finally, a major contribution of this research is that based on the Harvard model, it proposes a model that explains the strategic aspects of e-HRM. This model takes e-HRM and strategic outcomes as two pivots and examines the mediating factors between the two. Both the inside-out approach of the RBV and the outside-in approach of contingency theory are incorporated into one model. Therefore, the contribution of this research goes beyond the simple application of SHRM theories in e-HRM research and reaches a level where different theories are employed together as they complement each other and reveal two sides of the same issue. The model proposed in this research explains in detail the linkage between e-HRM strategy and business strategy. It argues that e-HRM strategy is defined by business strategy but it is also possible that e-HRM strategy can have mediate effect, and in turn exert influence over business strategy. In the e-HRM strategic outcome model, the process of achieving strategic outcomes through the realisation of dynamic capability is also emphasised. Instead of arguing that e-HRM achieves consequences and outcomes directly, this research points out that e-HRM first needs to realise both operational and dynamic capabilities. It is through dynamic capability that the momentum of e-HRM is transferred into actual consequences and outcomes. The above-mentioned RBV, contingency theory, institutional theory and dynamic capability theory can be employed to address different aspects of e-HRM. While these theories are incorporated together into one framework, they help to explain different key processes and the key linkage among the components of e-HRM. In this context, this research is an example of extending the application of SHRM research into the field of e-HRM.

6.2.2 Practical implications

For executives, managers and decision-makers

Based on this research, it is critical for organisations to devise, adopt and implement proper e-HRM strategies. In general, executives, managers and decision-makers should be aware of the

importance of having an e-HRM strategy as they are the ones that are most closely involved in defining the strategy for e-HRM. In deciding what strategy to adopt, decision-makers should pay attention to two important points, namely that the key tasks of e-HRM should be properly defined and there should also be an appropriate expectation for the outcome of each task – their e-HRM strategy should visualise the outcomes that e-HRM would like to achieve, either operationally or strategically. While defining e-HRM strategy, it is advised that decision-makers take one step further to reflect on whether such an e-HRM strategy is appropriate and whether the expected outcomes are realisable under the existing framework of the organisation's overall strategy. With an e-HRM strategy in place, it is equally important for decision-makers to focus on the alignment between e-HRM strategy and business and HR strategies. How much support the overall strategy would render and how much contribution e-HRM strategy can make to the overall framework are both topics for decision-makers to ponder.

Because e-HRM is very context specific, both the organisational readiness and the specific contextual situations should be considered when implementing e-HRM. A thorough understanding of organisational readiness and specific contextual situations is more likely to lead to appropriate decisions on strategy to achieve the desired outcomes of e-HRM. Organisational readiness refers to business maturity, technology infrastructure readiness as well as people readiness. The organisation-specific context involves factors from inside the organisation, such as leadership, corporate culture and existing legacy, and from outside the organisation, such as market condition, industry trend, policy and law. These are all factors to consider when deciding organisational strategic moves. The fact that organisational readiness and contexts are specific to each organisation poses a challenge to decision-makers because they need to evaluate all relevant factors and make decisions from an integrated perspective so that the actual e-HRM strategy is devised in a way that is most appropriate for the situation of the organisation itself.

The role of technology is also something for executives, managers and decision-makers to contemplate. It is clear that technology could be a major force leading to significant innovation or disruptive changes in the industry. Technological evolution acts as a mediator that connects

e-HRM with the overall HRM strategy and, consequently, the business strategy. It is also capable of completely redesigning some HRM approaches, such as recruiting, training and performance management. Strategy, activity and actor are always closely connected in e-HRM. It is critical that decision-makers are aware that e-HRM technology impacts e-HRM strategy, activity and actors, be they individual or collective.

'People' is a word that decision-makers should always bear in mind when implementing e-HRM. The success of e-HRM at the strategic level is only possible if the adoption of e-HRM by employees is successful because employees are important stakeholders of e-HRM and they render sources for e-HRM systems to create value. The prerequisite to improve acceptance and the satisfaction level is to understand how well employees are adopting technology in their workplace and how satisfied they are with the fact. According to Erdoğan and Esen (2011), personality may also influence employees' technology acceptance. Decision-makers may also pay attention to people's personalities to perform HXM that caters to people's experience.

For HR management and professionals

For HR managers and professionals, it is important to identify and understand the key stakeholders of e-HRM. Employees as the main consumers of e-HRM should be taken into consideration by HR managers and professionals while making every move in e-HRM. Creation of the employee experience should be consistent among every HRM process.

Although HR managers and professionals do not usually directly participate in the decision-making process, it is still possible that they are sometimes involved. With the facilitation of e-HRM, the possibility of HR getting involved in decision-making has increased. To become a strategic business partner, HR should align e-HRM strategy with HR and business strategies, and reflect this alignment in the definition and design of key e-HRM tasks. For example, if a company is going through a major business model transformation, then the development of the new skills required for employees has to be a priority in the design and implementation of e-HRM systems.

More specifically, if a company wants to compete for talent acquisition, then a modern, strong recruiting system should be part of the e-HRM focus.

Because organisations compete with each other in changing contexts where e-HRM is implemented, HR should also be able to realise the dynamics of the environment in which the organisation resides and implement e-HRM in a way that it can develop dynamic capabilities. e-HRM needs to be adaptive to be able to cope with either anticipated or unexpected changes. This requires HR to pay close attention to both the internal and external contexts of e-HRM and to identify potential opportunities and risks.

As it is a significant concern for decision-making, the role of technology is also an important topic for HR to understand. HR staff members need to make sure they understand what technology can and cannot do so that the benefits of technology can be maximised without unrealistic expectations and to avoid potential issues.

HR practitioners should promote and drive the employees' adoption of e-HRM. Individual consequences (at the micro level) are the prerequisite for many other consequences, such as relational and operational consequences. Therefore, ensuring the realisation of individual consequences is an important HR task.

HR managers and professionals are the ones who are at the frontier of transiting e-HRM into a strategic asset of an organisation. They utilise the e-HRM systems on an almost daily basis and are most familiar with the data generated and information collected as well as the process of e-HRM. Therefore, HR practitioners are more likely to possess the knowledge to acquire or conclude best practices.

For employees

The employee perspective is mostly related to the individual-level experience and satisfaction with the e-HRM system. For individual employees, e-HRM is viewed as part of their working

environment. e-HRM helps them work more effectively and achieve better efficiency. e-HRM facilitates the acquisition of skills needed to realise HR-related tasks at an individual level. Employees are among the most important stakeholders of e-HRM. They create value by using e-HRM and enjoy the value brought e-HRM. Hence, the employees' interests should also be reflected in e-HRM strategy.

In the model of e-HRM and strategic outcomes proposed by this research, the consequences or outcome at the employee level are key and a prerequisite for achieving the strategy outcomes at the organisational level. Individual consequences work together with relational and operational consequences to create transformational consequences, strategic outcomes and a competitive advantage for an organisation. One tip for employees is that it is quite inaccurate to say that employees are not related to organisational strategy (as some might believe). Instead, they are closely related to organisational strategy, and each individual is a link that is indispensable to achieve strategic outcomes.

6.3 Limitations and future research opportunities

Although the researcher hopes this research could bring value to e-HRM research in general, it has some limitations that could inspire interesting future research.

First, the focus of this research has been on how e-HRM creates consequences and outcomes, leaving space for further research into the question of how e-HRM transformational consequences and competitive advantages influence the external context. The leading companies in an industry could be seen as lighthouses; therefore, what they intend to do could become the trend of the industry to which they belong. Meanwhile, this research has mainly discussed the interrelations among the constructs involved in e-HRM and strategic outcomes. The keywords under each construct are mainly mentioned as examples to illustrate the higher-level relation. It is possible that future research could look into the detailed links between specific keywords. For example, dynamic and operational capabilities work together to create e-HRM consequences – but how do different dynamic capabilities influence each other? Is it possible

that dynamic capability can be converted into operational capability or vice versa? These are questions for future research to answer.

Second, there are certain methodological limitations in this research. This thesis represents 'research in action' and tries to 'tackle an important, unresolved business problem to contribute to organization's success' (AMBS, 2022). The researcher has examined a significant business problem in his own organisation, an approach described as 'backyard' research by Glesne and Peshkin (1992). This approach provides excellent data access and deeper insights, but it must be noted that company S develops, sells and uses its own e-HRM systems. It is possible that during the data collection, some interviewees might have responded to the questions as e-HRM producers rather than e-HRM users. Second, some of the interview questions were phrased in a way that might have suggested a kind of relation between e-HRM and strategic outcomes, which might have led interviewees to provide responses that would consolidate such a relation. Third, the interview was conducted in English, which is the working language of company S. However, code switching was allowed during the interview process under the situation the interviews were conducted in five different countries of which English is not the first language. The existence of code switching might have resulted in inaccuracies concerning how the researcher interpreted the responses. Fourth, only one round of interviews was conducted with most interviewees, although some follow-up meetings were scheduled to clarify the data collected from the interviewees based on the same set of interview questions. To ensure the stability of the data and consistent findings over time, the interviews were semi-structured and the same core questions were asked to groups of interviewees over time. However, this approach does not guarantee data consistency for a longer period under a different context. Time permitting, the researcher might consider conducting interviews multiple times to further ensure the consistency and reliability of the data. The qualitative interview data were collected from 30 participants in four countries and different lines of business. The senior managers and executives were able to provide much more information and opinions on the strategic aspects of the e-HRM than the employees who have mainly focused on individual experiences and satisfaction towards e-HRM. The number of participants in the executive and senior manager groups could be

increased to collect more data for analysis. There was also the possibility of observer bias during the data coding and analysis, which involved the subjective opinions of the researcher in interpreting the meaning of the data.

Third, this research represents a single case study conducted under specific contexts. The case was selected with the consideration of being representative of the wider body of similar instances. The research looks for depth of understanding of the e-HRM in a multinational software company. Company S, as an IT solution provider for e-HRM, works with many other companies of various sizes both within and across industries. The experiences and knowledge accumulated from its interaction with other organisations make company S an even more representative case in terms of e-HRM. However, as this research is qualitative, generalisation of the results cannot be expected; therefore, the findings may not be fully applicable in a different context – for example, companies of different sizes in different industries. However, this research has examined different aspects of context, so selecting company S as the case for study is useful given its potential to share learning from the research conclusions with similar workplace settings. Therefore, such a case method helps advance ways of meaningfully studying e-HRM in contextually adaptive ways. However, the replicability of the research findings could also be questioned due to its specific setting and context, and its situated experiences might not be replicable. Meanwhile, although measures have been taken to establish trustworthiness – for example, interviews were conducted in multiple locations, with different roles, and the collected data were triangulated with other sources such as documents – the researcher’s subjective feelings may still have influenced the case study. The researcher is also an employee of company S and thus influenced by the company’s values and culture, which could lead to a challenge to the neutrality of the research. Future research might adopt the same approach but select different cases for study or even adopt a multi-case study method in order to confirm, refine or extend the model developed in this research. In addition, future research could take a quantitative rather than a qualitative approach to generate more insights into e-HRM and its strategic outcomes.

Finally, this research has focused on e-HRM and its strategic outcomes. In particular, it attempted to answer the question of how e-HRM leads to organisational transformational consequences and competitive advantages. The employee experience is discussed as an 'individual consequence' of e-HRM and a strategic concern of the organisation. However, an important question that could be further examined is how the implementation of e-HRM shapes the employee experience within the organisation. As the business environment becomes increasingly complex and uncertain, organisations need to place the employee experience at the centre of the HRM system. Without digging into the employee experience in designing an e-HRM system, it is less likely that organisations will understand why e-HRM achieves its strategic goal or why it fails in practice. Such research could further contribute to the emerging theme of the employee experience in the e-HRM domain.

7 References

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8 APPENDIX

A. Sample Questionnaire

Interview Transcript	
Interview #:	
Site: XXXX Software Office	I = Interviewer
Interviewer: RICHARD CAI	R =
Respondent	
Transcriber: RICHARD CAI	
Typist: RICHARD CAI	
Date: 3 Jan 2019	
Start: 11:00a.m	End: 12:00p.m.
I: As discussed, I will take notes of this interview, hope you are fine with it	
R:	
(Question1)	
I: SAP is one of the major HR software producers in the world. At company S lots of business functions are supported by your HR software solution. Could you please describe the HR system that you have been implementing/using?	
R:	
(Questions2)	
I: What do you think the purposes of the having such a HR system? How do you think the importance of your HR system?	
R:	
(Question3)	
I: From your perspective, what have been achieved by having such a HR system?	
R:	
(Question4)	
I: From your perspective, are you actually benefitting from your HRM system? How?	
R:	
(Question5)	
I: Do you think the HR system is creating any strategic impacts? Could you please provide 1-2 examples?	
R:	
(Question6)	
I: Do you think your HR system help your company to create any competitive advantage or become more competitive? Why?	
R:	

(Question7)

I: How do you think your HR system helps to create any strengths and capability of your employees?

R:

(Question8)

I: Do you think the HR system in your company is unique, and inimitable? Why?

R:

(Question9)

I: Do you think the HR system in your company could be replaced easily? Why?

R:

(Question10)

I: Do you think there is a link between and your HRM system and company business objectives?

R:

(Question11)

I: If your company has any business direction change, would this have any impact on your HR system and how? Do you have 1-2 examples?

R:

(Question12)

I: Who are the most critical stakeholders of your HR system, how they influence your HR system?

R:

(Question 13)

I: Do you think your company business objectives reflected in your HR system design, implementation and adoptions? Why?

R:

(Question 14)

I: Do think external environment have any impact HR system? Why? And what the most important external factors from your perspective?

R:

(Question 15)

I: What are the most critical factors within the company affecting the HR system direction, design, implementation and usage?

R:

(Question 16)

I: What are the most critical factors in order to have successful HR system?

R:

(Question 17)

I: How do you measure the success of your HR system?

R:

Note of the interview sent to the interviewee:

Interview full note

Interview #:

Site: XXXX Office

Interviewer: RICHARD CAI

Date:

Start: 11:00 a.m.

End: 12:00 a.m.

xxxxxx