

# What prevents organisations from achieving e-HRM potential?

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## Abstract

Use of electronic human resource management (e-HRM) offers the prospect of enabling the human resource management (HRM) function to take on a strategic partner's role in organisations. Despite the pervasive expansion of e-HRM use, there is no clear understanding of why organisations are not achieving e-HRM potential. We address this issue by investigating e-HRM adoption factors and their influence on information technology (IT) use potential to automate, informate and transform the HRM function in a sequential manner. In particular, we examine HRM professionals' experiences with e-HRM use, including challenges, successes, and outcomes. We identified e-HRM adoption factors that enable and that constrain each stage of e-HRM use. With a focus on the inhibiting factors, our findings suggest that e-HRM potential hindered already in the automation stage diminishes e-HRM potential to subsequently informate and to transform the e-HRM function.

**Keywords:** human resource management, information systems, e-HRM adoption, e-HRM challenges, strategic e-HRM outcomes.

## 1 Introduction

The human resource management (HRM) function is faced by a dynamic and complex environment (Parry & Battista, 2019), with an expectation that it will evolve from its traditional administrative role to becoming a strategic business partner (Ulrich, 1997). Technology, in the form of electronic HRM (e-HRM), is seen as a critical resource for transforming the HRM function, enhancing its strategic contribution to the business (Strohmeier, 2020; Van der Berg et al., 2020; Bondarouk et al., 2017; Marler & Parry, 2016) and improving organisational performance. While e-HRM adoption is an important and growing trend (Larkin, 2017), a considerable number of e-HRM adoptions have failed (Bondarouk et al., 2017; Martin & Reddington, 2010; Marler, 2009) and the organisations adopting e-HRM are struggling to obtain the desired e-HRM outcomes (Bondarouk et al., 2017).

The results of empirical research concerning e-HRM outcomes are controversial. Some researchers found that positive outcomes are missing. For example, Gardner et al. (2003) and Martin and Reddington (2010) found that e-HRM relieved HRM professionals from their administrative burden, only to replace it with doing IT-support activities. Parry (2011) reported that e-HRM increased the HRM function's involvement in delivering strategy but did not result in any reduction in the headcount of HRM employees. Based on a review of quantitative e-HRM studies, Marler and Fisher (2013) found that there is not sufficient evidence that e-HRM delivers e-HRM outcomes.

This conclusion was echoed in other studies (e.g., Panos & Bellou, 2016; Strohmeier, 2009). More recently, however, Zhou et al. (2022) conducted a meta-analysis of the e-HRM literature and established a positive relationship between e-HRM and its outcomes.

These mixed findings reported in the literature may have multiple causes. First, studies exploring e-HRM outcomes have used different performance measures, as identified by Zhou et al. (2022). Second, focusing on e-HRM outcomes alone may not be enough. Studies may need to capture the specific organisational context and account for differences in e-HRM goals, processes, and technologies amongst organisations (Morris et al., 2009). For example, Poba-Nzaou et al. (2020) developed a taxonomy of organisations based on considerations of business value in their motivation to adopt e-HRM. They identified seven clusters of organisations based on their differences in e-HRM motivation.

The relationship between intended and realised e-HRM goals was further explored by Parry and Tyson (2011) in ten UK organisations. They concluded that e-HRM does not simply lead to desired e-HRM outcomes, and they identified a number of factors influencing their realisation. In another study conducted in Greek organisations, Panos and Bellou (2016) also found that the relationship between intended and realised e-HRM outcomes stops being straightforward as soon as additional factors are introduced. Third, e-HRM studies have considered a range of factors influencing e-HRM adoption, but have not done this systematically. For example, Bondarouk et al. (2017) identified 168 adoption factors being explored in e-HRM studies over four decades. The sheer number of e-HRM adoption factors makes their practical use cumbersome and difficult to include in one study. Fourth, e-HRM outcomes are dependent on how e-HRM is used, and yet, e-HRM use was mainly studied at an individual level in the e-HRM literature.

Zuboff's (1988) renowned model of information technology (IT) use which conceptualises IT use in the three stages of automation, informing and transformation provides a foundational categorisation of IT use. Moreover, the three stages of e-HRM use capture universal IT characteristics and overall e-HRM value potential which organisations expect to achieve from e-HRM adoption (Strohmeier & Kabst, 2009). As such, examining a small number of sequential use categories like Zuboff's automation, informing and transformation may give useful traction to understanding e-HRM research and practice. Yet, there is only one study in the e-HRM literature which used this model. Gardner et al. (2003) empirically demonstrated that each stage of e-HRM use leads to different e-HRM outcomes. This, we believe, is an important contribution to the e-HRM literature, signifying an important avenue for exploring e-HRM outcomes.

However, as this assumption has received little attention in the literature previously, the link between each stage of e-HRM use and specific adoption factors has not been established. In this study we combine Zuboff's three-stage model of IT use (Zuboff, 1988; Burton-Jones, 2014) with Bondarouk et al.'s (2017) TOP (Technology, Organisation, People) framework of e-HRM adoption factors as a theoretical framework. This provides a specific conceptualisation of e-HRM use which, together with e-HRM adoption factors, captures specific organisational contexts and explains differences in e-HRM outcomes and helps identify the HRM adoption factors that enable and that constrain each stage of e-HRM use. We validate our proposed framework and with a focus on the inhibiting factors we set out to answer the following research question:

### *What prevents organisations from achieving e-HRM potential?*

The paper is organised as follows. The theoretical framework used in this study is presented in the next section and it integrates Zuboff's (1988) three-stage model of IT use and Bondarouk et al.'s (2017) TOP framework. This study employed a qualitative research method to enable an in-depth understanding of why and how e-HRM was progressing in the organisations studied (Myers, 2019). Semi-structured interviews were conducted with 17 HRM professionals from Australia and analysed using thematic analysis. The findings are then presented and discussed, followed by a presentation of limitations and future research and some concluding remarks.

## **2 Theoretical framework**

As the theoretical framework for this research we combine the three-stage model of IT use: automation, informing, and transformation, developed by Zuboff (1988) (Burton-Jones, 2014) with Bondarouk et al.'s (2017) TOP framework of e-HRM adoption factors.

### **2.1 The three-stage model of IT use**

Zuboff's model is based on her observations and interviews with employees in eight organisations over a period of five years. The three stages of IT use are inherent in IT characteristics to collect, record, store and manipulate data (Strohmeier & Kabst, 2009). For example, automation of business activities inevitably and unavoidably leads to informing, that is, creation of new information on business activities, processes and users, which then transforms and redesigns the business activities. The three stages in Zuboff's (1988) model need to be developed to be accessed (Gardner et al., 2003). That is, they are developmental, and each stage is a necessary condition for the next one (Zuboff, 1988). For example, informing is a by-product of automation, and both, informing and automation are a prerequisite for transformation.

The first stage of IT use is automation, IT's capacity to replace people and perform the same tasks and activities with "more certainty and control" (Zuboff, 1988, p.9). E-HRM in this stage is used primarily to automate manual, often transactional, and administrative HRM activities and processes such as payroll (Gardner et al., 2003). Automation can lead to operational e-HRM outcomes which include cost and time savings for HRM professionals, reducing both the administrative burden, and the number of HRM professionals (e.g., Parry & Tyson, 2011; Reddick, 2009; Ruël et al., 2004; Ruël et al., 2007; Strohmeier, 2007; Ball, 2001; Hussain et al., 2007; Haines & Lafleur, 2008). Achieving operational outcomes is the main motivation for adopting e-HRM in organisations (Zhou et al., 2022; Poba-Nzaou et al., 2020; Panos & Bellou, 2016; Parry & Tyson, 2011).

The second stage of IT use is 'informing', a term coined by Zuboff to explain IT's capacity to translate work processes, "activities, events and objects...into information... so that they become visible, knowable, and sharable in a new way" (Zuboff, 1988, pp. 9-10). E-HRM generates information about the HRM activities and processes and makes it accessible to HRM professionals for evaluation and improvements. E-HRM can accumulate comprehensive employee data which HRM professionals can easily access and use to address specific HRM issues (Strohmeier & Kabst, 2009), for example, through modelling and projection. Informing leads to relational e-HRM outcomes such as HR service improvements for employees and managers (Ruël et al., 2004), information responsiveness and information autonomy of HRM

professionals (Gardner et al., 2003). Iqbal et al. (2019) found that quality of HR service mediates the relationship between e-HRM practices and employee productivity. Employees may perceive that use of e-HRM leads to more reliable and fair decisions (Menant et al., 2021). However, employees and managers can resist taking the burden of conducting transactional HRM activities (Martin & Reddington, 2010). Talukdar and Ganguly (2022) warn that e-HRM significantly reduces HR socialisation, and consequently, perceived HR effectiveness. Additionally, informing potential is not often recognised during e-HRM adoption (Shrivastava & Shaw, 2003) as organisations become aware of this potential only with time or by chance (Tansley et al., 2014).

The third stage of IT use is transformation, IT's capacity to "reconfigure the nature of work and the social relationships that organize productive activity" (Zuboff, 1988, pp.10-11). E-HRM enables networking and collaboration of HRM professionals, line managers, employees and job applicants which can lead to innovative forms of organising HRM (Strohmeier & Kabst, 2009), as well as change in culture and how HRM professionals use their time (Gardner et al., 2003). The transformation stage is expected to metamorphose the HRM function from an administrative focus to becoming a strategic business partner (Reddick, 2009; Panayotopoulou et al., 2007) by allowing HRM professionals to spend more time on strategic activities (Gardner et al., 2003) and organisational issues such as risk management and innovation (Ruël et al., 2004). This is enabled by access to e-HRM information, and e-HRM's capabilities in advanced reporting and sophisticated analysis (Bondarouk et al., 2017).

It is important to note that Zuboff's (1988) model, though called a stage model as part of her theory, is not a stage model in the classical normative sense. While she proposed three interdependent stages based on IT characteristics, these stages have not been designed or intended for assessing situations in organisations and guiding potential improvements. Stage models describe how IT evolves in organisations, but they do not explain why they evolve the way they do (Debri & Bannister, 2015), while Zuboff's model was developed based on that very reason – IT use progresses based on IT characteristics. As a result, the progression between the stages is not something that can be managed as it can be in a stage model and thus Zuboff's model is not a prescriptive one, rather it is descriptive.

This is an important difference from typical stage models described in the literature that are created to evaluate and prescribe different stages of IT/IS growth, locate where the organisation is at any given moment, and suggest what the next stage should look like. We apply her model as a microscope through which we investigate e-HRM adoption and related challenges experienced by HRM professionals, and then assess whether this can explain the conflicting research findings on e-HRM outcomes. The analysis of the data collected from the interviews we conducted (see the following sections) confirms that this is indeed a useful way to look at e-HRM.

## **2.2 The TOP Framework of E-HRM adoption factors**

E-HRM does not guarantee improvements in the HRM function (Parry & Tyson, 2011). Instead, e-HRM success depends on a range of contextual factors (Bondarouk & Ruël, 2013; Marler & Fisher, 2013; Schalk et al., 2013). In their literature review spanning four decades of research, Bondarouk et al. (2017) identified 168 adoption factors which affect e-HRM adoption and consequences, and noted that the e-HRM adoption literature classifies the identified factors as enablers or as barriers depending on their influence on e-HRM adoption. They further classified these factors into technological, organisational and people (TOP) contexts.

In their study the authors “define e-HRM adoption as the strategy and transfer process between an old (or non-existent) and a targeted e-HRM system, and its acceptance by the users” (Bondarouk et al., 2017, p. 104), a definition which we also apply in this study. We now provide a brief overview of the adoption factors in each of the three TOP contexts.

### **2.2.1 Technological context**

Bondarouk et al. (2017) identified data integrity, system usefulness, system integration, and in-house development versus using external HRIS software, as e-HRM adoption factors in the technological context. Designing the e-HRM system in a way that addresses HRM and organisational need for e-HRM information is important for e-HRM success (Parry & Tyson, 2011). However, this requires strategic e-HRM planning and implementation (Lengnick-Hall & Moritz, 2003; Parry, 2011; Schalk et al., 2013), integration between e-HRM modules (Bondarouk & Ruël, 2013), as well as integration between e-HRM, HRM needs and business processes (Hannon et al., 1996; Ruël & Kaap, 2012) and technological infrastructure (Reddick, 2009). If not present, these factors can result in a view of e-HRM “as a costly distraction that does not add to competitive advantage” (Sheehan, 2009, p.245).

### **2.2.2 Organisational context**

Organisational context consists of organisational characteristics, planning and project management, data access, and capabilities and resources (Bondarouk et al., 2017). In addition, organisational size is an important indicator of the availability of organisational resources (such as IT infrastructure, training and technical support) for promoting e-HRM adoption (Strohmeier & Kabst, 2009; Zhou et al., 2022). If missing, organisational adoption factors can severely limit e-HRM success. The literature has identified e-HRM adoption challenges stemming from organisational context, such as lack of top management support (Schalk et al., 2013), a limited budget for e-HRM adoption (Reddick, 2009), inadequate resources (Bondarouk et al., 2017), culture closed to e-HRM use (Parry & Tyson, 2011; Sheehan & De Cieri, 2012) and to the HRM function taking a business partner’s role (Voermans & Van Veldhoven, 2007; Dery & Wailes, 2005), weak alignment between e-HRM and organisational strategy (Marler, 2009), and poor data access, security and privacy (Bondarouk et al., 2017). Panos and Bellou (2016) found that the type of role pursued by HRM in the organisation determines the type of e-HRM outcomes being achieved. They found that administrative experts tend to achieve operational and relational outcomes, and change strategists achieve transformational outcomes.

### **2.2.3 People context**

According to Bondarouk et al.’s (2017) classification, the people context includes top management support, user acceptance, communication, and collaboration between IT and HRM departments, HR skills and expertise, and leadership and culture. Bondarouk et al. (2017) found this to be the most important context for influencing e-HRM adoption and its consequences. Moreover, Nyathi and Kekwaletswe (2023) found that employee performance mediates the relationship between e-HRM use and organisational performance, thus emphasising the benefits of informing in terms of improved information flows, involvement of employees in decision making and giving them new development opportunities. However, this rests on employees’ perception of e-HRM as useful and easy to use in achieving their goals (Zhou et al., 2022; Nyathi & Kekwaletswe, 2023). If not, the resulting e-HRM information can be untimely and inaccurate (Dery & Wailes, 2005).

The people context can also limit the success of e-HRM adoption. For example, HRM professionals' limited IT skills (Panayotopoulou et al., 2007), their questionable statistical skills (Sheehan & De Cieri, 2012) and low quality of data analysis (Wiblen et al., 2012) can all prevent transformation, that is, use of e-HRM for supporting and initiating strategic decisions (Dery & Wailes, 2005). Users' acceptance was found to be a critical factor for e-HRM adoption (e.g., Menant et al., 2021; Bondarouk & Ruël, 2013; Martin & Reddington, 2010; Panos & Bellou, 2016) as it leads to positive e-HRM outcomes (Marler & Fisher, 2012) and it increases the efficiency of HRM activities and perceived effectiveness of HRM practices (Gardner et al., 2003; Ruël et al., 2007). Similarly, Obeidat (2016) found that e-HRM user intention mediates the relationship between e-HRM determinants (performance expectancy and social influence) and HRM use. If missing, it can cause employee rejection and resistance to e-HRM use (Voermans & Van Veldhoven, 2007), from cynicism and opposition to sabotage (Martin & Reddington, 2010; Reddick, 2009), such as continuing to use traditional offline systems rather than an e-HRM system (Parry & Tyson, 2011). Ultimately, this can reduce the performance and effectiveness of the organisation (Panos & Bellou, 2016). Users' resistance to e-HRM may be related to inadequate change management (Reddick, 2009), ineffective e-HRM implementation processes (Reddington & Hyde, 2008), security/privacy fears (Reddick, 2009; Lau & Hooper, 2009), users' e-HRM knowledge (Zhou et al., 2022) poor training in using e-HRM (Parry & Tyson, 2011; Nyathi & Kekwaletswe, 2023) and perception that they are 'doing HR's job', with a consequence of actual or perceived work overload (Martin & Reddington, 2010). Gardner et al. (2003) found that the adoption of e-HRM simply replaces administrative duties with technological support for employees.

### **2.3 The combined framework to study E-HRM adoption and use**

In this study, we open new territory by exploring these e-HRM adoption factors and their influence on each of the three stages of e-HRM use. That is, we propose that it is not sufficient to know which factors to consider in the e-HRM adoption, but for e-HRM adoption to be successful, the influence of these factors on different stages of e-HRM use needs to be further understood and considered. This will provide further understanding of realised e-HRM outcomes, or of reasons for not realising them.

Thus, in this study we combine and integrate, Zuboff's three-stage model of e-HRM use and Bondarouk et al.'s (2017) TOP framework. This is presented in Figure 1, where Zuboff's stage 1, automation, is characterised by a specific configuration of technology, organisation, and people contexts {TA, OA, PA}. Success at this stage opens the possibility of informing. If informing proceeds for the organisation concerned, it does so based on the experience of automation represented by {TA, OA, PA}, which is carried through to the informing stage, though additional aspects of automation are also likely to develop during this second stage. Then success at the second stage, informing, can lay the foundation for stage three, transformation. Again, the previous experience of automation and informing {TA + TI, OA + OI, PA + PI}, influences the way in which transformation can unfold.

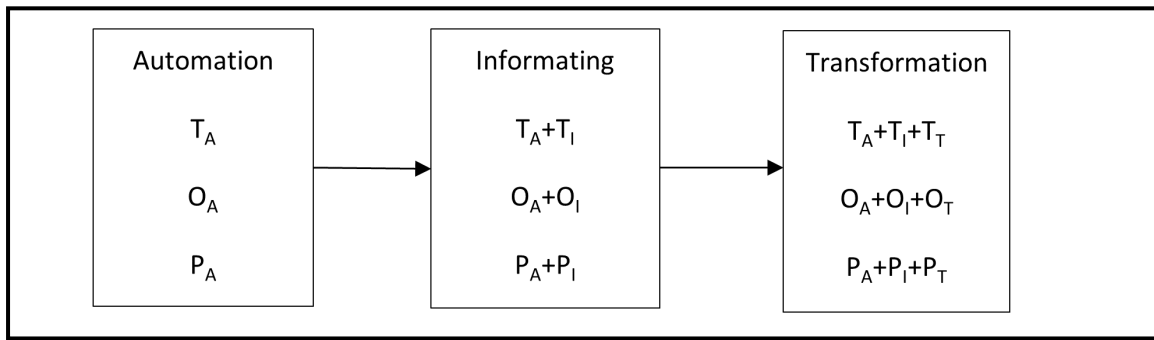


Figure 1. Theoretical framework used in this study

Note. T stands for Technology context, O for Organisation context and P for People context; subscript letters A, I and T stand for Automation, Informing and Transformation.

The developmental nature of the three stages of e-HRM use accentuates the need to identify factors which influence each stage of e-HRM use, especially those that present e-HRM challenges which inhibit e-HRM use. This is a prerequisite for achieving transformation of the HRM function.

### 3 Method

#### 3.1 Data collection

This study used a qualitative research method. Semi-structured interviews were conducted with 17 HRM professionals from Australian organisations in 2017. A semi-structured interview is a data collection method based on a written interview guide that contains pre-determined questions based on the research objectives (Given, 2008). As a result of each interviewee being asked the same general questions, the reliability of the findings increases. Additionally, this interview method also allows flexibility so that the interviewer can seek clarification, ask supplementary questions on the issues brought up by the interviewee, and may change question wording (Rowley, 2012). Interviewees were asked about e-HRM used in their organisation, challenges they had experienced with e-HRM in relation to automation, informing and HRM transformation across different contexts, from technology, to users, the organisation and HRM. The interview guide is provided in the appendix. The interviews lasted approximately 60 minutes each, were digitally audio-recorded with the interviewees' consent, and transcribed.

Interviews were conducted until saturation was reached: "the point at which no new information or themes are observed in the data" (Guest et al., 2006, p.59), resulting in 17 interviews with HRM professionals. While all themes were identified after the 7th interview, there was still some variation in some aspects of identified themes. For example, the 13th interview provided insights into issues pertaining to the IT department driving e-HRM implementation, an aspect of the HRM and IT collaboration theme. Although saturation was reached at this point and no new themes were generated afterwards, additional interviews were conducted to confirm that there were no new themes emerging. For example, Guest et al. (2006) established that 92 per cent of all codes are identified within the first 12 interviews, and Kuzel (1992) advises that 12 to 20 data sources are sufficient to achieve maximum code variation. Other researchers in the e-HRM area have used a similar number of interviews to explore e-HRM adoption. For example, Schalk et al. (2013) conducted seven interviews, and Troshani et al. (2011) 16 interviews. Data saturation in this study ensured the content validity of the findings (Yin, 2003).

### 3.2 Participants

There were four criteria for recruiting HRM professionals for this study: a) participants have been part of the e-HRM implementation team, b) participants must use e-HRM applications in their respective organisations, c) participants must work in an organisation that has used e-HRM for a minimum of one year, and d) e-HRM in the organisation has to be used for more than just basic HRM activities such as payroll. Two main strategies were used in recruiting interviewees. First, emails with information on the research project were sent directly to HRM professionals. Second, the Chamber of Commerce assisted in contacting HRM professionals and promoting participation in the research project. The demographic profile of interviewees is shown in Table 1.

Demographic information	Research participants
<b>Age</b>	
<30	1
31-45	9
46-60	5
>61	1
<i>n/a</i>	1
<b>Gender</b>	
Female	8
Male	9
<b>Education</b>	
High school	1
Diploma	1
Bachelor degree	6
Postgraduate degree	8
<i>n/a</i>	1
<b>Role in the organisation</b>	
HR manager	15
HR business partner	2
<b>Time in the role</b>	
<1 year	2
1-5 years	10
>5 years	4
<i>n/a</i>	1

Table 1. Participants' demographic information

All but one interviewee were employed by a large organisation (actively trading business with 200 or more employees (ABS, 2017)) as indicated in Table 2. Organisations with less than 100 employees that were contacted for the purpose of this research project used none or a few basic e-HRM applications, and as a result they were not eligible to participate in the research project. The functional use of the e-HRM systems in the interviewees' organisation is summarised in Table 3.



Information on organisations	Number of interviewees
<b>Number of employees</b>	
100 - 199	1
200 - 999	4
1,000 - 4,999	7
> 5,000	5
<b>Number of HRM employees</b>	
<10	4
11 - 30	7
>31	5
<i>n/a</i>	1
<b>Industry</b>	
Mining, manufacturing and construction	3
Real estate services, finance and insurance	3
Information, media, telecommunications, tourism and transport	5
Food services and pharmaceuticals	2
Arts and recreation services	1

Table 2. Information on organisations where interviewees worked

Functional e-HRM activities	Number of organisations
Payroll	17
Training and development	17
Recruitment	17
Performance management	13
Compensation and reward management	11
Career/succession planning	4
Time and attendance	4
Health and safety	2
Risk management and compliance	1

Table 3. Functional use of e-HRM systems in organisations

### 3.3 Data analysis

Qualitative data analysis followed the steps of thematic analysis outlined by Braun and Clarke (2006) and was conducted using NVivo (Version 11) software which ensured that data interpretation and conclusions were based on interview transcripts and data extracts (Bazeley, 2007). This enhanced construct validity and reliability of this research (Yin, 2003).

The data were analysed in two stages. Coding was done in the first stage, resulting in the identification of e-HRM adoption factors based on Bondarouk et al.'s (2017) TOP framework and identification of the e-HRM use stages and its outcomes based on Zuboff's (1988) IT use model. After the coding was done, text coded under each theme (or node in NVivo) was carefully checked to make sure that it was part of the same theme and sub-theme. Although the interviewees belonged to different organisations, they had similar e-HRM adoption

experiences which supported the integration of interview findings using the same themes. This also provided a triangulation of data and prevented biased opinions (Miles et al., 1994).

The second part of the analysis focused on providing a deeper understanding of e-HRM use in organisations and identifying which factors influenced which of the three stages of e-HRM use and resulting outcomes. Following this objective, we organised data into three themes, automation, informing and transformation. Next, we identified e-HRM adoption factors relevant at each stage of e-HRM use. Finally, we identified outcomes of each stage of e-HRM use that ensured that our findings provide further insights into each stage. While these outcomes correspond to those reported in the literature, we also identified outcomes which are more closely related to e-HRM information and realisation of e-HRM outcomes. We named these e-HRM challenges.

e-HRM adoption contexts	Three stages of e-HRM use		
	Automation	Informating	Transformation
<b>Technology context</b>	<ul style="list-style-type: none"> <li>• Lack of e-HRM integration (-)</li> <li>• Low e-HRM functionality (-)</li> <li>• Legacy e-HRM systems (-)</li> </ul>	<ul style="list-style-type: none"> <li>• e-HRM difficult to use (-)</li> </ul>	
<b>Organisational context</b>	<ul style="list-style-type: none"> <li>• Budget/Cost of adoption (-)</li> <li>• Lack of strategic e-HRM planning (-)</li> <li>• External recruitment of HRM staff (+)</li> <li>• Declining industry (-)</li> <li>• Organisational size (+)</li> </ul>	<ul style="list-style-type: none"> <li>• Change management (+)</li> <li>• Involvement of stakeholders (+)</li> <li>• Training in e-HRM (+)</li> <li>• Groups of e-HRM users (+)</li> </ul>	
<b>People context</b>	<ul style="list-style-type: none"> <li>• HR and IT collaboration (+)</li> <li>• Top management support (+)</li> <li>• HRM professionals' IT skills (+)</li> <li>• HRM professionals' awareness of e-HRM potential (+)</li> </ul>	<ul style="list-style-type: none"> <li>• Users' low use of e-HRM (-)</li> <li>• Users' resistance (-)</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of HRM professionals' skills in data analytics (-)</li> <li>• Organisational culture (-)</li> <li>• Human connection (+)</li> </ul>
<b>E-HRM outcomes</b>	<ul style="list-style-type: none"> <li>• HRM professionals' headcount</li> <li>• Relief from administrative burden</li> </ul>	<ul style="list-style-type: none"> <li>• HRM service</li> <li>• Delegation of HRM tasks</li> </ul>	<ul style="list-style-type: none"> <li>• HRM professionals' time</li> <li>• HRM role in the organisation</li> <li>• Strategic contribution to the organisation</li> </ul>
<b>Key challenges for achieving e-HRM outcomes</b>	<ul style="list-style-type: none"> <li>• Limited access to e-HRM data</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of e-HRM data accuracy</li> </ul>	<ul style="list-style-type: none"> <li>• Limited use of e-HRM data for strategic purposes</li> </ul>

Table 4. E-HRM adoption factors enabling and inhibiting the three stages of e-HRM use

Note. Signs (-) and (+) indicate the direction of the factor's influence on e-HRM success: (+) symbolises factors that support e-HRM success, and sign (-) symbolises factors that inhibit e-HRM success. Bold text indicates that the factor concerned was discussed by 10 or more interviewees.

## 4 Results

Guided by our research question, three critical e-HRM challenges and the factors that influence each of them positively or negatively were identified. An overview of the results is presented in Table 4 (see above). This is followed by a detailed and focused examination of individual results that highlight, in line with our research question, those factors that inhibit the use of e-HRM.

### 4.1 Automation: what prevents organisations from achieving e-HRM potential?

The automation stage of e-HRM use is influenced by the TOP factors which are presented in Table 4. Our findings indicate that the technology context often has a negative impact on automation. Organisations have *legacy e-HRM systems* that are “archaic and complicated” and are “more a burden than a technological aid that facilitates HR” (interviewee 14). Past e-HRM adoption decisions were made *ad hoc* based on the business needs at the time, or were simply inherited through mergers, without any strategic long-term planning. That is, a *lack of strategic e-HRM planning* in the past may have been the key factor that led to the partial automation that organisations are experiencing in the present. As a result, there is a *lack of e-HRM integration*: “we have 14 different systems” that are used for multiple pieces of information (interviewee 11), systems don't talk to one another (interviewee 13), they are not compatible with one another (interviewee 15). Furthermore, there was not always enough funding for e-HRM (*budget/cost of e-HRM adoption*), leading to limited e-HRM functionality: “So when we put the system in, we chose not to add a lot of the extra capability that it had, because we didn't have the money to spend on it” (interviewee 4). In addition, maintaining e-HRM systems is costly, and this tends to be overlooked when making a purchase decision (interviewee 9).

Interviewees reported that change is taking place and is driven by organisational and people contexts. Factors from these contexts are leading organisations towards e-HRM integration, a main e-HRM goal for organisations participating in this study. This is seen as key for successful automation. Top management backing is paramount in supporting the change as it ensures access to resources needed for e-HRM adoption and integration. However, interviewees are aware that their managers' “buy-in” depends on the e-HRM cost and available budget (interviewee 13), as well as their interest in having “more information at their fingertips” (interviewee 7). Another driver of change has been external recruitment of HRM staff as they bring in their e-HRM expertise and drive e-HRM adoption. The problem is that HRM professionals with e-HRM knowledge and skills may not want to work for an organisation that does not have fully operational e-HRM (interviewee 5).

*Collaboration between HRM and IT departments* is further needed to facilitate strategic e-HRM planning which is based on long-term e-HRM decisions and e-HRM's informing potential. In this regard, interviewees emphasised the need for HRM professionals to drive e-HRM adoption, as IT professionals tend to focus on the technical back-end of e-HRM systems and can often overlook the HRM processes (interviewee 14). Having *IT skills* empowers HRM professionals in leading the implementation process, understanding IT components of e-HRM

and communicating with the IT department. HRM professionals also need to have *awareness of e-HRM potential*, its functionalities, as well as how e-HRM systems influence one another (interviewees 1, 11). Finally, interviewees were aware that *strategic e-HRM planning* is critical as e-HRM decisions made today will affect the HRM function in the future. It is lack of strategic planning in the past that led to the automation issues discussed here. That is, effectively developing automation and informing today will produce transformational benefits in the future.

Interviewees also mentioned *organisational size* as influencing e-HRM adoption. Some interviewees emphasised being part of a large organisation: they had access to “a large amount of resources” (interviewee 5) and those in smaller organisations emphasised less need for e-HRM as they “can actually see trends develop outside of electronic systems” (interviewee 8), and the cost of e-HRM had a major influence on their e-HRM adoption decisions. Our findings also reveal that the declining stage of the industry life cycle (*declining industry*) is an important factor influencing e-HRM adoption. Organisations operating in a declining industry had scarce resources, regardless of the organisational size.

#### Regarding automation outcomes

Two key outcomes of e-HRM automation reported in the literature are HRM professionals' headcount and relief from administrative burden (Lepak & Snell, 1998; Gardner et al., 2003). Less than a quarter of interviewees reported reduced headcount or redeployed HRM professionals. Furthermore, the skillset of HRM professionals was affected by automation of HRM activities. “Employees with only data entry and Excel skills” were made redundant as there was no longer a need to manually enter data or manually manipulate Excel spreadsheets, resulting in a need for “proper HR business partners” (interviewee 14).

In general, e-HRM did not deliver HRM professionals from their administrative burden. More than half of interviewees had to engage in manual work to transfer data from one system to another: “reconciling between systems and data and interfaces that fall over” (interviewee 11) and collating data from different e-HRM systems into spreadsheets.

Zuboff's (1988) IT use model stipulates that automation gives rise to informing. Only when technology is used to run activities and processes can it independently create, collect, and store new data regarding these activities and processes. However, organisations in this study did not use e-HRM for all their HRM activities and processes (see Table 3). As discussed above, technology context further limited the automation stage. This resulted in *limited access to e-HRM data*, which limited interviewees' information responsiveness (Gardener et al., 2003), ability “to make really good decisions” (interviewee 12) and “forward planning and modelling” (interviewee 14). *Limited access to e-HRM data*, means that HRM professionals have access to “bits and pieces of information” (interviewee 12) from each system, instead of information generated from all systems which would provide a comprehensive understanding of HRM issues and trends in the organisation. This restricts the HRM function to an administrative role, unable to respond and take action as a result, and instead, spending time on pulling “all of that information together into a coherent and relevant report” (interviewee 12). An example provided by interviewee 14 paints the picture:

*“the CEO, if he just wanted to run a report and find out something about his workforce, he would then have to call the HR Advisor who would then have to probably pull data out of various HR*

*systems and then manually crunch the numbers and check the validity of some of the data and then put it in a format that he wanted, and give it to him”.*

#### **4.2 Informating: what prevents organisations from achieving e-HRM potential?**

Table 4 also presents the factors from the TOP framework that influence the informing stage of e-HRM use. *E-HRM not being easy to use* is a factor from the technology context that is particularly relevant for the informing stage. Interviewees in this study noted that e-HRM was being clunky (interviewees 17), cumbersome (interviewee 13), complex and convoluted (interviewee 14), and slow (interviewee 8). Using e-HRM does not give “them [users] any kind of advantage” (interviewee 13). Lack of integration further made e-HRM difficult to use, as employees “must get pretty sick of having to go through different systems with different looks and feels” (interviewee 10) and “trying to remember how to use that system versus another” (interviewee 11).

Many studies found that e-HRM systems were difficult to use and hence, users did not accept e-HRM and resisted its use (Parry & Tyson, 2011; Martin & Reddington, 2010; Reddington & Hyde, 2008), thus limiting its informing potential. *Employees’ resistance* to e-HRM arises from “people got used to the old system” (interviewee 3) or “they see it as an additional burden” (interviewee 1). Another aspect of resistance is that “people are always sceptical of HR’s motivation for rolling out new initiatives...what is HR wanting to know about us now? Is this going to be just an easier way to discipline me...?” (interviewee 4). They can also be wary if they do not see benefits from using e-HRM, if it “replaces an already existing process that is working okay” or if rollout “isn’t executed well” (interviewee 15). Another important explanation for users resisting e-HRM is *the type of workforce* and the nature of the organisation. For example, a vast majority of employees in some organisations have manual jobs that require them to spend their work time in production plant rather than at a desk, so they rarely use computers and e-HRM. Interviewee 6 summarised this point adequately: “It ain’t their focus, it’s not their priority, so it’s really difficult to try and push that all the time”.

Interviewees reported that users differ a lot in how often they use e-HRM, and that they use e-HRM mainly for operational tasks (e.g., personal information, leave, training and overtime applications, performance reviews), but they do this well. Another problem that interviewees noted here is that managers are not aware of e-HRM functionality “that could help them make better decisions” (interviewee 12). Some interviewees saw this as HRM’s fault with e-HRM adoption, “we definitely neglect that end-user” (interviewee 17). Interviewee 9 emphasised that e-HRM needs to “become enabling tools, to help achieve what you want to achieve functionally” in order for users to use them at the informing stage.

Interviewees explained that well-designed *change management* was the main factor in improving users’ acceptance of e-HRM. More specifically, they emphasised the HRM function’s role as an enabler (interviewee 5) and providing support for users in terms of training and having an HRM employee whom users can call for support (interviewee 13). There are *different groups of users*, some need substantial support in using and learning to use e-HRM, and there are groups that are ‘tech-savvy’ and are accepting of e-HRM (interviewee 15). Another aspect of change management is *engagement with the stakeholders*, particularly, the leadership group, explaining how e-HRM will benefit them and managing stakeholders’ expectations.

Regarding informing outcomes, interviewees stated that *HRM service*, a key aspect of relational e-HRM outcomes in their organisations, was limited, as managers and employees did not have access to relevant employee data. This can make them question the value of HRM service and affects HRM reputation (interviewee 9). Interviewee 11 explained that “the view on data potentially from a business perspective is that it doesn’t add a lot of value”. A related e-HRM outcome is that managers rely on the HRM function to provide the missing employee data, that is, “do all of these transactional tasks, producing reports” (interviewee 14). However, this takes time as noted earlier in the discussion on e-HRM automation potential and restricts the ability of HRM professionals to take on a business partner role during transformation (see following section).

Zuboff’s (1988) perspective suggests that realisation of informing potential leads to HRM professionals having access to employee data that can be used to contribute to a deeper understanding of the organisation and have information autonomy and information responsiveness (Gardner et al., 2003). However, interviewees in this study reported *lack of accurate e-HRM data* explained as not having “accurate information or any information entered into it [the e-HRM system]” (interviewee 4). This is a significant hurdle for HRM professionals as employee data “is really fundamental [...] you just cannot do it [any analysis] without good data” (interviewee 17). Finally, “if the system [...] has incorrect data, it can cause all sorts of trouble” (interviewee 9) in terms of relationship with employees, HRM efficiency and its reputation. In terms of Zuboff’s perspective, informing is failing.

#### **4.3 Transformation: what prevents organisations from achieving e-HRM potential?**

In the transformation stage, e-HRM is supposed to enable HRM to take on a strategic role in the organisation. However, there are TOP factors discussed earlier as part of automation and informing that also diminish the transformation stage. A few additional factors, such as organisational culture, inhibit transformation, as listed in Table 4. An aspect of organisational culture that inhibits e-HRM transformation is a belief that HRM is just an administrative function. Interviewees explained that managers often expect HRM professionals to do the transactional HRM activities for them, even when the e-HRM system already contains this information (interviewee 10). Our findings indicate that organisational culture holds a limiting perception of HRM function’s role and value and creates users’ dependence on HRM. A profound explanation was provided by interviewee 12:

*“Implementing a system is easy. Changing people’s ways of working and dependence on HR and their belief in what HR should do and seeing them as strategic partners and all of these things, they’re cultural shifts, and cultural shifts don’t happen in a year”.*

More specifically, organisational culture restricts the delegation of transactional HRM activities to line managers and employees. The essence of this problem is in different beliefs between managers and HRM professionals: “the manager would feel that they were doing the HR work, whereas HR would say that they’re just doing the manager’s work that HR have had to do because we didn’t have an effective system in place” (interviewee 3). Nevertheless, use of e-HRM does support and enables the shift where managers do take over HRM activities related to their role. Interviewee 5 explained that “e-HRM makes them more responsible”.

Another factor that inhibits transformation of the HRM function is *HRM professionals’ data analytics skills*. This was identified as being “a fundamental skill” (interviewee 17): “It’s one of

the things that we constantly see on the development plans of HR people” (interviewee 16) as this skill is needed to support and initiate strategic decisions. Some interviewees had at least one person on their team with data analytics skills, while some did not. Interestingly, HRM professionals did not get training in data analytics during e-HRM adoption, so they relied on recruiting people with this skill or learning it on their own through using e-HRM. As a result of limited data analytics skills, e-HRM systems are less often used for data analysis, restricting the HRM function’s ability to provide the strategic value to the organisation.

Human connection is another aspect of the HRM transformation. Interviewees agreed that e-HRM can do transactional HRM and make the HRM function more efficient, but “people don’t want to work for a robot” (interviewee 17). HRM professionals changed their focus from administrative tasks to maintaining the human connection, connecting and having conversations with stakeholders. Interviewee 9 explained, “as soon as you take the human connection bit out of it, you lose touch, and you lose relevance”. HRM value seems to be partly in e-HRM efficiencies and data, and partly in HRM’s ability to connect, coach, and continue having conversations with people.

Regarding transformation outcomes the most important transformational e-HRM outcome is enabling HRM to become a strategic business partner, by freeing HRM professionals to engage in strategic activities (Gardner et al., 2003). As discussed earlier, interviewees used much of their time on manual data entry and collating data into Excel spreadsheets, as well as supporting employees and line managers in their HRM activities. As a result, they did not have time for strategic aspects of their job as: “I’m spending all my time based on admin tasks [...] because our systems aren’t up to date” (interviewee 3), and interviewee 10 aptly explained: “[we are] doing things very inefficiently but because they are so inefficient we haven’t got much time to go and re-invent a machine gun while we’re trying to fight the war with a bow and arrow”.

The HRM function was still an *administrative function*, and “not adding as much value to the business” (interviewee 3). E-HRM’s potential to enable HRM to become more strategic was inhibited as pointed out by interviewee 14:

*“It affects the perception of the business, of your value and the service that you provide because you are stuck into that transactional and basic functions. It ... affects the actual skills and the type of people that work in the HR team, HRM Director’s influence (s)he can have over the executive team because there’s only so much that you can do.”*

In contrast, almost half of the interviewees reported having more time to engage in strategic activities, and 41 per cent of interviewees reported HRM having a *strategic contribution to the organisation*. E-HRM use ensured they had a seat at the table [with] the senior management team” (interviewee 13), their role changed from transactional HRM activities to having conversations with key stakeholders (interviewee 5), and using e-HRM data in strategic decisions (interviewee 1).

Zuboff (1988) explained that transformation is a stage of IT use that results from automation and informing. When automation is partial, informing is limited, and consequently, transformation is deficient. The majority of interviewees *noted limited actual use of e-HRM data for strategic purposes* as a challenge. Instead, it was used for only basic reporting, “day to day operational” (interviewee 14), “collating data and being quite reactive” (interviewee 3).

## 5 Discussion

The HRM function increasingly relies on e-HRM when taking a strategic partner's role in the organisation. Yet, research offers mixed findings on whether e-HRM's potential is realised (Marler & Fisher, 2011; Zhou et al., 2022). In our study we in particular set out to answer the question "what prevents organisations from achieving e-HRM potential?".

As a first contribution we combine Zuboff's (1988) three-stage model of IT use with Bondarouk et al.'s (2017) TOP framework of e-HRM adoption factors as an avenue of exploring a widely held expectation that e-HRM, once adopted, will lead to a range of organisational benefits and offer an answer to our question. Employing Zuboff's model of IT use as part of our framework provided a systemic understanding of e-HRM adoption as a progressive and developing phenomenon. The stages of e-HRM use are inherent in technology and are developmental (Zuboff, 1988; Gardner et al., 2003; Strohmeier & Kabst, 2009). With this approach to understanding e-HRM use, we reconsidered e-HRM adoption factors from technology, organisation and people contexts from the TOP framework influencing realisation of e-HRM outcomes. That is, identified factors in this study either support or constrain realisation of e-HRM potential, specific to each stage of e-HRM use. This provided insights into what prevents organisations from achieving e-HRM potential.

The findings of our study show that e-HRM outcomes do not happen as a direct consequence of e-HRM adoption and implementation. Organisations experience challenges with automating HRM activities and processes. They also experience challenges with using e-HRM information that becomes available through the informing stage. We demonstrate that when one of the e-HRM stages is only partially developed, other stages cannot be completed, resulting in a limited realisation of e-HRM potential. Our findings give support to Zuboff's (1988) and Gardner et al.'s (2003) proposition that e-HRM success is a result of all three stages of e-HRM use. This has practical implications for understanding why organisations are struggling to achieve strategic e-HRM outcomes (Marler, 2009, Marler & Fisher, 2013; Parry & Tyson, 2011; Bondarouk & Ruël, 2013; Martin & Reddington, 2010). Organisations that are in the automation or informing stages of e-HRM use have not yet reached their strategic e-HRM potential, and hence, cannot report strategic e-HRM outcomes, but emphasise operational e-HRM outcomes. However, this does not mean that strategic outcomes will not be forthcoming. That is, realisation of the e-HRM potential to automate, informate and transform is a process that requires time and support. This finding offers an insight into the inconsistent findings in the literature related to strategic e-HRM outcomes.

Our findings also have implications for the TOP framework. While this framework is valuable for practical reasons as it groups 168 e-HRM adoption factors into three categories (Bondarouk et al., 2017), it is not clear when the identified factors become influential in the e-HRM adoption process or when they act as enablers or barriers to e-HRM adoption. Exploring these questions was not the objective of Bondarouk et al.'s (2017) work, but doing so is an important avenue for expanding the TOP framework and making it more practical for researchers and practitioners to use. In our research we distinguish between TOP factors that are influential at the three stages of e-HRM use, and that act as enablers and inhibitors of e-HRM potential. When used along with Zuboff's three stages of IT use model, the TOP framework became more useful in explaining e-HRM adoption more specifically and in more detail. That is, the TOP framework allows a better understanding and exploration of each stage of Zuboff's model. In addition, we found that a factor we named *declining industry* can outweigh organisational size



as an indicator of organisational resources. For example, organisations in declining industries had limited resources for e-HRM adoption, regardless of their size, and could not afford investing in e-HRM and resolving e-HRM integration issues. Hence, we suggest to include external environment as a fourth category into the TOP framework, and to further explore whether there are additional factors from the external environment that affect e-HRM adoption success.

Combining Zuboff's theoretical model of IT use and the TOPs framework of e-HRM adoption factors provides practical value to practitioners in terms of a more comprehensive understanding of e-HRM adoption and challenges with realising e-HRM potential. Practitioners could use Zuboff's model to investigate, understand and prepare the organisational context to support e-HRM adoption as a holistic and developing process. Furthermore, practitioners can use the findings in this study to identify factors that they need to support or tackle in order to realise specific e-HRM objectives. The potential for e-HRM to produce positive outcomes requires business leaders to understand the three stages of e-HRM use and factors relevant for each stage. It is an imperative to identify potential constraints to e-HRM adoption success. Practitioners can also consider inhibitors and enablers identified in this study during their planning and managing of e-HRM adoption to enhance its probability of success.

Next, identification of the three key e-HRM challenges – accessibility, accuracy, and limited actual use of e-HRM data – is another important contribution of this study. When present, they indicate a fully functioning e-HRM system that can provide benefits to the organisation. But when they are lacking, they indicate a need for investigating factors which inhibit realisation of e-HRM potential in a particular stage of e-HRM use and creating strategies to rectify these. This offers another use of our findings for practitioners.

Our findings support Gardner et al.'s (2003) notion that e-HRM outcomes are different, based on the stage of e-HRM use. Moreover, they are a result of e-HRM's success in each stage of e-HRM use. Similarly to Martin and Reddington (2010), we also found that e-HRM required HRM professionals to provide IT support to employees and managers in the organisations. In addition to this, we found HRM professionals had to manually enter data into e-HRM systems and consolidate e-HRM information from different systems. Some interviewees also reported having to provide e-HRM information and reports to users as they themselves could not access it from the e-HRM system. This created an additional hurdle for realisation of strategic e-HRM outcomes as interviewees did not have time for data analysis and strategic contributions. However, use of e-HRM created a change in the skills HRM professionals needed, from data entry skills to data analytics. As a result, HRM professionals with only data entry skills were replaced by a functional e-HRM system resulting in some reduction in the headcount of HRM employees.

## **6 Limitations and future research**

Despite its contributions, this study has several limitations which call for further research. We acknowledge that there are several aspects of organisational context that could not be considered in our study and that may influence e-HRM adoption. For example, there is probably no single best approach to e-HRM adoption because each organisation is unique in terms of its organisational context and e-HRM systems, and this could lead to a very different e-HRM adoption process in each organisation. For example, organisational general experience

with the IT adoption may affect e-HRM adoption. There may be a difference between people and organisational units in terms of readiness to adopt and use e-HRM. E-HRM adoption may be significantly different from other IT systems in the organisation and these differences could be further explored. There may be a difference between organisations based on whether the e-HRM adoption starts with involving the whole organisation or only the HR function and later introducing it to other parts of the organisation.

Further research is needed into the role of the e-HRM system itself as a facilitator or barrier to adoption, and characteristics that make e-HRM systems easier or more challenging to accept by people. Organisations in our research adopted different e-HRM systems. We found that although different, existing e-HRM systems in organisations are problematic to use due to their interface and functionality. Consequently, interviewees explained that an important requirement for a new e-HRM system is user friendliness. The lesson from these examples is that organisations need to approach e-HRM adoption in accordance with all of their contextual factors. Further investigation of the organisational context is warranted, as e-HRM adoption could be conditioned by contextual and organisational aspects.

Our focus in this study was on e-HRM adoption and reaching later stages in Zuboff's (1988) model which could potentially significantly improve the impact of e-HRM on HRM and organisational performance. Thus, our findings do not distinguish between different e-HRM applications identified in Table 3, nor do our findings link specific e-HRM applications with barriers and enablers identified in Table 4. This is another opportunity for future research.

Next, our data, due to its qualitative nature, does not rank the identified e-HRM factors in order of importance. Instead, we used the frequency of themes mentioned by interviewees to distinguish key factors in Table 4. Future studies could address this limitation by asking HRM professionals to rank adoption factors in a survey. This would be valuable for practitioners and researchers and could further contribute to development and practical usability of the TOP framework.

This study focused on HRM professionals employed in Australian organisations. Thus, the findings reflect an Australian context, which may not be applicable to other countries. This reduces the generalisability of the findings. More research is needed to identify the influences of e-HRM adoption factors across the three stages of e-HRM use in different countries, to test whether the findings in this study are applicable to other contexts, and to identify whether there are other e-HRM challenges that are more relevant in these other contexts. Another area for further research is the confirmation of three key challenges, namely, access to e-HRM data, e-HRM data accuracy and use of e-HRM data for strategic purposes, as indicators of e-HRM success.

The findings reported in this article call for further research on the role of three-stages of e-HRM use in explaining e-HRM adoption and realisation of e-HRM potential. It would be useful to focus on and compare organisations at different stages of the e-HRM development process from automation to transformation. Those organisations with fully developed automation and informing e-HRM may have important lessons to teach us about the process. Also, as the interviewees who participated in this research did not complete the transformation stage, they were not able to report on the factors needed to support this entire process. This can be explored in future research. In addition, there are other participants in the organisation, such as line managers and employees, whose views on e-HRM challenges need to be further

explored. This could provide additional understanding of e-HRM success, challenges, and outcomes.

## 7 Concluding remarks

In this study we combine Zuboff's (1988) three-stage model of IT use with Bondarouk et al.'s (2017) TOP framework of e-HRM adoption factors and identify critical e-HRM challenges and practical means of overcoming them. Our findings can be of use to HRM practitioners who are in the process of e-HRM implementation or who are experiencing issues with achieving e-HRM outcomes. This study also contributes to the literature by exploring e-HRM adoption factors, in particular inhibiting factors, influencing realisation of e-HRM outcomes in each of the three stages of e-HRM use. Hence, while this study extends a theoretical discussion in the e-HRM literature and shows avenues for future research, its findings can empower HR managers to proactively respond to e-HRM challenges and achieve e-HRM potential.

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## Appendix

### The Interview guide

#### Introduction

To start off, could you please tell me about your role in your organisation? How long have you been in this role?

How many employees does your organisation have? How many HR employees are there in the HR department?

#### e-HRM background

What type of e-HRM systems are used in your organisation? Are they compatible with one another? How does use of multiple e-HRM systems affect their overall use and benefits?

Next I'm going to read you a list of e-HRM activities. Could you please indicate which of these practices are completed in your business via e-HRM?

- recruitment, training and development, performance management, talent management, career/succession planning, benefits, payroll, time and attendance, work scheduling and health and safety

When did the organisation start implementing e-HRM? What outcomes did your organisation seek to achieve from e-HRM implementation (e.g., automation of HR processes, quality or responsiveness of HR services, a more strategic HR function)?

Are these outcomes achieved and to what extent? Were there any additional outcomes of e-HRM?

Are there plans for implementation of new e-HRM systems? If yes, what are the planned outcomes for these?

Could you please comment on the role of the HR department in the e-HRM implementation process? Probe: What can enable the HR department to be a driver in e-HRM implementation?

#### e-HRM value

Which three HRM activities do you think create most value for the organisation?

Is e-HRM used in these three HRM activities? What effect does e-HRM use have on these three 'most valuable' HRM activities?

Which e-HRM activities create most value for the organisation?

Could you please discuss which e-HRM capabilities are developed in the organisation? Are there plans for developing any other e-HRM capabilities in the near future? What is expected to be gained from developing these?

Which skills of the HR team are important in developing e-HRM value in your organisation?

How does organisational culture influence e-HRM use?

### **e-HRM use in the organisation**

Could you please describe how e-HRM is used in your organisation, and to what extent? *Probe: Why is e-HRM not used fully in the organization?*

\*How is e-HRM information used by HR managers? What is the impact of HR employees' ability to analyse and understand data? To what extent is e-HRM information used for:

- a) Operational reporting of efficiency and compliance measures (focus on data accuracy, consistency, and timeliness)?
- b) Advanced operational reporting, benchmarking and decision-making, dashboards and multidimensional analysis?
- c) Proactively solving business problems? (E.g., statistical models, root-cause analysis)
- d) Developing predictive models, scenario planning, risk analysis or integration with strategic planning?

How does such use of e-HRM information affect strategic HRM decisions? Could you please provide an example?

What are the challenges with using the current e-HRM system for the HR department in your organisation?

Who else uses e-HRM and its information? How do line managers/employees use e-HRM information? How does access to this information affect them?

What are the challenges with using the current e-HRM system for the line managers in your organisation?

In your opinion, what is the value of the current e-HRM for your organisation?

What inhibits current e-HRM value in your organisation?  
(technology/organisation/people factors)

When you reflect on the e-HRM use, which factors do you think are essential for creating e-HRM value in your organisation? (technology/organisation/people factors)

### **Impact of e-HRM**

Having HR activities delivered via e-HRM, how does this impact on the HR department in your organisation? Could you please provide an example?

- a) Were there any changes in the HR function's (overall performance) results based on using e-HRM?
- b) How does e-HRM use affect costs and efficiencies of the HR function in your organisation? Does e-HRM affect any other *operational outcomes* (e.g., automation of HR tasks, time savings benefits, cost reductions, faster diagnosis of HR problems, less HR personnel, online report activities)?
- c) How did the use of e-HRM affect HR department's ability to serve its internal clients?



d) How does e-HRM use affect HR's strategic role in your organisation?

Does e-HRM use influence the organisation's performance? How?

What are your thoughts on how e-HRM will affect the HR department in your organisation in the future?

### **Demographics**

Could you please tell me your age, and qualifications.

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