

Electronic Human Resource Management and Employee Efficiency: Test of the Mediating Role of Impersonal Trust

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Abstract

This study investigates the relationships between electronic human resource management (e-HRM) and employee efficiency in private companies, with impersonal trust being the intervening variable. A conceptual model was developed and tested using data collected from 167 HR professionals for the study. Data set was examined, and hypotheses were tested by employing Partial Least Squares-Structural Equation Modelling (PLS-SEM) analysis. The result reveal that all hypothesis supported, as well as impersonal trust mediates (partially) the relationship between e-HRM and employee efficiency. The results show that technology-enabled HRM supports organisations by enhancing organisational trust and efficiency outcomes. The key predictors for improving employee efficiency are organisational trust and e-HRM. e-HRM, in the HRM department has a positive impact on employees' trust. The outcomes show the valuable insights for HR professionals allowing them to enhance employee efficiency by applying e-HRM to upgrade employees' trust in the company.

Keywords: Employee efficiency, impersonal trust, electronic human resource management.

1. Introduction

Apart from focusing on conventional strategies, such as improving the quality of services, product development and organisational routines, firms are seeking to enhance their competitive advantages by creating value for their internal customers or employees (Cho and Park, 2011). However, a lack of trust between employees and their employers is likely to result in lower efficiency that will reduce the firm's performance (Searle et al., 2011). Therefore, organisations face an increasing need to focus on value-creating practices to foster trust to improve employee efficiency. One approach is – through the use of electronic human resource management (e-HRM) (Marler and Fisher, 2013; Shahreki and Nakanishi, 2016), to enhance impersonal trust in organisations, which states to trust in impersonal organisational factors such as management group's goals and capability, fair processes and structures, justice, technological and commercial competence, and HRM policies' (Shahreki and Nakanishi, 2016; Vanhala and Ritala, 2016). More broadly, firms are adopting a variety of workplace practices to improve employee performance by developing an environment of trust (Searle et al., 2011). Various studies have acknowledged that organisational trust is a key factor that influences a range of organisational outcomes, including efficiency (Ellonen et al., 2008; Martins and Van der Berg, 2013; McEvily and Tortoriello, 2011). Research indicates that e-HRM is an

important tool to enhance interactions between different groups of employees (Bondarouk et al., 2009; Parry, 2011; Ruel et al., 2007; Shahreki and Nakanishi, 2016; Strohmeier, 2007). Drawing on various conceptualisations of e-HRM that we detail below, we define e-HRM as the integration of various HRM and IT processes to improve workplace conditions to add value to the organisation; it is characterised by a shift away from traditional HRM which is labour-intensive, towards a more technology-intensive, standardised, and efficient approach to HRM (Shahreki and Nakanishi, 2016; Voermans and van Veldhoven, 2007; Yusliza et al., 2011). e-HRM may, therefore, affect organisational trust because it affects employees and managers (Bissola and Imperatori, 2014), and can help to improve the relationship between employees and the HRM department (Bissola and Imperatori, 2014; Parry and Tyson, 2011; Shahreki and Nakanishi, 2016). The HRM literature suggests that impersonal trust has a positive effect on efficiency and organisational performance (Shapiro, 1987; Vanhala and Ahteela, 2011; Vanhala and Ritala, 2016). Although firms are increasingly using e-HRM, no studies have examined how e-HRM impacts employee efficiency both directly and through its effect on organisational trust. e-HRM is not just the digitalisation of the HRM system. Studies that draw on social exchange theory argue that HRM practices influence employee attitudes; in particular, employees' trust in the organisation is likely to be positively associated with their perceptions

of the fairness of the HRM system. Therefore, trust is an important value-creating factor in the potential causal relationship between e-HRM and organisational outcomes, suggesting a mediating effect of organisational trust between e-HRM and employee efficiency. However, there is a lack of empirical evidence whether e-HRM does actually influence impersonal trust. Therefore, this study contributes by examining the role, if any, of e-HRM in enhancing impersonal trust. Some recent e-HRM studies have stressed the importance of intervening variables to link e-HRM to various organisational outcomes (Bondarouk et al., 2009; Marler and Fisher, 2013; Parry, 2011; Parry and Tyson, 2011; Ruel et al., 2007; Shahreki and Nakanishi, 2016), including a potential mediating role for e-HRM (Vanhala and Ahteela, 2011). We build on this work to assess any mediating role that impersonal trust may play between e-HRM and employee efficiency. This paper, therefore, examines how e-HRM and impersonal trust influence strategic outcomes and tries to un-lock the black box of HRM by identifying a theoretically and empirically compelling path through which e-HRM delivers value to the organisation via the mediator of impersonal trust.

2. Literature Review

2.1 Electronic human resource management

HRM departments continue to move towards technology - enabled HRM systems to add value to their organisations (Boselie et al., 2005; Browning et al., 2009; Dery et al., 2009; Shahreki and Nakanishi, 2016). Various attempts have been made to define e-HRM. Parry (2011) defined e-HRM as a way of implementing HRM strategies, policies, and practices in organizations through the conscious and direct support with the full use of channels based on web technologies. e-HRM has been used to refer to how, using technology, organisations implement HRM strategies, policies and practices to help them achieve their objectives (Shahreki and Nakanishi, 2016; Strohmeier, 2007). Marler and Fisher (2013) defined e-HRM as an integrative mechanism between HRM and IT that aims to create value within and across organisations for targeted employees and management. We draw on these to define e-HRM as the integration of various HRM policies and practices with IT processes to improve workplace conditions to add value for the organisation.

2.2 e-HRM and traditional HRM

Ruel et al. (2007) argued that e-HRM improves traditional HRM processes. HR service quality improved by e-HRM (Shahreki and Nakanishi, 2016; Strohmeier, 2007). e-HRM marks a shift from traditional labour - intensive practices to technology-supported ones in which employees, using HRM software rather than HRM staff, perform a majority of operational HR activities (Ruel et al., 2007). It represents a potential shift towards a more strategic, unambiguous and integrated approach to HRM (Marler and Fisher, 2013; Shahreki and Nakanishi, 2016).

In the traditional HRM approach, HR department employees largely deliver and manage most HR services, while e-HRM enables the organisation to deliver HR services through information technology, enabling firms to involve line managers in HR activities to a greater extent and freeing HR professionals from administrative overload to focus on strategic activities (Parry, 2011; Shahreki and Nakanishi, 2016; Strohmeier, 2007). The primary changes brought by e-HRM may have significant implications that go far beyond operational efficiencies and extend to relational and transformational outcomes (Ruel et al., 2007), for example, supporting internal customers' personal and working lives and by enhancing procedural justice (Strohmeier, 2009).

3. Hypotheses Development

HRM can play a vital role in improving firm performance (Paauwe, 2004; Shahreki and Nakanishi, 2016). Moreover, e-HRM offers various value-creating opportunities to improve efficiency (Parry, 2011; Ruel et al., 2007). Reputation and a trust-based employment relationship are imperative for an organisation to compete in developing economies (Ellonen et al., 2008; Searle et al., 2011). The conceptual model of this study is presented in Fig. 1.

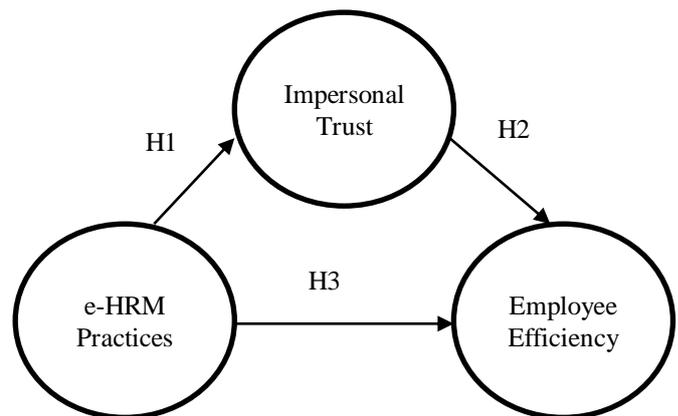


Fig. 1. Conceptual model

3.1 e-HRM and impersonal trust

One aim of e-HRM is to manage and strengthen workplace relationships by empowering employees (Bondarouk et al., 2009). Many firms are continuously investing in HRM systems to develop a positive employment relationship by reinforcing trust in organisational routines, rules, procedures and systems (Bissola and Imperatori, 2014; Marler and Fisher, 2013). Trust is considered as a potential source of sustainable competitive advantage due to rapid changes in the workplace environment (Cho and Park, 2011). Based on adaptive structuration theory (AST), social factors and technological characteristics interact to affect group outcomes. AST has been suggested as a viable theoretical

approach for probing the impact of information technology on organisational change (Orlikowski, 2000). AST argues that technology should be viewed as part of social processes. Technology and institutions provide social structures to engage employees in social interaction that both enable and constrain human action within the firm (Stone et al., 2015). The AST theory focuses on social and relational factors through the use of technology (Taylor and Todd, 1995); therefore, it is a key theoretical framework for examining the relationship between e-HRM and trust. By employing AST theory, Fulmer and Gelfand (2012) recognise that the development and maintenance of trust are factors that can help to explain organisational success. Previous research has established a statistically significant relationship between e-HRM and employees' clarity over HRM process (Bissola and Imperatori, 2014; Shahreki and Nakanishi, 2016). One reason for this is that technology-based e-HRM can make HR policies and their use more transparent, unambiguous and relevant to employees and can enhance or reinforce the role of traditional paper-based HRM (Paauwe, 2004; Shahreki and Nakanishi, 2016; Tansley et al., 2001). Such findings suggest that e-HRM will enhance employees' impersonal trust in the organisation. Indeed, the perception of the clarity and openness of the HRM system, including key elements, such as performance and the appraisal system, directly influences impersonal trust because employees perceive that the firm has an accurate, reliable and transparent performance recognition system in place (Parry and Tyson, 2011; Shahreki and Nakanishi, 2016; Vanhala and Ahteela, 2011). By boosting the fair treatment of employees, e-HRM can lead to trust in organizational processes that, in turn, can enhance impersonal trust and improve organisational outcomes (Bondarouk et al., 2009; Marler and Fisher, 2013; Parry, 2011; Shahreki and Nakanishi, 2016). The increased use of technology, in general, enables employees to trust organisational procedures and systems (impersonal trust); more specifically, e-HRM can make HR procedures even clearer and more transparent as they can be made readily available on a digital repository to all employees (Shahreki and Nakanishi, 2016; Strohmeier, 2009; Vanhala and Ritala, 2016; Voermans and van Veldhoven, 2007). Vanhala and Ahteela (2011) suggested that e-HRM influences procedural justice and employees' trust in the HRM department. Based on AST theory, e-HRM is seen as a way to develop and maintain impersonal trust. Drawing on this material, we put forward our first hypothesis:

H1. The use of e-HRM practices has a positive relationship with impersonal trust.

3.2 *Impersonal trust and employee efficiency*

Relational rationality, such as fairness, legitimacy and procedural justice, implies treating employees well. Paauwe (2004) suggested that it should be directed towards lower absenteeism, increased employee satisfaction and greater efforts, all leading to improvements in employee efficiency. A relational perspective stresses how a supportive and co-

operative workplace environment can increase efficiency (Bratton and Gold, 2017). In such situations, trust has a central role to play. A relational approach to HRM involves creating exchanges and interactions that lead to mutual benefits. Trust is widely recognised as a key value-creating factor influencing organisation performance indicators, such as employee efficiency (Martins and Van der Berg, 2013; Shahreki and Nakanishi, 2016). Trust is regarded as the belief that both actors will act in a way that is consistent with previous commitments. Several positive work-related outcomes have been reported as a consequence of impersonal trust (Shahreki and Nakanishi, 2016; Shapiro, 1987; Vanhala and Ahteela, 2011; Vanhala and Ritala, 2016). For example, Tzafirir (2005) proposed that employees increase their effort levels in an environment of trust. By contrast, a workplace environment where trust is low may lead to dysfunctional outcomes, such as cynicism, low employee motivation, low job satisfaction and low efficiency (Bissola and Imperatori, 2014; Cho and Park, 2011; Ellonen et al., 2008; Lewicka and Krot, 2015). Thus, impersonal trust can help to improve employee efficiency (Lewicka and Krot, 2015; Shapiro, 1987; Tzafirir, 2005; Vanhala and Ahteela, 2011). Therefore, we formulated the following hypothesis:

H2. Impersonal trust has a positive relationship with employee efficiency.

3.3 *e-HRM and perceived employee efficiency*

Increases in efficiency are often the chief motivation for companies to introduce information technology (Ashbaugh and Miranda, 2002; Bamberger et al., 2014; Becker and Huselid, 2006; Bratton and Gold, 2017; Chen and Huang, 2009; Gardner et al., 2003; Shahreki and Nakanishi, 2016). Organisations invest in HRM systems to make effective use of their human capital and, thereby, to enhance employee efficiency (Bratton and Gold, 2017; Shahreki and Nakanishi, 2016). Indeed, many HRM departments have increased their use of technology (Hussain et al., 2007), including e-HRM, to boost employee efficiency (Ruel et al., 2007). e-HRM also increases efficiency through automation and replacing low-value administrative tasks with high value-added tasks (Shahreki and Nakanishi, 2016; Strohmeier, 2009). In other words, non-HRM employees can perform some routine HRM transactions themselves, such as changing their personal information and registering for training opportunities, without having to go through a HR employee. Research shows that the use of e-HRM practices can improve employee efficiency (Parry, 2011; Shahreki and Nakanishi, 2016). In comparison to traditional HRM approaches, e-HRM can help to streamline transactional HRM activities; speed up HR processes; improve communication; reduce the HR headcount; and capture, create and transfer some HR knowledge more accurately and speedily. These advantages can help to increase employee efficiency (Bondarouk et al., 2009; Marler and Fisher, 2013; Parry and Tyson, 2011; Shahreki and Nakanishi, 2016). More broadly, e-HRM, by increasing

transparency and clarity over HR policies, may lead to greater employee efficiency. Indeed, improving employee efficiency is one of the main reasons why organisations introduce e-HRM (Parry, 2011; Strohmeier, 2009). Thus, we hypothesise:

H3. e-HRM has a positive relationship with employee efficiency.

3.4 Mediation

Impersonal trust may influence the relationship between e-HRM practices and various outcomes. The links between impersonal trust and HRM may be examined in multiple ways. For example, trust can be examined as a consequence of HRM practices (Vanhala and Ritala, 2016) or trust can be used as antecedent to improved HRM and organizational outcomes (Culnan and Armstrong, 1999; Shahreki and Nakanishi, 2016). Social exchange theory argues that high levels of trust between employees and firms have benefits for companies and HR activities need to focus on the development of trust to enhance firms' outcomes (Cropanzano and Mitchell, 2005; Shahreki and Nakanishi, 2016). Impersonal trust also has been recognised as a key mediator between HRM and organisational outcomes. For example, Vanhala and Ahteela (2011) recognised impersonal trust as a mediator between HRM and organisational outcomes. Based on social exchange theory, employees reciprocate the introduction of e-HRM, which often improves transparency and clarity, by demonstrating high levels of trust in their organisation and may become more productive. Some recent e-HRM studies have stressed the importance of intervening variables to link e-HRM to various organisational outcomes (Ruel et al., 2007; Shahreki and Nakanishi, 2016). Other research suggests that contingent variables are needed to explain the relationship between e-HRM and various organisational outcomes (Bondarouk et al., 2009; Lewicka and Krot, 2015; Marler and Fisher, 2013; Parry and Tyson, 2011; Ruel et al., 2007; Shahreki and Nakanishi, 2016). This study hypothesises that the relationship between e-HRM and employee efficiency mediates by impersonal trust:

H4. The relationship between e-HRM and employee efficiency mediates by impersonal trust.

4. Research Methodology

This section discussed the research methodology that comprises data collecting procedures, operational procedures applied for the variables and the conducted statistical examination.

4.1 Data collection and sample characteristics

Our population consists of HR professionals of 300 top private companies in Malaysia, that have been using e-HRM for at least the past five years. We collected the data using a self-administered questionnaire from HR

professionals. Using a random sampling approach. Overall, we received completed and usable responses from 167 HR professionals, resulting in a response rate of 55%. Studies suggest that five years of maturity creates an appropriate zone for e-HRM research, as respondents have a good understanding of e-HRM (Parry and Tyson, 2011; Strohmeier, 2009). The majority of the respondents in the sampled have been working for at least 20 years. On average, the branches in our sample had 30-70 employees. Majority of our respondents had a formal business education (37%), suggesting that our respondents will understand HRM policies and practices.

4.2 The Survey instrument

A four-section questionnaire was developed to test the hypothesis of the study: the use of relational e-HRM practices, impersonal trust, perceived employee efficiency and demographic of the study.

4.2.1 e-HRM

We measured the e-HRM practices as an exogenous latent variable, and the questionnaire adapted from Marler and Fisher (2013) and Vanhala and Ahteela (2011). The objective of the study is to examine the relational impact of e-HRM; therefore, the study used seven relational e-HRM practices that HR professionals in the private company validated in in-depth interviews to ensure the instrument's validity. The study used seven important e-HRM practices that are commonly used in the companies, which were e-recruitment and selection, e-performance management, knowledge management, e-performance appraisal, e-grievance management, e-benefit management, e-training and development. Using a seven-point Likert scale, ranging from (1- habitually used) to (7- not used), the questionnaire asked respondents to indicate the use of particular relational e-HRM practices.

4.2.2. Impersonal trust

The study defines impersonal trust as an employee's trust in impersonal organizational factors, such as management group's goals and capability, fair processes and structures, justice, technological and commercial competence, and HRM policies' (Vanhala and Ritala, 2016). Higher levels of impersonal trust are likely to reduce workplace conflict between employees and their organisation and to strengthen employee-employer relationships. Impersonal trust was measured through Vanhala and Ritala (2016) scale. This scale was specifically designed to assess impersonal phenomena of organisational trust and was developed through a systematic review of the trust literature and an inductive examination of employee and employer perception regarding trust in firms. The participants were asked to report their perception regarding impersonal trust in their branches on a five-point Likert scale. Our measure of impersonal trust draws on Vanhala and Ritala (2016) scale.

We did not retain all of the dimensions and items in that scale, as we focused on those dimensions most pertinent to the objectives of our study (organising activities, technological reliability, fairness in HRM, and communication). Within these dimensions, we did not use all of the items due to low factor loading and cross-loading.

4.2.3. Perceived Employee Efficiency

A number of organisational outcomes potentially reflect the effectiveness of e-HRM. The study uses perceived employee efficiency as an organisational outcome. The face validity of the employee efficiency measure is very high (Boselie et al., 2005). Second, it is a key indicator for examining how investment in e-HRM supports organisations' efforts to employ human capital more efficiently. The importance of employee efficiency for e-HRM studies is evident in surveys by HRM consultants (Tansley et al., 2001). Drawing on previous studies, we used five items of perceived employee efficiency (Patel and Conklin, 2012) on a seven-point Likert scale ranging from, (a lot below average) to (a lot better than average).

5. Analysis

We used PLS-SEM to evaluate the study's conceptual model – business and management studies use this technique extensively (Hair et al., 2016). The literature (Hair et al., 2019) suggests that HRM researchers use PLS-SEM when: the sample is small; data distribution is non-normal; and the purpose is theory development. Mardia's coefficient of normality indicates that our data are not normally distributed. PLS-SEM is a good option to evaluate structural model and when the data were non-normal. PLS-SEM has no distribution and sampling assumption due to its non-parametric characteristic (Hair et al., 2016). e-HRM is also an under-theorised area. Therefore, we concluded that variance-based structured equation modelling, i.e. PLS-SEM, is more suited to this study to draw valid inferences to answer our research questions. Missing data treatment, outliers, multi-collinearity, common method variance and normality test at both a univariate and a multivariate level were performed to ensure the data are suitable for structure equation modelling. We used PLS software to test our measurement and structural models (Chin and Newsted, 1999). The measurement model is the first step in SEM analysis and provides the basis for the assessment of the fitness and constructs reliability and validity of the conceptual model. The measurement model evaluated through reliability, and convergent and discriminate validity, as proposed by (Hair et al., 2012). The second step is referred to as a structural model that aims to test the significance of proposed theoretical linkages (Hair et al., 2016). These two sequential processes are essential for evaluating and testing causal relationships (Hulland, 1999).

The most common problem associated with quantitative studies, such as surveys, is common method bias (CMB) (Malhotra et al., 2006). Podsakoff (2003) provide a procedural remedy for controlling CMB by suggesting that

both predictor and criterion measures should come from different sources. To address CMB, we sent questionnaires to operational and branch managers within the same branch. The branch manager provided information on employee efficiency, organisation age and size, while the operational manager provided information on the e-HRM practices and impersonal trust. We also conducted a full collinearity assessment approach (Kock, 2015) that is used to test common method bias in partial least squares structural equation modelling (PLS-SEM). Collinearity results well below the threshold value of 3 suggested that common method bias is not a threat for this study.

5.1 Measurement model

The correlational matrix demonstrates that latent variables are linearly correlated with each other. In PLS-SEM, the reflective measurement model was assessed through the indicator reliability, internal consistency, convergent and discriminate validity by following (Chin, 2010). The first criterion to evaluate our reflective outer model is internal consistency, i.e. each set is supposed to be homogeneous as well as uni-dimensional. To assess internal consistency, we use composite reliability (CR) that reveals the degree to which indicators represent a common latent-construct. Table 1 shows that the CR ranged from 0.88 to 0.89 for our proposed model, surpassing the proposed acceptable limit of $CR > 0.70$. Confirmation of convergent validity is imperative for testing the reflective measurement model that boosts researchers' confidence in construct validity. In this research, convergent validity assessed through recommended procedures in the form of factor loading and average variance extracted (AVE) (Hair et al., 2016). The former is used to assess convergent validity at the item level, while the latter is used at the construct level. Table 1 demonstrates that convergent validity is ensured because factor loading and AVE is greater than the threshold value and all items are significantly loaded on their respective construct. Cross loading and Fornell-Larker were used to evaluate discriminate validity. Table 2 illustrates that no cross loading was found that suggested discriminate validity was ensured at the item level. To ensure discriminate validity at the construct level, we used the Fornell-Larker criterion. Table 2 demonstrates that the square-root of each construct's AVE (Fornell-Larker criterion) is not less than the correlation with other construct, indicating that discriminate validity at the construct level was ensured.

5.2 Structural model

We investigated the relationships between latent variables by estimating a structural model after verifying that the measuring items are reliable and valid. Table 3 presents the results of the structural model to test the relationships between our endogenous and exogenous variables. The goal of the structural model was to evaluate the relationships between our constructs. The structural model allows the assessment of multiple structural

equations through path analysis (Chin, 2010). We used the “coefficient of determination (R^2)” for the endogenous latent variable, and the estimation of “path coefficient (β)” and “path significance” to estimate the structural model. We assessed R^2 and path coefficient through the PLS algorithm. Table 3 illustrates that relational e-HRM practices explained 55.3% of the variance in impersonal trust ($R^2 = 0.553$), suggesting that the relational e-HRM practices have an important role in building organisational trust. The results of the study indicated that the latent variable explained 51.8% of the variance in employee efficiency ($R^2 = 0.518$). To assess the predictive ability of the model, we estimated Q^2 . Table 3 illustrates that Q^2 values were above zero (0.32) to exhibit the predictive relevance of the model. It demonstrates that the model is well framed and has an excellent explanatory capability for our focal latent variable. The significance of the relationship was evaluated through bootstrapping procedures of SMART PLS-3. The result of the bootstrapping analysis illustrated that all of the relationships were significant as shown in Table 3. H1 proposes that e-HRM influences impersonal trust. Table 3 demonstrates that H1 hypothesises that the greater use of e-HRM practices will lead to enhanced impersonal trust among internal customers of the firm. The hypothesised relationship between e-HRM practices and impersonal trust was significant ($\beta=0.26$; $p < 0.01$), indicating that e-HRM has a direct impact on increasing impersonal trust in the organisation. Therefore, H1 is confirmed. H2 proposes that high impersonal trust has a positive effect on employee efficiency. Table 3 demonstrates a positive, significant and direct association between impersonal trust and employee efficiency ($\beta=0.24$; $p < 0.01$). Thus, H2 is accepted. The relationship between e-HRM and employee efficiency was positive and significant ($\beta=0.18$; $p < 0.05$). It implies that e-HRM practices have a significant impact on employee efficiency. Thus, H3 was confirmed.

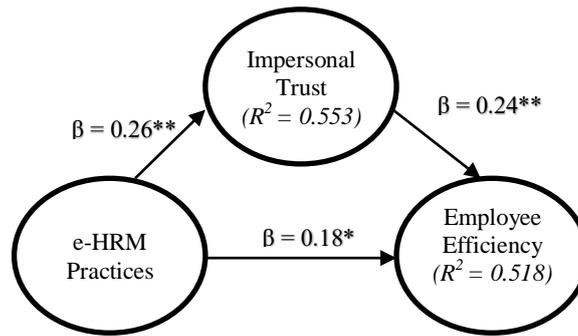
5.3 Evaluating mediating relationship

The study followed (Hair et al., 2016) to examine the mediating effect of impersonal trust between e-HRM and employee efficiency. The bootstrapping results demonstrate that the relationship between e-HRM practices and impersonal trust (mediator) was significant and the relationship between impersonal trust and employee efficiency indicates that the indirect path is significant. Mediation exists when the coefficient of the independent variable is reduced or the independent variable becomes insignificant when the mediator is added to the model. The coefficient between e-HRM and employee efficiency reduced from 0.18 to 0.15, indicating that impersonal trust mediates the relationship between e-HRM and employee efficiency. From Table 4 and Fig. 2, the result show that

impersonal trust has a complementary (partial) mediation between e-HRM practices and employee efficiency, whereby both the direct and indirect effects are pointing at the same direction and are significant, therefore, H4 is supported.

6. Conclusion

The latest e-HRM review by (Marler and Fisher, 2013; Parry, 2011) argued that e-HRM may enhance human resource effectiveness and contribute to the achievement of organisational goals. This study explored the role of e-HRM for impersonal trust and employee efficiency. We developed four hypotheses to examine the roles of e-HRM and impersonal trust in influencing employee efficiency. The results of this study demonstrate that e-HRM positively and significantly influences impersonal trust. Various authors have argued that there is a deep connection between HRM practices and this form of trust. Research based on social exchange theory suggested that HRM practices and employees’ perception of the HRM system influence employees’ attitudes. e-HRM practices would appear to have a positive role in developing and increasing organisational trust. This study by analysing the data, validates the notion that e-HRM can act as a trust-building mechanism for organisations. Many scholars from different disciplines argue that trust offers several benefits to the firm. Building on this, we formulated H2 to examine whether impersonal trust influences employee efficiency. Our results reveal that impersonal trust is positively associated with employee efficiency. In line with recent trend in HRM, this study theoretically and empirically developed the relationship between e-HRM and employee efficiency through impersonal trust. The results of this study illustrate that the indirect relationship between relational e-HRM and employee efficiency is statistically significant, suggesting that impersonal trust mediates the relationship between relational e-HRM and employee efficiency; this is in line with social exchange theory. H4 was accepted and supports existing studies that demonstrate that the relationship between HRM and organisational outcomes mediated by impersonal phenomena of organisational trust (Tzafirir, 2005; Vanhala and Ritala, 2016). This study reveals that employees’ impersonal trust may be increased by using e-HRM practices because it is associated with a perception among employees that top management and HR managers will not do anything that is harmful for them. Believing that, employees do not resist the changes in the organisation but also accept changes and learn new technology and skills resulting in improved employee efficiency. It is one of the pioneer studies that has used impersonal phenomena of organisational trust in an e-HRM context.



Notes: ** $P < 0.01$; * $P < 0.05$

Fig. 2. Structural model

Table 1

Loading, CR, validity, AVE, alpha coefficient (α)

construct	Item	Loading	AVE	CR	α
e-HRM Practices (EP)	EP 1	0.79	0.65	0.89	0.86
<i>Scale type: Reflective</i>	EP 2	0.83			
	EP 3	0.84			
	EP 4	0.85			
	EP 5	0.87			
	EP 6	0.84			
	EP 7	0.85			
Impersonal Trust (IT)	IT 1	0.77	0.62	0.89	0.85
<i>Scale type: Reflective</i>	IT 2	0.84			
	IT 3	0.82			
	IT 4	0.78			
Employee Efficiency (EME)	EME 1	0.71	0.61	0.88	0.84
<i>Scale type: Reflective</i>	EME 2	0.74			
	EME 3	0.82			
	EME 4	0.79			
	EME 5	0.82			

Table 2

Assessment of discriminant validity

	EP	IT	EME
EP	0.83		
IT	0.44	0.80	
EME	0.62	0.51	0.77

Notes: N=167; On the diagonal the square root of the AVE; EP= e-HRM Practices; IT= Impersonal Trust; EME= Employee Efficiency.

Table 3

Estimation of model (bootstrap results).

Constructs	Hypotheses	Sign	coefficients	t-value	Remarks
EP → IT	H1	+	0.26**	3.86	S
IT → EME	H2	+	0.24**	3.32	S
EP → EME	H3	+	0.18*	2.41	S

Notes: $R^2=0.518$; $Q^2=0.32$; * $p < 0.05$; ** $p < 0.01$. EP= e-HRM Practices; IT= Impersonal Trust; EME= Employee Efficiency.

Table 4
Mediating test with PLS

Path	Direct effect	t-Statistics	Indirect effect	t-Statistics	Decision
EP → EME via IT	0.18*	2.41	0.07	2.01	Partial effect

Notes: N = 167; loadings are significant on * $p < 0.05$; ** $p < 0.01$ level; EP= e-HRM Practices; IT= Impersonal Trust; EME= Employee Efficiency.

The findings of the study demonstrate an association between e-HRM and impersonal trust that suggests that relational e-HRM is a key way to potentially improve organisational trust. This study tried to unlock the black box of HRM by identifying theoretically and empirically the path through which e-HRM may deliver value to the organisation via the mediator of impersonal trust. Various studies examine the mediating role of impersonal trust in a HRM context. For example, (Vanhala and Ahteela, 2011) empirically examined whether impersonal trust mediates the relationship between HRM practices and organisational innovativeness. However, the mediating effect of impersonal trust between e-HRM and employee efficiency has not been tested before. This research, therefore, contributes to the HRM and growing e-HRM literature by establishing the relationship between impersonal trust and employee efficiency.

6.1 Theoretical implications

This study contributes to the HRM literature by establishing the relationship between impersonal trust and employee efficiency. The study's findings support social exchange theory: e-HRM is associated with increases in employees' trust in an organisation and helps to ensure that organisations recognise the importance of employees. As a result, employees reciprocate by having a positive attitude towards the organisation, helping to improve employee efficiency. Existing studies examined the relationship between impersonal trust and other organisational outcomes, such as organisational innovativeness. However, recent literature recommended that relationship between e-HRM and employee efficiency is still a grey area. This study found that e-HRM has a significant impact on employee efficiency. The study stresses the relational impact of e-HRM to improve employee efficiency: e-HRM should be used to increase employee trust in HRM systems and procedures. Relational e-HRM is equally important for organisational success, suggesting that theoretical e-HRM models should focus on a variety of outcomes, including relational ones.

6.2 Managerial implications

The results of the study suggest that employees in high-trust firms are more productive than those in low-trust ones. This study also provides evidence to HR practitioners that e-HRM may help to increase employees' trust in organisational procedures and systems and thus can help to encourage higher efficiency. Such value is hard to intimate and may act as a potential source of competitive advantage (Marler and Fisher, 2013; Ruel et al., 2007). e-HRM can enable HRM policies to become more transparent and credible to employees; as some decisions by managers in

organisations may not be aligned to company policies, potentially leading to dissatisfaction amongst employees (Bondarouk et al., 2009). e-HRM can, therefore, represent a commitment by managers to providing unambiguous policies and decisions within the workplace, enhancing levels of trust. Our findings also demonstrate that e-HRM and impersonal trust are linked to improved employee efficiency. The study provides valuable information to the practitioner by suggesting that e-HRM is associated with improved employee efficiency when it enables an organisation and its HRM department to develop and maintain impersonal trust. Both impersonal trust and e-HRM are main predictors for improving employee efficiency. For HR managers who wish to develop impersonal trust, relational e-HRM practices are important for achieving such goals; this work provides a valuable insight to managers and policy makers about relational e-HRM is a value proposition for the firm. This study provides evidence to HR practitioners that e-HRM can be used as a tool that is associated with increased employee trust in HRM systems and, thus, is associated with higher levels of procedural justice and higher efficiency. It provides valuable information for policy makers that they can consider e-HRM as a tool to improve relational outcome for organisations. In other words, improving the efficiency of organizations could have wider benefits. If e-HRM can help to improve employee efficiency, the social and working conditions of many employees could be improved, aiding policy makers to achieve one of their key objectives. The private industry is one of the sectors that policy makers see as crucial to enhancing efficiency and economic growth (Parry, 2011; Strohmeier, 2009; Voermans and van Veldhoven, 2007). e-HRM could help to do that.

6.3 Drawbacks and future plans

This study is limited to the private industry sector only; analysing the proposed relationship in multiple sectors would shed further light on the e-HRM employee efficiency causal chain. Other sectors, perhaps some that rely on low-skilled labour, may not potentially seek to foster high levels of impersonal trust amongst employees and yet other sectors may promote organisational trust using other means and may not seek to use e-HRM to do so. In addition, Wiblen (2016) suggested that national culture influences the successful diffusion of e-HRM; therefore, future studies should examine how national culture influences the relationship between e-HRM and performance. As this research is conducted on private organisations, evidence from other national contexts would provide insight about e-HRM as a value creation proposition.

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