

## Determinants of Operational e-HRM Adoption Behavior of the Firms in Sri Lanka: An Integrated Model

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**Abstract:** Compared to firms in developed economies, e-HRM adoption of firms in emerging economies indicates relatively a slow adoption rate, as they experience specific challenges pertaining to e-HRM implementation. This study explores the determinants of operational e-HRM adoption behaviors of the firm in emerging economies, Sri Lanka. To realize the objective, this study develops an integrated model to explain operational e-HRM adoption behavior of firms incorporating innovation, individual, organizational, and environmental contextual factors. The research model was built by integrating Diffusion of innovation theory (DIT) and Theory of Planned Behavior (TPB). Data were collected through self-administered questionnaire employing three types of data collection tools: mail survey, personal interviews, e-mail survey. Data were collected from 212 firms. PLS-SEM used to test the research model due to its complexity, non-normal data distribution, and sample size requirements. Findings revealed that all the innovation context variables excluding trialability determine the intention of operational e-HRM adoption. Subjective norm of profession was a significant driver of explaining the intention of operational e-HRM adoption. Competition which was specified under environmental context also found empirical support. When it comes to organizational context financial resource, top management support found as significant driver of predicting extent of operational e-HRM adoption. Moreover, as TPB proposed, this study found that intention to adopt operational e-HRM adoption is positively related to the extent of operational e-HRM adoption. From a theoretical perspective, this study extends DIT by including organizational and environmental contextual factors as potential predictors of firms' operational e-HRM adoption. Moreover, TPB is extended by including innovation contextual factors that determine operational e-HRM adoption behaviors of firms.

**Keywords:** *Environmental Context, Innovation Context, Organizational Context, Individual Context, Operational e-HRM Adoption*

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### Introduction

New perspectives on human resource management (HRM) have suggested that electronic human resource management (e-HRM), which applies applications supported by information technology (IT) to deliver human

resource (HR) services, adds value for employees, managers, HR professionals, and the organization as a whole (Bondarouk, Parry, & Furtmueller, 2017; Bondarouk & Ruël, 2013; Parry, 2011; Geetha, 2014; Roman, 2017; Ruël & van der Kaap, 2012). Conversely, the



conventional perspective of HRM suggests that paper-based, face-to-face HR systems, wherein employees and managers directly interact with the staff of the HRM department, add value to the organization (Fey, Björkman, & Pavlovskaya, 2000).

On the other hand, there is no consistent empirical evidence to favor one approach over the other. This creates a puzzle for firms in terms of determining whether to use a traditional paper-based, face-to-face HR system or adopt an IT-supported e-HRM system. Thus, to support firms in making such a decision, this study considers the determinants of operational e-HRM adoption behavior of firms, exploring how different contextual factors explain the e-HRM adoption behavior of firms.

Majority of the previous research has explored determinants of e-HRM adoption for firms in developed economies, such as the US (Marler, 2009; Marler, Fisher, & Ke, 2009), Canada (Florkowski & Olivas-Luján, 2006), the UK (Ball, 2001; Parry & Wilson, 2009), Germany (Strohmeier & Kabst, 2014), Australia (Troshani, Jerram, & Rao Hill, 2011), Denmark (Holm, 2014), and the Netherlands (Bondarouk, Ruël, & Heijden, 2009). Compared to firms in developed economies, e-HRM adoption of firms in emerging economies indicates relatively a slow adoption rate, as they experience specific challenges pertaining to e-HRM implementation (Hooi, 2006; Hosain, 2017; Piabuo, Piendiah, Njamnshi, & Tieguhong, 2017). The findings of these studies are unlikely to be generalizable to firms in emerging economies due to

differences between developed and emerging contexts in terms of infrastructure, information, and communication technology awareness of individuals (Molla & Licker, 2005), level of trust in IT-driven solutions (Oxley & Yeung, 2001), resources availability (Goode & Stevens, 2000; Rahman, Islam, & Qi, 2017), cultural differences (Wen, 2013).

Certain studies explored the e-HRM adoption behavior of firms and individual in developing and emerging context such as Africa (Sungwa, 2021), Bangladesh (Masum, 2015), India (Khatoun, 2013) Pakistan (Waheed, Xiaoming, Waheed, Ahmad, & Tian-tian, 2020) and Sri Lanka (De Alwis, Andrić, & Šostar, 2022; Chandradasa, & Priyashantha, 2021; Thathsara, & Sutha, 2021; Kumara, & Galhena, 2021; Nayananjalee, & De Alwis, 2017; Galhena, 2015; Weerasuriya, 2006). When it comes to studies conducted in Sri Lankan context the findings of the studies are not consistent (De Alwis, Andrić, & Šostar, 2022) and the studies were not aiming at exploring this phenomenon from the holistic perspective which incorporate four contextual factors of technology adoption such as organizational, technological, individual and environmental suggested by Thong et al (1995). Thus, the objective of this study is to develop and empirically test a model of e-HRM adoption behavior of firms in emerging economies with special reference to Sri Lanka.

From a theoretical perspective, several models of e-HRM adoption behavior have been developed with respect to firms in developed economies. Models

based on diffusion of innovation theory (DIT) (Rogers, 1995) suggest that innovation characteristics determine e-HRM adoption behavior of firms. Furthermore, models developed under consideration of the theory of planned behavior (TPB) (Ajzen, 1991) suggest that attitudes, subjective norms, and perceived behavioral controls predict e-HRM adoption behavior. Thong (1999) contended that IT-related adoption depends on four contextual factors—namely innovation, individual, organizational, and environmental. As e-HRM consists of IT components such as hardware, software, and liveware (Strohmeier, 2007), Thong's argument for developing an integrated model over a partial model to explain adoption behavior is important for the e-HRM context as well. However, previous e-HRM adoption studies based on the DIT have focused on innovation contextual factors, while studies based on the TPB consider individual and organizational contextual factors. Thus, a partial model that includes only few predictor variables to explain the criterion variable will not address the requirements of diverse perspectives in decision making. As previous studies have not tested an integrated model to explain e-HRM adoption behavior of firms in emerging economies, it is of paramount importance to develop and empirically test such a model that includes all four contextual factors. Thus, this study develops an integrated model to explain e-HRM adoption behavior of firms incorporating innovation, individual, organizational, and environmental contextual factors.

## Literature Review

The definition of e-HRM has been subject to several changes over time, and there is no universally accepted definition of e-HRM. The definition suggested by Bondarouk and Ruël (2009) that define e-HRM as “an umbrella term covering all possible integration mechanisms and contents between HRM and information technologies aiming at creating value within and across organizations for targeted employees and management” (Bondarouk & Ruël, 2009, p. 507) is considered to be the most recent and the most comprehensive, as it integrates four aspects of e-HRM: (1) content, (2) implementation, (3) targeted employees and managers, and (4) consequences. However, Strohmeier (2007) suggested a clear conceptualization of the terminology, and it has been widely used in previous e-HRM research. Accordingly, e-HRM is defined as the “planning, implementation and application of information technology for both networking and supporting at least two individual or collective actors in their shared performing of HR activities” (Strohmeier, 2007, p. 20). The present study uses this definition as it covers the essential components of the e-HRM.

## Types of e-HRM

Extant literature has classified three types e-HRM systems based on e-HRM objectives: operational e-HRM, relational e-HRM, and transformational e-HRM. Operational e-HRM refers to as the automation of administrative HR tasks with the

objective of reducing costs, speeding up processes, and improving productivity (Strohmeier & Kabst, 2014). Operational e-HRM consists of IT applications such as e-personal record keeping and administration, e-payroll, e-time attendance and management, and e-access control (Imperatori & Bissola, 2010; Ma & Ye, 2015; Ruël et al., 2004). Relational e-HRM involves IT applications that connect HR personnel, line managers, and employees so as to enhance collaboration and service quality (Bissola & Imperatori, 2014; Parry & Tyson, 2011). Relational e-HRM comprises an e-manager support system (MSS) and an e-employee support system (ESS) (Bissola & Imperatori, 2013; Strohmeier & Kabst, 2014). Transformational e-HRM comprises IT applications that enable improvement of the business support and strategic orientation of HRM functions (Parry & Tyson, 2011; Ruël & Bondarouk, 2014). This consists of e-recruitment, e-performance management, e-training, and e-compensation (Imperatori & Bissola, 2010; Strohmeier & Kabst, 2014). This study aims at exploring determinants of operational e-HRM adoption of the firms.

### **Theory of Planned Behavior and Diffusion Innovation Theory**

Present study is mainly aimed at developing an integrated model of operational e-HRM adoption behavior of the firm in Sri Lanka. Thus, this study developed the model based on Theory of planned behavior and Diffusion innovation theory. TPB, which is an extension of TRA, is one

of the most fundamental and powerful theories developed in social psychology to predict and explain a particular behavior in a specified context. TPB proposes that attitudes towards behavior, subjective norms with respect to the behavior, and perceived behavioral control over the behavior predict the behavioral intention of individuals (Ajzen, 1991). Moreover, TPB suggests that behavioral intention, in combination with perceived behavioral control, explain the actual behavior of individuals (Ajzen, 1991). TPB has been applied as a key theoretical framework to predict and explain the intention and behavior related to various ITs and innovations across numerous disciplines, including IT (Chau & Hu, 2001; Tan & Teo, 2000; Venkatesh, Morris, & Ackerman, 2000), IS (Ifinedo, 2012; Taylor & Todd, 1995), marketing (Liao, Chen, & Yen, 2007; Wu, Jayawardhena, & Hamilton, 2014), and medicine (Chang et al., 2015; Deng, Mo, & Liu, 2014; Hsieh, 2015). Surprisingly, application of TPB in HRM related studies is scarce. When it comes to specific areas of HRM, such as e-HRM, very few studies have used TPB as a framework for predicting and explaining employees' or organizational behavioral intention and actual e-HRM adoption behavior. Parry and Wilson (2009) used TPB as the underlying theory to predict organizational online recruitment adoption behavior. They emphasized the importance of considering perceptions of individuals (head of HR) involved in the organizational decision-making process, particularly decisions about HR-related innovation (online recruitment) adoption. Based

on this claim and acknowledging the limited studies that have used TPB to explain organizational e-HRM adoption behavior, this study applies TPB to identify key drivers of organizational intention and the extent of e-HRM adoption.

DIT suggested that “DIT is the process by which an innovation is communicated through certain channels over time among the members of a social system” (Rogers, 1995, p. 5). According to DIT, innovation diffusion is mainly influenced by four factors: innovation attributes communication channels, time, and social system. DIT has been applied in several fields of study, such as IS (Grover, Fiedler, & Teng, 1997), marketing (Mahajan, Muller, & Bass, 1990), accounting (Becker, Wald, Gessner, & Gleich, 2015) and e-commerce (Eastin, 2002). However, since technology-related innovation adoption in HRM, such as e-HRM, has come into practice relatively late compared to the other functional areas of organizations (Parry & Tyson, 2011; Ruël et al., 2004), the application of DIT in e-HRM adoption is underexplored to date. In the e-HRM context, DIT has been used to explore organizational online recruitment adoption (Parry & Wilson, 2009), HRIS adoption (Teo et al., 2007), and extent of HRIS use (Normalini et al., 2012). Thus, DIT can be considered a relevant theory to explore organizational e-HRM adoption behavior.

## **Research Model: Integrated Model of e-HRM Adoption**

The present study aims to develop a research model to explain the e-HRM adoption behavior of the firm using Theory of Planned Behavior (TPB) and Diffusion of Innovation Theory (DIT). Table 1 indicates how TPB and DIT lead to the development of an integrated research model in the present study. As indicated in Table 1, the unit of analysis of TPB is the individual, while in DIT focus on the organization. However, the unit of analysis of the present study is the organization, with data collected from key informants therein (HR managers) and the data is analyzed at the organizational level as suggested by Parry and Wilson (2009).

In order to explain firms' e-HRM adoption behavior, it is important to include predictor variables covering the four contexts: innovation/technological, individual, organizational, and environmental. Table 1 shows that attitude toward behavior as proposed by TPB is aligned with innovation characteristics suggested by DIT. Thus, in developing a research model the present study includes five innovation characteristics (relative advantage, compatibility, complexity, observability, and trialability), which are suggested by DIT to be predictors of firms' intention to adopt operational e-HRM. The inclusion of innovation characteristics covers the innovation/technological contextual predictors of operational e-HRM adoption.

Table 1 further reveals that the subjective norm variable included by TPB is similar to the social system proposed by DIT. Thus, the present study includes subjective norm (of colleagues, managers, and the profession) as a predictor of e-HRM adoption intention. This exposes the individual contextual variable of e-HRM adoption. Moreover, Table 1 emphasizes that TPB includes perceived behavioral control as a key determinant of innovation adoption. When it comes to organizational innovation adoption (e-HRM), perceived assessment of organizational resources, such as financial resources and IT expertise, can be regarded as perceived behavioral control factors. Thus, the research model of the present study includes organizational resources (financial resources, IT expertise, and top management support) as predictors of e-HRM adoption. This exposes the inclusion of organizational contextual predictors of e-HRM adoption.

As shown in Table 1, neither TPB nor DIT considers the influence of environmental context to explain and predict innovation adoption behavior. As the purpose of this study is to develop and empirically test an integrated model of the operational e-HRM adoption behavior of firms, the present study includes the environmental contextual factor. Thus, the research model developed for the study includes the four contextual factors (innovation/technological, organizational, individual, and environmental).

## Hypotheses

### Relative Advantage

Relative advantage refers to “the degree to which an innovation is perceived as being better than the idea or artifact it supersedes” (Rogers, 1995, p. 212). Organizations intend to adopt innovations in order to overcome performance gaps and deficiencies, or to exploit new opportunities (Premkumar & Potter, 1995). Operational e-HRM adoption, such as e-personal record keeping and administration, e-payroll, and e-time and attendance management, enable organizations to enhance the effectiveness and efficiency of an HRM department through automating administrative tasks (Wen, 2013), reducing paperwork (Ruël et al., 2004), and simplifying work processes (Francis et al., 2014). On the contrary, several negative consequences such as invading personal privacy (Wen, 2013); information overload; segmentation of HR roles (Hailey et al., 2005); distancing of the function from employees and managers; ethical consequences of reduction in face-to-face relationships between HR specialists, line managers, and employees (Francis et al., 2014) have been identified. Some studies found empirical support for the relationship between perceived usefulness, performance expectancy (Relative advantage) and e-HRM and HRIS adoption (Chandradasa, & Priyashantha, 2021; Lazazzara, & Galanaki, 2018; Masum, 2015). Based on this reasoning, the following hypothesis is proposed.

*H1: Relative advantage is positively related to organizational intention to adopt operational e-HRM.*

### **Compatibility**

Compatibility refers to “the degree to which innovation is perceived as being consistent with the existing values, past experiences and needs of the potential adopters” (Rogers, 1995, p. 224). Two types of compatibility (organizational and technical) must be met in the case of technology-related innovation adoption (Schultz & Slevin, 1975). Organizational compatibility is assessed through the congruence between the innovation and existing attitudes, beliefs, and value systems of the potential adopter. Subsequently, technical compatibility is evaluated by assessing the match between innovations and existing systems (Premkumar & Potter, 1995).

Due to operational e-HRM, applications such as e-payroll, e-personal record keeping, and administration, organizational work practices and procedures change from a manual to an IT-supported work structure (Ensher et al., 2002). Moreover, the technology used in innovation, must be compatible with other interconnected technologies in the organization (Esen & Özbağ, 2014). This means that existing data resources, software, and hardware need to be compatible with the planned e-HRM system. Otherwise, organizations have to spend a substantial amount of money on synchronizing existing technological resources with the newly adopted e-HRM system. Previous studies on this

found positive relationship between compatibility and HRIS/e-HRM acceptance by organizational and employees (Azhar, 2019; Masum, 2015; Galhena, 2015). Based on this, the following hypothesis is proposed.

*H2: Compatibility is positively related to organizational intention to adopt operational e-HRM.*

### **Complexity**

Complexity is defined as “the degree to which an innovation is perceived as relatively difficult to understand and use” (Rogers, 1995, p. 242). In order to work with some operational e-HRM systems, such as e-personal record keeping and e-access control, employees are required to periodically generate, update, and retrieve their skill profiles (Grant & Newell, 2013). To deal with these tasks and responsibilities associated with e-HRM, employees and managers need to be equipped with basic to advanced levels of knowledge and competencies of IT. Since some nontechnical managers and employees have difficulties in understanding and using such IT-related e-HRM innovations, some organizations take a relatively long time to adopt such innovative systems. The relationship between complexity and e-HRM/HRIS adoption has been empirically supported by the previous studies (Azhar, 2019; Lazazzara, & Galanaki, 2018; Bondarouk, Parry, & Furtmueller, 2017). These observations lead to the following hypothesis.

*H3: Complexity is negatively related to organizational intention to adopt operational e-HRM.*

### **Observability**

Observability is defined as “the degree to which the results of an innovation are visible to others” (Rogers, 1995, p. 244). Some innovations are relatively easy to observe, while other innovations are less so (Rogers, 1995). Technological innovations such as operational e-HRM consist of two main component types: the first are hardware components comprising material or physical objects such as computers, printers, and other electronic equipment; the second are software components consisting of the information basis for tools such as programs for computer systems. Although computer hardware is easy to observe, software applications of e-HRM are not. When potential adopters see that other organizations are using the operational e-HRM system to accomplish HR services and realize that those organizations gain numerous advantages from implementing them, they are more likely to form a positive impression of e-HRM adoption. Previous work on e-HRM/HRIS adoption found empirical support between the observability and e-HRM adoption constructs (Lazazzara, & Galanaki, 2018; Galhena, 2015). These explanations lead to the following hypothesis.

*H4: Observability is positively related to organizational intention to adopt operational e-HRM.*

### **Trialability**

Trialability is defined as “the degree to which an innovation may be experimented on a trial basis” (Rogers, 1995, p. 243). Trying out technology-related innovations for a limited period helps potential adopters to understand its various features, operating procedures, and positive and negative consequences (Agarwal & Prasad, 1997). This may also minimize uncertainties about innovation. Consequently, the trialability of an innovation becomes a critical source for establishing a positive or negative perception of innovation, which in turn leads to actual implementation. As e-HRM systems involve software and hardware components, they are rather difficult to understand. Moreover, e-HRM systems are relatively expensive, and organizations have to allocate a significant amount of money to implement them. It is therefore necessary to try them out before making the actual adoption decision. Relationship between trialability and adoption of IT supported HR applications is established in the empirical studies of Lazazzara, & Galanaki, (2018). These observations lead to the following hypothesis.

*H5: Trialability is positively related to organizational intention to adopt operational e-HRM.*

### **Subjective Norm of Colleagues**

TPB suggests that when important social reference groups attached to an individual’s network encourage performing a certain behavior, individuals are more likely to form a

positive behavioral intention and behave as expected (Ajzen, 1991). Operational e-HRM systems primarily enable HR personnel to gather, store, and analyze workforce data and to increase the flow of HR information (Grant & Newell, 2013). In addition, one of the objectives of e-HRM adoption is automation and devolution of many routine administrative HR functions, that were traditionally accomplished by HR departments, to the hands of employees and line managers (Bondarouk et al., 2009). As these changes in their role lead to enhanced recognition of their position in the organization, it is likely that the majority of HR personnel would be willing to implement e-HRM. To successfully compete in the job market, “HR professionals must be technologically savvy individuals who have the ability to successfully incorporate and manage computer-oriented applications throughout their organizations” (Gainey & Klaas, 2008, p. 51). In such circumstances, HR personnel who wish to enhance their personal profile by matching it with current requirements in the job market will have positive intentions towards e-HRM implementation. Yusliza, & Ramayah, (2011) found positive association between subjective norm and e-HRM application acceptance. This rationalization leads to the following hypothesis.

*H6: The positive subjective norm of colleagues is positively related to organizational intention to adopt operational e-HRM.*

### **Subjective Norm of Managers**

With e-HRM adoption, several administrative HR tasks that were traditionally carried out by HR personnel are delegated to line managers and employees. Consequently, line managers are required to make important decisions at the right time with respect to their subordinates’ performance appraisals, training needs, etc. e-HRM applications such as e-personal record keeping systems, e-payroll systems, allow line managers to obtain updated, real-time information that enables them to make well-informed decisions at the right time (Parry & Tyson, 2011). For instance, managers are able to generate and access workforce performance data or job applications made by employees under their supervision, and make decisions on their training needs and promotions (Grant & Newell, 2013). Noerman, Erlando, & Riyanto, (2021) and Bian, (2012). empirically supported the relationship between subjective norm and e-HRM adoption. In line with this reasoning, following hypothesis was postulated.

*H7: Positive subjective norm of managers is positively related to organizational intention to adopt operational e-HRM.*

### **Subjective Norm of the Profession**

Managers are often interested in obtaining membership to professional associations pertaining to their profession. These memberships are regarded as a powerful reference group for shaping their attitudes and behavior (Eikebrokk et al., 2011).

Professional institutes shape their members' attitudes and behavior through disseminating updated facts, trends, and best practices persisting in the international context, and encouraging members to adopt these in their work settings.

Like other functional managers (marketing managers, finance managers, and accountants), there is a growing tendency of HR managers to obtain membership to professional associations pertaining to HR, such as the Chartered Institute of HRM and Chartered Institute of Personnel Management (CIPM). These HR professional associations continuously collect and analyze contemporary issues of HRM and disseminate managerial implications and insights into these issues. Further, these professional associations search for innovative mechanisms for delivering HR services. E-HRM is considered a recently devised innovation in terms of HRM (Ruël et al., 2004). Some scholars have contended that organizational e-HRM adoption enhances efficiency via reducing cost of HR transactions; enhances effectiveness through improved HR service delivery; and improves strategic orientation of HR through devolution of administrative burdens to line managers and employees (Bondarouk & Ruël, 2013). If HR professional associations support this notion, they should encourage their members to apply e-HRM systems in their respective organizations. Previous work of Yusliza, & Ramayah, (2011) confirmed the relationship between subjective norm of managers and e-HRM acceptance

of the firm in China. This leads to the following hypothesis.

*H8: Positive subjective norm of the profession is positively related to organizational intention to adopt e-HRM.*

## **Competition**

Competition refers to the competitiveness of the business environment in which organizations operate. Higher competitiveness in a certain industry creates a great deal of environmental uncertainty. Consequently, it increases the organizational need for innovation and rate of innovation adoption (Ives & Learmonth, 1984). Several studies (Globerman, 1975; Levin, Levin, & Meisel, 1987; Nadeem, 2017) have empirically confirmed a positive relationship between a higher level of competition and the rate of innovation adoption. Thong and Yap (1995) contended that IT-related technology adoption enables firms to address the competitiveness of their environment in three ways. First, IT changes the industry structure and alters the rule of competition. Second, IT adoption creates competitive advantage through offering new means of outperforming rival firms. Third, IT adoption generates new businesses. As e-HRM is considered an IT-related innovation, operational e-HRM adoption allows organizations to address their competitiveness in the industry. Lazazzara, & Galanaki, (2018) found that severe competition in the industry lead towards high degree of e-HRM adoption by the firms. This leads to the following hypothesis.

*H9: Competition is positively related to organizational intention to adopt operational e-HRM.*

### **Financial Resources**

Financial resources are the most flexible organizational resources, as the ability to purchase all other productive resources depends on financial resources (Chatterjee & Wernerfelt, 1991). Financial resources can be classified into internal and external funds (Chatterjee & Wernerfelt, 1991). Internal funds comprise liquidity at hand and unused debt capacity to borrow at normal rates; external funds encompass new equity and possibly high-risk debts. Perceived behavioral control refers to perceptions of internal and external constraints on target behavior. When it comes to organizational e-HRM adoption, perceived assessment of organizational resources—such as financial resources—can be considered one of the key elements of perceived behavioral control.

Organizations are required to invest a substantial amount of money in implementing IT-supported e-HRM applications (Gainey & Klaas, 2008; Wen, 2013). Implementing e-HRM is a key strategic decision of an organization, as operational e-HRM adoption is positively related to HRM value creation (Ruël & van der Kaap, 2012). Although e-HRM enables firms to generate more value compared to traditional manual HRM systems, e-HRM adoption may be hindered by a lack of financial resources (Esen & Özbağ, 2014). Waheed, et al. (2020) and Hooi, (2006). found empirical support for the relationship between

availability of financial resource and e-HRM adoption of the firms. This reasoning leads to the following hypotheses.

*H10: Availability of financial resources is positively related to extent of operational e-HRM adoption*

### **Employees' IT Expertise**

HR personnel, line managers, and employees are the three main end-users of e-HRM applications (Ruël et al., 2004). They are thus required to possess at least basic IT knowledge and competencies to gain maximum potential from e-HRM applications. Organizational resources and capabilities play a significant role in firms' making strategic choices and implementing strategic decisions (Chatterjee & Wernerfelt, 1991). Organizational e-HRM adoption is a strategic decision, as such adoption changes execution of the HR process. As human capital resources consist of the training, experience, judgment, intelligence, relationships, and insights of individual managers and workers in a firm (Barney, 1991), it can be claimed that IT expertise (knowledge and competencies) of managers and employees is considered a human capital resource of the firm. Assuming that e-HRM adoption is a strategic decision of the firm, it can be argued that organizations with adequate IT expertise (resources) are willing and able to implement e-HRM adoption (strategic choice). Several studies empirically proved that IT expertise is having positive impact on determining level of adoption of e-HRM (Waheed, et. al.;2020; Lau, & Hooper, 2009).

This rationalization leads to the following hypotheses.

*H11: Employees' IT expertise is positively related to extent of operational e-HRM adoption.*

### **Top Management Support**

Top management support has been identified as a key organizational-level variable in both IT and innovation adoption literature (Jeyaraj et al., 2006). If top management is aware of the IT-related innovation and its benefits, they will be willing to implement it and encourage others to use it (Premkumar & Roberts, 1999). Premkumar and Potter (1995) contended that active involvement and support of top management establishes a powerful strategic vision and direction to organizational stakeholders, compared to providing passive support by means of highlighting certain signals about the importance of innovations. Such active involvement and support are characterized by creating a supportive climate and allocating adequate resources for innovation adoption (Teo et al., 2007).

Like most IT-related innovations, e-HRM applications are expensive, and organizations have to wait for a considerable time to experience its benefits. However, if top management believes that e-HRM adoption is essential to ensure the quality of HR service delivery and improve the efficiency and effectiveness of HR functions, there is a high possibility that they will take the necessary actions to establish a supportive culture that encourages e-HRM

adoption. Organizations with a large pool of resources and capabilities are dominant in selecting strategic choices and implementing strategic decisions (Chatterjee & Wernerfelt, 1991). Assuming that e-HRM adoption is a strategic decision of the firm, it can be claimed that organizations that obtain a high degree of top management support (resource) can implement e-HRM adoption. Masum, Kabir, & Chowdhury, (2015) and Olivias-Lujan, Ramirez, & Zapata-Cantu,(2007) found that financial resource is key determinant of e-HRM adaption in firms. Hence, following hypotheses are postulated.

*H12: Top management support is positively related to extent of operational e-HRM adoption.*

### **Intention to Adopt and Extent of Adoption**

TPB suggests that behavioral intention explains the actual behavior of individuals (Ajzen, 1991). Organizations form an intention to adopt technological innovations after primary evaluation of the innovation, individual, and environmental contextual factors (Thong, 1999). As e-HRM is treated as IT-supported innovation, the above argument is relevant for e-HRM adoption. Various e-HRM applications have been developed to support administrative, relational, and strategic HRM functions. For instance, operational e-HRM, such as e-payroll, e-personal record keeping and e-time attendance, support the execution of administrative HRM activities, namely time attendance, personal profile administration, and payroll (Bissola &

Imperatori, 2013; Ruël et al., 2004). In agreement with TPB, it can be claimed that when potential adopters develop a positive intention to adopt e-HRM, they are more likely to implement it. Consistent with TPB, Yusliza, & Ramayah, (2012) found that there is positive association between intention and actual realization of e-HRM applications. This leads to the following hypotheses.

*H13: Behavioral intention is positively related to extent of operational e-HRM adoption.*

## **Research Methodology**

The current study comes under descriptive research design as the purpose is to identify the predictors of operational e-HRM adoption of the firms (Zikmund et al., 2010). As the study collect data form the organizations unit of analysis for this study is firms. All private sector organizations operating in Sri Lanka were considered as the population, since the private sector accounts for 85 percent of the economy in Sri Lanka (ADB, 2015). The researcher excluded public sector organizations as government involvement is intense in procurement decisions.

This study selected a company database maintained by the Department of Registrar of Companies in Sri Lanka. However, this is not updated, as it does not maintain a separate database to identify firms that move out of the country or discontinue business. Thus, we alternatively used the National Business Directory (NBD) as a sampling frame, as it

includes currently operating business firms' names, addresses, and contact numbers and was updated for 2016/2017. According to the NBD, the total number of organizations in operation was 4827; this constituted the population for the study. The simple random sampling technique was used to draw the sample to collect data.

Pre study was conducted before proceeding to the final survey. Since a pretest does not require a statistical sample (Zikmund et al., 2010), it was conducted by interviewing a conveniently selected sample of 12 HR managers. These managers were chosen to cover various industries, such as banking, insurance, construction, apparel, education, hotel, and health. HR managers were selected as the key informants as they make a considerable contribution to e-HRM adoption decisions (Parry & Wilson, 2009). HR managers were initially contacted and asked to fill in the questionnaire. Subsequently, to get the feedback on the questionnaire, interviews were conducted with them at their respective offices. The average time spent on each interview was around one hour. Based on the feedback, slight modifications such as in the use of technical terms were made to the questionnaire.

This study used three types of data collection tools: mail survey, personal interviews, e-mail survey, and conference survey. NBD was used to obtain the contact details of the organizations as the telephone numbers were available for all organizations. 303 randomly selected organizations were contacted over the phone. The researcher explained the

purpose of the study and asked for their cooperation, to which 265 organizations agreed; 38 declined due to an unwillingness to share details of the organization. The researcher asked for the mail addresses of organizations who gave consent. 265 questionnaires, along with covering letters and postage-paid return envelopes, were delivered to those who agreed to participate in the survey and 95 firms responded to the mail survey.

295 questionnaires delivered through e-mail survey and 106 responded to the e-mail survey. As the mail survey and e-mail survey yielded only 201 responses, we decided to collect data through other means, such as through personal interview. First, referring to the NBD, the researcher contacted 50 organizations who had not responded to the mail or e-mail survey, and asked for their willingness to participate. Among these, 33 HR managers agreed. Secondly, with an early appointment, the researcher visited respondents who had agreed to cooperate and conducted interviews at their respective offices over several days. The contacted organizations were located in southern, western, central, and north-central provinces in Sri Lanka. The average time spent on each interview was around one hour.

Validated questions from earlier relevant research were used to assess the theoretical components. Data collected through questionnaire survey feed into the SPSS. This study used PLS-SEM to test the research model due to its complexity, nonnormal data distribution, and sample size requirements (Hair et al., 2011; Hair et al., 2014; Henseler et al., 2009).

## Analysis & Results

### Measurement Model

Dependent and independent variables in the present study were specified as reflective measurements based on classical test theory, which claims that measures represent the effects of an underlying construct (Hair et al., 2014). A reflective measurement model was assessed with the with respect to reliability and validity (Hair et al., 2011; Henseler et al., 2009).

Table 2 shows the reliability of each indicator and the CR of the latent constructs. Absolute standardized outer loadings of each item met the threshold value of 0.7 or above (Hair et al., 2011). The lowest reported indicator loading was 0.774. The ICR of multi-item scales were measured by CR. All constructs met or exceeded the recommended value of 0.6 (Henseler et al., 2009), suggesting that the scales were reliable. In sum, the reliability of the latent constructs was established based on CR criteria, while the reliability of indicators was established based on indicator loading criteria.

Two types of validity—convergent and discriminant were examined. PLS-SEM uses AVE as a criterion to assess convergent validity of the latent constructs. An AVE value of at least 0.5 designates sufficient convergent validity. As shown in Table 3 the AVE for the constructs ranges from 0.82 to 0.94. All AVE of the latent variables are reasonably high, exceeding the minimum acceptable level of 0.5 suggested by Henseler et al. (2009). Discriminant validity of the

latent variables was tested using two criteria: the Fornell–Larcker criterion, and cross-loadings. The Fornell–Larcker criterion suggests that a latent variable shares more variance with its assigned indicators than with any other latent variable (Fornell & Larcker, 1981). This means that the AVE of each latent variable is greater than its squared correlation with any other constructs in the model. Table 3 shows that the values in the diagonals, representing the AVEs, are greater in all cases than the off-diagonal values in their corresponding row and column, supporting the constructs' discriminant validity. With respect to the cross-loading criterion, to establish discriminant validity the loading of each indicator is expected to be greater than all of its cross-loadings (Chin, 1998). The loading of each indicator is greater than all its cross-loading.

## Structural Model

The structural model was assessed using the model predictive accuracy, predictive relevance and path coefficients. Coefficient of determination ( $R^2$ ) was used to measure the models' predictive accuracy. The  $R^2$  represents the amount of variance in the endogenous constructs explained by all of the exogenous constructs. The  $R^2$  value ranges from 0 to 1, with higher values indicating higher levels of predictive accuracy. The study measured the  $R^2$  of the four endogenous latent variables (intention to adopt, extent of operational e-HRM adoption). The percentage of explained variance ( $R^2$ ) is 0.63 for intention to adopt, 0.61 for the extent of operational e-HRM

adoption. With respect to the recommendations suggested by Hair et al., (2011) and Henseler et al. (2009), intention to adopt, and extent of operational e-HRM adoption reported a moderate level of predictive accuracy.

Predictive relevance of the model was assessed using the Stone–Geisser ( $Q^2$ ) criterion (Geisser, 1975; Stone, 1974). The  $Q^2$  criterion suggests that the model must be able to provide a prediction of the endogenous latent variables' indicators. A  $Q^2$  value larger than zero indicates that the exogenous constructs have predictive relevance for the endogenous constructs under consideration (Hair, Hult, Ringle, & Sarstedt, 2013). This study used a blindfolding approach using an omission distance of 7 to calculate the  $Q^2$  value. The  $Q^2$  value is 0.48 for intention to adopt, and 0.46 for the extent of operational e-HRM adoption. These  $Q^2$  values meet the threshold, suggesting that the model has predictive relevance.

The hypotheses were tested using the significance of the individual path coefficients (beta). These measures were calculated by bootstrapping the PLS algorithm with 500 subsamples. Further, one-tailed tests at a 0.05 significance level were deployed. Table 4 provides a summary of these hypothesized relationships, indicating standardized path coefficients ( $\beta$ ), standard errors (se), t-values (t), and significance values (p) of the path coefficients.

## Discussion

This study found that relative advantage of e-HRM systems is positively associated with the intention to adopt e-HRM. DIT suggests that when innovation's relative advantage is perceived to be higher, individuals are more likely to adopt (Rogers, 1995). Thus, these results provide support for Rogers' DIT in the e-HRM context. This result is consistent with previous IT and technological innovation adoption studies (Lazazzara, & Galanaki, 2018; Masum, 2015; Parry & Wilson, 2009; Premkumar & Potter, 1995; Premkumar & Roberts, 1999; Teo et al., 2007; Thong, 1999) that have found relative advantage to be a significant determinant of intention or extent of adoption.

Compatibility was found to be a significant determinant of the intention to adopt e-HRM. The results of this study are consistent with those of previous studies (Azhar, 2019; Masum, 2015; Galhena, 2015; Normalini et al., 2012; Teo et al., 2007; Thong & Yap, 1995) that compatibility is a significant predictor of intention or extent of innovation adoption. The present study found a negative and statistically significant relationship between complexity and intention to adopt e-HRM. This provides support for Rogers's (1995) DIT, which proposes that the higher the perceived complexity of innovation, the lower the likelihood of innovation adoption. Previous empirical results regarding the relationship between complexity and innovation adoption have been rather inconsistent, with some studies finding

significant results and some not. The present study supports the results of previous IT and innovation adoption studies (Azhar Naima, 2019; Lazazzara, & Galanaki, 2018; Bondarouk, Parry, & Furtmueller, 2017; Normalini et al., 2012; Thong, 1999) that supported a significant negative relationship between complexity and intention and extent of innovation adoption. However, this finding contradicts several innovation adoption studies (Premkumar & Potter, 1995; Teo et al., 2007) that found nonsignificant results between complexity and intention and extent of innovation adoption.

The present study found a significant positive relationship between observability of the e-HRM system and intention to adopt e-HRM. This study provides empirical support for DIT, which suggested that "the observability of an innovation, as perceived by members of a social system, is positively related to its rate of innovation adoption" (Lazazzara, & Galanaki, 2018; Rogers, 1995, p. 244).

In contrast to the hypotheses, trialability was not found to be a significant predictor of intention to adopt e-HRM. A possible reason for this insignificant result is that respondents in this study had not been exposing to rigorous tryout of e-HRM applications. Nevertheless, this finding does not support the empirical works of Normalini et al. (2012), which found a positive relationship between trialability and extent of HRIS adoption.

The present study specified subjective norm of colleagues and subjective norm of managers as two separate constructs in the research model. However, the factor analysis results indicated that subjective norm of colleagues and managers should be one factor. Thus, this study modeled the constructs as one in the hypothesis testing. However, empirical support for the relationship between subjective norm of colleagues and managers and intention to adopt e-HRM was not found. This finding is not consistent with the empirical works of Parry and Wilson (2009), who found empirical support for the relationship between subjective norm and online recruitment adoption.

This study found empirical support for the relationship between subjective norm of the profession and intention to adopt e-HRM. Previous studies on e-HRM adoption have not incorporated subjective norm of the profession as a driver of e-HRM adoption. The current study's findings support TPB (Ajzen, 1991), which suggests that if social reference groups encourage a certain behavior, individuals are more likely to establish favorable intention to behave as those reference groups expect.

Under the environmental context, as hypothesized, competition was found to be a significant predictor of the intention to adopt e-HRM. Previous empirical results regarding competition and intention or extent of adoption have been rather mixed. Thus, the current results support the works of Premkumar and Roberts (1999) and Lazazzara, & Galanaki, (2018), who found that competitive

pressure is a major factor in explaining IT adoption decisions, but contradict studies (Teo et al., 2007; Thong, 1999) that have not found significant results regarding competition and intention or likelihood of IS and HRIS adoption.

The findings of this study confirm a positive and statistically significant relationship between financial resources and extent of operational e-HRM adoption. This finding is consistent with the work of Waheed, et al. (2020) ; Hooi, (2006); Esen and Özbağ (2014), Naser, Al Shobaki, Amuna, & El Talla, (2017), and Rahman, Islam, & Qi, (2017). This study did not find a significant result regarding IT expertise and extent of operational e-HRM adoption. A reason for this could be that operational e-HRM applications, such as e-time attendance and e-personal record keeping and administration, require basic IT knowledge and competencies to operate, compared to advanced relational and transformational e-HRM applications. This finding is consistent with the empirical results of Saleh, & Saleh, (2016) who found availability of IT resources is less influential factor on e-HRM technology adoption. The findings of this study indicate that top management support is a significant factor in determining the extent of operational e-HRM adoption. This finding is consistent with those of prior studies on e-HRM adoption (Masum, Kabir, & Chowdhury, (2015) ; Olivias- Lujan, Ramirez, & Zapata- Cantu, (2007); Naser, et al., 2017; Zureika, 2017), HRIS adoption (Rahman, Islam, & Qi, 2017; Teo et al., 2007), IT adoption (Premkumar

& Roberts, 1999), and computer-aided software engineering adoption (Premkumar & Potter, 1995).

This study found empirical support for the relationship between intention to adopt and extent of operational e-HRM adoption. This finding supports the central idea of TPB, which claims that behavioral intention explains the actual behavior of individuals (Ajzen, 1991). It is not surprising that after primary evaluation of innovation, individual, organizational, and environmental factors, organizations form an intention on whether to adopt e-HRM systems, which then leads to actual adoption.

## Implications

This study contributes to the theory by enhancing understanding of e-HRM adoption behavior of firms in emerging economies as the study identifies key drivers of operational e-HRM adoption behavior of firms in an emerging economy, specifically Sri Lanka. Previous studies on organizational e-HRM adoption behavior have aimed to explain determinants of e-HRM adoption behavior of firms in developed economies. This study extends e-HRM adoption behavior theories by developing and empirically testing an integrated model of operational e-HRM adoption behavior of firms in emerging economies, with special reference to Sri Lanka. The theoretical contribution of the study lies in its application of DIT and TPB in combination with the context of e-HRM. The study extends extant knowledge on e-HRM adoption behavior by suggesting that

innovation, organizational, individual, and environmental contextual factors play a role in explaining operational e-HRM adoption behavior of firms. Thus, from a theoretical perspective, this study extends DIT by including organizational and environmental contextual factors as potential predictors of firms' e-HRM adoption. Second, TPB is extended by including innovation contextual factors that determine e-HRM adoption behavior of firms.

This study provides valuable insights for managers, particularly for making accurate decisions about e-HRM adoption. Organizational e-HRM adoption decisions are not ad hoc. This study suggests that potential adopters first evaluate several contextual factors, such as innovation, individual, organizational, and environmental, to form an intention to adopt an e-HRM system. This intention then leads to actual implementation of the e-HRM system in their organizations. The present study suggests that four innovation contextual characteristics (relative advantage, compatibility, complexity, and observability) have a significant impact on organizational intention to adopt operational e-HRM. Thus, managers should gather adequate information about the relative advantage, compatibility, and complexity of e-HRM systems just prior to making the actual adoption decision.

Compatibility of the operational e-HRM system is an important consideration in making the decision to adopt e-HRM. The operational e-HRM system needs to be compatible

with organizational, technical, and other systems. Thus, managers should be aware of the extent to which the e-HRM system is consistent with their organization's values and beliefs. Further, the degree to which the e-HRM system is compatible with the organization's existing IT infrastructure and computerized data resources is equally important to make an initial decision about e-HRM adoption. This means that it is crucial to assess the degree to which existing data resources, software, and hardware are compatible with the planned e-HRM system, in case the organization has to incur substantial costs to synchronize existing technology resources with the newly adopted e-HRM system.

Information about the complexity of the e-HRM system that is under consideration of adoption should be assessed before making the e-HRM adoption decision. In this endeavor, managers are required to gather evidence about the degree to which it is easy to learn to operate, use, and perform tasks using the e-HRM system. If organizations make adoption decisions without intensively assessing the level of complexity of the e-HRM system, potential users of it (line managers, HR personnel, employees) will resist using it, which finally leads to a lower level of acceptance and use.

Managers should take into account the level of organizational resources, such as IT expertise, top management support, and financial resources, when adopting e-HRM systems. This study found financial resources to be one of the key drivers of the extent of

operational, relational, and transformational e-HRM adoption. Managers are therefore required to assess the possibility of raising internal or external funds to capitalize on the e-HRM adoption project.

The present study also found that top management support has a significant influence on the extent of operational e-HRM adoption. This finding has major implications for managers, as top management should be well aware of the benefits of e-HRM systems and allocate adequate resources for facilitating e-HRM adoption. Moreover, planning strategies to deal with resistance to change before and after e-HRM adoption is important.

The present study also provides valuable implications for vendors of e-HRM applications. As an essential part of their promotion strategy, vendors should provide accurate and reliable information about the relative advantage, compatibility, and complexity of the e-HRM system, as these elements facilitate potential adopters to form positive impressions about e-HRM adoption. Vendors could disseminate such information when demonstrating their e-HRM applications.

This study found that the observability of e-HRM systems significantly influence intention to adopt e-HRM. Visual observation of the e-HRM system leads to developing a positive impression of the e-HRM system in the mind of potential adopters. Consequently, this initial awareness establishes a strong intention to adopt the e-HRM system. Thus, vendors should provide potential adopters with

adequate opportunities to observe the functionality of e-HRM applications.

Subjective norm of the profession is a significant determinant of organizational intention to adopt e-HRM. This suggests that professional associations with respect to HR play a key role in shaping the attitudes and behaviors of members. This has important implications for vendors of e-HRM systems. As professional associations with respect to HR are considered a strong, trustworthy social reference group, establishing a strategic partnership and collaborations with them could create a strong platform from which to attract many customers.

Under the environmental context, competition was found to be a significant predictor of intention to adopt e-HRM. This suggests that higher competitiveness in the business environment tends to create a positive impression about the intention to adopt e-HRM, which then leads to actual adoption. In this scenario, vendors should first identify highly competitive industries, and then develop their marketing strategies to promote the e-HRM system to firms operating in these industries.

The present study observed that financial resources are a significant driver in explaining the extent of e-HRM adoption. This has major implications for vendors, who should consider designing and providing relatively low-cost e-HRM applications, particularly for the firms in emerging economies. Initially, implementation of e-HRM was possible only for large-scale firms due

to the high cost of these applications (Gainey & Klaas, 2008). However, there now exist several less expensive e-HRM software applications that small and medium-sized firms can use (Bussler & Davis, 2001). As many of the firms in emerging economies are small or medium-sized, vendors must devise relatively less expensive e-HRM applications.

## Conclusions and Future Research

This study explores the determinants of operational e-HRM adoption behaviors of the firm in emerging economies, Sri Lanka. The study found that all the innovation context variables excluding trialability determine the intention of operational e-HRM adoption. Subjective norm of profession was a significant driver of explaining the intention of operational e-HRM adoption. Competition which was specified under environmental context also found empirical support. When it comes to organizational context financial resource, top management support found as significant driver of predicting extent of operational e-HRM adoption. Moreover, as TPB proposed, this study found that intention to adopt operational e-HRM adoption is positively related to the extent of operational e-HRM adoption. From a theoretical perspective, this study extends DIT by including organizational and environmental contextual factors as potential predictors of firms' operational e-HRM adoption. Moreover, TPB is extended by including innovation contextual factors that determine

operational e-HRM adoption behavior of firms.

Numerous avenues for potential future research with respect to the phenomenon of e-HRM adoption were also identified. Future studies can test this integrated model to explain the behavior of firms adopting other e-HRM applications such as relational and transformational. It is equally important for managers to be aware of both antecedents and outcomes of e-HRM adoption. The present study was limited to exploring antecedents of operational e-HRM adoption. The review of the literature suggested that few studies (Bell et al., 2006; Bissola

& Imperatori, 2013; Bondarouk & Ruël, 2013; Haines & Lafleur, 2008; Parry, 2011; Parry & Tyson, 2011; Ruël & van der Kaap, 2012; Swaroop, 2012) have investigated the consequences of e-HRM adoption. However, findings of these studies have been inconsistent, which suggests a need for more research. Outcomes of e-HRM adoption can be investigated under three different contexts: organization-level outcomes, HR department-level outcomes, and individual-level outcomes.

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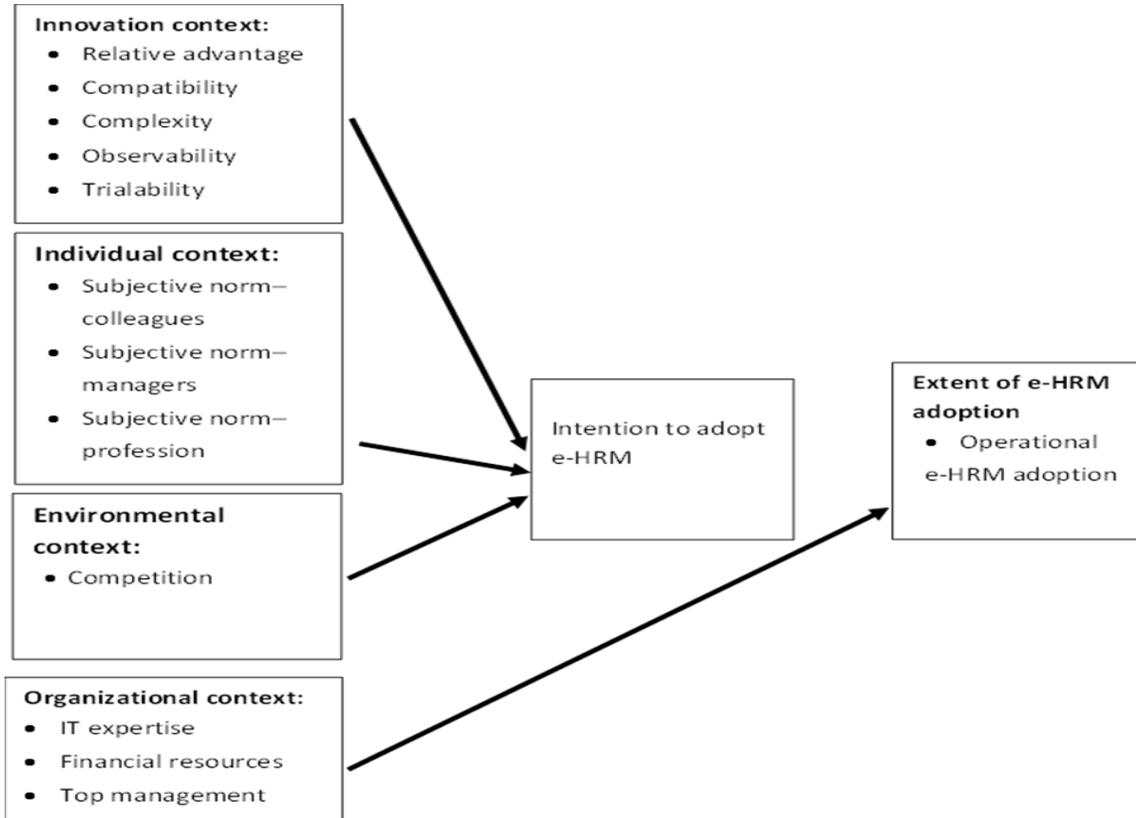
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## Appendix

**Table 1: Comparison of TPB and DIT to Develop an Integrated Model of e-HRM Adoption**

| Elements                          | TPB                          | DIT                        | Present Study: Integrated Model of Organizational e-HRM Adoption Behavior  |
|-----------------------------------|------------------------------|----------------------------|--|
| Unit of analysis                  | Individual                   | Organization               | Organization.  |
| Predictors of (adoption) behavior | Attitude toward behavior     | Innovation characteristics | <b>Innovation/technological context:</b><br>Five innovation characteristics (relative advantage, compatibility, complexity, observability, and trialability) suggested by DIT are included in the model.       |
|                                   | Subjective norm              | Social system              | <b>Individual context:</b><br>Consistent with TPB, subjective norm factors (subjective norms of colleagues, managers, and the profession) are included.  |
|                                   | Perceived behavioral control | Time                       | <b>Organizational context:</b><br>In line with perceived behavioral control as suggested by TPB, this study includes organizational resources (financial resources, IT expertise, and top management support). |
|                                   | None                         | Communication channel      | <b>Environmental context:</b><br>This is not discussed by either TPB or DIT. This study includes competition as a key driver under the environmental context.  |

**Figure 1: Research Model**



**Table2: Indicator Reliability and Composite Reliability**

| <b>Latent Construct</b>                              | <b>Indicators</b> | <b>Standardized Factor Loadings</b> |
|--|-------------------|-------------------------------------|
| Relative advantage<br>CR= 0.922                      | RA1               | 0.856                               |
|  | RA2               | 0.850                               |
|  | RA3               | 0.839                               |
|  | RA6               | 0.777                               |
|  | RA8               | 0.835                               |
|  | RA9               | 0.826                               |
|  | RA10              | 0.793                               |
| Compatibility<br>CR=0.919                            | C4                | 0.927                               |
|  | C5                | 0.928                               |
|  | C6                | 0.927                               |
| Complexity<br>CR=0.899                               | CX4               | 0.891                               |
|  | CX5               | 0.910                               |
|  | CX6               | 0.820                               |
|  | CX7               | 0.880                               |
| Observability<br>CR=0.935                            | OB1               | 0.933                               |
|  | OB2               | 0.879                               |
|  | OB3               | 0.929                               |
|  | OB5               | 0.914                               |
| Triability<br>CR=0.943                               | T1                | 0.879                               |
|  | T2                | 0.923                               |
|  | T3                | 0.886                               |
|  | T5                | 0.906                               |
|  | T6                | 0.916                               |
| Subjective norm of colleagues & managers<br>CR=0.950 | SNCM1             | 0.917                               |
|  | SNCM2             | 0.903                               |
|  | SNCM3             | 0.913                               |
|  | SNCM4             | 0.932                               |
|  | SNCM5             | 0.898                               |
| Subjective norm of profession<br>CR=0.890            | SNP1              | 0.897                               |
|  | SNP2              | 0.857                               |
|  | SNP3              | 0.826                               |
|  | SNP4              | 0.888                               |
| Competition<br>CR=0.902                              | COM2              | 0.901                               |
|  | COM1              | 0.919                               |
|  | COM3              | 0.923                               |

|  |      |       |
|--|------|-------|
| Financial resources<br>CR=0.940        | FR1  | 0.953 |
|  | FR2  | 0.960 |
|  | FR4  | 0.921 |
| IT expertise<br>CR=0.830               | IT2  | 0.942 |
|  | IT3  | 0.905 |
| Top management support<br>CR=0.944     | TMS1 | 0.940 |
|  | TMS2 | 0.951 |
|  | TMS3 | 0.867 |
|  | TMS4 | 0.940 |
| Intention to adopt<br>CR=0.881         | INT1 | 0.928 |
|  | INT2 | 0.876 |
|  | INT3 | 0.892 |
| Operational e-HRM adoption<br>CR=0.901 | OP1  | 0.899 |
|  | OP2  | 0.949 |
|  | OP3  | 0.887 |
|  | OP4  | 0.774 |

**Table 3: Correlations and AVEs**

| Constructs                                     | 1           | 2           | 3           | 4           | 5           | 6           | 7           | 8           | 9           | 10   | 11          | 12          | 13          | 14          |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------|-------------|-------------|-------------|-------------|
| 1. Compatibility                               | <b>0.92</b> |             |             |             |             |             |             |             |             |      |             |             |             |             |
| 2. Competition                                 | 0.64        | <b>0.91</b> |             |             |             |             |             |             |             |      |             |             |             |             |
| 3. Complexity                                  | -0.58       | -0.68       | <b>0.87</b> |             |             |             |             |             |             |      |             |             |             |             |
| 4. Financial resources                         | 0.55        | 0.63        | -0.69       | <b>0.91</b> |             |             |             |             |             |      |             |             |             |             |
| 5. Intention to adopt                          | 0.67        | 0.65        | -0.63       | 0.59        | <b>0.89</b> |             |             |             |             |      |             |             |             |             |
| 6. IT expertise                                | 0.40        | 0.43        | -0.39       | 0.30        | 0.31        | <b>0.92</b> |             |             |             |      |             |             |             |             |
| 7. Observability                               | 0.62        | 0.67        | -0.66       | 0.70        | 0.67        | 0.44        | <b>0.91</b> |             |             |      |             |             |             |             |
| 8. Operational e-HRM adoption                  | 0.65        | 0.60        | -0.63       | 0.66        | 0.63        | 0.28        | 0.70        | <b>0.88</b> |             |      |             |             |             |             |
| 9. Relative advantage                          | 0.59        | 0.59        | -0.60       | 0.66        | 0.63        | 0.37        | 0.62        | 0.59        | <b>0.82</b> |      |             |             |             |             |
| 11. Subjective norm of colleagues and managers | 0.59        | 0.62        | -0.59       | 0.66        | 0.61        | 0.35        | 0.73        | 0.69        | 0.61        | 0.51 | <b>0.91</b> |             |             |             |
| 12. Subjective norm of professions             | 0.54        | 0.55        | -0.50       | 0.63        | 0.58        | 0.24        | 0.61        | 0.61        | 0.56        | 0.45 | 0.71        | <b>0.86</b> |             |             |
| 13. Trialability                               | 0.55        | 0.73        | -0.68       | 0.64        | 0.56        | 0.47        | 0.67        | 0.55        | 0.59        | 0.49 | 0.53        | 0.53        | <b>0.90</b> |             |
| 14. Top management support                     | 0.66        | 0.62        | -0.61       | 0.58        | 0.66        | 0.33        | 0.71        | 0.69        | 0.60        | 0.52 | 0.63        | 0.57        | 0.58        | <b>0.92</b> |

**Table 4: Testing of Hypotheses**

| Exogenous Variables                        | Intention to Adopt |       |         | Extent of Operational e-HRM Adoption |       |          |
|--|--------------------|-------|---------|--------------------------------------|-------|----------|
|  | B                  | Se    | T       | B                                    | Se    | T        |
| Relative advantage                         | 0.160              | 0.074 | 2.175** | -                                    | -     | -        |
| Compatibility                              | 0.218              | 0.085 | 2.556** | -                                    | -     | -        |
| Complexity                                 | -0.154             | 0.065 | 2.367** | -                                    | -     | -        |
| Observability                              | 0.179              | 0.083 | 2.169** | -                                    | -     | -        |
| Trialability                               | 0.067              | 0.069 | 0.976   | -                                    | -     | -        |
| Subjective norm of colleagues and managers | 0.007              | 0.070 | 0.104   | -                                    | -     | -        |
| Subjective norm of profession              | 0.113              | 0.056 | 2.002** | -                                    | -     | -        |
| Competition                                | 0.171              | 0.081 | 2.099** | -                                    | -     | -        |
| Financial resources                        | -                  | -     | -       | 0.323                                | 0.079 | 4.061*** |
| IT expertise                               | -                  | -     | -       | 0.021                                | 0.041 | 0.515    |
| Top management support                     | -                  | -     | -       | 0.367                                | 0.077 | 4.802*** |
| Intention to adopt                         | -                  | -     | -       | 0.163                                | 0.076 | 2.152**  |

Notes: \*p<0.10, \*\*p<0.05, \*\*\*p<0.01

β=path coefficient, se=standard error, t=t-value