E-HRM provides the HR function with the opportunity to create new avenues for contributing to organizational effectiveness. The topic of E-HRM is certainly not becoming obsolete, and its full potential is still anticipated and therefore academic involvement in the topic needs to grow. Besides, there has been a great deal of research on Technology Acceptance Model (TAM) in Malaysia. Less attention is given to examine the relationship between HR roles (strategic partner, change agent, employee champion, and administrative expert) and E-HRM by adoption of TAM. This paper intended to contribute to the Malaysian literature pertaining to this subject. Based on a review of extant literature on E-HRM, HR roles, and TAM, a model is presented and propositions outlined for future empirical testing.

Key words: E-HRM, HR roles, strategic partner, change agent, employee champion, administrative expert, technology acceptance model (TAM).

INTRODUCTION

The development of information and communication technologies (ICTs) has radically changed our social and economic lives, and has had a profound effect on the way organizations are managed. As a result, internal service providers, such as human resource (HR) function, have been forced to re-examine their own roles in the light of a dramatic increase of organizational demands on them (Gloet and Berrell, 2003). Human resource management (HRM) departments using ICTs is becoming an increasingly important phenomenon commonly referred to as E-HRM. E-HRM provides the HR function with the opportunity to create new avenues for contributing to organizational effectiveness through such means as knowledge management and the creation of intellectual and social capital (Lengnick-Hall and Moritz, 2003). However, the HR function has lagged behind other internal functions in its adoption of information system (IS)/information technology (IT) innovations (Alleyne et al., 2007; Martinsons, 1997). Besides that, the HR function has not been proactive in its use of Internet technology in order to provide integrated services or to communicate more effectively with its customers to elicit and fulfill their changing expectations (Alleyne et al., 2007; Elliott and Tavavichulada, 1999).

The topic of E-HRM is certainly not becoming obsolete, and its full potential is still anticipated (Ruel et al., 2007), and therefore academic involvement in the topic needs to grow. Ruel et al. (2007) further stressed that research on E-HRM is still in its “youth-phase”. In a similar vein, Strohmeier (2007) surmised that research on E-HRM stems from several disciplines and is scattered throughout numerous journals and since initial reviews are not encompassing (Anderson, 2003; Lievens and Harris, 2003; Welsh et al., 2003), the results of these studies remain unclear at present. In addition, Stone et al. (2006) also highlighted that despite the widespread use of E-HRM systems, little research has focused on such issues as the degree to which the are accepted by users. Consequently, in this paper, we try to contribute to advancing the E-HRM research area.

We based our research on two theories from complementary areas. The first theory that we use as a starting point is the Technology Acceptance Model (TAM) by Davis et al. (1989). This model presents a theory of the acceptance and attitude towards IT systems in general. The second theory is a model of the role of the HR function (Ulrich, 1997) in the organization. Such a model can be used to describe the role actually played by HR within
the organization.
This research aims to examine the influence of HR roles on the usage of E-HRM. The contributions of this paper include the testing of elements of theoretical model in E-HRM implementation and to facilitate organization to diagnose the main reasons why E-HRM implementation is not achieving the expected objective. The outcome of the research could facilitate organization in understanding the main contributors to the usage of E-HRM and enable necessary corrective actions taken to enhance the usage of E-HRM. A research model is proposed using factors identified from the literature review.

RESEARCH QUESTIONS

Having a clear picture of the phenomenon that is E-HRM, and to what extent developments are going on, makes it possible to pose several research questions as the basis of our future empirical ambitions. Therefore, to this end, we pose the following central research question:

To what extent have companies implemented E-HRM?

From this basis, we distinguish a number of sub-questions:

How do HR roles (administrative expert, employee champion, change agent, and strategic partner) affect perceived usefulness and perceived ease of use?
Is perceived ease of use related to perceived usefulness?
Are perceived usefulness and perceived ease of use related to the attitude towards E-HRM?

LITERATURE REVIEW

Definition of E-HRM

Olivas-Lujan et al. (2007) mentioned that the term E-HR or E-HRM was first used in the late 1990s when “e-commerce” was sweeping the business world. In the literature, E-HR is used interchangeably with virtual HRM, HR intranet, web-based HR, computer-based human resource management systems (CHRIS), and HR portals (Ruel et al., 2004). According to Voermans and van Veldhoven (2007), E-HRM could be narrowly defined as the administrative support of the HR function in organizations by using Internet technology. Lengnick-Hall and Moritz (2003) refer to E-HR to conducting business transactions (and in particular HRM) using the Internet along with other technologies. Ruel et al. (2004, 2007) defined E-HRM as a way of implementing HR strategies, policies, and practices in organizations through a conscious and directed support and/or with the full use of web-technology-based channels. For the purpose of this research, we will adopt Voermans and van Veldhoven's (2007) definition of E-HRM.

Technology acceptance model

Davis (1986) developed the TAM in studying the determinants of IT usage. The goal of TAM was “to provide an explanation of the determination of computer acceptance that is generally capable of explaining user behavior across a broad range of end-user computing technologies and user populations, while at the same time being both parsimonious and theoretically justified” (Davis, 1989). TAM can be seen as an adaptation of the generic Fishbein and Ajzen’s Theory of Reasoned Action (TRA) and was developed to explain individual system use in the workplace (Davis, 1989). TAM posits that perceived ease of use (PEOU) and perceived usefulness (PU) are important factors that determine the user’s attitude toward his or her intention to use and actual usage of IS. According to TAM, usage behavior is a direct function of behavioral intention which in turn a function of attitude toward usage reflect feelings of favorableness or unfavorableness toward using the technology and PU which reflect the belief that using the technology will enhance performance. Attitude is determined jointly by PU and PEOU (Davis, 1989). Furthermore, a key purpose of TAM is to provide a basis for discovering the impact of external variables on internal beliefs, attitudes, intentions, and usage. The TAM developed by Davis et al. (1989) is shown in Figure 1.

The reason TAM was chosen for this research was because TAM has been tested empirically and supported through validations, applications, and replications (Venkatesh, 2000; Schaup et al., 2010; Lee, 2010). TAM is one of the most powerful, robust and parsimonious model for predicting user acceptance especially in IS context (Bueno and Salmeron, 2008). According to Venkatesh (2000), “the parsimony of TAM combined with its predictive power makes it easy to apply to different situations”.

HR role model

Role of the HR department typology that is widely cited and perhaps the best known is by Ulrich (1997). In Figure 2, the Ulrich (1997) HR role model is presented.

In Ulrich’s (1997) model of the role of the HR department, administrative expert concerns more with process efficiency that involve people and most of the HR function’s time is spent on this role. This role “requires that HR professionals design and deliver efficient HR processes for staffing, training, appraising, rewarding, promoting, and otherwise managing the flow of employees through the organization.”

As employee champions, requires the HR function to know the concerns of employees and spend time talking
Figure 1. Technology acceptance model (TAM). Source: Davis et al. (1989).

Figure 2. Ulrich’s (1997) model of HR roles.

to them and listening to their concerns rather than processes. It operates largely at an operational rather than strategic level. Moreover, the HR function should promote all possible methods of communication, including employee surveys, suggestion programmes, team meetings and any other means of sharing information and views. The HR role as change agents is that of a facilitator, involving modeling change to other departments, being a positive advocate of change across the entire organization, resolving employee issues arising from change, and embedding change by implementing efficient and flexible processes. This role is both strategic and process oriented. The final role, strategic partner, in this role, the organization must make sure that its practices, processes, and policies complement the overall organizational strategy. In playing this role, the HR professional works to be a strategic partner, helping to ensure the success of business strategies.

A lot of research has been done on role of the HR department, HR roles model described by Ulrich (1997) was chosen in this study because it is the most prominent in HR roles research (Voermans and Veldhoven, 2007). Further, Ulrich’s (1997) HR role is so far the most comprehensive within the HR roles literature and it is widely cited in HRM literature (Lawler and Mohrman, 2003). In addition, the measurement of HR roles by Ulrich (1997) has been proven to have a valid and reliable scale (Conner and Ulrich, 1996; Voermans and Veldhoven, 2007; Yusliza and Hasliza, 2009).

Gap in previous studies

Recently, HR roles have been studied increasingly by many scholars. Most of the studies that were conducted on role of the HRM department took place in the Western milieu. Thus far, little research has examined empirically this subject instead most studies focused either on conceptual or case studies (e.g., Andreescu, 2004; Caldwell, 2003; Harris, 2007; Hope-Hailey et al., 2005; Jamrog and Overholt, 2004; Sheehan and Scafidi, 2005). Previous empirical studies on HR roles have examined on organizational learning capability (Bhatnagar and Sharma, 2005), strategic role competence (Pietersen and Engelbrecht, 2005), commitment (Dorenbosh et al., 2006), the difference between HR roles at the corporate and unit level (Raub et al., 2006), E-HRM (Voermans and van Veldhoven, 2007) and HR competencies (Long and Wan Khairuzzaman, 2008).

Bhatnagar and Sharma (2005) examined the relationship between strategic HR roles and organizational learning capability of 640 managers in India. Using a survey-questionnaire approach to gather data, the study showed a positive relationship between the strategic HR
roles and organizational capability. The study also revealed that line and HR managers differ significantly in their perception of strategic partner role, where HR managers rated higher than the line managers. Further, strategic HR roles are predicted by both the firm’s profit and financial turnover.

A study of the strategic role competence and the strategic partnership role of HR managers in South African organizations revealed a significant relationship between the type of strategic role competence and strategic partner. Using Conner and Ulrich (1996) strategic partnership for working instrument, Pietersen and Engelbrecht (2005) investigated the relationship between strategic partner and five dimensions of strategic role competence (professional competencies, business-related competencies, strategic role expectancy, strategic role valence, and strategic role opportunity). They used Pearson product moment correlation to test the hypothesized relationship using data from senior HR managers and senior line managers. The study found that professional competencies and business-related competencies explained significant variance in strategic partnership. In addition, a positive relationship was also found between strategic role expectancy, strategic role valence as well as strategic role opportunity and strategic partnership.

Raub et al. (2006) analyzed differences between the roles of HR managers at the corporate and unit levels in the hospitality industry. Their exploratory study showed that distinct differences exist between HR work at the corporate and unit level. Unit level managers tend to focus on their role as “administrative experts” and “employee champions”. Whilst, corporate level managers stressed their role as “strategic partners” and “change agents”. The research concluded that it provides clear evidence of a lack of strategic HR orientation at both the unit and the corporate levels.

Dorenbosh et al. (2006) examined the relationship between line - HR consensus and commitment strength among 671 employees from 66 hospitals departments from four Dutch hospitals. A multi-level analysis indicate that consensus between HR professionals and line managers on HR practices (career opportunities, appraisal criteria) and on HR’s role is positively related to the commitment strength within a department. They further concluded that the collectivity of employee commitment to the organization is partly a function of department-level HR process indicators.

Despite the growing interest in HR roles, there were also has been a great deal of research on TAM in Malaysia (Hamner and Qazi, 2009; Hanudin, 2009; Hanudin et al., 2008; Ignatius and Ramayah, 2005; Norazah et al., 2008; Ramayah and Lo, 2007; Ramayah et al., 2008; Teo et al., 2009; Lean et al., 2009; Azmi and Kamarulzaman, 2010; Ramayah et al., 2010). These studies have performed specific empirical studies on TAM in the banking, manufacturing, education, and government sectors. In a more recent study by Ramayah et al. (2008), they surveyed 116 business students intention towards internet piracy. Their study was based on the Triandis (1980) model which proposed six factors that influence intention to perform a behavior. Results from the study shows that habit has a positive relationship with affect towards internet piracy. Perceived consequences and social factors were positively related to intention towards internet piracy. Besides that, affect was found not to be a significant predictor of intention towards internet piracy.

Little research has examined on the relationship between HR roles and E-HRM by adoption of TAM model. To date, there was one study examined the relationship between HR roles and E-HRM (Voermans and van Veldhoven, 2007), but it was conducted in Netherlands among 99 managers and 257 employees within Philips Electronics. They found that there were differences in perceived usability of current IT systems, as well as the preferred HR roles strategic partner (high preference) and employee champion (low preference), were related to a positive attitude towards E-HRM systems. For managers, user support was also found to be a predictor of a positive attitude towards E-HRM. The research framework used in their study is shown in Figure 3. The present’s study research model is shown in Figure 4.

In Malaysia, Ramayah et al. (2006) studied on the adoption and usage of a HRIS among HR executives and HR professionals working in companies in Penang. Their study revealed that compatibility and visibility were positively related and complexity was negatively related to extent of use of the HRIS.

Despite the growing interest in TAM, empirical research on TAM, HR roles, and E-HRM has been limited and, hence more empirical research is called for. More research can, not only show the level of E-HRM adoption, but also identify obstacles and suggest ways to overcome it.

THE PROPOSED RESEARCH MODEL AND PROPOSITIONS DEVELOPMENT

Because E-HRM has received such scant attention in the literature, it is necessary to address the question of what antecedents contributes to attitude towards E-HRM by looking at the literature representing disciplines other than E-HRM. In particular, TAM and model of HR roles will be used to develop the proposed framework. Figure 4 depicts the proposed research model of the relationship between HR roles, perceived ease of use, perceived usefulness, and attitude towards E-HRM.

As mentioned by Voermans and van Veldhoven (2007), experienced IT system usability is hard to conceptualize in complete disconnection from the purpose an IT system serves. In this paper, we therefore have limitation in convincing the relationship between variables since very limited study have conducted similar research in this area.

According to Voermans and van Veldhoven (2007), a
manager or shop-floor employees preferring the administrative expert role is expected to have a positive attitude towards E-HRM as well, as E-HRM is expected to improve this role in terms of quality and efficiency. Better quality and efficiency in administration is experiences by managers and employees as a higher degree of service delivered by the HR function. HR departments are being called upon to play a much more strategic role in organizations (Lawler and Mohrman, 2000). Furthermore, the HR function is beginning to redefine its role from one of administrative support to one of being a strategic partner. Since a manager or shop-floor employees are prefers to play a role as an administrative expert, it is expected that HR manager give less attention to administrative expert role towards E-HRM. Thus, role played by an HR manager as an administrative expert role will be negatively related with perceived usefulness and perceived ease of use.

Voermans and van Veldhoven (2007) also argued that a negative effect on the attitude towards E-HRM is expected when employees or managers prefer the employee champion role. They further stressed that this might be caused by fear of losing personal contact with HR professionals, which is one of the strongest needs displayed by employees and managers preferring an employee champion role for HR. It is therefore, HR manager will play more employee champion role in predicting perceived usefulness and perceived ease of use since employees or managers have a negative effect on the attitude towards E-HRM with employees champion role.

Therefore, role of HR manager as employee champion will have positive relationship with perceived usefulness and perceived ease of use.
Based on earlier research by Gardner et al. (2003), they found that strategic partner and change agent roles have a positive relationship with attitude towards E-HRM. Voermans and van Veldhoven (2007) further argued that this positive relation is expected because of the possibility E-HRM provides and HR manager to focus on strategic HR tasks as opposed to more operational tasks. In Ulrich (1997) HR model, administrative expert and employee champion role are classified under operational tasks. Therefore, we predict a positive relationship will exist between strategic partner and change agent role and perceived usefulness and perceived ease of use.

Consistent with the above argument, the following propositions on the relationship between role of the HR department and perceived usefulness and perceived ease of use are articulated:

P1: Role of the HR department will be related to perceived usefulness.
P1a: Administrative expert will be negatively related to perceived usefulness.
P1b: Employee champion will be positively related to perceived usefulness.
P1c: Change agent will be positively related to perceived usefulness.
P1d: Strategic partner will be positively related to perceived usefulness.
P2: Role of the HR department will be related to perceived ease of use.
P2a: Administrative expert will be negatively related to perceived ease of use.
P2b: Employee champion will be positively related to perceived ease of use.
P2c: Change agent will be positively related to perceived ease of use.
P2d: Strategic partner will be positively related to perceived ease of use.

P3: Perceived ease of use will be positively related to attitude towards E-HRM.
P4: Perceived ease of use will be positively related to attitude towards E-HRM.
P5: Perceived usefulness will be positively related to attitude towards E-HRM.

Conclusion

In this paper, we compiled an overview of E-HRM and TAM. This paper has proposed a set of HR roles that will be most significantly influence the attitude towards E-HRM. They are administrative expert, employee champion, change agent, and strategic partner. For this purpose, in this research, we have proposed and delineated a research model to explore the relationships among HR roles and attitude towards E-HRM.

In concluding this paper, we stress that E-HRM is being used increasingly by organizations in the United States and other countries. Their use is often predicated on unproven claims about their antecedents. Thus, we urge that well-designed studies be conducted to test the many relationships offered in this paper. The future results from this proposed research will provide valuable knowledge that can be used to design and implement E-HRM that promote the welfare of both individuals and organizations.

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