The effect of electronic human resources practices on employee satisfaction in private hospitals

Fatima Lahcen Yachou Aityassine*, Abedalsttar Mustafa Yousef Alsayah* and Mahmoud Mohammad Al-Ajlouni*

*Department of Financial and Administrative Sciences, Irbid University College, Al-Balqa’ Applied University, Amman, Jordan
*Department of Human Resources Management, Faculty of Business Administration, Northern Border University, Arar, Kingdom of Saudi Arabia

** ABSTRACT **

The objective of the study was to determine the impact of electronic human resources practices on Employee’s Satisfaction in private hospitals in Jordan. The dimensions of electronic human resources practices are (e-recruitment, e-training, e-performance evaluation, e-rewards system, and e-communication). Data were analyzed using IBM SPSS and AMOS software. The population of the study involves all the physicians working in private hospitals in Jordan. Data were primarily gathered through self-reported questionnaires created by Google Forms which were distributed to a purposive sample of physicians via email. To achieve the objectives of the study and test hypotheses, the researcher used SPSS and path analysis. The study results showed that there is a statistically significant impact of electronic human resources practices on employee’s satisfaction. Considering study finding, the researcher recommends decision makers to provide the largest possible investment in modern technology, and to subscribe to databases that qualify doctors to practice electronic human resource management dimensions that were mentioned in the study and ensuring doctors’ job stability.

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** Keywords:** Electronic Human Resources practices, Employees’ satisfaction, Private hospitals, Jordan

1. Introduction

Human resource management is one of the most important organizational functions, as it performs many tasks and activities that provide efficient, qualified human resources that fit an organization’s current and future needs, which are supposed to achieve its goals efficiently and effectively. Considering the great technological progress that the business world has witnessed in recent decades, organizations are now operating in intense competition environment and uncertainty, which in turn led organizations to research more to deal with these conditions and ways to identify competitors' capabilities and market needs (Al-Hawajreh et al., 2011; Al-Hawary & Al-Syasneh, 2020). Therefore, these organizations have benefited from the technological revolution in transferring the practices and activities of human resources so that they are practiced electronically, such as electronic recruiting, electronic training, electronic performance evaluation, and electronic compensation.

In today's information technology economy, the need for an electronic human resources management system has become an imperative to meet the challenges of human resources in the twenty-first century (Al-Hawary & Obiadat, 2021; Attatsitsey & Osei-Bonsu, 2021; Zafar, 2010). Hence, organizations are increasingly offering web-based applications for human resources management purposes, often described as an electronic HRMS (Swaroop, 2012). The rapid development of the Internet over the past decade has enhanced the electronic human resources management implementation and application. Whereas human resources consultants’ surveys indicate that the number of organizations adopting electronic human resources management systems (E-HRM), and the depth of applications within organizations is constantly increasing. Academic interest in electronic human resources management has also increased, as many issues appeared in human resources related journals. There is a
group of empirical research in E-HRM (Al-Lozi et al., 2017; Al-Lozi et al., 2018; Shamout et al., 2022; Strohmeier, 2007). The subject of employee satisfaction must be studied from time to time due to the difference in human nature, and in view of world developments (Singh & Nath, 2020). Therefore, the issue of job satisfaction remains a constant subject of research, as satisfaction represents a set of psychological and functional factors and environmental conditions that make the employee satisfied with his work. Moreover, it is an awareness of the relationship between what an individual expects to get from his job, and what he gets. The study importance derives from the important role that electronic human resources management played in organizations success and continuity, and the effectiveness of electronic human resources management in workers satisfaction, which may work to support the electronic human resources management and reduce employees’ intention to leave work and contribute in putting them on the right track.

2. Theoretical framework and hypotheses development

2.1 Electronic Human Resources Management

The rapid increase in advancement of information and communication technology and its applicable capabilities in various organizational fields have resulted in entering the information technology into human resources processes and systems that generates a new approach to human resources management, referred to as “electronic human resource management”. Improving efficiency and taking advantage of technology dimensions enables HR managers to employ fewer employees who play an important role in the organization. Rapid development of systems that provide electronic human resources services to employees and managers has made more information available in a more convenient way so that they can make use of this information in the organization’s resources (Muqaddim & Hosain, 2021). Technological advancements and electronic instruments have aided the advancement of numerous sciences, such as management, in which today’s employees are more aware than previous generations, and new technologies have spawned a new generation of workers, resulting in organizational structure modifications (Al-Hawary et al., 2018). All these changes were organized in such a way that organization absence on the World Wide Web meant huge capital resources loss. To contribute to the implementation of all organizational activities, including financial, commercial, and personal activities, as well as resource provision, the new idea of Electronic Human Resources Management (E-HRM) has entered. Through a website-based system, lately Personal matters are considered among the activities that can be performed through the website (Sohail et al., 2020; Kariznooe et al., 2012). Electronic Human Resources Management (E-HRM) has been increasingly studied by many researchers. There are many electronic human resource management (E-HRM) definitions in literature. E-HRM is the design, development, and application of information technology, as well as the support of individuals and groups in their combined performance of human resources activities. This notion emphasizes several important characteristics of E-HRM (Strohmeier, 2007). Organizations permitted online HR transactions, according to Stone and Dulebohn (2013), and HRIS became known as E-HRM. In their study, they also gave a quick overview of E-HRM evolution. (Ibrahim et al, 2013). Researchers have also dealt with electronic human resources management practices from various points of view, but there is a clear agreement between them of the mechanism by which the practices are applied, and the table below shows the practices adopted by the researchers in different research environments, which are as follows:

Table 1
Different perspectives of E-HR management practices

<table>
<thead>
<tr>
<th>References</th>
<th>Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rastogi and Srivastava (2017)</td>
<td>E-Recruitment, E-Selection, E-Training</td>
</tr>
<tr>
<td>Gani and Anjum (2017)</td>
<td>Work analysis and design, recruitment, selection, compensation and benefits</td>
</tr>
</tbody>
</table>

After reviewing electronic human resources management practices literature, which were addressed by researchers from different cultural and environmental conditions, the researcher believes that the electronic human resources management practices represented in (electronic recruitment and selection, electronic training and development, electronic performance evaluation, electronic compensation, communication e-mail) to be appropriate for the study community (Al-Hawary et al., 2020).

Electronic recruiting and selection: Electronic recruiting (Galanaki, 2002; Khan, 2020; Parry & Tyson, 2008; Al-Hawary & Nusair, 2017) refers to posting job vacancies on an organization's website or an online recruitment site and allowing applicants to submit their CV electronically (via email or any other electronic means) (Galanaki, 2002). Organizations profit significantly from online recruitment in terms of applicant pool research time, cost, and candidate response quality (Ensher et al., 2002).

E-training and development: The major goal of e-training, according to training scholars' literature, is to improve job performance and the trainee's level of satisfaction, as well as to build a productive workforce. E-training is frequently chosen by business leaders for a variety of reasons, including generating a competitive edge or the necessity for globalization. (Abdullah et al., 2020; Ellis & Kuznia, 2014; Moussa & El Arbi, 2020). Usoltzev, Shamalo & Scherbakova (2016) stated that e-training is skills training using modern computer technology. It is defined as a company's website use to implement learning or training where electronic devices, applications, and processes are used to create, manage and transfer knowledge (Swaroop, 2012).

Electronic performance appraisal: Electronic performance appraisal systems, particularly online systems, provide numerous organizational benefits. These systems concentrate various human resources functions and provide easy access to a wide range of information about employees by making this information available to employees, managers, and human resources
personnel at all times (Jam & Jamal, 2020). These online tools give a foundation for increasing organizational efficiency and making better decisions. When implemented effectively, these systems can raise productivity and improve the organization's competitiveness, which is crucial to the organization's success. (Johnson & Gueutal, 2011; Levensaler, 2008).

**Electronic Compensation:** The electronic compensation system allows organization employees to apply electronically to reduce the burden on human resource management. Compensation and reward are an important feature of human resource management, therefore, the compensation system provided by the company to its employees plays an important role in determining the employee commitment and retention levels (Mohammad et al., 2020; Metabis & Al-Hawary, 2013). According to Willis (2001), compensation is a critical issue about attracting and retaining talent in organizations. The primary concept is that money shapes employee behavior by forming attitudes (Parker & Wright, 2001; Rahoo et al., 2020). As a result, wages have an impact on employee attraction and retention. Swaroop (2012) defined e-compensation as the use of company websites for employee compensation planning.

**Electronic communication:** There are many concepts that refer to the electronic communication concept as it is a purposeful way to transfer information between two or more parties using modern electronic communication mechanisms, such as computers and networks, to deliver information as quickly as possible and with less effort and cost. Electronic - Emails are the preferred means of companies’ communication (Khashman & Al-Ryalat, 2015; Alsoufi et al., 2020). Kaupins and Minch (2006) noted that electronic communications protect the individual’s communications from third parties without legitimate access to messages and protect it from message carriers such as Internet service providers. Camillo and Camillo (2016) define electronic communication as communication using advanced technologies.

2.2 **Employee’s satisfaction**

The employee is the primary component of the business achieving the mission and vision process. Employees must meet the organizational performance standards to ensure their work quality. Employees require a work environment that allows them to work freely and without obstacles that may limit their ability to perform to their full potential. Job satisfaction can be considered as one of the main factors affecting business organizations’ efficiency and effectiveness. The importance of job satisfaction stands out especially when we consider the negative reactions of job dissatisfaction such as disloyalty, increasing authoritarianism, and increasing number of accidents. Over the last few decades, job satisfaction has been a source of concern, regardless of career or industry (Ioannou et al., 2015). Job satisfaction refers to an individual's good attitude about his or her work. Employee job satisfaction has piqued the interest of many scholars and practitioners in the field of organizational research, with a particular focus on determining why some people are more content with their jobs than others (Long & Xuan, 2014). Career development opportunities are strongly linked to job happiness, which is linked to citizenship behaviors such as personal aid, personal making, and loyal claiming. (Jawahar, 2012).

Job satisfaction, according to Hoppock, is a mix of psychological, biological, and environmental factors that lead a person to honestly state, “I am content with my job” (Hoppock, 1935). Job satisfaction, according to Fili, Paik, Griffeth, and Allen (2014), is a multidimensional construct with multiple elements. Sarwar & Khalid (2011) defined it as the employee’s positive emotional state in relation to job responsibilities. Job satisfaction is one of the most effective measures of job happiness, according to Wulandari, Mangundjaya, and Utoyo (2015). Job satisfaction is an emotional response to an individual's task that is like the social and material conditions of the workplace (Zhang, Wu, Miao, Yan, & Peng, 2014).

3. **Research Model**

![Fig. 1. Research model](image)

H1: There is a statistically significant impact of E-HRM practices on Employees Satisfaction in private hospitals in Jordan.
4. Methodology

4.1 Population and sample selection

A qualitative method based on a questionnaire was used in this study for data collection and sample selection. The major aim of the study was to examine the impact of e-HRM on employee satisfaction. Therefore, it focused on private hospitals in Jordan. Data were primarily gathered through self-reported questionnaires created by Google Forms which were distributed to a purposive sample of physicians via email. In total, (372) responses were received including (18) invalid to statistical analysis due to uncompleted or inaccurate. Hence, the final sample contained (354) responses suitable to analysis requirements, where it proved to be sufficient to the extent that was predictable and allowed for a presumption of data saturation (Sekaran & Bougie, 2016).

4.2 Measurement instrument

A self-reported questionnaire that consists of two main sections along with a section regarding control variables was used as the measurement instrument. Control variables considered as categorical measures were composed of gender, age group, educational level, and experience. The two main sections were dealt with a five-point Likert scale (from 1= strongly disagree to 5= strongly agree). The first section contained (25) questions to measure e-HRM based on (Bondarouk, Ruel, and Heijden, 2009; Moilanen, 2013; Bondarouk & Ruel, 2009; Lin, 2011). These questions were distributed into dimensions as follows: four questions dedicated for measuring e-recruitment, six questions dedicated for measuring e-training, six questions dedicated for measuring e-performance appraisal, four questions dedicated for measuring e-rewards, and five questions dedicated for measuring e-communication. Whereas the second section included six questions developed to measure employee satisfaction according to what was pointed out by (Brooke et al., 1989).

5. Findings

5.1 Measurement model evaluation

This study was conducted structural equation modeling (SEM) to test hypotheses, which represents a contemporary statistical technique for testing and estimating the relationship between factors and variables (Wang &Rhemtulla, 2021). Accordingly, the reliability and validity of the constructs were tested using confirmatory factor analysis (CFA) through the statistical program AMOSv24. Table 2 summarizes the results of convergent and discriminant validity, as well the indicators of reliability.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. e-Recruitment</td>
<td>0.722</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. e-Training</td>
<td>0.451</td>
<td>0.728</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. e-Performance Appraisal</td>
<td>0.385</td>
<td>0.441</td>
<td>0.729</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. e-Rewards</td>
<td>0.412</td>
<td>0.436</td>
<td>0.551</td>
<td>0.750</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. e-Communication</td>
<td>0.564</td>
<td>0.458</td>
<td>0.493</td>
<td>0.499</td>
<td>0.738</td>
<td></td>
</tr>
<tr>
<td>6. Employee Satisfaction</td>
<td>0.628</td>
<td>0.633</td>
<td>0.607</td>
<td>0.598</td>
<td>0.621</td>
<td>0.746</td>
</tr>
</tbody>
</table>

VIF: variance inflation factor, AVE: average variance extracted, MSV: maximum shared variance, Bold fonts in the table refer to √AVE

Table 2 demonstrates that the individual items' standard loading values were within the domains (0.653-0.812), which were higher than the elements' minimum retention based on their standard loads (Al-Lozi et al., 2018; Sung et al., 2019). The average variance extracted (AVE) is a summary indication of construct convergent validity that must be greater than 0.50. (Howard, 2018). The results show that the AVE values for all constructs were greater than 0.50, indicating that the measuring methodology adopted has adequate convergent validity. In covariance-based SEM, Rimkeviciene et al. (2017) proposed the comparison approach as a way to cope with discriminant validity assessment. The values of maximum shared variance (MSV) are compared to the values of AVE, and the values of square root of AVE (AVE) are compared to the correlation between the remainder of the structures. The results demonstrate that the MSV values were lower than the AVE values, and that the AVE values were greater than the correlation values among the other constructs. As a result, discriminative validity is a feature of the measurement model used. The internal consistency measured through Cronbach's Alpha coefficient (α) and compound reliability by McDonald's Omega coefficient (ω) was conducted as indicators to evaluate the measurement model. The results listed in Table 2 demonstrated that both values of Cronbach's Alpha coefficient and McDonald's Omega coefficient were greater than 0.70, which is the lowest limit for judging on measurement reliability (de Leeuw et al., 2019).
5.2 Structural model

The structural model illustrated no multicollinearity issue among predictor constructs because variance inflation factor (VIF) values are below the threshold of 5, as shown in Table 2 (Hair et al., 2017). This result is supported by the values of model fit indices shown in Fig. 2.

![Diagram of the structural model](image)

**Fig. 2. SEM results of the e-HRM effect on ES**

The results in Fig. 2 indicated that the chi-square to degrees of freedom (CMIN/DF) was 1.906, which is less than 3 the upper limit of this indicator. The values of the goodness of fit index (GFI), the comparative fit index (CFI), and the Tucker-Lewis index (TLI) were higher than the minimum accepted threshold of 0.90. Moreover, the result of root mean square error of approximation (RMSEA) indicated to value 0.027, this value is a reasonable error of approximation because it is less than the higher limit of 0.08. Consequently, the structural model used in this study was recognized as a fit model for predicting the DEP and generalization of its result (Ahmad et al., 2016; Shi et al., 2019). To verify the results of testing the study hypotheses, structural equation modeling (SEM) was used, the results of which are listed in Table 2. The results demonstrate that e-human resource management has a positive impact relationship on employee satisfaction ($\beta = 0.815$, $t = 34.07$, $p = 0.000$), which justifies support for the study’s major hypothesis.

**Table 1**

<table>
<thead>
<tr>
<th>Hypothesis Testing</th>
<th>Relation</th>
<th>Standard Beta</th>
<th>$t$ value</th>
<th>$p$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>e-HRM $\rightarrow$ ES</td>
<td>0.815***</td>
<td>34.07</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*Note: * $p<0.05$, ** $p<0.01$, *** $p<0.001$.

7. Discussion and recommendations

Study results have shown that there is a statistically significant impact of electronic human resources management on employee’s satisfaction. This may be because the processes on which the electronic human resources management is based, such as the electronic performance evaluation, preserve the rights of the worker without being manipulated by others. It also makes it easier for the worker to communicate electronically and share information to serve work tasks and enables him to obtain the appropriate training according to the careful follow-up of his needs.
Study results concluded that there is a statistically significant impact of electronic human resources management on employee satisfaction, as electronic recruiting and selection, electronic training and development, electronic performance evaluation, electronic compensation, and electronic communication play an important role in improving employee satisfaction. This is because electronic human resource management improves the traditional human resource management practices effectiveness. (Bondarouk et al., 2009). Majumder's study (2012) showed differences in the impact of human resource management practices on employee satisfaction, as some practices are more influential than others. In light of study finding, the researcher recommends decision makers to provide largest possible investment in modern technology, and to subscribe to databases that qualify doctors to practice electronic human resource management dimensions that were mentioned in the study, and ensuring doctors' job stability, and to be committed to the contracted rights of the doctors, as well as the doctors’ commitment to carry out all the assigned duties.

References


