Investigating the Role of Electronic Human Resource Management Practices on Commercial Banks Performance

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ABSTRACT
In the advent of the Information Technology (IT) revolution, many organizational departments have gone through functionality changes to increase their efficiency and performance. This study aimed to investigate the impact of the functions of electronic human resource management (E-HRM) within an organization on its banking performance. In reference to previous studies, the researcher developed the research model to investigate how the application of E-HRM impacts banking performance in terms of Information technology, E-recruitment and selection, E-training, E-motivation and E-communication. The study's population comprises of management level personnel in Pakistan's banking industry. For the purpose of sampling, the researcher selected all commercial banks operating in Lahore to fill out the questionnaire since seventeen commercial banks exist in Pakistan. The findings of the results indicate that Information Technology, recruitment and selection, Training and Motivation has significant effect on banks profitability and Communication has insignificant effect on Bank performance. This study makes significant contributions. The study proved that successful use of e-HRM solutions enhances the profitability of the banking sector in Pakistan.

Keywords: E-recruitment and selection, E-training, E-motivation, E-communication and Banks Performance

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1. Introduction
E-human resource management (E-HRM) is a term that was developed in the late 1990s to connect with the concept of e-commerce, which has developed to encompass the convenience of doing business transactions online (Shamout et al., 2022). The term E-HRM is defined as "effectively employing Internet-based technology platforms to successfully design
and implement user initiatives, policies, and business practices" (Khashman, 2022). E-HRM, or electronic human resource management, is described as "the process of moving human resource management methodologies to a computer environment by using communication technology." One definition of electronic human resource management (E-HRM) is "the process of developing a human resource management system through the Internet, intranet, or networks, or directly via these channels" (Milon et al., 2022).

In today's business world, many organizations are opting to conduct their hiring procedures digitally, making use of the concept of e-human resource management (e-HRM), as opposed to the traditional methods that have traditionally been used. This is due to the fact that this helps the companies save both time and money (Al-Harazneh & Sila, 2021). E-recruitment, on the other hand, synchronizes the connections of mid-level efforts to the Internet applications of different organizations, so increasing the specificity of e-commerce functions. This is in contrast to the conventional recruiting process, which follows chain linkages (Talukdar & Ganguly, 2021).

Integrated recruiting systems have been extensively adopted and put to use by businesses due to their many advantages (Rahman & Hosain, 2021). E-recruitment, or electronic recruitment, refers to the process of filling open positions in an organization via the use of electronic resources. By using corporate websites, businesses have the ability to produce an infinite number of job postings for desired individuals and compile a pool of candidates at a cost that is more than fair. When compared to earlier times, the process of recruiting new members took 75% less time, while the associated costs were cut by 95% (Marler & Parry, 2016).

Training and development are an initiative and effort that is focused on increasing the work skills of present individuals in an organization as well as future workers in that organization. Activities in development and e-learning may be carried out at a lesser cost than conventional educational and developmental techniques (Myllymäki, 2021). In addition to this, it improves the quality of training as well as the efficiency of the process by adapting the training to the particular needs of the task at hand, as well as by facilitating easy access to relevant information and applications. The development of new information and communication technologies has led to the creation of new management systems that are based on these developing technologies. Because of the availability of these management information systems, there is a lot of pressure to improve the efficacy and efficiency of human resource management, to support strategic goals, and to design a new strategy for E-HRM (Ismail et al., 2021).

In several studies, electronic human resource management (e-HRM) has been developed into an integrated business model for human resource management with the goals of producing and providing strategic value. This would appear to suggest that there would be an increasing need for electronic human resource management in many different sectors of the economy, notably the banking industry in developing countries such as Pakistan. In this study, the researchers choose the Pakistani banking sector as their focus in order to investigate the many roles of e-HRM in these banks as well as the influence that it has on the performance of these banks. That specific market segment is desirable for a number of different reasons. To begin, one of the most important contributors to Pakistan's overall economy is the banking industry (Iqbal et al., 2018). Second, it is one of the most profitable industries, according to,
and it is also one of the industries that makes the most of the current management trends and technology. Thirdly, the usage of electronic human resource management (e-HRM) has lately expanded in banks. This is a result of management's recent emphasis on improving the quality of human resource management procedures and productivity in order to boost competitiveness (Jawaad et al., 2019).

The banking industry in Pakistan was the first to embrace financial technology and is quickly expanding its financial services. There are several financial technology options available, including online banking, telephone banking, and mobile banking. Financial technology plays a critical function in the human resources department. Numerous studies exist that examine the role of technology in the banking industry. However, there is a dearth of study on e-HRM practices. Additionally, there are already established E-HRM models created in Europe and the United States. As a result, these studies reveal Western concepts and views. Until today, nothing was known about the e-HRM concept's application in South Asian institutions. The researchers chose the Pakistani banking sector to analyse the various roles of electronic human resource management in these institutions and their impact on performance. There are numerous reasons for choosing that industry. To begin, the financial industry makes a significant contribution to Pakistan's economy (Iqbal, Ahmad, Allen, & Raziq, 2018). Second, it is a very lucrative industry (M. A. Khan, 2010), which promotes the use of cutting-edge management trends and technology. Third, banks have lately boosted their usage of e-HRM since management has placed a premium on the quality of human resource management procedures and productivity in order to improve competitiveness (Jawaad, Amir, Bashir, & Hasan, 2019).

2. Literature Review

Human resource management using electronic means (E-HRM) has been studied from a variety of angles in the literature. The literature emphasizes the critical role of technology in enhancing the efficacy and efficiency of human resources and their practices, as well as the possible impact on workers. Additionally, the literature on e-HRM is gaining in popularity across all sectors of organizations as a result of the fast advancement of technology. Numerous empirical studies illustrating the use of e-HRM in the workplace have been identified in this literature. The purpose of this study is to discuss the review of the literature in order to demonstrate the various trends in research in various situations (Rathee & Bhuntel, 2021).

The idea of electronic human resource management (E-HRM) was first presented in the late 1990s, along with the concept of electronic commerce (e-commerce), which has developed to ease commercial transactions (Moritz, 2003). E-human resource management, often known as E-HRM, is defined as "the effective use of Internet-based technology systems in the creation and execution of user strategies, policies, and business practices" (Egwuche et al., 2015). E-HRM may be defined as "the transfer of HR systems to an environment based on computers by making use of various communication technologies. The concept of electronic human resource management (E-HRM) is conveyed as the implementation of the HRM system making use of the Internet, intranet, and networks, or directly making use of these channels (Ruël et al., 2004).

The Human Resource Information System (HRIS), which is the sub-system of E-HRM, is an intuitive process that is based on the demands of organisations employees. It is also the first system in an organization that may be considered as a kind of E-HRM. It is described as a
system for collecting, storing, accessing, and presenting the information that is needed by the human resources department (Venterink, 2017). The HR department often makes up the largest proportion of users of the HRIS. The Human Resources department's business processes are one of the primary areas that will benefit from the implementation of an HR management system (HRMS), which will ultimately lead to improved business process outcomes (Ruël et al., 2004). E-HRM was developed for use by workers and staff outside of the HR department, as well as by the managers and employees of the firm. In a nutshell, electronic human resource management (E-HRM) provides workers of an organization the ability to access and use the company's human resources without requiring them to go anyplace outside the company (Polat Dede, 2019).

E-HRM, or electronic human resource management, is becoming more popular among businesses as an alternative to more conventional methods of recruiting new employees. This is due to the fact that e-HRM helps businesses save both time and money when compared to conventional methods. Although chain links were monitored together during the traditional recruiting process, the e-recruitment process synchronizes the connections of mid-level efforts to the Internet applications of various organizations. This makes e-commerce functions particularly specific.

Additionally, E-HRM is not novel. Since the concept's inception, researchers and professionals have worked to provide an adequate meaning for the term e-HRM. According to Aryee et al. (2016), the fundamental goal of e-HRM is to facilitate knowledge transfer by eliminating various obstacles that exist inside an organization (Al Mashrafi, 2020a). The research examined the association between electronic human resource management methods and knowledge transfer in multinational corporations (MNCs).

Human resource management has also developed into e-HRM in order to be more effective and efficient. While e-HRM is not a new idea and has been in use for some years, there are several misconceptions regarding the issue. This article will present detailed information on e-HRM in order to educate readers about the idea (Al Mashrafi, 2020). The study by (Rees and Smith, 2017) conducted comprehensive research on the issue and found organizations that had adopted e-HRM. The examination of these organizations elicits the following conclusions. One of the study's most noteworthy conclusions about these organizations is the gap that exists between practical and technical e-HRM. The use of e-HRM definitely aided these businesses in improving employee capabilities while also lowering the cost of managing human resources and alleviating administrative burdens. Currently, several firms choose to conduct their recruiting processes electronically using the notion of e-HRM rather than through conventional ways, since this saves time and money for the organizations. Businesses may generate an endless number of job posts for required personnel and assemble a pool of applicants at a reasonable cost by using corporate websites.

Training and development are an initiative and effort centered on enhancing the job skills of current and future staff in an organization. This may include both current employees and potential future employees. It is possible for developmental activities and e-learning to be carried out at a lower cost than more traditional ways of education and (Shamout et al., 2022). Additionally, it enhances the quality and efficiency of training by tailoring it to your specific job requirements and delivering training via quick application and information access. Additionally, individualized training material increases employee motivation by demonstrating
an appreciation for their organizations and ensuring the retention of brilliant individuals (Al Mashrai, 2020b).

In the course of a workplace analysis, a job analyst investigates the responsibilities of different departments within an organization, as well as the qualities of the employees responsible for carrying out those responsibilities (Kushwah & Maheshwari, 2020). An employee may simply see their job description and follow their progress in the system. HRP is both quantitative and qualitative in nature and is used to guarantee that the organization is doing the correct tasks at the appropriate time (Lecuyer & Raymond, 2020). A Communication is always a critical component of corporate performance. As an e-HR function, efficient communication links workers to one another and aids in the achievement of personal and collective objectives (Chandradasa & Priyashantha, 2021). As a result, communication with employees is a vital element of people management activities.

According to the findings of a study that was carried out by Al-kasasbeh et al. (2016) on the subject of the influence that electronic human resource management systems have on the overall performance of an organization, E-HRM systems are widely used in both public and private banking sectors, and their use improves the efficiency and effectiveness of the human resources departments in those banking sectors. A study conducted by Nurshabrina and Adrianti (2020) on the effect of e-HRM on Organizational Development concluded that E-HRM has a positive impact on organizational growth and that it contributes to the realization of organizational objectives. It also established that there is a strong positive correlation between E-HRM and organizational development and e-selection and e-recruitment have a direct impact on organizational development.

2.7 Hypothesis of the Study

H1. There is a significant impact of Information Technology on banks performance
H2. There is a significant influence of electronic recruiting and selection on the performance of banks.
H3. There is a significant influence of E-Training and Development on banks performance
H4. There is a significant influence of E-HR Communications on banks performance
H5. There is a significant influence of E-HR Motivation on banks performance

3.0 Methodology of the study

This study used a quantitative technique by conducting a review of relevant past research and administering questionnaires to the unit of analysis. The study's population comprises of management level personnel in Pakistan's banking industry. For the purpose of sampling, the researcher selected all commercial banks operating in Lahore to fill out the questionnaire since seventeen commercial banks exist in Pakistan (State Bank of Pakistan, 2021). The researcher selected Lahore city for targeting commercial banks employees because its big city in Pakistan and all major commercial banks are operating there. The questionnaire was delivered to a contact person inside the bank who had been allocated by high management and was aware of who utilized the E-HRM application system, and 410 questionnaires were turned. This number was determined using the described formula in literature to calculate the sample size in case of known population (Adwok, 2015). The researcher received 345 responses from responded. 25 questioners were eliminated from the returned surveys owing to
missing data and repeated responses to questions. As a result, 320 replies were valid for data analysis, representing a response rate of 79 percent. Primary data were gathered via questionnaires split into three parts reflecting demographic information and research factors. The Five Point Likert Scale was used to anchor the questionnaire items (5 strongly agree, 4 agree, 3 neutral, 2 disagree, 1 strongly disagree). The researcher analyzed the data using SPSS software. The primary tests used in data analysis include reliability, descriptive, correlation and multiple regression.

4.0 Results

The total number of respondents in the final sample was 320, and out of them, there were 227 males (70.9%), indicating that men make up the majority of respondents, and there were 93 females (21.1%), indicating that women working in banking are in the minority in Pakistan. Most of the respondent’s banks officials were between the age group of 31 – 40 and these were 152 (47.5%). Secondly, 81 (25.3%) were of the age 41-50, 58 (18.1%) are from 20-30 years and 29 (9.1%) of respondents have age more than 50 years. The largest group of respondents, 214 (66.9%) has qualification of professional, 83 (25.9%) respondents’ qualification is master above, and 23 (7.2%) has qualification of bachelor. The largest group of respondents, 174 (54.4%) has experience of 6 to 10 years, 123 (38.4%) respondents experience has less than 5 years and 23 (7.2) respondents experience is above 10 years. The table also indicated that most of the respondent’s income is between 51000-100000, 123 (38.4%), 106 (33.1%) respondents’ income is above 100,000 and 91 (28.4%) respondents’ income is less than 50,000.

4.2 Reliability Analysis of the Tool

<table>
<thead>
<tr>
<th>Scale</th>
<th>Scale Mean</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach’s Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBP</td>
<td>19.1841</td>
<td>7.423</td>
<td>.432</td>
<td>.753</td>
</tr>
<tr>
<td>IT</td>
<td>19.1346</td>
<td>7.731</td>
<td>.238**</td>
<td>.776</td>
</tr>
<tr>
<td>ERS</td>
<td>19.1552</td>
<td>6.097</td>
<td>.320</td>
<td>.795</td>
</tr>
<tr>
<td>ET</td>
<td>19.1044</td>
<td>6.374</td>
<td>.648</td>
<td>.716</td>
</tr>
<tr>
<td>EM</td>
<td>19.0252</td>
<td>6.083</td>
<td>.646</td>
<td>.795</td>
</tr>
<tr>
<td>EC</td>
<td>19.0200</td>
<td>6.794</td>
<td>.450</td>
<td>.751</td>
</tr>
</tbody>
</table>

The above table details the Cronbach’s Alpha values for the scales used in the investigation, revealing that the EBP has a value of .753, which is more than 0.7, indicating that the instrument is dependable for performing the research. Similarly, the IT value is .776, which is more than 0.7, indicating that the instrument is trustworthy for performing research. Additionally, the remaining C-alpha values are .737, .730, .729, .767, .709, and .736, which are all greater than 0.7, indicating that the tool is dependable for conducting.

4.3 Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>EBP</th>
<th>IT</th>
<th>ERS</th>
<th>ET</th>
<th>EM</th>
<th>EC</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBP</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>.238**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERS</td>
<td>.363**</td>
<td>.434**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ET</td>
<td>.361**</td>
<td>.092</td>
<td>.555**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EM</td>
<td>.354**</td>
<td>.160**</td>
<td>.458**</td>
<td>.642**</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
** Correlation is significant among variables at the level of 0.01.

According to the data in the preceding table, there is a substantial and positive correlation between EBP and IT, as shown by the $r$ value of 0.238** and the sig value of 0.000. Additionally, the value of $r$ is less than 0.80, indicating that the variables are not multicollinearity. Additionally, there is a substantial and positive correlation between EBS and ERS, as shown by the $r$ value of 0.363** and the sig value of 0.000, which is less than 0.80 and the sig value of 0.001, indicating that the variables are not multicollinearity. Additionally, all other factors were positively and strongly associated with one another.

4.4 Regression Analysis

Model summary

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>R square</th>
<th>Adjusted R square</th>
<th>Durbin Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.8019</td>
<td>.6436</td>
<td>.6451</td>
<td>1.783</td>
</tr>
</tbody>
</table>

The R-square value indicates the model’s prediction ability. According to the table above, the value of R square is 64.36. That is, all independent factors explained 64% of the result variables. The adjusted R square informs us of the population's implication of the sample finding. The tiny difference between R square and adjusted R square indicates a stronger consequence of the population sample finding. Durbin Watson informs us about variable autocorrelation. The Durbin Watson value in the table is 1.783, which is within the range of 1.5 to 2.5. This indicates that no autocorrelation exists.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.829</td>
<td>.248</td>
</tr>
<tr>
<td>IT</td>
<td>.134</td>
<td>.056</td>
</tr>
<tr>
<td>ERS</td>
<td>.106</td>
<td>.055</td>
</tr>
<tr>
<td>ET</td>
<td>.134</td>
<td>.058</td>
</tr>
<tr>
<td>EM</td>
<td>.126</td>
<td>.057</td>
</tr>
<tr>
<td>EC</td>
<td>.078</td>
<td>.047</td>
</tr>
</tbody>
</table>

a. Dependent Variable: EBP

The hypothesis that E-HRM has a substantial influence on bank performance was tested using regression analysis. The data suggested that, with the exception of EC, there is a substantial link between IT and EBP components. Additionally, these findings suggested that E-HRM constructs such as IT (=.134 and P value 0.017), ERS (=.106 and P value 0.043), ET (=.134 and P value 0.022), and EM (=.126 and P value 0.029) were significantly associated with E-HRM. These findings indicate a positive correlation between E-HRM and banking...
performance. However, one of the E-HRM constructs, electronic communication, has a negligible effect on the performance of banks.

5.0 Results Discussion

The study's results indicate that information technology, as an E-HRM function, has a high relationship with a bank's profitability. It is important to understand the significance of E-HRM since several studies on this subject reveal that IT plays a big role in enhancing the operation of the human resources department. In a nutshell, E-HRM allows association personnel to access human resource software regardless of their location or time constraints outside the firm (Thathsara & Sutha, 2021). Additionally, the study's results indicated that E-training as a function of E-HRM had a substantial correlation with a bank's profitability.

The study's results indicate that E-motivation, as a function of E-HRM, has a substantial relationship with a bank's profitability. Employees may be motivated via the usage of more intuitive interfaces mailing them to make them completely aware of the software's use. In this sense, the following sentences reaffirm the preceding assertion (Talukdar & Ganguly, 2021; Thathsara & Sutha, 2021). Allowing employees to work from home may boost their morale and physical and mental health. When workers work from home, they are more refreshed and less weary, reducing their risk of fatigue, burnout, and stress. Additionally, the study's results indicated that E-recruitment, as a function of E-HRM, had a substantial relationship with a bank's profitability (Muqaddim & Hosain, 2021).

To begin, the research contributes to the existing body of knowledge by examining the usage of computerized people management in Pakistan's banking industry. Second, the researcher explores the challenges and issues confronting Pakistan's banking industry from the standpoint of the banking sector. Thirdly, the paper examines the efficiency of electronic people management systems in Pakistan's banking industry, which has mainly adopted these approaches in recent years. The study then discusses the notion of E-HRM and the numerous E-HRM roles in the banking industry. The convergence of technology with the banking industry has been critical to the banking sector's success. Globally, investment in technology is rising at a breakneck pace. However, financial technology's engagement in the banking industry is quite restricted. The primary objective of this research is to examine the role of E-HRM practices, functions, and various variables, as well as the challenges and benefits associated with the effective implementation of E-HRM practices in developing economies such as Pakistan.

Conclusion

The data indicate that information technology, recruitment and selection, training, and motivation have a significant effect on the profitability of banks, however communication has a negligible effect on bank performance. By researching the use of electronic people management in the Pakistani banking sector, this research adds to the existing body of knowledge. Second, the study investigates the efficacy of electronic human resource management systems in Pakistan's banking industry, a sector that has implemented these techniques extensively in the recent past. This research focuses only on the Pakistani banking industry. The future researcher may undertake a similar study utilizing a mixed method approach in the non-financial sector. Additionally, the sample size of the research is modest, which may be increased in future studies. Additionally, the researchers advocate doing a similar
study on Islamic banking in Pakistan and comparing the findings to those of mainstream banks.

**Recommendation**

The human resource management function is advancing into the digital era via continual growth and improvement. Numerous findings, particular difficulties, workflow models, and an accessible electronic human resource management system are included in the research. Thus, before implementing an electronic system, it is vital to thoroughly institutionalize the comprehensible activities of human resource management. Thus, the primary objective should be to build and operate the new entire system efficiently and effectively, while also obtaining maximum performance. Each new system is primarily motivated by the desire to provide new features and benefits. According to the study, strong leadership, organizational training, developing a technology culture, assigning adequate funding, having a flawless Internet connection, user-friendly software and training, and a flexible e-HRM may all be significant tools for success.

**Limitation and future directions of the Study**

This research focuses only on the Pakistani banking industry. The future researcher may undertake a similar study utilizing a mixed method approach in the non-financial sector. Additionally, the sample size of the research is modest, which may be increased in future studies. Additionally, the researchers advocate doing a similar study on Islamic banking in Pakistan and comparing the findings to those of mainstream banks.

**Authors Contribution**

**Shafiq Ur Rehman:** Conceived the presented idea and developed the theory literature search, study design, drafting and data analysis.

**Muhammad Hasnain Ali:** literature search, data collection, proofreading, editing references and citation.

**Conflict of Interests/Disclosures**

The authors declared no potential conflicts of interest w.r.t this article's research, authorship, and/or publication.

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