

THE EFFECTIVENESS OF INFORMATION SYSTEMS IN IMPROVING HUMAN RESOURCE MANAGEMENT IN JORDANIAN BANKING SECTOR

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Abstract: *There is an increasing need for analysing the effectiveness of information systems in human resource management in the banking industry due to the competitive environment under which the banks operate. In the current globalization era, effective application of human resource management information system in the banks is necessary. Therefore, this paper focuses on reviewing the most relevant studies on the effectiveness of information systems in human resource management in Jordanian banking sector. Studies in the area of information systems and human resource management are reviewed to know whether the information systems in Jordanian banking sector are effective. This paper provides better understanding of the role of information systems in improving the human resource management. The paper discusses the relationship between information system and human resource management in light of the global competition for the effective and competent human resources to perform managerial activities.*

Keywords: *Information System, Human Resource Management, Jordanian Banks*

Introduction

Human resource management has gained strategic popularity over the last decade, specifically with regard to the debate on the effectiveness of information systems in improving human resource management and performance (Al-Sakka, 2013). The interest in human resource management focuses on the necessity of training systems in the recruitment, selection, appointment, and performance appraisal systems. Human resource management directors prefer the planning operations and the strategic issues for information systems in human resource management (Storey, 2007). Though information technology alone may not lead to achievement of competitive advantage, there is relationship between information technology and the institutional performance among organizations, since human resources play a role in

the optimal exploitation of information technology regarding their contribution to development and innovation (Powell & Dent-Micallef, 1997).

Researchers are interested in the application of information systems in human resource management. As a result of the systems development, an information system is likely to facilitate human resource management and strategically contribute to providing the top management with the accurate information to make the strategic decisions that support and improve performance (Budhwar & Mellahi, 2006). Information systems can be exploited to manage human resources and to support some of the relating functions such as training and managing the rewards and privileges, salaries and wage management (Mohanty & Tripathy, 2009).

The modern trends in managing human resources show great emphasis on integrating management information systems with other information systems, which can transform management practices. However, there is lack of awareness and understanding of the modern systems in managing human resources, which might lessen the effectiveness of the management information systems (Tansley, 2011). Also, lack of interest among users of information systems for human resources management might affect the information system's effectiveness (Sadiq, et al., 2013). According to Kariuki et al. (2015), the application of information systems in human resource management can provide organizations with competitive advantage.

Jordanian Islamic Banks operate in a highly competitive environment due to the current technological development which incorporates the use of human resource information system (Aqeel, 2002). In addition, a study conducted by Badran (2010) indicated that there is lack of effective application of information systems in Islamic banking in Jordan. The use of information system is more effective in commercial banks compared with Islamic Banks in the country. This is because commercial Banks in the Jordan are more equipped with human resource information system than the Islamic Banks. Therefore, this paper aims to ascertain the effectiveness of information systems in human resource management in Jordanian banking sector. It is hoped that this paper will contribute to enriching the information in the field of management.

Improving Human Resource Management through Information System: An Overview

In this global era, the relevance of information system in human resource management can never be underrated. Studies established that the application of human resource information systems improves the functions and performance of both public and private organizations (Al-Sakka, 2013; Kumar & Parumasur, 2013; Udekwe, 2016). In order to achieve managerial objectives, it is necessary to increase the innovation, interest, and awareness about an information system specific to the human resources and its relationship with other systems (Badran, 2010). Human resource management practices are of great importance in the selection, recruitment, training, motivation, organizational culture, and leadership to achieve the institutional objectives in the banking sector. Information system practices have greater importance in achieving the institutional innovation (Abualloush, Bataineh, & Aladwan, 2016).

Al-Sakka (2013) found that the usage of human resource information systems has improved the performance of organizations through increasing the effectiveness and efficiency of the

quality and performance of their functions in terms of recruitment, training, career management processes, and evaluation of employees' performance. The information systems also contribute in reducing the time needed for the organization to perform all these functions. According to the study, the most improved aspect of performance was the time aspect, followed by the efficiency and quality of performance, and finally the effectiveness of the performance. Similarly, Zuzal (2015) found that recruitment, selection, evaluation of the performance of employees using information system plays a significant role in achieving organizational excellence.

When all necessary efforts are put in place, information management systems can strengthen the capacity of human resource management to improve organizational efficiency in a coherent and comprehensive manner. Thus, the implementation of sound human resource information systems has the potential to achieve operational efficiency and enhance human resource achievement and corporate strategy, thereby ensuring organizational effectiveness, particularly in areas such as time management, cost management and management satisfaction of the system. Administrative satisfaction can be enhanced by ensuring that all contact details are on the system. All human resource functions can be effectively managed. High-level information summary and efficient exchange of information among senior management staff enable effective strategic decision and achievement of organizational objectives (Kumar & Parumasur, 2013). Udekwe (2016) provided several guidelines for obtaining the expected benefits of using the information management systems.

Altarawneh and Al-Shqairat (2010) found that insufficient financial support, difficulty in changing the organization's culture and lack of commitment from top managers were the main implementation obstacles for human resource information system. The current used systems in human resources management do not provide accurate information about the training activities which is considered one of the most important information required by human resource management to rehabilitate, train and develop the employees to be able to follow the future situations. Data collection and specific analysis of the performance evaluation are still manual operations. Only Employees' files are computerized in the company's current system, other issues are still manual.

Dmour, Hani, Obeidat et al. (2015) determined the extent of the application of human resource information systems in the Jordanian organizations. The findings indicated that the extent of human resources information systems being practiced is considered to be moderate. The applied systems in the private sector achieve their objects at a higher degree than those in the public sector. When the use of management information systems in the decision-making process has become the norm and practice in organizations, it leads to further improvements towards organizational effectiveness, including making the organization more generally effective, resulting in more strategic focus and changing attitudes, creating a high sense of satisfaction among other important improvements (Mbugua, 2015).

Abu-Jaroor (2009) also determined the effect of the internal and external factors on applying the electronic works in achieving competitive advantage in the Jordanian business organizations. The findings showed that the organizations' wish to practice the electronic works is low, and these organizations do not place practicing the electronic works as one of their goals. These organizations also see that the prices of communication are high and they do not encourage them to practice the electronic business. It was also revealed that the

directors in the organizations do not receive any external assistance to direct them to practice the electronic works.

Park and Jin (1994) identified the characteristics of the successful managerial information systems in the companies, determined through a number of dimensions such as the user satisfaction, level of the benefit from the system, level of its contribution to improving the activities. The study concluded that the companies that possess competent managerial information systems enjoy characteristics different from those that possess less competent managerial information systems in relation to the system's complexity, nature of the inputs, quality of resulted reports from the used system, number of the individuals operating those systems, and the type of computer applications.

Kinnie and Arthurs (1996) determined the extent of interest in information technology and its application in human resource management, as well as its effect on management practices. The study found that 50% of the industrial sector companies use human resource information systems. About 83% of the public companies use human resource information systems while 79% of the private companies the systems. The use of human resource management information systems are limited to the operational levels, particularly keeping the employees' records, salaries, penalties, and preparing the daily reports. It was revealed that there is weakness in achieving the coherence process between human resources management information systems and the other systems inside the organization. This means that there is lack of effective and competent human resource information systems to achieve the desired goals.

Lin (1997) examined human resources from future point of view, focusing on human force planning processes, human resource management information systems, and human resource development processes. The study also examined the extent of computerizing human resource functions which effectively contribute to developing human resources and providing information for strategic operations, such as planning and decision-making. The findings revealed that there is increasing interest in recruiting, selecting, training, developing, and planning the current and future human force.

Ball (2003) determined the relation between human resource management information systems and the size of workforce, as well as the use of systems in the appraisal operations, training and recruitment in selected organizations. The findings revealed that 35.6% of the study sample use human resource management systems specific to the manual files after computerizing them. There is a direct relation between the number of employees and the organization's need for the human resource management information systems. Large companies with more than 500 employees form 50% of the active users of human resource management information systems.

Oriqat (2015) examined the application of information systems in the recruitment and appointment standards to achieve competitive advantage in Jordanian Housing Bank for Trade and Finance. The study also examined the importance of human resources as basic components in the organization, since lack of relevant human resource with experience and qualification constitutes total failure. The study concluded that the reasons for the bank's success in the recruiting process revolve around the fact that the bank depended mainly on employment agencies. So, the bank worked to achieve quality during recruitment, which is basically based on experience in the banking field and academic achievement in the

universities. The study confirmed the presence of a strong relationship between the use of information systems and achievement of competitive advantage.

Al-Rawashdeh and Al-Badainah (2017) examined human resource information systems and their impact on the competitive advantage of Jordanian cement companies. The study showed that the efficiency, integration and responsiveness of human resource information systems in the Jordanian cement companies were moderate. Abu Abila (2010) used survey method to evaluate the impact of human resource information systems on the effectiveness of human resource management performance in the Jordanian public security department. The findings revealed that the perceptions of the respondents regarding the application of human resource information systems were high. The study confirmed the existence of a significant statistical effect of the application of human resource information systems on human resource management in relation to the use of the system, training on the system, provision of technical support, supporting senior management, provision of infrastructure for effective performance of human resource management, work analysis and design, selection and recruitment, performance evaluation, and training.

Information Systems and Human Resource Management in the Context of Jordanian Banks

By reviewing the literature in the area of information systems and human resource management, we can provide valid information on whether information systems in Jordanian banking sector are effective. We can also provide better understanding of the role of information systems in improving the human resource. Effective use of information systems in the banks helps in achieving competitive advantage. Information systems such as group decision support system (GDSS), video conferencing, intranet, and extranet may help in increasing participation in decision-making. The needed infrastructures for those information systems are available in the Jordanian banks (Al-khaffaf, 2012). Therefore, this study aims to shed more light on their effectiveness.

Jaradat (2004) determined the attitudes of the human resource management directors in the Jordanian banking sector towards the reality of applying information systems and the obstacles facing their application. Also, the study aimed at measuring the extent of the effectiveness of these systems and their impact on the banks financial performance. The study found that applying information systems results in medium degree of competence. It was also found that there is absence of a relationship between the financial indicators and the effectiveness of the human resource management information systems.

Aqeel (2002) investigated the use of information systems in Jordanian Arab Investment Bank and determined the extent of using these systems as competitive instrument. The study found that the bank works in a strong competitive environment, since information systems play strategic roles due to the current technological development upon which the competition is based. Similarly, Ajlouni (2008) evaluated the managerial information systems in Royal Jordanian and Arab Bank. The study concluded that managerial information systems in the Arab Bank are characterized by competence and great usage by the decision makers.

Al-Nazari (2009) ascertained the effectiveness of information systems in the decision making in Jordanian commercial banks. The study found that there is statistically significant positive relationship between the extent of the information systems effectiveness and the level of its contribution to improving the decision making process. A study conducted by Badran (2010)

also examined the effectiveness of human resources training and development in achieving the competitive advantage in Islamic banks. The study found that there is lack of effective application of information systems in human resource management in the Islamic banking industry. The author recommended that Islamic banks should greatly support the process of investment in the human capital. The study also recommended the necessity for the Islamic Banks to invest in their human capital by adopting effective and comprehensive training programs.

Zeer (2013) explored the effectiveness of information systems in decision making in Jordanian commercial banks. According to the findings, there is a positive effect of the presence of appropriate information in relation to the quantity and accuracy of decision-making effectiveness in the top management in the Jordanian commercial banks. The use of managerial information systems in the Jordanian commercial banks helps in making the decisions at high degree of effectiveness. Therefore, decisions made in the banks are highly effective. However, there is presence of shortage in the trained technical staff on using the computer for commercial purposes.

Al-Meetati (2013) examined the effectiveness of managerial information systems in improving the Arab Bank's competence. The study found that the relevance of the information provided by the systems is very high. The systems contribute to improving the effectiveness of decision making. The bank provides the required software and devices for the systems to work effectively. Managerial information systems in the bank are characterized by high flexibility. Al-Hazaimeh and Suadak (2013) determined the extent of adopting the information systems-based- approach in the field of human resources management in the banks and insurance sectors in Jordan. The study found that the level of available requirements and components for information systems' sustainability and support in the banks and insurance companies was relatively medium. Also, the results showed that there are obstacles preventing the banks and the insurance companies from adopting information systems in human resources management.

Abu Jaleel (2016) also examined the application of information systems in human resource management and the obstacles facing the application in Jordanian banking sector. The study also measured the extent of effectiveness of these systems in the banks' financial performance. The findings revealed that the application of information systems in human resource management is undertaken at medium degree of competence, and a number of obstacles prevent the adoption of effective information system. Al-khaffaf (2012) also found that there is a strong relationship between the use of information systems and decision-making process. The Jordan banks rely greatly on a number of technologies related to information systems to implement their main activities. Using descriptive analytical method, Al-Basheer and Shtanawi (2015) also found that there is a statistically significant relationship between management information systems and performance of Islamic banks.

Al-Tarawneh and Al-Tarawneh (2012) examined the effectiveness of human resource management systems in corporate performance from workers perspective in the Jordanian banking sector. The study found significant relationship between the quality of the output of human resource information systems and institutional performance in the Jordanian banking sector. The findings reported by Al-mbaidin (2014) indicated that information systems in Jordanian banks are effective in relation to planning operations, observation operations, and decision-making operations. Nevertheless, Aqeel, et al. (2002) found that information systems

application in Jordanian banks has not been optimized in a way that would improve decision-making efficiency and effectiveness, and it has not been fully utilized to increase shared cooperation between the banks.

Discussion on the Findings of Previous Studies

The previous studies regarding the application of information system in human resource management in Jordanian banking sector investigated issues related to the effectiveness and accuracy of the information systems, attitudes of the human resource management directors, competitive advantage, decision making process, training programs, proper application of the systems, and obstacles preventing the Jordanian banks from adopting information systems in human resources management. For instance, the findings reported by Al-Hazaimeh and Sawaqed (2013) showed that there are several obstacles preventing the Jordanian banks from adopting information systems in human resource management. This might be related to the competitive environment under which the banks operate, as revealed in the findings reported by Aqeel (2006).

Regarding information, Zeer (2012) found that there is presence of appropriate information in the Jordanian banking industry. However, the study indicated shortage in the trained technical staff on using the computer for commercial purposes. On average, the effectiveness of information systems in human resource management has been confirmed by most of the studies ((Ajlooni, 2008; Al-Nazari, 2009; Zeer, 2012; Al-khaffaf, 2012; Al-Tarawneh & Al-Tarawneh, 2012; Al-Meetati, 2013; Al-Hazaimeh & Sawaqed, 2013; Al-mbaidin, 2014; Al-Basheer & Shtanawi, 2015). The application of information systems in human resource management in the Jordanian banking sector is effective, though there are a number of obstacles facing the industry as pointed out by Al-Hazaimeh and Sawaqed (2013) and Aqeel (2006).

According to the literature, the application of information systems in the Jordanian banking industry has the capacity to provide great success in raising the level of employee performance and the senior management commitment to high efficiency. This is because the employees and senior management are responsible for appropriate utilization of these systems, which can result in efficiency, employee commitment, and proper function of the banks. If both the management and the employees are committed, information system practices can have a great influence on job performance (Tansley, 2011).

It should be noted that the previous studies have varied their objectives in relation to information system and human resource management, from the management and the employee perspectives. Most of these objectives were related to the public and private sectors, employee selection and recruitment, competitive advantage, user satisfaction, interest in using the information systems, training and recruitment, attitudes of directors, decisions making, bank's competence, and adopting the information systems-based- approach. Information system is highly important not only to the banks, but also to any kind of organizations around the globe (Sadiq, et al., 2013; Budhwar & Mellahi, 2006). This paper focused on the effectiveness of information system in improving human resource management in Jordanian banking sector. It is evident that the application of information systems plays a significant role in the performance of workers, which can result in high efficiency in the banking industry in Jordan. However, banks suffer from issues such as improper utilization of the available systems and competitive environment under which the banks operate.

According to Hainas and Petit (1997), some factors may influence satisfaction with the information systems in human resource management. The authors divided these factors into personal and organizational factors, as well as factors relating to the information system. According to the study, specifications of the information systems are the most important determinant of the effectiveness. Some of these specifications include the possibility of the system documentation and the ease and suitability of its usage. The personal factors are influenced by the present experience at the satisfaction level with the system.

Conclusion

In the current globalization era, effective application of human resource management information systems in the banks is necessary (Abualloush, 2016). This is because the banking industry, both public and private, seeks for competitive advantage in the current competitive environment under which they operate. It is evident from the previous studies that there are several challenges facing the Jordanian banking sector in terms of the application of information systems in human resource management. Despite these challenges, the application of information system is on average effective in the banking sector. There is shortage of the trained technical staff on using the computer for commercial purposes. Islamic banking industry in Jordan requires effective application of information systems in human resource management.

Comprehensive and integrated information systems play an essential role in improving the activities related to human resource management. It is important to provide basic infrastructure, equipment and software in human resource information systems. These components should continuously be upgraded and maintained to further reduce the occurrence of potential errors that may impede the activities of the banks. Looking at the aforementioned situations, the Jordanian banks should consider comprehensive training programs for workers in human resource management information systems to enhance their knowledge and skills.

Though the information systems are on average effective, this study recommends that the Jordanian banking industry should enhance the application of computer-based technology in their operations, systems and functions. All major units in the banks, including marketing, customer services, and operations must be taken into consideration. In all the units, there is a need for training course for the staff in order to revive their abilities of using information systems. The banks should evaluate the performance of each worker and provide favourable working conditions in the information system department.

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