

## HRM University Systems and Their Impact on e-HRM

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### ABSTRACT

The study aimed to identify the university systems of human resources management and their impact on human resources management electronically. The study population consists of the different administrative levels in the universities, with 239 employees and 35 IT staff. The study sample consisted of (148) individuals from the different administrative levels and (35) from IT centers, and the response rate was (84.31%). The researchers used a questionnaire as a study tool, a descriptive analytical approach to achieve the study objectives, and a SPSS program was used to analyze the study data. The results of the study showed that the university system in the management of human resources differs in varying degrees from one university to another and has a great impact towards the human resources management electronically. The results confirmed that the nature of the university system in human resources management is an indicator of the process of transition to human resources management electronically in terms of the use of IT in some human resources management functions. A gap between e-HRM as a technical concept on the one hand and the use and adoption of management and managers. We noted that there is full agreement in terms of the importance of human resources management, However, e-HRM applications are still limited, in their early formations and have not yet been optimally exploited. The use of ICT to take advantage of human resources management functions is commensurate with the requirements of different organizations, from the focus on self-service staff, including focus on incentives and performance appraisal. The University's system of e-learning has an impact on the functions of eHRM, especially in the areas of training and development, communication and e-learning. The study reached a number of recommendations aimed at enhancing e-HRM functions and activities in the Palestinian universities. The most important of these is the need for cooperation among universities regarding the transition to electronic management. The need to find sources of funding for change projects to electronic management and placed in the priorities of strategic plans for universities. The need to develop computerized information systems to cover all administrative aspects. The need to develop e-HRM in universities because of their key role in the success of the process of transition to electronic management.

**Keywords:** *university systems, human resource management, electronic human resources management, Palestinian higher education institutions, Palestinian universities.*

## 1. INTRODUCTION

Human resources management relates to the set of policies and practices required to implement various human resources management activities that the business organization needs to exercise its functions in the changing environment of organizations and businesses. Where human resources management, both in the public and private sectors of the world as a whole, faces enormous challenges on the threshold of the twenty-first century, which is fraught with rapid and complex political, economic, social, technological and cultural changes (AL-Najjar, 2008). Human resources have a significant impact within this change in the environment technology factor, as the changes that will result from this factor over the next 50 years are equivalent to the changes that have occurred in this area during the previous millennium (Mondy & Noe, 2005). The management of human resources electronically is the administrative activity related to identifying project needs from working resources, providing them with numbers and competencies that are commensurate with the needs of the project, and working to use these resources effectively in achieving the goals of productive efficiency (Dura and Al-Sabbagh, 2008). The use of technology in human resource management or human resources management is called e-HRM, meaning the application of

Web-based techniques in HR-related systems and functions (Hopkins and Markham, 2006).

In order to study the university systems of human resources management and its impact on the human resources management electronically, the researchers chose the Palestinian universities in Gaza as the main source of human resources development, taking into account creativity, innovation and progress of science on the basis of equality and equality and advancement to reach the level of contemporary. The researchers selected the study community represented by regular universities in the Gaza Strip, represented by the Islamic University, Al-Azhar University and Al-Aqsa University (Al Shobaki, et al., 2017), (Al hila, et al., 2017), (Al Shobaki, et al., 2016), (Kassab, et al., 2017), (Abu Naser, et al., 2017), (Abu Naser, et al., 2016), (Abu Amuna, et al., 2017), (Abu Amuna, et al., 2016).

## 2. RESEARCH PROBLEM

The Palestinian universities directly affect the Palestinian society and have a great role in providing institutions and sectors of society with the necessary human resources in all fields. Universities are the leading institutions in adopting modern systems and concepts in various fields to achieve competitive advantage. of contemporary developments are able to contribute to the

process of development of human resources and society, and the problem of the current study is to answer the following question:

**Is there an impact of the university system for human resource management on human resources management electronically?**

### 3. RESEARCH HYPOTHESES

**H1:** University systems for human resources management have a statistically significant impact on electronic human resources management.

### 4. STUDY LIMITS AND SCOPE

**Subject (Academic) limitations:** The research was limited in its objective to study the university systems of human resources management and its impact on electronic human resources management.

**Human Limitations:** The study was conducted on the staff working in the Palestinian universities in the Gaza Strip.

**Institutional Limit:** The study was conducted on Palestinian universities.

**Place Limitations:** The study was conducted in the State of Palestine, specifically in the Gaza Strip.

**Time limitation:** The study was conducted and preliminary data were collected about the Palestinian universities and statistical analyzes were conducted during the year (2017).

### 5. RESEARCH OBJECTIVES

This research attempts to achieve the following objectives:

- Studying the university system for human resources management.
- Identify the impact of the university system on human resources management electronically.
- Identify the importance of electronic human resources management in universities.
- Identify the extent to which university administrations are interested in applying human resources management electronically in comparison to their interest in providing educational services.
- Make recommendations on the management of human resources electronically in Palestinian universities, and the appropriate proposals to enhance the level of its application and benefit from its advantages.

### 6. RESEARCH IMPORTANCE

- The importance of this study stems from the fact that it deals with institutions of higher education, which is a source of skills and competencies that provide the society with its needs.

- The study focuses on the modern management methods for e-HRM, the extent to which they are used in educational institutions, and is considered as a suitable model for application at the level of public and private institutions.
- The importance of the technology factor in influencing the efficiency and development of organizations in general, both in the public and private sectors.
- To keep abreast of the latest scientific developments and harness them to serve the local community, and try to generalize the various administrative functions used electronically to all institutions of society, in an attempt to reach the broader concept that includes e-government and electronic management.

### 7. PREVIOUS STUDIES

Study of (Abu Rahma, 2005), entitled "Human Resources Information Systems and their Impact on the Effectiveness of Personnel Management in the Ministries of the Palestinian National Authority in the Gaza Strip," which aimed at identifying the human resources information systems used in the personnel departments of the ministries of the Palestinian National Authority in the Gaza Strip, and to assess the areas of their use and analysis with a view to identifying the difficulties faced by those systems and limiting their efficiency and effectiveness. The study found that the departments of personnel in the ministries use the manual systems by 73% followed by the computer by 36% as a system supporting the manual systems. The study found that the use of human resources information systems is concentrated in the areas of personnel affairs, which relate to staff time by 75%. Therefore, the limited areas of use of human resources information systems adversely affect the effectiveness of personnel management in the ministries. The study recommended the need for all personnel departments to take advantage of modern file-keeping techniques and the need for coordination and cooperation between them and the staff office to guide the use of human resources information systems towards wider areas such as planning and development, in order to ensure the good use of the human element, such as selecting competent individuals to fill jobs and motivate and reward them for their efforts. The study also recommended that the senior management should provide the necessary financial support to provide personnel departments with the equipment and equipment required for the establishment and operation of human resources information systems using computer.

Study of (AL-Dahdar, 2006) entitled "The Relationship between the Strategic Direction of Senior Management in Palestinian Universities and its Competitive Advantage", which was aimed at Palestinian universities in Gaza, analyzed the relationship between some variables of strategic direction (the commitment of senior management

to strategic planning, Technological change in e-learning, continuous improvement, attention to the human element) as independent variables and the acquisition of competitive advantage according to Porter's theory. The study found a statistically significant relationship between all variables of strategic orientation and competitive advantage of institutions of higher education in the Gaza Strip. The study recommended that the university adopt scientific methods and tools to improve the services provided to employees on an ongoing basis.

Study of (Ouda, 2008), entitled "Evaluating the Effectiveness of Application of Employment Procedures in Palestinian Universities in the Gaza Strip", which aims to evaluate the effectiveness of the application of employment procedures in Palestinian universities in the Gaza Strip. Organizational structure of universities and the effectiveness of human resources planning policy. The study concluded that the process of functional analysis in the universities is good, that the tests and interviews are appropriate and there is a competent body that plans the workforce. The results of the study showed that polarization methods are conducted electronically, while interviews and tests are conducted in traditional ways. The study recommended the importance of updating the electronic system on a regular basis in order to keep up with the technological developments in the world.

Study of (Haroun, 2005), entitled "The New Strategic Directions in Human Resources Management", presented to the 21 th Annual International Scientific Conference on "A Strategic Vision for Activating the Role of Human Resources in Contemporary Technologies". The paper focused on globalization, technological revolution and economic changes And taking into account the appropriateness of adapting these changes to the requirements of the local market and the possibilities available. The study recommended several recommendations, the most important of which was the strong entry into the information age, technological competition and the acquisition of the skills required by the work. And the importance of technology transfer, assimilation, localization and conversion to production technology that correspond to our identity and reflect our creativity and skills. And benefit from the huge number of researchers and scientists in Egypt and the Arab world within the framework of a comprehensive plan to achieve a high-level technological breakthrough. And focus on the outstanding role of universities and scientific research centers in the activation and management of human resources in light of technological development and modern technologies and communication with the outside world.

Study of (Baloh & Trkman, 2003) This study, conducted in Slovenia, examined the impact of the Internet and information technology in our lives, how to communicate, learn and work, how to change the Internet and information technology for the human lifestyle and way of thinking. The study found that the Internet and

information technology are heavily used in new work patterns that have arisen through the development of ICT, such as teleworking and targeted projects. And the use of ICT to train, develop and motivate staff. Changing the working environment of organizations and their globalization orientation. Changing leadership style in organizations and increasing delegation. And changing the structure of organizations as a result of the trend towards downsizing of the workforce and structural flattening. And extensive use of polarization and selection of staff. Changing personnel functions and working procedures. And change the methods of control and control of employees. Changing ways of managing information and exploiting knowledge. The study recommended conducting further studies and research on this subject, especially since the study did not cover all aspects of change arising from the development of ICT. It also recommended that the resulting change due to ICT should not be neglected and widely exploited to increase the efficiency of the organization as an irony in organizations and the working environment. And the need to exploit the change resulting from the ICT revolution to achieve a competitive advantage for the organization and create new jobs in a rapidly changing environment.

Study of (Ruel et. al., 2004) The study is an experimental exploratory study of five large companies, Ford Motor, Belgacom (IBM, Dow Chemicals, ABN), each containing more than 15,000 employees to study their use of e-HRM functions using Web technology. The study found that the trend towards e-HRM is closely related to the organization's operations and its globalization orientation, and that there is a gap between (E-HRM) as a technical concept on the one hand, and between the use and adoption of management and managers, which leads to the disruption of utilization E-HRM is supposed to help reduce costs as one of its main benefits, but the study found that this reduction was only in reducing the number of people working in human resources management mostly, New functions as a result of the use of technology.E-HRM achieves strategic integration of human resources management with the organization's strategy, enabling employees to exercise certain HR functions on their own, and companies using e-HRM to achieve uniformity and integration of information, helping them play a global and local role . The study recommended several recommendations, including the need to change the mentality of managers and employees, to understand the usefulness and importance of e-HRM. And the need for clear objectives and strategies to ensure that there is no conflict with change. E-HRM is an innovation whose importance should not be overlooked, both for management and individuals, bearing in mind that the nature of the work of different organizations makes it difficult to develop specific regulations that are applied to all. And the need for further studies on e-HRM, which aims to identify the process of growth or planning, how to implement, what factors affect the long term and how they affect the role of human resources management.

Study of (Ruel et. al., 2007) on measuring the contribution of e-HRM to the efficiency of human resource management, through a quantitative study conducted on the Ministry of the Interior in the Netherlands and whether the transformation process is useful to the ministry. The study found that the actual implementation of human resources management (e-HRM) is linked to the efficiency of human resources management. Through regression analysis, researchers found that the quality of HR applications in terms of content and content is the most important explanatory factor in the efficiency of HR technology and strategy. The study recommended further quantitative research on measuring the efficiency of e-HR management and introducing more variables to the model developed by the researchers.

Study of (Olivas-Lujan et. al., 2007), conducted in Mexico, examines the role of EHR in achieving a global competitive advantage for Mexican companies within the industrial services sector. The study concluded that these companies achieved a global competitive advantage through their application for recruitment, recruitment and e-training. The study added that one of the main reasons for achieving this competitive advantage is the integration of the local concept of information technology with the adoption of human resources management strategies electronically. Mexico's dynamic business policies have helped implement HRM strategies because of its open-door policy, encouraging many international companies, especially the US and Canada, to open branches in Mexico, forcing corporate owners to switch to e-HR As a global trend that achieves a competitive advantage. The study recommended further studies on the impact of local and cultural factors in the adoption of human resources management and on conducting studies that measure the performance of EHRM in Mexico and other countries.

Study of (Parry et. al., 2007) This study was conducted under the supervision of the CIPD in several studies and reports on e-HRM. The study focused on the impact of technology on human resource and personnel management functions and analyzed 10 case studies of different organizations in industry and services. The study found that the use of technology within human resources had a clear impact on the efficiency of the implementation of human resources management functions. The process of transition to human resources management electronically requires a change in the skills required of human resources staff and a change in management and managers. And that the information technology is used to take advantage of human resource management functions in a manner commensurate with the requirements of different organizations. It focuses on the services of the employees themselves, including the focus on the incentive system and the other on the evaluation of performance. The attendance and departure process achieved an 85% utilization rate in the institutions under study by adopting technology. Training, development and incentive activities are equivalent to 75%. The diversity management function

received 57%. The selection and appointment function was 51%. Salary and wage activities were 50%. And that the performance evaluation process was 47%. Human resources planning activities received 29%. While knowledge management activities reached 25%. The strategic planning function for human resources and communication operations was at the lowest rate of 18%. The study recommended that the use of technology within human resources should be applied as a major focus of the Organization, since technology has a major impact on the efficiency and speed of human resources operations. She stressed the importance of developing hrms. It also recommended the importance of the participation of serious staff in the development of systems and training them to use the new systems, so that they have an awareness that helps to accept them.

## 8. THEORETICAL FRAMEWORK OF THE STUDY

### Human Resources:

According to (Omeregic, 2004), human resource is very vital to every organization because it is the live wire. Although other resources – material, financial, time, etc are very important, these may lie dormant if the right calibers of workers are not there. It is the worker who manipulates the material resources for the purpose of achieving organizational goals. There is no organization that can rise above its workers. That is why all organizations must strive to get the right caliber of people in any position. School administrators and related heads of educational institutions work with many resources to accomplish educational goals. These include people to carry out teaching and non-teaching activities.

### First- HRM Definition:

Many people find HRM to be a vague and elusive concept - not least, because it seems to have a variety of meanings. This confusion reflects the different interpretations found in articles and books about human resource management. HRM is an elastic term. It covers a range of applications that vary from book to book and organization to organization (Alan price, 2011), (Al Shobaki, et al., 2017), (Abu Naser, et al., 2017), (Abu Amuna, et al., 2017), (Abu Amuna, et al., 2016).

HRM refers to activities and tasks useful in maximizing employees' performance in the organization, it is a dynamic and evolving practice used by leaders and managers throughout a firm to enhance productivity, quality, and effectiveness (Gilley, et.al 2009). Besides, the HRM is a process of the utilization of an organization's human resources to achieve organizational objectives (Mondy & Noe 2005). Other researchers defined HRM as a set of philosophies, processes, and procedures that a company uses to manage (Bruner, et.al , 2003):

- Entry and exit processes in the firm.
- The growth and development of employees.

- The reward and recognition systems.
- The total organizational climate for how people are treated.

While, other believes that HRM is concerned with all aspects of how people are employed and managed in organization (Armstrong, M. 2012). Dessler says that HRM refers to the policies and practices involved in carrying out the 'human resource' aspects of a management position including human resource planning, job analysis, recruitment, selection, orientation, compensation, performance appraisal, training and development, and labor relations (Dessler, 2007). HRM contributes to create high performance work systems by linking various employees in different departments in the same organization (Brewster, 2007). Further, organizations use the effectual HRM system to increase their competitiveness by investing in employee development (Sutiyono, 2007). Additionally, HRM is a pattern of planned HR development and activities, which affect the behavior of individuals with the intention of enabling organizations to achieve their goals (Wood, et al., 2006). In fact, all HR activities are dependent upon the managers' efforts to formulate and implement the organizational strategy (Wei & Lau, 2005). While, Stone believes that HRM refers to the policies, practices, and systems in organizations for recruiting and developing their employees, as well as influencing their behavior, attitudes, and performance to achieve the organization's goals (Stone, 2008). Having referred to several researchers and authors' views on what HRM actually is, the researcher can therefore say that HRM is an essential tool to link different people in the same organization to use their various capabilities for achieving the organization's goals. HRM has not understood as only working for managers or employees. Rather, it is a managerial function for creating the organization's competitive advantage and growth (Al Shobaki, et al., 2017), (Abu Naser, et al., 2017), (Abu Amuna, et al., 2017), (Abu Amuna, et al., 2016).

#### **Definitions of E-HRM:**

Researchers use a wide range of terms to describe the use of technology in human resources management; for example, the terms E-HR, E-HRM, HR intranet, HR portals and self-service are in common usage, while terms such as web-based HRM and Business-to-Employee (B2E), are less common but equally valid (Ruel et al., 2004). Older definitions, still used by many organizations and some academics, include the terms 'HRIS' (Human Resources Information Systems) and 'HRMS' (Human Resource Management Systems). If taken to its extreme, one might conclude that E-HRM consists of any form of technology that supports the delivery of HR services (Lengnick, et al., 2003).

In general, E-HRM has defined as an enterprise-wide strategy that uses scalable, flexible, and integrated technology to link internal processes and knowledge workers directly to the business objectives of the organization (Marler, 2007). In addition, other researchers

define E-HRM as the application of any technology that enables managers and employees to have direct access to HR and other workplace services for communication, performance appraisal, reporting, team management, knowledge management, and learning of administrative applications (Lujan et al, 2007). Additionally, E-HRM could be defined as "the application of any technology enabling managers and employees to have direct access to HR and other workplace services for communication, performance reporting, team management, knowledge management, learning and administrative applications" (Wyatt, 2006). Besides, E-HRM was defined as a way of implementing HR strategies, policies and practices in organizations through a conscious and directed support of and /or with the full use of Web-technology –based channels (Challapalli, 2005). Further, E-HRM "as the administrative support of the HR function in organizations by using Internet technology", but also emphasis the importance of understanding that the introduction of E-HRM may lead to change in content and positioning of the HR function (Voermans and Veldhoven, 2007).

Others defined E-HRM as the umbrella that covers all the mechanisms and implications of the possible integration between human resources management and information technology in order to create value for employees and management in the organizations (Bondarouk et al., 2009). This definition suggests integration of the four aspects as following (Bondarouk et al., 2009) and (Gregeby, 2007):

- The content of the E-HRM system: where it focused on the used practices of both human resources and information technology and the link between these departments.
- Application of the E-HRM system: where it focused on the E-HRM system adoption process and its suitability for workers in the organization
- The targeted employees and directors: where it focused on stakeholders specifically, not on the human resources department or even on the organization. In fact, it focused on the executives and employees who use the E-HRM system applications significantly

The consequences of the use of E-HRM system : This a multi-levels consequences, where the application of the system leads to the creation of value not only at the enterprise level, but also on the user's personal level.

As stated, E-HRM is the use of web-based technologies for the implementation of various HRM strategies or practices (Ruël et al., 2004). While, other says that "E-HRM is an umbrella term covering all possible integration mechanisms and contents between HRM and information technologies aiming at creating value within and across organizations for targeted employees and management" (Bondarouk et al., 2009). Through this research, the researcher will use the latter definition. This is because we believe that it captures all-important components of E-

HRM and as stated by its authors, it is a consensus understanding of most existing definitions of E-HRM. The application of web-based technologies to the human resource function combines two elements, namely the use of electronic media and the active participation of people in the process. People are the drivers behind the technology. They make use of the technology that helps organizations lower administration costs, improves employee communication and satisfaction, provides real time access to information, while at the same time reducing processing time and costs (Hawkin et al, 2004). E-HRM also involves many more stakeholders besides personnel in the HR department and the business and also includes job applicants and employees from all levels. EHRM and the use of web-based technologies for human resource management practices and policies are growing within organizational life (Bondarouk et al., 2004).

There is a fundamental difference between human resource information systems and EHRM. HRIS is intended for the human resource department where users of this technology are largely HR professionals who use the system to enhance processes within the HR department, with the aim of improving service to the business. E-HRM, on the other hand, targeted at employees and management. The authors identify the main difference between HRIS and E-HRM. HRIS concerns the automation of HR services and E-HRM provides technological support of information regarding HR services. "Technically speaking, it can be said that e-HR is the technical unlocking of HRIS for all employees of an organization" (Ruel, n.d., 2004). Therefore, the researcher defines the E-HRM as the process of integration between Human resources management, and information technology, using web-based applications in human resources management.

#### **E-HRM Goals:**

The objectives of the application of Electronic Human Resources Management system (E-HRM) are:

- Reduce costs by streamlining human resource management processes (Marler and Fisher, 2010).
- Improve efficiency by improving the services provided by the Human Resources Management (Marler et al., 2010).
- Improve the strategic direction of the Human Resources Management department (Foster, 2008) and thus convert human resources management to a strategic partner of the organization (Marler et al., 2010).
- Facilitate things, management and staff (Ruel, et al., 2004).
- Compilation, storage and dissemination of information about the organization staff. (Strone and Lukaszewski, 2009).

The researcher believes that the most important objectives of the E-HRM system is to facilitate the performance of the functions of human resources, which leads to saving time

and effort of the human resources department staff, and improve the services provided, reduce paperwork and eliminate the complexities of daily work. Further, collecting data and made it available to the decision-makers with high speed and accuracy.

#### **E-HRM Application Requirements and Success Factors:**

The most important (E-HRM) system application requirements are:

- Commitment to the management of change, since the beginning of the application of the system.
- The existence of a staff culture of information technology in the organization.
- The involvement of all stakeholders in the system from the outset to win their support.
- Demonstrate the value of technological solutions provided by the system for all users.
- Illustrate the importance of using the system for each member of the staff to answer the question: How will I benefit from the system?
- Adequate training for all users (Shilpa et al., 2011).
- The system's ease of use by users, and its relationship to the functions of human resources, as the system characterized by safety and high quality, which enhances the confidence of the user and increases the efficiency of the use of the system (Ruel, et al., 2007).

There are ranges of factors that lead to the success or failure in the application of the Electronic Human Resources Management system, according to the degree of the factors availability in the organization, and these factors are (Panayotopoulou et al., 2007):

- Organizational culture prevailing in the organization, as well as about the culture regard change management.
- Staff skills of in using the technology.
- Cooperation and coordination between departments of human resource management and information technology.

#### **Electronic Human Resources Management (e-HRM)**

One of the most important challenges facing today's organizations is the technological changes and the revolution of the Internet and communications, as they have huge implications for the human resources function, because they mean drastic changes in all human resources functions and activities, and in supporting and implementing the organization's strategic plans. In the era of the end of the concept of secure employment and transformation into a secure profession, the change in organizational structures, the reduction of employment due to automation and technology, and the orientation to the knowledge economy and customer service, e-HRM emerged as a pattern and orientation that responds to changes and gives flexibility to the human resources function, and flexible in its response to changes.

The first way to save the files was the paper file cabinets. They were located in the offices of the Personnel Department. They were filled with files in alphabetical order, and the director of staff or administrative assistant suffered whenever he tried to search for a file of a change employee in one of his statements such as his address. The function of HR systems was limited to record keeping with a primary focus on staff background, addresses and other personal data. If an enterprise expanded and the complexity of its activities increased, other data on staff could be saved in such files as training records. The particular nature of human resources and other business-related systems has often been a cause for their lack of communication. This has been a major problem, and so a group of companies has begun to design software packages that cover all the corporate needs called enterprise resource planning Enterprise Resource Planning (ERP). Although many of these packages have been efficient, they have been self-contained and independent systems that have been difficult for external systems to communicate with.

The shift to computer use in everything, although it was a huge revolution at that time, could not change much, he had already finished dealing with paper files, but there was no major development in the way of dealing with it, where the Department of Personnel He plays an interactive role in the organization. He does what he is asked to do but does not add much to the organization. One of the characteristics of successful organizations is that they improve the selection and employment of human resources. The human element, like others, is affected by the external and internal environment of the organization. In light of these changes and developments in modern administrative thought, human resources management undergoes a radical change in its concepts, policies, strategies and practices. The challenges facing human resources management are so profound and comprehensive that the profession is threatened by itself, and some see it as obsolete and have no place in the future without changing and accommodating the challenges facing organizations in general (Al-Khazamy, 2003).

### **The concept and functions of human resources management**

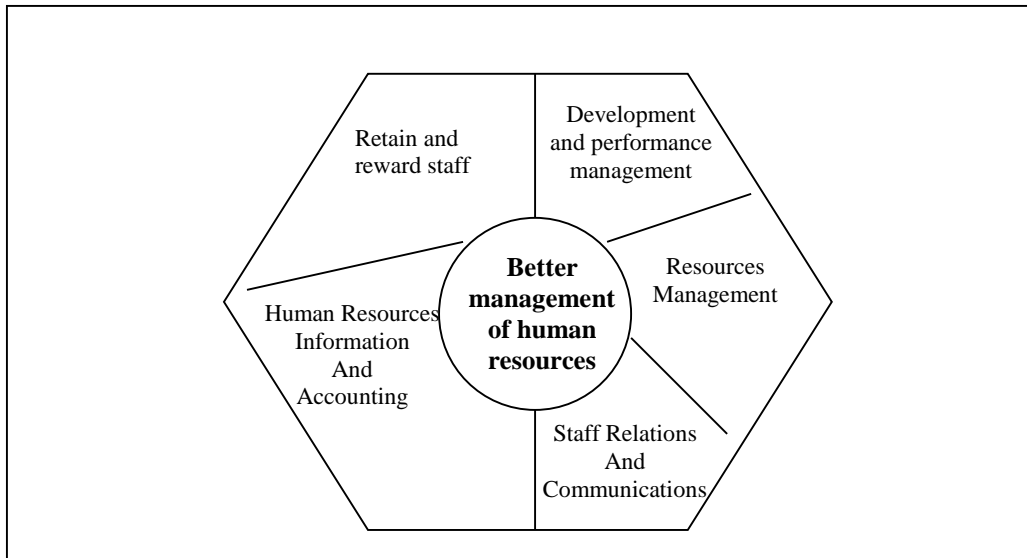
It is the activity by which individuals are given to the organization with the right quantity and type to serve the purposes of the organization and wish them to remain in it and make them exert as much of their energy and efforts as possible to achieve their goals (Al-Rubaie, 2003). The role of human resources management has evolved since its traditional role has been limited to recruitment of workers, recruitment, payment of wages and leave. The role of human resources management has become a strategic one that requires specialized competencies to carry out various aspects of its activities. Humanity carries out specialized and strategic tasks as well as executive functions (Nasrullah, 2002). As defined by Al-Salem and Saleh (2006) as the main axis in the organization of the relationship between the organization and the employees, and aims to achieve its objectives and goal through a set of activities and programs for obtaining and developing human resources and employ them and evaluate their performance, maintenance and retention effectively, This logic is an important strategic management that can not be dispensed with.

(Shehadeh et. al., 2000) defines it as all procedures and policies for selecting, appointing, training and treating staff at all levels, organizing the workforce within the organization, increasing trust in the administration's fairness, creating a cooperative spirit among them and reaching the highest levels of productivity.

There are many other definitions. Through these definitions, we have several levels of human resources management:

- Human resources management as a practice.
- Human resources management as a field of study.
- Human resources management as a profession.
- Human resources management as an administrative unit in the organization.

Figure 1 shows the nature of the human resources management relationship and its various functions with the rest of the organization.



**Figure 1:** Relationship of human resources management with the organization

**Source:** Emma Parry, Shaun Tyson, Doone Selbie, Ray Leighton, "**HR and Technology: Impact and Advantages**", [www.cipd.co.uk](http://www.cipd.co.uk), 2007, p3.

The importance of human resources management stems from the fact that it plays a key role in the development and implementation of strategic plans. The HR strategy must be integrated with both the overall strategy of the Organization and other functional strategies (Dura and Al-Sabbagh, 2008). In a study by Mark Huselid HR strategy has played a key role in improving the performance of the companies studied through (Dura and Al-Sabbagh, 2008):

- Improved quality of staff performance.
- Reduce production costs.
- Improved customer service and customers.
- High customer satisfaction rate.
- High productivity.

The functions of human resources management within the organization are varied and also evolve according to the internal and external environmental changes facing all business organizations. These functions can be summarized in the following points (Mondy, & Noe, 2005):

1. **Processing:** The process by which the organization provides the needs of staff with appropriate skills in a timely manner, including job analysis, planning, polarization and selection.
2. **Human Resources Development:** A job that includes training and development, career planning, organizational development and performance evaluation.
3. **Compensation and benefits:** include financial and non-financial compensation received by the employee, whether direct or indirect.
4. **Safety and Health:** This function is meant to protect staff from accidents and work injuries, whether due to administrative errors, staff errors, lack of safety procedures, or violent incidents.

As well as providing healthy working conditions that maintain the health and well-being of the employee, provide an environment that enables him to produce better, and ensure that the employee is free of physical and emotional diseases and others.

5. **Labor and trade relations:** These include the management of relations between employees on the one hand and organizations and trade unions on the other.

The functions of human resources management are overlapping, complementing each other, and failure of one affects other functions. The definitions of these functions are described below:

1. **Job Analysis:** The process of collecting information about each job in order to identify the job description of duties, responsibilities and working conditions, and the functional specifications of the skills, experience and abilities that must be met by the incumbent (Al-Quds Open University, 1998)
2. **Human Resources Planning:** Identifying future human resource requirements in quantitative and qualitative terms by forecasting the need or demand for human resources (Abbas, 2003)
3. **Polarization** is the process of attracting and attracting an adequate group of individuals that is the basis for selecting or selecting the most suitable individuals to fill vacancies (Al-Salem and Saleh, 2006)
4. **Selection and recruitment of human resources:** the process of selecting individuals who have the requisite qualifications to fill certain posts (Mondy & Noe, 2005)
5. **Employee Training and Development:** The process of acquiring employees' skills, knowledge



and positive attitudes related to their functions to contribute to correcting deviations in current performance or improving future performance (Abbas, 2003)

6. Performance evaluation: A system to review and evaluate the performance of tasks for an individual or team, which is a comparison between the level of actual performance and the required and assumed performance (Mondy & Noe, 2005)
7. Planning and professional development: formal and systematic efforts that assist workers in their development and progress as a vital resource in the organization. These programs provide the opportunity for employees to upgrade to the higher position or enrich their current functions (Abbas, 2003)
8. Compensation and benefits include direct financial compensation such as wages received by the employee for his work, rewards and incentives, indirect financial compensation such as voluntary or statutory compensation, material benefits such as social security, compensation for work injuries and redundancy, and non-material benefits such as job satisfaction and satisfaction Resulting from the work environment. (Mondy & Noe, 2005)
9. The work relationship: Policies designed to provide the humanitarian and social needs of the employees of the Organization and to establish contacts and peaceful interactions between them and the administration on the one hand and between them and the trade unions on the other (Abbas, 2003)
10. Health and safety: Human resources management in the institution means the provision of suitable working conditions to prevent the occurrence of threats to the health and safety of employees. This care derives from a moral factor that aims to preserve the human element and avoid accidents and injuries that endanger his life and provide healthy working conditions that ensure continuity The activity of the institution is also derived from the cost factor (Abu Sheikha, 2000)

### The concept of e-HRM

The e-HRM concept has definitions and names of the same meaning, some of which are called in the foreign literary studies the term e-hr, or virtual hrm, others call it hr intranet, web-based hr, and other researchers call it another term It is called computer-based hrm and is abbreviated as chris, in addition to others called hr portals (Ruel et. al., 2004).

This difference leads us to present a set of definitions that dealt with this concept, so that we can give a clear picture of it, and then differentiate it from the hrmis concept, and Arafa (Parry et. al., 2007) as using technology with human resources management functions. (Ruel et. al., 2007) defined it as communication through technology

directed through networks between the organization and its staff on human resources management. Schramm (2006) was cited as a way of implementing human resources management strategies, procedures and policies in the Organization through direct and informed support based on web technologies. (Wyatt) is defined as the application of any technology that enables managers and employees direct access to human resources management and other organization services for communication, performance appraisal, team management, knowledge management and education and for other management purposes (foster, 2008). Strohmeier defines it as the process of planning and implementing information technology to support at least two individuals or a group of individuals to participate in the delivery of human resources activities (Torres-Coronas & Arias-Oliva, 2009).

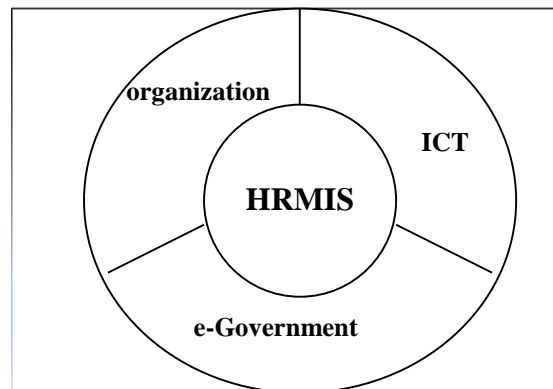
Hopkins and Markham (2006) defined it as a distinct application of web-based techniques in HR-related systems, which, together with other organizational changes, will contribute to broad access to human resources information, as well as opportunities for managing such information. (AL-Najjar, 2008) as the practical application of the organization's strategies, policies and practices in human resources through targeted support and full utilization of internal, external and international information channels is a way to perform HRM functions.

E-HRM, in its definition, includes the same elements of e-management, which include the integration of management functions with ICT technology, thus integrating HRM's activities and functions with ICT technology, relying on networks, the Internet, intranet or extranet, in response to changes In the business environment and external environment. The transformation of the Organization into electronic management, therefore, transforms the activities and functions of the Organization into integrated electronic systems. The transition may be complete or gradual, depending on the availability of information systems in the Organization, whether it needs updating or change, and over Provide the elements and elements of transition to electronic management, and ultimately, this shift depends on the strategic direction of the organization. In this sense, when we talk about e-HRM, it means that there is an HRMIS so that we can distinguish between the two concepts. Human resources information systems emerged as other systems as a result of the computer technology revolution of the 1970s and 1980s, Other systems such as accounting systems, inventory management and financial systems, and the development of databases helped the availability and evolution of these systems significantly at the time.

Human resources information systems (O'Brien, 2002) are defined as a set of common elements that include the collection, analysis, storage and retrieval of human resources management information to support recruitment and control decisions, measure and improve performance and planning. Tannenbaum defines it as any system that

helps the organization to query, store, analyze, retrieve and distribute information on human resources management (Parry et. al., 2007). The main difference between e-HRM and HRMIS is that human resource information systems are oriented towards the same human resource management service, and HRMIS users are often human resources managers for the purpose of developing services to the organization. In e-HRM, the target group is those who are outside human resources management, whether

managers or employees, providing human resources services via the intranet or the Internet for use by all employees of the organization (Ruel et. al., 2004). HRMIS remains a key factor in the development and implementation of the WMO Strategic Plan, largely through accurate data and the rapid access of information to decision makers (Armstrong, 2001). The following figure (2) illustrates the HRMIS interaction with the organization.



**Figure 2:** HRMIS relationship with the organization

**Source:** Al- Najjar, Farid (2008). e-Government, Al Dar al jameiyya, Alexandria, Egypt, P: 251.

Human resource management functions have not changed within e-HRM, but the methods and methods used in these functions have changed, relying mainly on ICT technology, as well as changing the role of individuals in the organization, becoming more active participants in the department's functions previously .

The evolution of technology and the development of a robust work analysis on the human resource management function can make decisions, and its impact can be measured by the results of the organizations' work, not only large but even small. In a study at the University of Michigan, Human Resources Management consists of (Schramm, 2006):

- Human Resource Management Technology.
- Strategic contribution to human resources management.
- Personal reliability.
- Good delivery.
- Knowledge .

The integration of technology with human resources management increases the efficiency of HRM processes, increasing staff interaction and communication processes, as well as changing work processes and skills required both in human resource management and across the organization (Parry et. al., 2007). Human resource professionals should raise their level of technological knowledge, deal with the language of modern technology-oriented business organizations, develop their knowledge and skills, and increase coordination and organization with other departments of the Organization. This does not mean neglecting the human element in this process. The aim is to

increase interaction with contemporary changes, increase the efficiency of the organization and reduce costs. This is not accomplished in the human element. The human element remains the focus of attention in the organization, Keep up with the changes in the business environment.

#### **Objectives of Human Resources Management (e-HRM)**

The goals of e-HRM stem from its integration with e-management goals and adapt them to changes in the business environment. Lepak & Snell identified these objectives by increasing the focus on strategic issues, increasing the flexibility of procedures and practices, increasing the efficiency of human resources management, Human resources management is geared towards the management and staff of the organization (Ruel et. al., 2007). The changing forces and factors influencing organizations and the issues of globalization change the perception of the safe job to the safe profession, the high rates of education in the world and the change in the quality of the required labor forces. This was one of the main reasons for the organizations' approach to e-HRM. (AL-Najjar, 2008):

- Improve the strategic direction of human resources.
- Reduce the cost of labor and administrative expenses.
- Gain from human resources.
- Facilitate the performance of HR management functions.
- Raising performance and productivity in the organization.

- Developing and improving labor relations and employee satisfaction.
- Better support for cross departmental management.
- Provide greater opportunities for participation and training.
- Improve your company image.

It aims at providing HR services immediately and conducting HRM transactions electronically. This requires a review of the traditional approach to human resources management and procedures, and transforming it into a modern integrated model within the new e-HRM concept. In the past, human resources departments have been traditional in their work and represent a heavy burden on organizations, not a key and influential factor in the success of the work.

There has been a growing belief in recent years that the Organization can have a competitive advantage, by developing its human resources by means of various means (Hopkins and Markham, 2006):

- Implement training faster and apply acquired skills effectively.
- Acquire distinct abilities that distinguish them from others.
- Improve relations among the different functional sectors within the organization.
- Improve customer services.
- Flexibility and better response to market variables.

Thus, ICT technology provides many means by which human resources services can be managed and developed.

**The Importance of Human Resources Management (e-HRM)**

The application of human resources management technology is diverse and wide-ranging as required by the organization. It may be limited to electronic scales and may extend to complex systems.

This depends, of course, on the HRMIS solutions, including full solutions for HR functions, including specific functions such as polarization, selection, performance appraisal, compensation, wages, and other HR functions (CIPD, 2006)

This, of course, leads to the diversity of the importance of e-HRM, based on HRMIS applications. According to the report (CIPD, 2006, p6) conducted by three major British institutions (2003-2006) Have emerged in the following areas:

- Improve the availability of information by 91%.
- Improve the availability of information by 81%.
- Improve services to employees by 56%.
- Reduce costs and expenses by 35%.

The drivers of integrating technology with HR vary and may vary from operational, relational or transformational motives, as shown in Figure 3.



**Figure 3: The Drivers of Integrating Technology With HR**

Source: Chartered Institute of Personnel and Development, "Changing Agenda", UK, [www.cipd.co.uk](http://www.cipd.co.uk), 2006, p6.

The drivers are concerned with HR activities in management, such as payroll management and personal information management, while the relational drivers are concerned with advanced HR activities. The focus here is not on management but on the HR tools that help in the organization's operations to attract, select, train and evaluate performance. In transformational motivation, it focuses on HR functions with strategic advantage, such as changing organizational processes, strategic reorientation,

strategic competitive advantage management and strategic knowledge management (Ruel et. al., 2004)

This is highlighted by the various HR functions that serve individuals. British organizations use technology to manage human resources significantly in the following functions (Parry et. al., 2007):

- Management of absenteeism and attendance by 85%.

- Rewards and incentives of 75%.
- Training and development by 75%.
- Manage diversity by 57%.
- Polarization and selection by 51%.
- Wages by 50%.
- Performance evaluation by 47%.
- Human resources planning by 29%.
- Knowledge management at 25%.
- Manage expenses by 18%.
- Develop a strategic plan for human resources by 18%.
- Contact 18%.

The use of technology in human resource management has a significant impact on reducing administrative costs resulting from personnel operations, reducing the duration of recruitment and recruitment, increasing interaction of

individuals with HR activities, such as the identification of benefit packages, compensation and training through the Internet and many other benefits related to all HR functions.

Thus, the organization receives many benefits from the use of e-HRM. These benefits range from high-impact benefits to ordinary benefits. The following table (1) illustrates these benefits (Parry, et. al., 2007).

**Table 1:** Benefits obtained by the organization due to the application of e-HRM

No.	Great benefits	Normal benefits effect
1	Reduce costs by automating human resources operations and activities	Enable immediate processing of information leading to a reduction in the time cycle
2	Reduce correction costs by improving the accuracy of HR information	Increase employee satisfaction by improving the quality of human resources services and access to information
3	Reduce the costs of printing and disseminating information by providing direct access	Allow human resources management to become a strategic partner of the organization
4	Improve employee productivity by providing access to information at any time from anywhere	Is likely to change the culture of the organization that stimulates self-innovation and the evolution of internal service standards
5	Reduce data entry and search costs through staff and self-management services	
6	Increase the efficiency of decision-making costs through improved analysis of human resources information	
7	Reduce IT infrastructure requirements through the use of human resources services interface	

**Source:** Emma Parry, Shaun Tyson, Doone Selbie, Ray Leighton, "HR and Technology: Impact and Advantages", [www.cipd.co.uk](http://www.cipd.co.uk), 2007, p8.

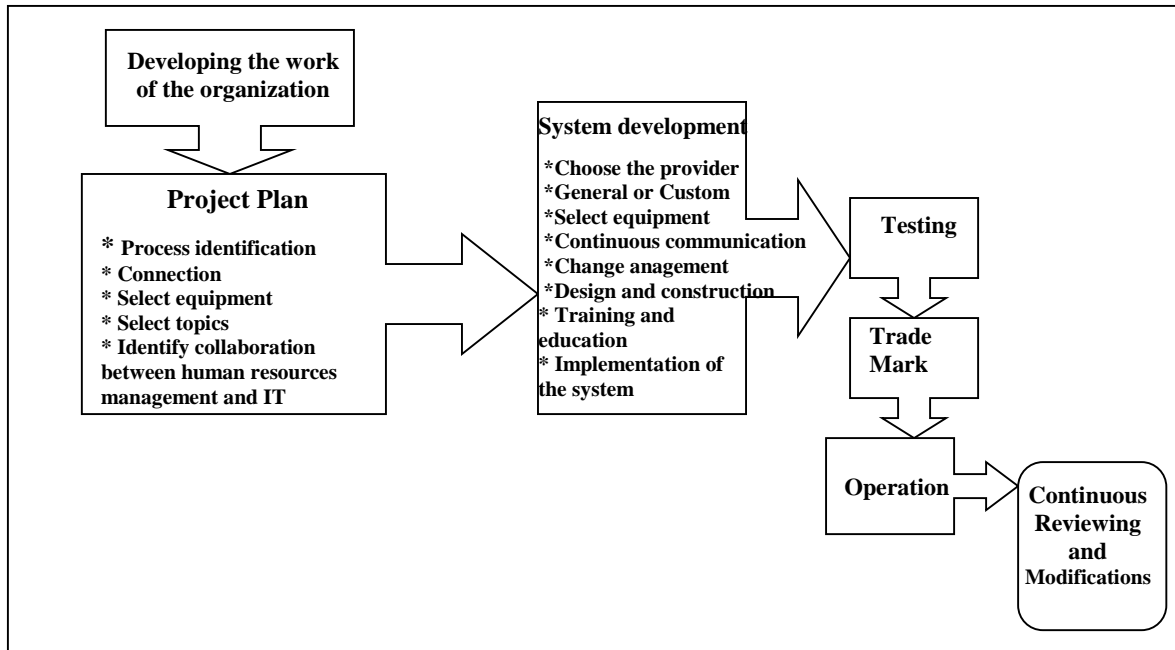
The increase in the need for e-HRM workers because of the ease of competition and the search for alternative jobs has led to the use of portals to increase their competitive positions and thus increase overall productivity and quality (AL-Najjar, 2007):

- Instant self-service for workers.
- Manpower Planning Services.
- Link the company's various websites such as in-kind benefits, education portal and recruitment portal with HR portal.
- Enable employees to learn performance data.
- Enable managers to make strategic decisions.
- Linking different databases within human resources management, such as payroll software and performance software, and making them available on the website for both employees and managers.
- Write instant reports on employees from the company's website using the criteria used, providing managers with objective decisions.

In spite of this importance, some organizations and institutions, especially those operating within the public sector, still do not take advantage of these benefits or take them as a kind of change in the changing business environment. According to a study in Britain, ), Attributed to the lack of confidence and the relationship between managers and human resources management on the one hand, and the lack of confidence in the possibility of technology to achieve the required at different functional levels (Foster, 2008).

**Relationship between IT departments and human resources departments**

Building e-HRM is a process that requires collaboration between IT management and HR management. Collaboration with other departments in the organization may vary, depending on their size and structure, and according to the strategic directions of the organization.



**Figure 4:** Process Building System (e-HRM)

Source: Emma Parry, Shaun Tyson, Doone Selbie, Ray Leighton, "HR and Technology: Impact and Advantages", [www.cipd.co.uk](http://www.cipd.co.uk), 2007, p7.

It should be noted that in the planning stage of the system there is a need for close and effective cooperation between the two administrations. Failure will lead to delays and difficulties in achieving the system.

The CIPD report focuses on a series of steps to ensure the successful design, development and implementation of the e-HRM system. (Parry et al., 2007).

- Consult and review any user of the system as much as possible, to ensure that the requirements and needs of each of them are met.
- Attention to the implementation of those requirements in the early stages of the system.
- To identify the competent persons to take responsibility for these requirements and to carry out the necessary operations and follow up with the beneficiaries.
- Check the processes and order up-to-date.
- Develop an appropriate strategy to manage the relationship between human resources management in the organization and IT staff, both within and outside the organization.
- Attention is given to the fact that processes are standardized or directed (custom), although operations are often standard, but there are some processes where allocation is unavoidable.
- Be sure to check the system adequately, to identify problems before putting it into actual service.
- Appropriate consideration of the Organization's brand and human resource management in the design of e-HRM systems.

**Results of human resources management application electronically**

**A. Results of e-HRM for the organization**

E-HRM aims to increase the strategic direction of HR management, improve employee service, increase customer satisfaction, reduce costs and increase efficiency.

The expected results of the organization, including the above, are the following points (Ruel et. al., 2004):

- Commitment is high so that the workforce is motivating and able to understand and interact with management to change within the organization's environment, leading to greater level of trust between management and employees.
- High competency, indicating the ability of employees to learn new tasks and duties if circumstances so require.
- Cost savings, through competitive pay and reduced turnover, and HR management ability to perform a distinct management role in order to achieve the Organization's goal of reducing costs.
- High quality, resulting from the formation of the internal environment, the wage system and the management of personnel to suit the interests of all users.

**B. Results of e-HRM implementation for human resources management**

E-HRM does not mean abandoning the role of human resources management, nor does it mean leaving it as it is. We have already seen a reduction in administrative functions of HR management and consequently a reduction

in management positions and a greater focus on strategic objectives.

The overall direction of human resources management is that it is a strategic partner in the planning of the organization, for its ability to provide the organization with accurate and fast information using technology, and has become more customer-oriented as a result of technology.

(Ruel et. al., 2006) summarizes these findings on human resource management based on their different approaches in the following points:

- Organizations that adopt an operational approach using e-HRM, staff and managers will have a significant role in implementing strategic human resources management plans, procedures and practices, resulting in less demand for HR staff.
- Organizations that adopt an e-HRM approach will have a smaller HR management staff if HR and HR tools are used by the HR on the Intranet.
- E-HRM-based organizations, HRM experts will be needed to formulate strategic human resource management plans.

#### **Challenges of applying human resources management electronically**

Interaction involves introducing new innovations. Innovation requires an experience of everything new. Some of these new things may not work as initially expected, and as usual the focus will be on their negatives rather than their positives. In the last few decades, many institutions and companies have adopted some new ideas that have not achieved all their objectives. For example, changing the name of the "Personnel Affairs" section to human resources (without much notice of any difference) Standards of excellence within companies (where many of them have not been committed). Now the role of the human resources management system is over, and over time it will become clear whether this system deserves all the publicity it has been given to it like other new ideas. It is expected to be very welcome initially, followed by an inventory of errors resulting from And finally comes the stage of trying to develop and increase the demand for the benefits provided by and to some extent can already be seen. Many of the pioneers in the implementation of these systems dealt with them and knew the strengths and weaknesses, and companies that wish to implement these systems can benefit from these experiences. Human resources managers play an important role in demonstrating the advantages and challenges of the system to others. Predictions from these systems must be realistic. Many people are frustrated with new ideas and systems because excessive promotion has made people overpriced for more goals. Desired ones.

One of the most important challenges facing human resource management when migrating to e-HRM systems, which can affect their success or failure is (Hopkins and Markham, 2006):

1. The boundaries between the human resources and information technology departments were eliminated, as the IT department staff was somewhat isolated from other departments in the company.  
The integration of IT departments and other productive sectors of companies in recent years has been improving, with computer technology being heavily introduced into all day-to-day activities, and human resources staff are aware of the importance of improved human resources systems in providing effective and useful information.
2. Enhancing the position of the Human Resources Section Unlike the former human resources management systems that were self-contained and used exclusively for their employees, e-governance systems for human resources are available to all and can integrate them with the various aspects of the company's systems.
3. Transforming the focus of the HR department into clients, where many consider human resource functions as functional and traditional tasks, ie they do not actually initiate but respond only to the reaction of others.
4. The proper implementation and operation of human resources management systems requires a shift in focus to customers. Target customers should be identified, their needs and services can be provided. Human resources departments should have a more effective role and contribute more to daily activities that increase the company's profits.
5. The need for human resources workers to understand the nature of the company's work, where the integration of human resources and work that requires an electronic human resources management system to understand the good working staff of the nature of work.
6. A successful EHRM specialist will need to know how different sectors work together and the role of human resources in achieving this, and the various tasks will need to be transferred to and from human resources constantly.
7. The loss of human resources personnel to communicate with individuals, it is possible in any automation to reduce the importance of the human factor and communication between individuals.
8. The introduction of computer systems into the work of staff and human resources departments may cause staff to lose contact with people who are primarily concerned. Staff may feel that the company has reduced its interest in the human element. These are some of the things to consider when planning System and its implementation.
9. Consider the actual needs of the company and know the extent of the ability of its infrastructure to meet them and decide on the implementation of

the appropriate system that can maximize the benefit of the work of the company.

10. To maintain quality of service, there is a possibility of low quality of service levels as a result of the conversion of the system from traditional to electronic.
11. Information security, as this is a legal necessity, especially in light of the transfer of responsibility to the personnel working.
12. Ensure access to the system by all employees, and by people with special needs.
13. Compatibility with accepted standards, especially when building web pages.
14. Taking into account different cultural aspects, especially when working in an international environment.

## 9. METHODOLOGY OF THE STUDY

The researchers used the descriptive analytical approach, in which he tried to describe the reality of human resources management electronically in the regular Palestinian universities in the Gaza Strip, because it is the

**Table 2:** Number of university employees concerned with the subject of the study

Job title	Islamic University	Al Azhar university	Al-Aqsa University	Count	percentage
University President	1	1	1	3	1.26
Vice president	3	3	4	10	4.18
Dean	19	14	12	45	18.83
Director	24	24	12	60	25.1
Head of the Department	40	37	44	121	50.63
<b>Total</b>	87	79	73		
<b>Total summation</b>	239				100.00

Source: Department of Personnel in the universities listed in the study, 2017.

### The study sample

As for the study population of academics and administrators from the other departments of the university, a random sample of the society was selected, taking into account the size of the representation of each university in the study society. The researchers determined the optimal size of the random stratum and its size (148) (62%), through the sample size calculation website (<http://www.isixsigma.com>). Table (3) shows the study population of academics and administrators and the size of the representative sample of the study.

**Table 3:** The study population for academics and administrators and the representative sample of the society

University Name	Study Society	The study sample
Islamic University	87	54
Al Azhar university	79	49
Al-Aqsa University	73	45
<b>Total</b>	239	148

Source: Department of Personnel in the universities listed in the study, 2017.

most appropriate and appropriate research methods to describe the phenomenon in question, in which the researchers try to describe the subject of the study, analyze the data and compare, interpret and evaluate hope In reaching meaningful generalizations that enrich and enrich the knowledge base on the subject. The researchers used the questionnaire to collect primary data as a main research tool, specifically designed to compute and compile the necessary information on the subject of the study. The questionnaire was distributed to the sample of the study and then discharged and analyzed using the SPSS statistical program and the use of appropriate statistical tests in order to arrive at indications of value and indicators that support the subject of the study.

### Study Society

The study society shall be composed of university administrative staff and academics as they relate to the subject of the study. The number of members of the study community is 239, as shown in Table (2).

The total sample size, which includes academic and administrative staff, as well as IT staff, as shown in Table (4).

**Table 4:** Sample of the representative study of the community

University Name	The study sample
Islamic University	54
Al Azhar university	49
Al-Aqsa University	45
<b>Total</b>	148

Source: Researchers' Preparation, 2017.

### Reliability and stability of the questionnaire

#### Validate the internal consistency of the questionnaire paragraphs

Intrinsic consistency is the consistency of each paragraph of the questionnaire with the area to which this paragraph belongs. The researchers calculated the internal consistency of the questionnaires on the survey sample of 30 individuals by calculating the correlation coefficients between each paragraph and the total score of the field.

The validity of the internal consistency of the areas of the questionnaire and its verifications was verified by

calculating the Pearson correlation coefficient between the scores of each questionnaire area and the total score of the questionnaire. The Pearson correlation coefficient was also calculated between each paragraph of the questionnaire and the total score of the field to which it belongs. Statistical Program (SPSS).

The consistency of the third field of IT staff was not calculated, as it was calculated alone within the statistical treatments for this category.

**Validity of the internal consistency of the field**

Table (5) shows the correlation coefficients between each paragraph of the fourth field and the total score of its paragraphs.

**Table 5:** The correlation coefficients between each paragraph of the field (the university system in human resources management) and the total score of its paragraphs

No.	Paragraph	Coefficient of correlation	Moral level	Level of significance
1	ICT is used in human resources planning	.734	.000	0.01
2	Vacancies are advertised through the university portal	.398	.030	0.05
3	Applications are submitted electronically	.625	.000	0.01
4	Electronic interviews are used in the recruitment process	.652	.000	0.01
5	Electronic tests are used in the recruitment process	.624	.000	0.01
6	Registration of attendance and departure is done electronically	.434	.017	0.05
7	The attendance and departure system is electronically linked to the pay system	.663	.000	0.01
8	The performance of the staff is assessed by the supervisor electronically	.831	.000	0.01
9	Feedback is made electronically to the employee	.750	.000	0.01
10	The career path is planned electronically	.933	.000	0.01
11	Training needs are identified electronically	.917	.000	0.01
12	Staff are trained using various electronic training methods	.734	.000	0.01
13	The pension is referred electronically	.777	.000	0.01
14	The service is terminated electronically	.744	.000	0.01
15	Management of University staff services is done electronically through the Staff Services Portal	.654	.000	0.01
16	Portal staff services are easy to use	.450	.013	0.05
17	Employees are provided with electronic forms for personnel through the Personnel Services Portal	.843	.000	0.01
18	The staff services system is linked to the pay system	.701	.000	0.01

Table (5) shows that the correlation coefficients between each of the four domains and the total score of their verbs are limited between the two values (0.398 - .930) at the level of significance (0.05). This indicates that the fourth field verbs are true for the measurement.

**The structural validity of the questionnaire**

Structural validity is one measure of the validity of a tool that measures the extent to which the objectives of the tool are being achieved. It measures the extent to which each area of study is closely related to the study. The correlation coefficient of Pearson is used to calculate this correlation.

**Table 6:** correlation coefficients between each field of study in the overall grade of the study subjects

The field	Correlation coefficient	Moral level	Level of significance
University System in Human Resource Management	.879	.000	0.01

Table (6) shows that the correlation coefficients between each area of the questionnaire and the total score of the questionnaires are limited between the two values (0.491 - .9400) at the level of significance (0.01). This indicates that all areas of study are true for the measurement.

**Stability of the questionnaire**

Stability means that the results will be stable if they were redistributed to the sample again under the same conditions. The researchers used two methods to verify the stability of the questionnaire, namely the half-way distribution and the alpha-cronbach method.

**First: the half-split method distribution**

Table (7) shows correlation coefficients between individual questions and marital questions for each field of study, as well as correlation coefficient and consistency between all odd and even clauses. The correlation was calculated by using half-separators, the Jettman coefficient



for individual-spaced areas, and the Spearman-Brown coefficient for matrices.

**Table 7:** correlation coefficients using half-split method

The field	Correlation coefficient	Stability coefficient	Type of the parameter
University System in Human Resource Management	.925	.961	Spearman-Brown

It is clear from Table (7) that stability coefficients are limited to (0.945 - 0.986) and the stability coefficient for all paragraphs (0.988).

**Second: Measurement of stability using the alpha coefficient Kronbach**

The stability of the questionnaire was measured in another way, namely, the  $\alpha$ -cronbach coefficient. Table (8) shows the results of this method.

**Table 8:** Correlation and Stability Parameters using the Cronbach Alpha Factor

The field	Number of paragraphs	Stability coefficient
University System in Human Resource Management	18	.936

It is clear from Table (8) that stability coefficients are limited to (0.936 - 0.979), and the stability coefficient for all paragraphs (0.977) indicates that the questionnaire clauses have a high stability coefficient.

**Table 9:** Natural distribution test

The field	Number of paragraphs	Z Value	Value of significance level
University System in Human Resource Management	18	1.225	.099

**Analysis of the study paragraphs**

The researchers used a single sample t-test to analyze the paragraphs of the questionnaire, where the paragraph is positive and the members agree to the community if the level of significance is less than (0.05) and the relative weight is greater than (60%), and the paragraph is negative and the community members agree if the level of

**Statistical treatments used**

The Statistical Package for Social Sciences (SPSS) was used to process the data statistically, so that the researchers answer the questions of the study. The treatment included the following statistical methods:

1. Percentage and frequency: To describe the characteristics of the study population of the functional variables, and to determine the responses of its members towards the study axes.
2. Alpha Kronbach Test: To calculate the stability coefficients of the questionnaire, and the coefficient of stability of each axis of the study axes.
3. Pearson correlation coefficient: to measure veracity of vertebrae (constructional honesty).
4. Colomgruff-Samarnov test (1-Sample K-S): To determine the data type, do you follow normal distribution or not?
5. One sample t test: to analyze the clauses of the questionnaire and the hypotheses of the study.

**Study results and interpretation  
Natural distribution test**

The rule of decision is that the data are subject to normal distribution if the Sig value is greater than 5%. If the number of cases exceeds 50, we use the Kolmogorov-Smirnov test.

Table (9) shows the results of this test, as the values of the significance level are all greater than 5%, which means that the data are subject to normal distribution.

significance is less than (0.05) and the relative weight is less than (60%). The opinions of the community in the paragraph are neutral if the level of significance is greater than (0.05). It consists of (18) paragraphs, and table (10) shows the results of the use of t-test.

**Table 10:** Analysis of Field Paragraphs (University System in Human Resource Management)

No.	Paragraph	SMA	Relative weight	t value	Moral level
1	ICT is used in human resources planning	7.00	70.00	5.817	0.000
2	Vacancies are advertised through the university portal	8.84	88.37	26.478	0.000
3	Applications are submitted electronically	5.74	57.44	-0.975	0.331
4	Electronic interviews are used in the recruitment process	5.43	54.26	-2.221	0.028
5	Electronic tests are used in the recruitment process	5.29	52.87	-2.875	0.005
6	Registration of attendance and departure is done electronically	8.74	87.36	20.067	0.000
7	The attendance and departure system is electronically linked to the pay system	5.22	52.17	-3.244	0.002
8	The performance of the staff is assessed by the supervisor electronically	5.88	58.76	-0.490	0.625

No.	Paragraph	SMA	Relative weight	t value	Moral level
9	Feedback is made electronically to the employee	6.84	68.45	3.973	0.000
10	The career path is planned electronically	5.37	53.72	-2.804	0.006
11	Training needs are identified electronically	5.37	53.72	-2.867	0.005
12	Staff are trained using various electronic training methods	6.67	66.74	3.537	0.001
13	The pension is referred electronically	5.06	50.62	-3.635	0.000
14	The service is terminated electronically	5.27	52.71	-2.918	0.004
15	Management of University staff services is done electronically through the Staff Services Portal	7.71	77.05	8.314	0.000
16	Portal staff services are easy to use	8.59	85.89	19.298	0.000
17	Employees are provided with electronic forms for personnel through the Personnel Services Portal	6.24	62.40	1.051	0.295
18	The staff services system is linked to the pay system	5.76	57.60	-1.072	0.286
All paragraphs		6.39	63.89	3.457	.001

Table (10) shows the response by respondents as follows:

1. The value of t for all paragraphs (3.457) at the level of significance (0.001) is positive.
2. The relative weight of all paragraphs was 63.89% and the mean was 6.39.

**Interpreting the results and linking them with previous studies:**

1. There is agreement from the sample of the study that the university system in human resources management is statistically significant at (0.05) with a relative weight of (63.90%) and an arithmetic mean (6.39). The results of the majority of the paragraphs were positive, and this means that the sample members agreed to them to a large extent, and all the results are statistically acceptable and above the arithmetic mean (6). The results of the study agree with AL-Dahdar (2006) that the university should adopt scientific methods and tools to continuously improve the services provided to employees. The researchers explain this because of the systems of self service, attendance, electronic delivery and other electronic systems, all of which improve the services provided to employees.
2. The results of this field indicate that the nature of the university system in human resource management is an indicator of the process of transition to human resources management electronically in terms of using the means of information technology in some human resources management functions. This result was consistent with Baloh & Trkman (2003), that the Internet and information technology have changed the human lifestyle and way of thinking, and so this change is reflected in work and human resource management. University researchers have found electronic systems that perform different functions such as e-polarization, ESS, performance assessment, Where universities apply all new electronic systems in the field of human resources management in order to achieve employee satisfaction, improve the services provided to him,

reduce paper documents and provide accurate information.

3. The results of the paragraphs are generally consistent with (Ruel et. al., 2004)'s study of a gap between e-HRM as a technical concept and the use and adoption of management and managers. The transition to e-governance and the availability of infrastructure in IT centers, but despite all of this, e-HRM applications are still limited, in the early formations and not yet optimized. The researchers explain this because of the different priorities of university departments among them, and the rapid changes in the information technology environment under the difficult economic conditions experienced by the Palestinian universities in the Gaza Strip.
4. The results of the paragraph "ICT means in human resources planning" are consistent with Ouda (2008), which calls for the need for universities to use modern statistical methods during the planning process and to take care of updating the electronic system periodically to keep abreast of the technological developments in the world. University administrations recognize the importance and advantages of technology-based planning.
5. The results of the field agree with (Parry et. al., 2007) that ICT use of human resources management functions is commensurate with the requirements of different organizations, such as focusing on self-service, focusing on incentives and performance appraisal, Because of the different priorities of university departments among them.
6. The results of the paragraph "submit applications for electronic employment" neutral, indicating that the use of the medium, and researchers explain that the presence of such services in a particular university, only the researchers and field interviews used the service at the Islamic University, and some of the advisory functions at the University of Al-Aqsa.

7. The results of the paragraph "use electronic interviews in the recruitment process" were negative, indicating little use, and the paragraph "Electronic tests in the recruitment process" were negative and showed little use of electronic tests. This is in contrast to (Olivas-Lujan et. al., 2007), which concluded that companies have achieved a global competitive advantage through their application for recruitment and training. The most important reasons for achieving that competitive advantage is the integration of the local concept of information technology with the adoption of human resources management strategies electronically. The results are also consistent with Ouda (2008) in terms of the use of oral and editorial tests by the universities and that the interviews are direct.
8. The "E-tests in the recruitment process" was negative and showed little use of electronic tests. The researchers explain that the most commonly used e-tests are English language tests as a basic test for any job, and are not used consistently. And one of the most important reasons for not being present may be the lack of jobs required at universities, making the design of electronic tests expensive.
9. The results of the paragraph are "electronically referred to the pension" and the paragraph "electronic termination" is negative. This indicates that the pension and e-termination is little. The researchers explain that no human resources management system has been completed electronically at any of the universities concerned. Now, to get these applications implemented electronically, we need an integrated e-HRM system.
10. The result of the paragraph "attendance and departure system is linked electronically to the wage system" is negative. This indicates that the system of attendance and departure is not linked to the wage system. This is one of the shortcomings of the lack of integration of technology and the proper utilization of it. And the days of absence in the departments of personnel through the system of attendance and departure and then send to the financial management the final result.
11. The result of this paragraph is that "the performance of the staff is evaluated by the supervisor electronically" is neutral. This indicates that the evaluation of electronic performance is used in a medium way, and the researchers explain that the evaluation of the electronic performance of the employee by the supervisor is used only at the Islamic University.
12. The result of the paragraph "Employees are provided with electronic forms for personnel through the Personnel Services Portal" is shown to be neutral, indicating that staff are provided with

electronic forms in a medium way. The researchers explain that staff self-service system is not complete and is not fully associated with the pay system. For example, there are some electronic forms of personnel, such as a leave form, and when we talk about models of personnel, it means a wide package including changing the social situation, housing data, exit permission and others.

13. The system of employee services is linked to the pay system. The staff services system is linked to the average wage system, and the researchers explain that there is no financial service that the employee can handle through the staff service system.

## 10. ANALYSIS OF FIELD OF STUDY

The following paragraph discusses the field of study related to the university system in the management of human resources electronically (e-HRM) in Palestinian universities. Table (11) shows the results of the use of t-test.

**Table 11:** Analysis of the field of study

The field	SMA	Relative weight	The value of t	Moral level
University System in Human Resource Management	6.39	63.89	3.457	0.001

Table (11) shows respondents' responses to all areas of study. The results were as follows:

1. The mean for all fields of study was 7.04 and the relative weight was 70.35.
2. The value of t was 13,564, which is greater than the tabular value of 1.98 at a level of significance of 0.000.
3. From the above, we can point out that the reality of electronic resource management (e-HRM) in the Palestinian universities is above average (6) and is considered statistically acceptable. The researchers explain this by the increasing interest of the university administrations towards the transition to electronic management in general, Especially in order to cope with the rapid changes in the means of ICT, and to use them to serve the administrative and academic system, and serve the students, employees and society.

### Analysis of the hypotheses of the study

**H1:** University systems for human resources management have a statistically significant impact on human resources management electronically.

### Analysis of the hypothesis

The hypothesis states: "University systems for human resources management have a statistically significant

impact on human resources management electronically." The researchers used a single sample T-Test. Table (12)

shows the results of this test.

**Table 12:** Analysis of the hypothesis

Hypothesis	SMA	Relative weight	T value	Moral level
University systems for human resources management have a statistically significant impact on human resources management electronically	6.39	63.89	3.457	0.001

Table (12) shows that the average score of the answer was 6.39, which is greater than the arithmetic mean (6). The value of t (3.457) is greater than the t table value (1.98) and the result is statistically significant at 0.05. This is in line with (Haroun, 2005) in terms of focusing on the outstanding role of universities and scientific research centers in activating and managing human resources in the light of technological development and modern technologies. . And (Abu Rahma, 2005), which concluded that the areas of use of human resources information systems in the ministries of the Palestinian Authority are concentrated in limited areas, which relate to staff time by 75%. (CIPD Report, 2006), which concluded that the use of ICT in the implementation of HRM functions has evolved from the inception of HRMIS to the current development in use, including many functions such as e-polarization, benefits, development and training, education E-mail and other functions. It is also consistent with (Ruel et. al., 2006), which concluded that the actual implementation of e-HRM is linked to the efficiency of human resources management. It is also consistent with the study by (Parry et. al., 2007) that application of the use of technology within human resources should be a major focus of the Organization. The transition to e-HRM needs to change the roles and skills of HR staff and managers, staff participation, Human resources management and operations.

## 11. RESEARCH RESULTS

After conducting various statistical analyzes of the study tool, the following results were obtained:

- The University's system of human resources management varies in varying degrees from one university to another and has a significant impact on the direction of human resources management electronically.
- The results confirmed that the nature of the university system in human resource management is an indicator of the process of transition to human resources management electronically in terms of using the means of information technology in some functions of human resources management.
- There is a gap between e-HRM as a technical concept on the one hand and the use and adoption of management and managers. We have noted that there is full agreement in terms of the importance of human resources management. However, e-HRM applications are still limited, in their early

formations and have not yet been optimally exploited.

- The use of ICT to take advantage of human resources management functions is commensurate with the requirements of different organizations, from the focus on self-service staff, including focus on incentives and performance appraisal.
- The university system in providing e-learning services has an impact on the functions of EHRM especially in the areas of training and development, communication and e-learning.

## 12. RESEARCH RECOMMENDATIONS

The following is a set of recommendations based on the results of the study, hoping for the administrations of the universities concerned to study the development of e-HRM.

- The need for cooperation and coordination among universities in terms of transition to electronic management.
- Search for sources of funding for change projects to electronic management and put them in the priorities of strategic plans for universities.
- Raise the level of cultural awareness of the importance of transition to electronic management and the use of tools in the daily work of the employee.
- To develop computerized management information systems to cover all administrative aspects.
- E-HRM development in universities as they play a key role in the success of e-management.

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