

# International Journal of Management and Organizational Research

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## The impact of electronic human resources management in achieving entrepreneurship

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### Article Info

**ISSN (online):** 2583-6641

**Volume:** 03

**Issue:** 03

**March-April** 2024

**Received:** 15-03-2024;

**Accepted:** 20-04-2024

**Page No:** 14-19

### Abstract

The current study aims to understand and analyze the relationship between the independent variable, electronic human resources management, represented by its dimensions (E-recruitment, E-training, E-development, E-performance evaluation, E-compensation), and the dependent variable is entrepreneurship with its dimensions (creativity, initiative, risk-taking), and the researcher adopted on a scale through the statistical program (SMART PLS) analysis of these dimensions to analysis the sample of 7 commercial banks in Iraq the research problem was represented by the following question: (Is their perception and awareness of the benefits of electronic human resources management in achieving entrepreneurship), too many results, the most important of which was the presence of a positive correlation with moral significance between the variable electronic human resources management and entrepreneurship. This indicates any integration between the variables. The study came out with a set of recommendations, the most important of which was that the company must keep pace with new and continuous developments and releases, and include these releases in its products more widely than they are now to face the changes. Which may occur in customer desires due to technological innovations in the product. The electronic human resources system must be applied in all organizations because it contributes to achieving entrepreneurship.

**DOI:** <https://doi.org/10.54660/IJMOR.2024.3.3.14-19>

**Keywords:** human resources management; electronic human resources; entrepreneurship; commercial banks of Iraq

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### Introduction

The human component is one of the most important elements of institutions and represents the individuals who work there. Companies in the modern era have managed to turn the spotlight on this important element by defining an important and modern concept that should be meticulously applied in the science of business management called human resources management (Armstrong & Taylor, 2006) <sup>[2]</sup>. Human resources management is one of the most important departments in organizations and represents the management of employee affairs from the top of the career hierarchy to the bottom (Berman *et al.*, 2021) <sup>[4]</sup>. The important element by defining an important and modern concept that should be meticulously applied in the science of business management called human resources management and that the human component is one of the most important elements of institutions and represents the individuals who work there. Companies in the modern era have managed to turn the spotlight on. Human resources management (HRM) is one of the most important departments in organizations and represents the management of employee affairs from the top of the career hierarchy to the bottom (Hart & Milstein, 2003) <sup>[11]</sup>. As it is known that the work environment is an important requirement for achieving success and working to solve administrative problems facing the administration and helping to confront challenges.

Most large organizations have realized that survival requires the formation of highly efficient human resources that enable them to use the great technological boom and also possess scientific thinking skills (Weber & Khademian, 2008) <sup>[24]</sup>. Thus striving for innovation, creativity, and initiative in achieving entrepreneurship. Human resources management is the most important function that the organization works on to manage its most important resource, which is the human resource. The human resources department carries out many activities and tasks that help provide distinguished and efficient human resources that are qualified to provide the current and future needs of the organization and that contribute to achieving the organization's goals (Armstrong & Taylor, 2020) <sup>[3]</sup>. Electronic human resources management is the application of web-based technologies in human resources functions and systems that aim to make information available to employees at any time and in any place (Bondarouk & Ruël, 2009) <sup>[7]</sup>. The study came in four axes. The first axis dealt with research methodology and previous studies, the second axis was devoted to the aspect of Theoretical, the third axis was for the practical side, and the fourth axis was devoted to conclusions and recommendations.

### Research problem

In light of the tremendous development that the world is experiencing and the qualitative shift that is taking place in various fields, all organizations are seeking to adopt the application of modern programs and technologies that help in creativity and initiative to achieve entrepreneurship. The focus in the area of leadership on administrative excellence has become essential. In recent years, it has gained a hearing after being considered one of the sciences of sociology and psychology. Despite this, one issue raises many questions and requires further research-the study of the role of a manager in improving and motivating his subordinates. The steps followed in this study consist of defining the meaning of human resources and management, discussing the concept of management and its importance for different categories of employees, and providing examples of motivation in different sectors (Sharma *et al.*, 2010) <sup>[21]</sup>. for any changes that may occur in the market, and the interest of management scholars in general and human resources management in particular in using technology in applying. The practices and strategies of various human resources and the extent of their impact on providing an efficient and distinguished human resource and its impact on achieving entrepreneurship through modern human resources management (Lepak *et al.*, 2006) <sup>[16]</sup>. Therefore, the research problem can be highlighted by the following question:

- 1- What is the reality of electronic human resources management (E-HRM) provided by human resources in the company sample of the study?
- 2- Is there a perception and awareness benefits of E-HRM in achieving entrepreneurship?
- 3- Is there an effect of E-HRM in achieving entrepreneurship in the company sample of the study?

The main objective of the study can be determined, which is the role that E-HRM plays in achieving entrepreneurship in the company sampled in the study, as well as the sub-objectives, which are represented by the following points:

- 1- Knowing the nature of the relationship between electronic human resources management and entrepreneurship.
- 2- Revealing the reality of electronic human resources

management in the company sample of the study.

3- Diagnosing the problems that the study sample companies suffer from and which occur as a result of employing electronic human resources management practices.

4- Coming up with a set of conclusions and recommendations that enhance knowledge related to the variables of the study. The importance topic that it is trying to treat, as the study contributes by presenting theoretical frameworks for the research variables represented by (E-HRM, and entrepreneurship). The importance of the research is also evident in the following points:

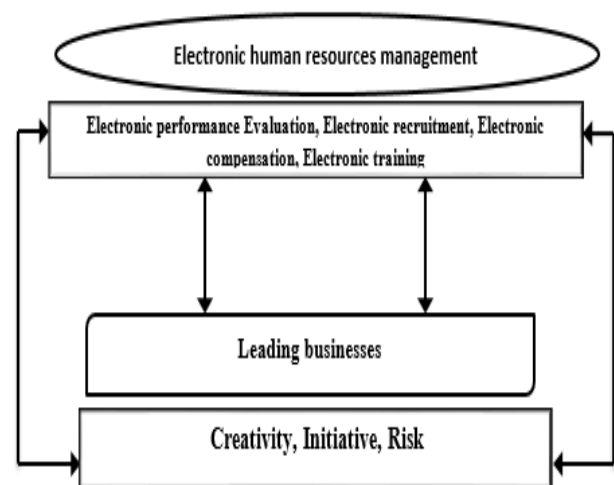
1- Providing a theoretical framework that suits the variables of the study by presenting a set of ideas presented by the researchers about the variables of the study. Thus, the study is an attempt to strengthen the cognitive framework of the variables of the study.

2- Knowing the importance of electronic human resources management applications that help achieve entrepreneurship by the company's employees.

3- Increasing the efficiency and effectiveness of electronic human resources helps achieve entrepreneurship.

### Study plan

The research adopted the hypothetical model for the study, as shown in Figure (1), which shows the impact of human resources management, represented by its dimensions (electronic performance evaluation, employee self-services, e-learning, electronic compensation) in achieving entrepreneurship, represented by its dimensions (creativity, initiative, risk-taking).



Source: Prepared by the researcher

Fig 1: Hypothetical chart

### Literature review

The human resource is the foundation without which no organization can exist. Therefore, there must be specialized management for this resource for it to be exploited optimally. With the great development in technology, it was necessary to exploit this leap in the human resources management process (Colombo & Grilli, 2005) <sup>[9]</sup>. Consider electronic human resources management to be solutions via the Internet so that they keep pace with what the modern era requires (Al Shobaki *et al.*, 2017) <sup>[1]</sup>. Several names have been given to electronic human resources management. Some of them called it electronic human resources management, some called it virtual human resources management, they also

called it the Internet of human resources or human resources on the Internet, and others called it computer-based human resources management, and they also called it portals HR (Islam, 2016) <sup>[14]</sup>. E-HRM constitutes electronic technologies used in human resources management which can be described as following: “process of attracting, selecting, training, assessing, and rewarding employees, while also attempting to control the performance of the organization so that desired outcomes are being achieved” or as “administrative support for human resources managements in organizations using the internet” (Lengnick-Hall & Moritz, 2003, p.12) <sup>[15]</sup>. Some scholars view E-HRM as a system or a group of applications that allow employees to complete their tasks in the shortest time using their abilities, skills and knowledge in the best manner possible (Bhatt, 2001) <sup>[6]</sup>. Electronic recruitment systems facilitate many procedures related to the recruitment process, as they help facilitate the process of announcing the required jobs, and also contribute to the process of identifying the required jobs and working to deal with external organizations that nominate applicants for jobs. Human resource management systems also have many benefits. These benefits are found in the field of online selection of candidates, e.g. it realizes the maximum number of applications submitted and properly considered them. At the same time, such a system allows tagging and serves as an excellent way for the organization to expand its brand and market itself (Uggerslev *et al.*, 2012) <sup>[23]</sup>. “Electronic training and development is a process that takes place in an interactive electronic, mobile environment filled with digital applications based on the Internet, multimedia computers, and mobile devices and displays software and electronic training courses” (Liu *et al.*, 2007, P.9) <sup>[18]</sup>.

It is a process in which an interactive electronic environment is created with the subject and content of applications based on computer technology and its multimedia, and through these applications, the trainee can achieve the goals of the training process through interaction with the sources of the training process in the shortest possible time and highest quality and not be restricted by the limits of place and time. The purpose of electronic training is to ensure that technology actively contributes to developing the skills and knowledge of employees and thus supporting their career path. Whereas electronic performance evaluation is an employee performance evaluation system that is objective, measurable, accountable, participatory, and transparent concerning work-performance and life-work systems, and one of the main benefits of these systems is that it can work to increase production efficiency, thus enhancing the organization’s competitiveness. At the same time, it works to obtain accurate and reliable information required at all times, and a major characteristic of this system is that it makes this information in the hands of employees, not the organization, at all times. Whereas electronic compensation systems are used to provide various wage payment systems in organizations and what is most efficient is that these systems can meet the organization’s overall goals. I believe that if benefits for employees are submitted through the Internet, the company will save a significant amount of time on human resources management. Compensation systems perform many tasks, such as calculating payments for salaries, taxes, and insurance. Some transmit paycheck stubs and others are formed electronically. In fact, I am against the compensation systems and do not consider the Internet as an appropriate forum for monetary payment because the Internet poses a

certain danger in terms of ensuring the proper security of monetary payment (Sims, 2002) <sup>[22]</sup>.

The concept of pioneering entrepreneurship in the language is considered to be the one sent to seek salvation and seek pasture. Its plural is pioneers, and its origin is the one who preceded the people. To see the pasture and the place of the raindrops, I heard pioneers calling for its pioneering, meaning that people asked for it (Ireland *et al.*, 2009) <sup>[13]</sup>. The concept of corporate entrepreneurship may seem strange because the concepts of entrepreneurship and corporate management are two very different concepts, but this hadith is not entirely correct, as there was a need for entrepreneurship to emerge in companies because the current business environment forces organizations to change in some way again and again to meet the requirements of stakeholders and hence entrepreneurship has become an important issue for organizations that by working in rapidly changing and uncertain environments, embracing entrepreneurship helps them to survive creativity and cope with change. Entrepreneurship is creating and offering something new, innovative, and valuable by putting in the necessary time and effort, while bearing all the social and physical financial risks and risks of uncertainty, in exchange for the personal and material satisfaction of the entrepreneur (Bessant & Tidd, 2007) <sup>[5]</sup>.

### The importance of entrepreneurship

The importance of entrepreneurship can be summarized according to the perception of several researchers, including (Liñán *et al.*, 2011) <sup>[17]</sup>.

1. Entrepreneurship is important for creating economic wealth at the national, individual, and societal levels and helps stability because of the services and products it provides.
2. It is prominent in knowledge management and employee empowerment, where knowledge is managed and the empowerment process is implemented. Employees’ organizational leadership and their sense of the need for creativity and innovation in production processes.
3. A vital component of both hierarchical and small, small and large, industrial and service organizations, in addition to its importance in organizations that invest in high-level technology.
4. The pioneering contribution of successful business organizations in the fight against poverty and unemployment, creating a competitive environment, achieving economic growth, and increasing investment.
5. Entrepreneurship is the cornerstone of economic development through its connection with the phenomenon of innovation.

### Dimensions of entrepreneurship

**Creativity:** Refers to a company's ability to create new goods enter new markets and operations, and provide new resources, and new organizations. It is the heart of entrepreneurship (Im & Workman, 2004) <sup>[12]</sup> **Innovation** reflects the innovator's tendency to support new ideas and innovation. Experimentation and creative processes, thus moving away from existing practices and technologies. Creativity is the desire to support new ideas and bring about change and include experimentation in product development and adoption of technology and internal processes (Metcalf, 2003) <sup>[20]</sup>. Generally saying creativity is understood as a political process that allows an organization to introduce a new, large-scale project that changes the rules, roles, and

procedures of communications and information exchange within the company between the company and the surrounding environment. These projects do not mean inventing new technologies but redesigning the processes that serve their clients. Core competencies that improve performance and profit and facilitate growth are also generated by creativity. In the public sector, it relates to the process, service and new organizational form improvements (Damanpour *et al.*, 2009) <sup>[10]</sup>.

**Initiative:** It is the ability to act faster than others in acquiring new markets, introducing new products, or taking advantage of new resources, which is a vital element of entrepreneurship, as the entrepreneur searches for new opportunities that may not be available related to the current production line to survive and gain Competitive advantage in a new economic environment. It refers to anticipating future needs in the market and working to meet them, which leads to creating a competitive advantage (Brush *et al.*, 2001) <sup>[8]</sup>.

**Risk:** Risk is the management's commitment to allocate a large portion of the organization's resources to a new project or borrowing to take advantage of a new opportunity. These are behaviors that are considered unconventional but may produce exceptional results. Business organizations focus on diagnosing opportunities and risks, and this may lead to

delegating benefits and value. Entrepreneurship initiatives that can be implemented by these organizations (Marshak, 2006) <sup>[16]</sup>.

### Data collection methods

Regarding the theoretical side, the researchers used to rely on what was mentioned in regard to the study subject, whether printed or periodical or in Arabic and foreign languages. Also, what was posted on the World Wide Web, as books, theses, dissertations, articles, researches, and conferences, as well as foreign studies published and posted on academic websites or well-known international periodicals. What was generally adopted in data collecting procedures was a carefully prepared questionnaire that was based on predesigned standards. It was going through many modifications to meet the conditions of the intended survey, and then a series of procedures was applied to reach its final form.

### Methodology and statistical analysis

In light of the presentation regarding the statistical description of the dimensions of E-HRM, it can be stated that the levels of the dimensions of E-HRM were high. The levels of these dimensions can be reported in the following table (1):

**Table 1:** Analysis for dimintions of E-HRM

The main dimension	Arithmetic average	Standard deviation	Relative importance	Answer score
E-recruitment training	3.99	0.82	The first	high
Electronic development	3.84	0.87	The fourth	high
Electronic performance evaluation	3.85	0.88	The third	high
Electronic compensation	3.98	0.96	The second	high
The general average of the electronic human resources management dimensions variable	3.83	0.92	-	high

Based on the above table, we find that the highest degree of importance of importance was to the excessive degree from the degree of relative importance according to the sample research's responses. However, the lowest dimension was for electronic performance evaluation. In general, the general arithmetic mean for the E-HRM variable was 3.83 with a

standard deviation 0.92. In the light of the above presentation regarding the statistical description of the entrepreneurship's dimensions, we can say that the levels of all dimensions of entrepreneurship are within a moderate to high level.

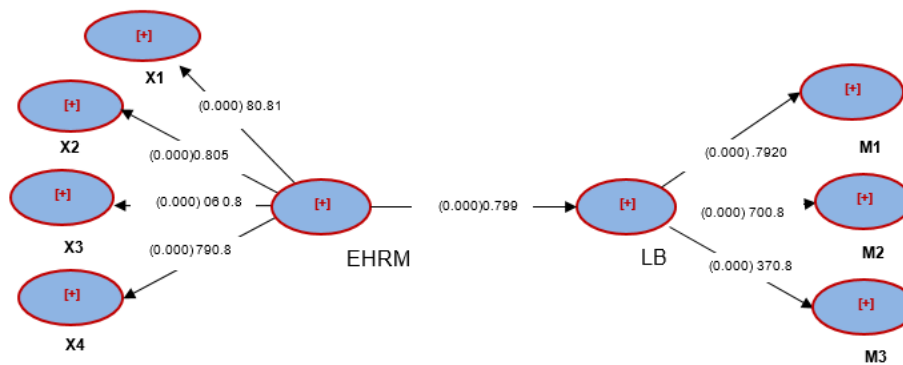
We can summarize the levels of these dimensions on the light of the following table:

**Table 2:** Analysis for the main dimensions of the entrepreneurship variable

The main dimension	Arithmetic average	Standard deviation	Relative importance	Answer score
creativity	4.23	0.81	The first	Moderate
The initiative	<b>4.02</b>	<b>0.73</b>	The third	Moderate
Risk	4.08	0.74	The second	Moderate
The general rate of the entrepreneurship variable	3.95	0.82	-	high

Based on the data in Table 1, it is visible that, according to the answers of the research sample, the first dimension was the creativity dimension, and the lowest of these was given to the initiative dimension. In this axis, both the higher- and lower-ranked variables influence the consequent relationship of the factor to their prevailing features. The overall arithmetic means for the entrepreneurship variable was 3.95. The lowest of these was the innovation dimension, and the highest was the initiative dimension. The overall standard deviation was 0.82. In this axis, the scope definition of the analysis reflects the understanding of the nature of the relationship and the impact between the research variables in the researched company to verify the credibility of the validity of the hypotheses, as follows:

**H1:** The researcher hypothesized that there is a distinct and significant effect of electronic human resources management on entrepreneurship. This hypothesis is built on the claim that electronic human resources management is a real function of entrepreneurship. Thus, any change in the independent variable will cause a similar change to happen in the dependent variable. Afterwards, the structural equation was tested through the statistical program. The factors of effect in the simple regression method will then be extracted through the PLS SMART and the significance level that appears on the arrow which connects the independent variable to the dependent variable. They are stated in the following figure:



Source: Prepared by the researcher based on the program (SMART PLS)

Fig 2: Impact factor of electronic human resources management in entrepreneurship

Table 3: Statistics of the impact factor test of electronic human resources management on entrepreneurship

	O/S	R	SD	R <sup>2</sup>	T Stat.	P/V
EHRM -> LB	0.795	0.810	0.091	0.61	8.980	0.000

From table, it can be observed that there is a significant relationship between the electronic human resources management and business ownership. It stands at 0.810, which is positive and will be accepted at a level of. It can be further noted from Table that the coefficient of determination is 0.62 which demonstrates that electronic human resources management explains 0.61 amount of variance that takes place in the dependent variable business ownership. In addition, the amount of effect is estimated at 0.796, meaning that if the independent variable electronic equipment is increased, there will be an increase in business ownership at 0.795 of it will be. It can also be accepted at a level of. Therefore, based on the. Generated Value, this hypothesis is

accepted at the level of this study.

H2: Nine hypotheses in which the researchers assume that they allow to formulate. And the significance level is 0.05 assumptions is displayed by testing the second hypothesis and the predicted results. Is there a significant relation between the electronic human resources management and entrepreneurship? It is an electronic human resources management function from reality. So any increase in the level of attention to the mechanism of the corresponding will be increased. The model SEM-PLS will be used to find the regression estimates of the structure equation. The results are calculated using the statistical SMART PLS program. According to the simple regression method, the effect scale is estimated which is to say the intermediate results appearing on the arrow. That is, the independent variable depends on the dependent variable. R<sup>2</sup> and β values are displayed in the following figure along with Table 4:

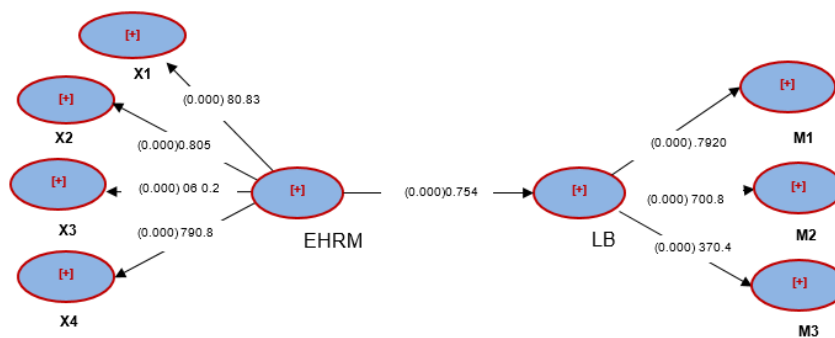


Fig 3: Impact factor of electronic human resources management on entrepreneurship

Table 4: Correlation between electronic human resources

	O/S	R	SD	R <sup>2</sup>	T Stat.	P/V
EHRM -> LB	-0.603	-0.638	0.079	0.34	-7.802	0.000

By reviewing the results of Table, it is apparently clear that a correlation between electronic human resources management and entrepreneurship was found to be equal (0.638), which is positive and high enough to be acceptable at a significant level (0.05). In addition, it is clear that the coefficient of determination was found to be (0.34) which means that electronic human resources management explains (0.34) of the variance occurring in entrepreneurship environment. Finally, the amount of influence is shown in the figure (3) below. The influence factor was found to be (0.603) which means that any increase in the electronic human resources

management lead to an increase of (0.603) in entrepreneurship. This is accepted at a significant level of 0.05. Thus, this hypothesis can be accepted in this study.

Conclusions

The study focus on the interaction between the variables and by using the essential analysis we found that there is a mutual relationship between the research variables and their dimensions. However, the table shows that the correlation is significant at 0.05 levels. This indicates the presence of electronic human resources management in entrepreneurship. Therefore, it can be argued that practicing electronic human resources management in a company will be able to achieve entrepreneurship. To be able to take advantage of the opportunities and avoid threats as said earlier, a research and development department has to be established so that it can

be able to know what is happening in the external environment. Also, practicing human resources management electronically makes organizations gain a competitive advantage since they develop technologies and skills that belong to them until they can be able to adapt quickly to changing opportunities.

### Recommendations

1. Relying on electronic human resources management techniques leads to achieving entrepreneurship.
2. The company must keep pace with new and continuous developments and releases and include these releases in its products more widely than they are now to face the changes that may occur in customer desires due to technological innovations in the product.
3. Electronic human resources management technologies have been invested in many scientific applications in various fields, and these technologies still need many years of development, both in terms of the methods and programs used in their implementation.
4. Providing all the material requirements to support and create electronic human resources because they contribute to achieving entrepreneurship
5. The researcher recommends implementing the electronic human resources system in all organizations because it contributes to achieving entrepreneurship.

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