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The Role of Electronic Human Resources Management (E-HRM) in Achieving Sustainable Competitive Advantage: An Exploratory Research for the Opinions of A Sample of Employees in Asiacell Mobile Communications Company in Iraq

Hussein Abduljbbar Najm¹

Abstract

Human resources were and still are a major focal point for organizations and their importance has increased within the framework of industries based on electronic knowledge, where the success of organizations depends largely on the level of technology and electronic systems that they adopt, which in turn contribute to supporting human resources by completing their electronic functions such as electronic recruitment, e-training and other human resources management functions, where electronic human resources management E-HRM links its functions via international networks (Internet) and other technological means that represent A key factor to achieve strategic leadership for organizations and thus contribute to achieving competitive advantages, which are reflected in business results. The research aims to find out the extent to which the research organization adopts the dimensions of e-HRM as a modern administrative trend. Providing a practical framework for the nature of the correlation and impact relations between the two variables of the study (e-HRM and sustainable competitive advantage). The research also made several recommendations that would prepare the research organization to achieve a competitive advantage.

Keywords: *Electronic Human Resources Management (e-HRM), sustainable competitive, competitive advantage, organizations.*

Introduction

Human resource management represents a broad concept because it combines human resource management and information technology in order to use information technology in the implementation of human resources activities, where a new concept of human resource management has emerged (Berber, Dordevic & Milanovec, 2018, 23), and to make human resource management more capable of facing challenges and responding to rapid environmental changes and to improve its effectiveness, the use of Internet-based platforms is mainly required in electronic human resources management e-HRM to help Specialists in e-HRM in the exercise of their tasks effectively, where human resources management represents in essence the transfer of human resources functions to management and employees where they can access these jobs through the Internet (Padmavathy & Kumar, 2020, 21) Electronic human resource management is defined as enhancing productivity through faster processors, a cleaner work environment, reducing errors and deviations, speeding up the exchange of reliable information, and allowing better communication between all concerned users

¹ Ministry of Education / Minister's Office, Department of Total Quality Management and Institutional Development, Email: dr.hussein1966@yahoo.com

(Nivlouei, 2014, 5) The definition provided by (Mudkanna, 2020, 550-556) is one of the definitions that have accuracy and comprehensiveness as its rooms as the comprehensive integration of all human resources systems depending on common human resources data and information on interrelated tools and processes, which enables modern e-HRM to provide data collection tools, analysis capabilities and resources to support decision-making processes for human resources specialists effectively, to recruit employees, pay their wages, promote them, terminate their employment and train them. And evaluate and reward them in integrated participatory ways, and maximize the maximum contribution of each human element to contribute to the implementation of the organization's strategy.

(Raman, 2019, 34) pointed to the importance of electronic human resource management in the following points:

1. Contribute to the effective interaction between employees and managers.
2. Enhance the gradation of specialized tasks for human resources managers.
3. Contribute to the consolidation of organizational interaction.
4. Important to enhance the role of resources in the organization.
5. Lead to the effective and rapid implementation of policies and practices with the help of Internet-based technologies.

The most prominent objectives of e-HRM in improving strategic direction, reducing costs, and improving management and personnel services, both (Raman, 2020, 33-40) and (Al-Asam, 2021, 8) have indicated several objectives of e-HRM as follows:

1. Organizing the activities and practices of human resources management and reducing the administrative burden in the organization.
2. Overcoming the costs of compliance.
3. Provide the required data for both employees and managers.
4. Provide relevant techniques for management, to identify recent developments and changes and to process human resources efficiently.

Electronic human resource management represents a method that makes the well-being of employees easier and helps organizations control human resources more efficiently, as increasing the value of human resources functions is the main goal of e-HRM and is one of the main reasons for introducing electronic management in human resources management (AlMashrafi, 2020, 2) And rapid innovations in technology based on the Internet is one of the other reasons for the adoption of electronic management of human resources and the resulting improvement of organizational performance, which made traditional human resources management shift towards electronic management, and another justification for the adoption of electronic management of human resources is that it provides greater opportunities for managers to control the relations between management and employees (Al-Jubouri, 2021, 44)

Wege et al, 2019, 53-69, (Al-Jubouri, 2021, 52-58) and (Al-Mutawari, 2021, 50-56) referred to the dimensions of electronic management of human resources as follows:

1. **Electronic Planning:** Electronic planning is defined as an electronic program that shows the organization's need for employees as well as the classification of its needs in terms of skills, specializations, and the required number of each specialty, and leads to electronic planning of human resources to increase efficiency in the performance of the organization by providing appropriate numbers of appropriate disciplines to complete the plan set by the organization promptly (Malkawi, 2018, 149).

2. **Electronic selection:** Any organization depends on electronic selection requires the availability of the Internet, which contributes to saving a lot of time and effort and the possibility of reaching the largest possible number of applicants for employment and choosing the most appropriate of them, as it has been adopted in government jobs at present in most organizations (Al-Mutawari, 2021, 53)
3. **Electronic compensation:** It is the use of electronic applications to manage compensation through the collection, processing, storage, analysis and distribution of data and information related to compensation at any time, as well as the possibility of accessing that information from any employee at any time to know the details of his entitlements (Malkawi, 2018, 149), and electronic compensation is referred to as the adoption of an electronic system for calculating benefits related to salaries, calculating living allowance and welfare measures (Al-Jubouri, 2021, 55).
4. **E-Training:** represents activities designed to provide employees with the skill and knowledge required to perform their current functions formal training is organized and planned and occurs when employees are called away from their work sites to participate in training courses, and organizations use e-training programs to train employees through the Internet to acquire the skill and knowledge required at the appropriate time and place to support their role in achieving the goals of the organization (Alkedradawi, 2016, 84)
5. **Electronic Performance Evaluation:** It is described as a major element in the performance management system or it represents a subset of performance management related to the formal process of evaluating and measuring performance in the shortest possible time, and contributes to the automatic link between performance and compensation for each employee, as well as enables workers to know their level of efficiency due to updating performance evaluation on the Internet system safely (Alkerdawy, 2016, 84), and also allows electronic human resources to conduct a full performance evaluation through the Internet on the interface of the organization's internal network, which means that the manager and employees enable them to provide direct performance data to the human resources department in electronic form (Al-Mutawari, 2021, 55-56).

The sustainable competitive advantage was defined by the organization's diligence in exploiting its sources of strength and following innovative strategies to narrow the value of its products that competitors did not reach (Abdelkader, Amina, 2021, 15), as well as defined as the advantages that the organization possesses and allows it to achieve excellence and superiority over its competitors, and helps the organization to exploit the available opportunities (Jamila, Fatiha, 2019, 15)

To achieve a sustainable competitive advantage, the following characteristics should be adopted: (Saleh, 2017, 158)

1. Continuity of sustainable competitive advantage by reaching the context over its competitors in the long term to achieve superiority rather than success in the short term.
2. Renewal of competitive advantage in the sense that the organization must aim to develop competitive advantage and improve its outputs according to the external environment on the one hand and the resources and capabilities of the organization on the other.
3. Repeatability and imitation In some areas of business, imitation is easy, for example, in the areas of financial services, innovations lack legal protection and are easy to imitate.

The research problem was to try to answer the following questions:

1. What is the role of e-HRM in achieving sustainable competitive advantage?

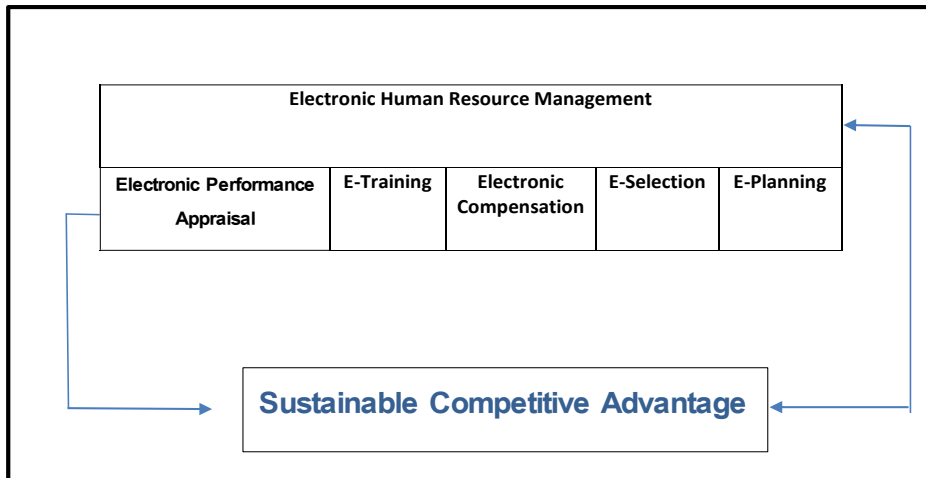
2. The extent to which the surveyed organization adopts the dimensions of e-HRM?
3. Is there a correlation between e-HRM and sustainable competitive advantage?
4. Is there a significant impact of e-HRM on sustainable competitive advantage?

The current research focuses on the importance of sustainable competitive advantage in the surveyed organization due to its role in improving its performance and thus increasing its competitiveness. The current research is in line with global trends towards the development of its human resources within the framework of the electronic orientation of the Department.

Research hypotheses

1. The first main hypothesis: There is a statistically significant correlation between e-HRM and sustainable competitive advantage at the macro level.
2. The electronic human resources department exercises a statistically significant moral impact on sustainable competitive advantage at the macro level.

Hypothetical Research Model: The researcher designed the procedural scheme of the research as in Figure (1)



Designed by the author

Figure (1) Research Procedural Outline

Research Community and Sample

The research field was represented by Asiacell Mobile Communications Company in Iraq, while the research community included employees of Asiacell, while the research sample included 40 employees of the company who hold a diploma degree and above, and 36 valid forms were retrieved for analysis.

Study Limits

1. Spatial boundaries: represented by the main telecommunications company in the city of Mosul.
2. Time limits: for the academic year (2024).

Materials and Methods

I. Description of the Individuals Surveyed

The description of the individuals surveyed gives several indications that show their suitability for conducting the research and Table (1) shows some of the characteristics of the research sample as follows:

Table (1) Characteristics of the Research Sample.

Sex									
females				males					
Iteration	%		Iteration	%					
16	44.5		20	55.5					
Age Groups									
50 and more		41-49		31-40		30 or less			
reiteration	%	reiteration	%	reiteration	%	reiteration	%		
4	11	5	14	10	28	17	47		
Academic achievement									
Doctor		Master		Bachelor		diploma		Other	
Iteration	%	reiteration	%	Iteration	%	reiteration	%	Iteration	%
1	3	3	8	16	44.5	9	25	7	19.5
Marital status									
Single				married		Other			
Iteration	%		Iteration	%		reiteration	%		
14	39		21	58		1	3		

Designed by the Author Depending on the Statistical Analysis Results

II. Description of the Research Variables

1. Description of the Dimensions Of E-HRM

This section focuses on describing the variables of the study and diagnosing them from the point of view of a sample of workers in Asiacell Mobile Communications Company in the city of Mosul, as the researcher used ready-made statistical software (SPSS V26) to infer percentages and frequencies as well as arithmetic means, standard deviations and response ratios as follows:

A - Description of the Electronic Planning Dimension

Table (2) Description of the Electronic Planning Dimension.

Variable	Response Scale						Arithmetic mean	Standard deviation
	Agree (1)		Neutral (2)		I don't agree (3)			
	number	%	number	%	number	%		
X1	19	52.8	8	22.2	9	25	1.71	0.80
X2	29	80.6	6	16.7	1	2.8	1.22	0.48
X3	17	47.2	14	38.9	5	13.9	1.66	0.71
X4	20	55.6	9	25	7	19.4	1.63	0.79
Rate	59.05		25.7		15.27		1.55	0.69

Designed by the Author Depending on the Statistical Analysis Results

It is clear from Table (2) that the general average of the arithmetic mean of electronic planning amounted to (1.55) and standard deviation (0.69) and agreement (59.05) of the individuals surveyed, and the most important variables that strengthened the positive of this agreement variable (x2), as confirmed (80.6) of the members of the research sample that it contributes to the analysis of jobs and the availability of job description for each job and the characteristics of its vacancy, as the arithmetic average of this variable (1.22) standard deviation (0.48), followed by the variable (X4) with an agreement of (55.6) of the members of the research sample that the availability of clear information on the stock of skills and experience., with an arithmetic average of (1.63) with a standard deviation (0.79) Inc.

B - Description After Electronic Selection

Table (3) Description After Electronic Selection.

Variable	Response Scale						Arithmetic mean	Standard deviation
	Agree (1)		Neutral (2)		I don't agree (3)			
	number	%	number	%	number	%		
X5	18	50	6	16.7	12	33.3	1.79	0.87
X6	26	72.2	8	22.2	2	5.6	1.33	0.58
X7	21	58.3	5	13.9	10	27.8	1.69	0.88
X8	15	41.7	13	36.1	8	22.2	1.80	0.78
Rate	55.55		22.22		22.22		1.65	0.77

Designed by the Author Depending on the Statistical Analysis Results

It is clear from Table (3) that the general average of the arithmetic mean of electronic selection amounted to (1.65) with a standard deviation (0.77) and the agreement of (55.55) of the individuals surveyed, and the most important variables that promoted the positive of this agreement variable (x6), as confirmed (72.2) of the members of the research sample working to enhance the efficiency of the selection process, as the arithmetic average of this variable (1.33) standard deviation (0.58), followed by the variable (X7) with an agreement of (58.3) of the members of the sample of the research availability of data related to vacancies, and an arithmetic average of (1.69) with a standard deviation (0.88).

C. Description After Electronic Compensation

Table (4) Description of the Dimension of Electronic Compensation.

Variable	Response Scale						Arithmetic mean	Standard deviation
	Agree (1)		Neutral (2)		I don't agree (3)			
	number	%	number	%	number	%		
X9	25	69.4	7	19.4	4	11.1	1.41	0.69
X10	21	58.3	7	19.4	8	22.2	1.63	0.83
X11	14	38.9	15	41.7	7	19.4	1.80	0.74
X12	24	66.7	8	22.2	4	11.1	1.44	0.69
Rate	58.32		25.67		15.95		1.57	0.73

Designed by the Author Depending on the Statistical Analysis Results

It is clear from Table (4) that the general average of the arithmetic mean of electronic compensation amounted to (1.57) with a standard deviation (0.73) and the agreement of (58.32) of the individuals surveyed, and the most important variables that enhanced the positive of this agreement variable (x9), as confirmed (69.4) of the members of the research sample that the availability of compensation data and access to anyone at any time, as the arithmetic average of this variable (1.41) standard deviation (0.69), followed by the variable (X12) with an agreement of (66.7) of the members of the research sample that it contributed to the achievement of fair compensation for affiliates, and an arithmetic average of (1.44) with a standard deviation (0.69).

D - Description After E-Training

Table (5) Description of the E-Training Dimension.

Variable	Response Scale						Arithmetic Mean	Standard Deviation
	Agree (1)		Neutral (2)		I Don't Agree (3)			
	Number	%	Number	%	Number	%		
X13	25	69.4	9	25	2	5.6	1.36	0.59
X14	17	47.2	9	25	10	27.8	1.80	0.85
X15	18	50	10	27.8	8	22.2	1.72	0.81
X16	22	61.1	8	22.2	6	16.7	1.55	0.77
Rate	56.92		25		18.07		1.60	0.75

Designed by the Author Depending on the Statistical Analysis Results

It is clear from Table (5) that the general average of the arithmetic mean of e-training amounted to (1.60) with a standard deviation (0.75) and the agreement of (56.92) of the individuals surveyed, and the most important variables that strengthened the positive of this agreement variable (x13), as confirmed (69.4) of the members of the research sample that facilitates electronic applications of the process of remote training, as the arithmetic average of this variable (1.36) standard deviation (0.59), followed by the variable (X16) with an agreement of (61.1) of the members of the research sample contributes to e-training in reducing the costs of training programs, and an arithmetic average of (1.55) with a standard deviation (0.77).

E - Description after Electronic Performance Evaluation

Table (6) Description of the Electronic Performance Evaluation Dimension.

Variable	Response Scale						Arithmetic mean	Standard deviation
	Agree (1)		Neutral (2)		I don't agree (3)			
	number	%	number	%	number	%		
X17	19	52.8	9	25	8	22.2	1.69	0.82
X18	18	50	9	25	9	25	1.75	0.84
X19	22	61.1	10	27.8	4	11.1	1.50	0.69
X20	22	61.1	7	19.4	7	19.4	1.58	0.80
Rate	56.25		24.3		19.42		1.63	0.78

Designed by the Author Depending on the Statistical Analysis Results

It is clear from Table (6) that the general average of the arithmetic mean of electronic performance evaluation was (1.63) with a standard deviation (0.78) and the agreement (56.25) of the individuals surveyed, and the most important variables that strengthened the positive of this agreement variable (x19), as confirmed (61.1) of the members of the research sample that the process of performance evaluation contributes to improving the overall performance of the company , as the arithmetic average of this variable (1.50) standard deviation (0.69), followed by the variable (X20) with an agreement of (61.1) of the research sample that the company uses electronic applications to evaluate performance, with an arithmetic average of (1.58) and a standard deviation (0.80) (80)

2: Describe the Dimensions of Sustainable Competitive Advantage

Table (7) Description of the Dimensions of Sustainable Competitive Advantage.

Variable	Response Scale						Arithmetic mean	Standard deviation
	Agree (1)		Neutral (2)		I don't agree (3)			
	number	%	number	%	number	%		
Y1	20	55.6	7	19.4	9	25	1.69	0.85
Y2	18	50	11	30.6	7	19.4	1.69	0.78
Y3	17	47.2	13	36.1	6	16.7	1.69	0.74
Y4	23	63.9	5	13.9	8	22.2	1.58	0.84
Y5	20	55.6	7	19.4	9	25	1.69	0.85
Y6	22	61.1	9	25	5	13.9	1.52	0.73
Y7	20	55.6	10	27.8	6	16.7	1.61	0.76
Y8	18	50	10	27.8	8	22.2	1.72	0.81
Y9	26	72.2	6	16.7	4	11.1	1.38	0.68
Y10	18	50	10	27.8	8	22.2	1.72	0.81
Rate	56.12		24.45		7.23		1.62	0.78

It is clear from Table (7) that the general average of the arithmetic mean of the dimensions of sustainable competitive advantage amounted to (1.62) and a standard deviation (0.78) and an agreement of (56.12) of the individuals surveyed, and one of the most important variables that enhanced the positivity of this agreement is the variable (Y9), as it confirmed (72.2) of the members of the research sample that the company constantly monitors all expenses to reduce them continuously, as the arithmetic mean of this variable (1.38) with a standard deviation (0.68), followed by the variable (Y6)) with an agreement of (61.1) of the members of the research sample, which confirms that the company has advanced technologies and better than competitors, and an arithmetic average of (1.52) and a standard deviation of (0.73).

III. The Correlation Between the Variables

- 1 Analysis of the correlation between electronic human resource management and sustainable competitive advantage

Table (8) Numerical Values of the Correlation Between E-HRM and Ustainable Competitive Advantage.

Dependent variable	Sustainable Competitive Advantage
Independent variable	
Electronic Human Resources	402*

N=40 p*≤0.05

Designed by the Author Depending on the Statistical Analysis Results

By observing the results of Table (8), we find that there is a positive and significant correlation between e-HRM and sustainable competitive advantage, in terms of the value of the correlation coefficient that amounted to (0.402) at a significant level (0.05), thus accepting the first main hypothesis.

The Relationship of Influence Between the Variables

1 - Analysis of the Impact Relationship Between E-hrm and Sustainable Competitive Advantage

Table 9 Impact of E-HRM On Sustainable Competitive Advantage.

Dependent variable	R2	0β	1β	f-value	t-value
Independent variable					
Electronic HR Dimensions	0.291	2.180	0.340	4.401	7.338

N=36 DF(1,34) P≤0.05

The results of Table (9) show that the management of electronic human resources in its combined dimensions affects the enhancement of sustainable competitive advantage and a regression coefficient (0.291) in terms of the value of t-value (7.338) at the level of significance (0.05), and the moral impact can be embodied through the value of (f) calculated and the amount of (4.401) and two degrees of freedom (1.38) at the level of moral (0.05), and thus we reach the acceptance of the second main hypothesis, which states that there is a moral impact of interactive marketing on customer confidence, so it is accepted The second main hypothesis.

Conclusions and proposals

Conclusions

1. The results of the research indicated that the expansion of the use of the dimensions of e-HRM contributes to enhancing the competitive advantage of the company and its sustainability.
2. The results of the research showed that the level of management adoption of the dimensions of electronic management of human resources is medium, which requires the company's management to expand its accreditation because of its role in achieving competitive advantage and sustainability.
3. The results of the urge also indicated that the level of competitive advantage in the company is medium, which requires the organization to work to expand the adoption of electronic management of human resources.
4. The results of the research showed a significant correlation between the variables of the study.

Recommendations

1. The organization should research the dimensions of electronic human resources management, identify weaknesses and work to address them, identify strengths, and work to strengthen them.
2. The importance of working to increase the level of competitive advantage in the company, because its increase will be reflected in increasing the market share of the company and achieving superiority over its competitors.
3. The need for the administration to expand the adoption of electronic management of its human resources by relying on electronic technologies in the exercise of human resources functions, is reflected positively in enhancing the sustainable competitive advantage of the company.

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