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The Impact of Electronic Human Resource Management on Human Performance: An Exploratory Study in LAFARGE CEMENT OGGAZ Company.

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Abstract :

The main objective of our study is to analyze the impact of electronic human resource management on human performance. To do so, we conducted a case study using a questionnaire with 108 employees of the LAFARGE CIMENT OGGAZ company, which led us to draw results through SPSS software (25). The analysis of the results obtained confirms that the dimensions of electronic human resource management (*E-recruitment, E-selection, Electronic presence and absence system, E-training, and E-learning*) positively and significantly influence the human performance of the LAFARGE cement factory in OGGAZ. Thus, our results demonstrate that there are effective practices of electronic human resource management that can contribute to improving human performance.

Keywords: Electronic Human Resource Management, Dimensions of Electronic Human Resource Management, Human Performance, LAFARGE CIMENT OGGAZ company.

Jel Classification Codes: M15.

Introduction:

In recent decades, we have witnessed a transition from a material economy to an information and knowledge economy, characterized by an increasing focus on the intangible and the added value of information. In this context, human resource

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management must take into account a constantly evolving environment, which has become more dynamic, unstable, uncertain, chaotic, complex and unpredictable. Traditional approaches to human resource management must be rethought to make the function more competitive and efficient. Indeed, Information and Communication Technologies (ICT) have significantly enhanced the fluidity of information flow within organizations, leading to time and space savings. The implementation of an Information System for Human Resources (HRIS) based on ICT thus offers a significant opportunity to assess and improve all company activities. On the one hand, it enables the automation of low-value-added tasks such as contract management, work schedules, leave management, payroll, fringe benefits, social legislation, collective agreements, etc. On the other hand, these productivity gains can be reinvested in higher-value-added tasks such as recruitment, skills management, career management, evaluation, mobility, support for high potentials, and training, among others.

Thus, with the growing progress in the use of new information and communication technologies, electronic human resource management has become an essential requirement in all institutions because of the positive results it can achieve, particularly in improving human performance. The performance of human resources, which directly represents their efforts to achieve the organization's objectives, is determined by their skills, competencies, experience and qualifications necessary for the tasks of their position. Electronic human resource management thus makes it possible to better meet these requirements and improve the overall performance of the organization. The adoption of these new organizational and technological approaches is essential to remain competitive in this constantly evolving environment. Indeed, human resource management must adapt to the challenges and opportunities of the information and knowledge economy to ensure the competitiveness and efficiency of organizations.

Problem of the study: Our study examines the impact of electronic human resource management on human performance in the LAFARGE CIMENT OGGAZ company. The questions that prompted us are:

- What are the most important practices of electronic human resource management practiced by the LAFARGE CIMENT OGGAZ company?
- Why is it important to adapt to technological evolution and what is the contribution of the human resource information system based on ICT in the HR function?
- How does electronic human resource management improve human performance in the LAFARGE CIMENT OGGAZ company?

Hence the central question: ***"How does electronic human resource management contribute to improving human performance?"***

Hypotheses of the study: To better understand the concerns raised, we relied on a single main hypothesis, which is:

H1: There is a positive and significant influence of the dimensions of electronic human resource management (e-recruitment, e-selection, electronic presence and absence system, e-training and e-learning) on human performance in the LAFARGE CIMENT OGGAZ company. Five sub-hypotheses can be derived from this:

- **H1-1**: There is a positive and significant influence of the **e-recruitment** dimension on human performance in the LAFARGE CIMENT OGGAZ company;
- **H1-2:** There is a positive and significant influence of the **e-selection** dimension on human performance in the LAFARGE CIMENT OGGAZ company;
- **H1-3:** There is a positive and significant influence of the **electronic presence and absence system** dimension on human performance in the LAFARGE CIMENT OGGAZ company;
- **H1-4:** There is a positive and significant influence of the **e-training** dimension on human performance in the LAFARGE CIMENT OGGAZ company;
- **H1-5**: There is a positive and significant influence of the **e-learning** dimension on human performance in the LAFARGE CIMENT OGGAZ company.

Importance of the study : The objective of this study is to assess the improvement in human performance in the LAFARGE CIMENT OGGAZ company following the adoption of electronic human resource management. It is also about determining the importance of the digitalization of the HR function and its impact on human performance. To do this, we will address the following points:

- Clarify the importance of applying electronic human resource management for improving human performance.
- Identify the practices of modernizing the electronic human resource management function in the LAFARGE CIMENT company in order to improve human performance.

Previous studies : During our work, we took into account several previous studies that sought to better grasp and understand the relationship between electronic human resource management and human performance. Among these studies, we mention:

The study by **ABDALLAH Thierno Diallo, (2012),** titled « **HRM & ICT: a 'modernization' process of human resource management: an exploratory study in the City of Paris** »[2], had the objective of studying and analyzing the impact of information and communication technologies on HRM function in the public sector, through an exploratory study conducted within the Paris City Hall. The study aimed to describe the different practices of modernization of the HR function implemented in this institution, as well as analyze the changes made, through interviews with senior managers. This study allowed us to see that the Paris City Hall has clearly expressed its willingness to implement a policy that favors the modernization of HRM, and that ICT play a primary role in the organizational and functional transformations of the different structures of the City Hall.

The study by **Faiza Hilmi and Charani Ettaibi (2020),** titled « **The Positive Effects of Information and Communication Technology Usage in Human Resource Management on Organizational Performance: A Literature**

[2]ABDALLAH Thierno Diallo, (2012), GRH &TIC : un processus de modernisation de la gestion des ressources humaine : une étude exploratoire dans la Mairie de PARIS. Thèse de doctorat, Option : science de gestion, Université François – Rabelais de Tours.

Review - ICT in HRM: what impact on organizational performance? » [3] , had the objective of highlighting the importance of integrating ICT in HRM, as well as evaluating the impact of the implementation of these technologies on the performance of Moroccan companies. The analysis of the results showed that the technological evolution driven by companies allows us to benefit from an informational and behavioral platform that can accelerate organizational performance by improving various HR practices, such as recruitment, training, remuneration and rewards. Indeed, e-HRM can increase employee productivity and performance, reduce costs and working time, streamline processes, develop skills, and finally create a favorable working atmosphere.

The study by **IMANE El Ouizgani (2020),** titled **« Impacts of e-HRm in Moroccan SMEs » : Results of a multiple case study »**[4] , was interested in studying the different impacts of the use of ICT in the HRM function through a qualitative study with HRM professionals and experts in several Moroccan cities. The study concluded that the improvement of HRM efficiency at the level of Moroccan SMEs is closely linked to the improvement and development of its flexibility following the use of e-HRM. According to the model of Snell, Stueber and Lepak (2002), the use of ICT in HRM aims to improve operational efficiency. Information and communication technologies allow remote access and management of different features, such as recruitment and training. In addition, they can redefine the scope of the HR function and redistribute HR management tasks.

1. Theoretical framework of the study

The use of ICT in HRM in all its forms is called electronic human resource management (E-HRM). It also covers a wide range of HRM practices, including recruitment, selection, training, and administrative management. Indeed, E-HRM is gaining popularity in companies due to many potential benefits, the most important of which are time saving, cost control, and improved decision-making quality. In addition, in the current hypercompetitive and dynamic climate, it is considered a factor of adaptability. The advantages offered by E-HRM explain its increasing level of diffusion in companies. E-HRM allows to increase the volume of information and data processed, as well as a fragmentation and specialization of activities, with an interesting development of employee self-training[5].

1.1. Electronic Human Resource Management (E-HRM)

Human resource management (HRM) is an essential aspect of any company that wants to improve its overall performance. With the rise of technology, HRM

[3]Faiza Hilmi et Charani Ettaibi, (2020), Les effets positifs de l'usage des technologies d'information et de communication en gestion des ressources humaines, sur la performance organisationnelles revue de littérature TIC dans la GRH : quel impact sur la performance organisationnelle ?. Revue COSSI, N°8. ED Ecole Nationale de Commerce et de Gestion. Université Ibn Zohr, Agadir Maroc.

[4]IMANE El Ouizgani, (2020), Impacts d'E-GRH dans les PME marocaines : Résultats d'une étude de cas multiples, RIMEC [en ligne], 05 | 2020, mis en ligne le 07 juillet 2020, consulté le 01 March 2022. http://revue-rimec.org/impacts-de-grh-dans-les-pme-marocaines-resultats-dune-etude-de-cas-multiples/.

[5]EL OUIZGANI Iman et JIDOUR Mohamed, (2015), Pratiques de GRH : vers une e-gestion responsable des ressources humaines, Journal of business Economics (JBE), N 03,ED RESEARCHGATE, Maroc , p 10.

has evolved to include an electronic dimension known as e-HRM. This new approach allows to manage human resources more efficiently and effectively, using computer tools and exploiting the advantages of digitization.

According to Strohmeier (2007), e-HRM is the planning, implementation and application of information technology, both for networking and supporting at least two individual or collective actors in their shared execution of HR activities.[6] Voermans and Van Veldhoven (2007), define e-HRM as "the administrative support of HR functions in organizations using internet technology"[7]. Ruël et al (2004), define e-HRM as "a way of implementing HR strategies, policies and practices in organizations through conscious and direct support and/or full use of web-based channels" [8]. We can define as the integration of information and communication technologies into the different practices of human resource management.

1.2. The Practices of Electronic Human Resource Management

Electronic Human Resource Management (E-HRM) involves the use of information and communication technologies (ICT) to support human resource management activities. Here are some common E-HRM practices:

1.2.1 E-recruitment :

E-recruiting is defined as the recruitment through the Internet and the different tools, applications and digital supports used in the field of the web such as blogs, social networks and online videos, in order to attract and select future talents. Online recruitment is a method, a practice and a set of tools used to support the recruitment process in order to improve communication on open positions, increase the number of sources, target candidates, track the recruitment process and help with the integration of candidates through the use of digital information (employee experience, intranet) and/or virtual integration tools.[9] Online recruitment allows companies to perform many online actions and processes such as posting job openings and the nature, specifications and requirements of the position on their website, on their electronic portal or on dedicated platforms. They can also receive applications and information from applicants interested in the position (their resumes). The electronic recruitment system is a technological innovation that allows organizations to follow the labor market and major technological changes, by improving the recruitment process and updating job postings at any time. It also shortens the recruitment cycle and allows for the selection of the best candidates from a wide pool of applicants. It offers the company the opportunity to improve its image and brand as an employer (Anad and Chitra, 2016)[10].

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[6]Strohmeier, S. (2007), Research in e-HRM: Review and implications, Human Resource Management Review, Vol. 17 No. 1, p 20.

[7]Voermans, M. and Van Veldhoven, M. (2007), Attitude towards e-HRM: An Empirical Studyat Philips, Personnel Review, Vol. 36 No. 6, pp. 887–902.

[8] Ruël, H.J.M., Bondarouk, T.V. and Looise, J.. (2004), E-HRM: Innovation or Irritation. An Explorative Empirical Study in Five Large Companies on Web-based HRM, Management Revue, Vol. 15 No. 3, p 16.

[9]Antoine PENNAFORTE, Jean-Louis GUIGNARD et Jean-Pierre HERBINIER (2018), Les fondamentaux de la GRH : 100 défis RH illustrés, DUNOD, 11 rue PAUL Bert 92240 MALAKOF. P 36.

[10]Anad, J. Chitra, D.S, (2016), The impact of e-recruitment and challenges faced by HR Professionals, International Journal of Applied Research, 2(3). PP. 410-413.

1.2.2 E-selection:

E-selection is a crucial step to ensure the success of the entire recruitment process as it guarantees a high compatibility between the requirements of the position to be filled and the skills, knowledge, abilities, and other criteria of the candidates (KSAOs) [11]. Electronic selection is a technique that allows candidates to submit their application online, while employers use sophisticated scanners to select the best CVs based on predetermined keywords related to the position[12]. Job applications are sorted online, and then the company selects employees according to its needs using automated programs and creating a personalized database for candidates. It can also automate the evaluation and selection activities, which allows it to save time and effort while promoting a direct relationship between the manager and the candidate, eliminating geographical barriers.

1.2.3 Electronic Presence and Absence System:

An electronic presence and absence aystem can electronically record and calculate employee arrival and departure times, as well as control their entry and exit. This system provides a database that stores employee daily activity and identifies them using different electronic devices and means such as card reading, fingerprints, eye networks, or others. It is also possible to schedule the reasons for leaving work, such as leaving for an official mission or for personal reasons (medical visit,...), leaving with or without permission, leaving before or after the required time. The main advantage of electronic employee presence recording is the ability to store data and refer to it when preparing pay stubs or individual performance evaluations.

1.2.4 E-learning et E-Training:

E-learning is the delivery of education via the Internet using modern electronic technologies (Koumi, 2006[13]; Atsou and Balancier, 2009[14]) that allow the distribution of sound, images and interaction between the learner and the content of educational activities (Basilaia, Kvavadz, 2020) [15]. The term e-learning encompasses a wide variety of applications and programs that use the Internet, the intranet, the Internet and the external network (extranet) to distribute educational content, including formats such as audio, video, satellite broadcasting and interactive devices (Reddi, K. Swaroop 2012[16] ; Al Madi et al., 2017[17]). On the other hand, e-training refers to the training provided by institutions to their

[11]Terme anglo-saxon désignant les Connaissances, Talents, Aptitudes et Autres caractéristiques des candidats potentiels (Knowledge, Skills, Abilities and Othercaracteristics)

[12]EL OUIZGANI Iman et JIDOUR Mohamed, (2015), Pratiques de GRH : vers une e-gestion responsable des ressources humaines, Journal of business Economics (JBE), N 03, ED RESEARCHGATE, Maroc, p 05.

[13] Koumi, J. (2006), Designing Educational Video and Multimedia for Open and Distance Learning. Routledge, England.

[14] Atsou, S., Balancier,P. (2009), L'e-learning, une solution pour votre entreprise ! . Edi.pro Edition, Belgique.

[15]Basilaia, G., & Kvavadze, D . (2020) , Transition to Online Education in Schools during a SARS-CoV-2 Coronavirus (COVID-19) Pandemic in Georgia. Pedagogical Research, 5(4).

[16]Reddi, K. Swaroop , (2012), E-HRM and How it will Reduce, Asia Pacific Journal of Marketing and Management Review, Vol 01, p 138.

[17]Al Madi, F., & al. (2017), Electronic Human Resource Management (E-HRM) System. International Journal of Economic Research, 14(15 (Part 4).

employees using electronic media and modern technologies, which has led to a radical transformation of individual management functions, especially in the field of training and development (Ince and Sukarni, 2017) [18]. The goal of the organization behind e-learning is to develop the skills of employees using various electronic and multimedia networks.

Online training programs allow employers to offer remote training to their employees, track their progress, and issue certificates of completion. Online training programs offer the flexibility and accessibility needed to meet the training needs of modern businesses. In addition, they can also help to reduce training costs by avoiding travel and the costs associated with in-person training, while providing detailed tracking of employee progress. Indeed, online training programs have become an effective solution for businesses looking to quickly and efficiently train their staff, regardless of their geographic location. Distance learning is available anywhere and anytime, thus offering flexibility and freedom in the choice of temporal and spatial framework. The integration of technology in training and training through various electronic media constitutes a motivating factor for stronger learning than traditional methods (Yulia, 2020) [19] where network entry is easy and access to information is fast, in addition to the possibility of using personal devices and interacting directly with trainers and experts. We can conclude that E-HR practices can contribute to the improvement of the effectiveness and efficiency of HR management processes within companies. In addition, these practices can help to reduce costs and increase employee satisfaction. Based on the existing literature, we have chosen the following dimensions in the context of our study: E-Selection, E-Recruitment, Electronic attendance and absence system, E-Training and E-Learning. In order to know and determine the impact of electronic human resource management on the improvement of human performance.

1.3. Human Individual Performance

Human resources are considered the most important element in the activation of the institution's tasks. Indeed, the success of all institutions depends on the effectiveness and efficiency of the performance of human resources in achieving the desired objectives.

(Campbell, 1990) indicates that "individual work performance is a set of behaviors or actions that are relevant to an organization's goals and can be measured in terms of skill levels and contributions to goals."[20]. According to (Sonja A. Irlbeck, 2002), human efficiency is defined as "the ability of an individual or work unit to assume its share of responsibilities and to modulate its actions in order to achieve economic goals by demonstrating adaptive behavior." The ability of individuals to engage in the achievement of goals is favored by the

[18]Ince, A., & Sukarni, S, (2017), Human Resource Development in The Era of Technology; Technology'sImplementation for Innovative Human Resource Development. Jurnal Manajemen Teori dan TerapanTahun 10(3).
[19]Yulia, H, (2020), Online Learning to Prevent the Spread of Pandemic Corona Virus in Indonesia. ETERNAL (English Teaching Journal). 11 (1).
[20]CAMPBELL JOHN, (1990), Modeling the performance prediction problem in industrial and organizational psychology, dans DUNNETTE Marvin, HOUGH Leaetta, Handbook of industrial and organizational psychology:Palo Alto, calif : Consulting Psychologists Press. PP. 687–732.

ability of management to administer rewards.[21] (Martory, Crozet, 2016), defines "performance in the short and medium term is always assessed at two levels: effectiveness, that is, the degree of achieving goals regardless of the means used; efficiency, the ratio between the results obtained and the means used to obtain them" [22]. We can define human performance as the result of behaviors and results related to human activities necessary to accomplish tasks. A worker's behavior corresponds to the way he performs his tasks, while the results of the work represent the productions. Thus, human performance encompasses a strong motivation, involvement and commitment of employees in the realization of their activities. In this perspective, the company must ensure the satisfaction and enthusiasm of employees in the exercise of their work.

2. Empirical Study Framework

The objective of our study is to test the relationship between electronic human resource management (E-HRM) and human performance in the LAFARGE CIMENT OGGAZ company.

2.1. Research Methodology and Sample

2.1.1. Methodological Approach :

To confirm or refute our hypothesis and answer the research problem, we conducted an empirical study of employees of the LAFARGE CIMENT OGGAZ (LCO) company. We chose a descriptive approach to define the theoretical framework and basic concepts of electronic human resource management as well as human performance and their theoretical foundations. For the applied framework, we used a case study using a form to test the research hypotheses on the studied organization. We also used an analytical approach to analyze the results using SPSS software.

2.1.2. Study community:

The study community is represented by all employees of the LAFARGE CIMENT OGGAZ company. We chose a sample of 108 employees to assess the impact of electronic human resource management on human performance.

2.1.3. Study variables:

After examining the literature and previous studies, the study variables were identified as follows:

- **Independent variable**: the dimensions of electronic human resource management (e-recruitment, e-selection, electronic presence and absence system, e-training, and e-learning).
- **Dependent variable:** human performance.

2.2. Data analysis of the study:

2.2.1. Reliability of the questionnaire:

To verify the reliability of the questionnaire, we used the Cronbach's alpha coefficient. The results of this coefficient are presented in the following table.

[21] Sébastien Lambert, Stéphane Morency, Nathalie Paré et Sylvie Robidaux, (2009), La performance humaine comme outil d'amélioration de la productivité dans les terminaux portuaires , Synthèse de la recherche dans le cadre du séminaire international, Maitrise en gestion de la formation, Université de SHERBROOKE.

[22]MARTORY BERNARD, CROZET DANIEL, (2016), Gestion des ressources humaines :Pilotage social et Performances,9 édition, DUNOD, Paris, p 173.

Table 1. Cronbach's Alpha Test Results

Study Variables	The dimensions of the studied variables	Alpha Cronbach
Independent variable	E-recruitment	0.865
	E-selection	0.822
	Electronic presence and absence system	0.873
	E-training	0.815
	E-l'earning	0.828
	E-HRM	0.853
Dependent variable	Human performance	0.856
Total		**0.867**

Source: Prepared by the authors using SPSS 25.

The results of the previous table show that the value of the Cronbach's alpha coefficient is 0.867, which is well above 0.6. This indicates that the questionnaire is highly reliable.

2.2.2. Results of Descriptive Statistics:

We will examine the influence of each dimension of E-HRM (E-selection, E-recruitment, Electronic Presence and Absence System, E-training, E-learning) on human performance within LAFARGE CIMENT OGGAZ (LCO) company.

Table 2. Mean and standard deviation of study variables

Variables	Mean	Standard Deviation	Importance Level
E-recruitment	4.289	0.512	High
E-selection	3.845	0.601	High
Electronic presence and absence system	4.297	0.515	High
E-training	4.031	0.631	High
E-l'earning	4.077	0.531	High
E-HRM	4.289	0.513	High
Human performance	4.196	0.484	High

Source: Prepared by the authors using SPSS 25.

The results of the responses from the study sample indicate that the overall mean of the responses regarding the E-HRM variable was 4.196, signifying a high level according to the weighted average, with a standard deviation of 0.513. The detailed results are as follows:

E-recruitment: The results above indicate that the responses from the study sample regarding the E-recruitment dimension were rated at 4.289, with a standard deviation of 0.512. Therefore, this falls at a high level of agreement according to

the weighted average of the five-point Likert scale. The study sample members agree that electronic human resource management provides a competitive advantage to the company by facilitating talent management and optimizing the recruitment processes. Furthermore, the adoption of a digital policy allows LCO company management to attract specific and qualified skills and adapt to changes in the labor market. Additionally, the use of electronic human resource management also enables LCO company to expedite the recruitment process and save time.

E-selection: The results above indicate that the responses from the study sample regarding the E-selection dimension were rated at 3.845, with a standard deviation of 0.601. Therefore, this falls at a high level of agreement according to the weighted average of the five-point Likert scale. Study sample members agree that E-selection streamlines the application process by allowing candidates to submit their CVs online and providing an overview of available positions. In this way, the company can attract a greater number of qualified candidates and save time in the recruitment process.

Electronic presence and absence system: The results above indicate that the responses from the study sample regarding the Electronic Presence and Absence System dimension were rated at 4.297, with a standard deviation of 0.515. Therefore, this falls at a high level of agreement according to the weighted average of the five-point Likert scale. Study sample members agree that the Electronic Presence and Absence System for employees enables LCO company to achieve significant time and effort savings.

E-training: The above results indicate that the responses from the study sample regarding the E-training dimension were rated at 4.031, with a standard deviation of 0.631. Therefore, this falls at a high level of agreement according to the weighted average of the five-point Likert scale. Study sample members agree that LCO company places great emphasis on online learning to enhance the skills and performance of its personnel.

E-learning: The above results indicate that the responses from the study sample regarding the E-learning dimension were rated at 4.077, with a standard deviation of 0.531. Therefore, this falls at a high level of agreement according to the weighted average of the five-point Likert scale. Study sample members agree that LCO company utilizes E-coaching to improve the performance of its employees.

Human Performance: The above results indicate that the responses from the study sample regarding the human performance dimension were rated at 4.196, with a standard deviation of 0.484. Therefore, this falls at a high level of agreement according to the weighted average of the five-point Likert scale. Study sample members agree that the integration of new technologies in the workplace enhances the performance of LCO company employees. Furthermore, E-HRM facilitates interaction and communication among different departments within LCO company, thereby promoting collaboration and coordination of activities.

2.3. Hypothesis Testing and Discussion of Results

As a reminder, the main hypothesis of our study is as follows: there is a positive and significant influence of E-HRM dimensions (E-recruitment, E-

selection, electronic attendance and absence system, E-training, and E-learning) on human performance within LAFARGE CIMENT OGGAZ company.
This main hypothesis is divided into four sub-hypotheses, namely:

2.3.1. Hypothesis test H1-1:

Hypothesis 1-1: there is a positive and significant influence of the E-recruitment dimension on human performance in LAFARGE CIMENT OGGAZ company.

Table 3. Hypothesis test H1-1

Model	Sum of square	Ddl	Mean square	F calculated	Sig
Regression	2.275	1	2.275	10.956	0.003
Residues	5.399	99	0.208		
Total	7.674	100			
Variable	**Coefficient**	**Ecart standard**	**(t) calculated**		**Sig**
Constant	2.602	0.486	5.353		0,000
E- recruitment	0.423	0.128	3.310		0,003
Dependent variable: Human performance	Coefficient de corrélation **R= 0.544**		Coefficient de détermination **R^2 =0.296**		

Source: Prepared by the authors using SPSS 25.

Through the results of the previous table, we see that the calculated F value amounted to (10.956) with a probability value of (Sig = 0.003), which is lower than the significance level (α = 0.05), this proves the validity of the linear model. It is also apparent from the table above that the coefficient of determination is 0.296, which gives an average correlation coefficient of 0.544 between the two variables E-recruitment and human performance. This result explains the impact of the E-recruitment variable on human performance by expressing a strong positive relationship between its two variables with a percentage of 54.4%.

We also note that there is a statistically significant relationship at the level of significance (α = 0.05) between the dimension of the independent variable (E-recruitment) and the dependent variable (human performance) whose calculated t-value is equal to 3.310 with a probable value (Sig = 0.003) that is below the significance level of 0.05. Based on the above, we reject the null hypothesis, and consequently we accept the alternative hypothesis "There is a positive and significant influence of the E-recruitment dimension on human performance in the company LAFARGE CIMENT OGGAZ".

2.3.2. Test of hypothesis H1-2:

Hypothesis 1-2: there is a positive and significant influence of the E-selection dimension on human performance in LAFARGE CIMENT OGGAZ company.

Table 4. Hypothesis test H1-2

Model	Sum of square	Ddl	Mean square	F calculated	Sig
Regression	5.362	1	5.362	29.232	0.000
Residues	18.159	99	0.183		
Total	23.521	100			

Variable	Coefficient	Standard deviation	(t) calculated	Sig
Constant	2.541	0.309	8.221	0.000
E- selection	0.419	0.077	5.407	0.000
Dependent variable: Human performance	Correlation coefficient **R= 0.477**		Coefficient of determination **R^2 =0.228**	

Source: Prepared by the authors using SPSS 25.

Through the results of the previous table, we see that the calculated F value amounted to (29.232) with a probability value of (Sig = 0.000), which is lower than the significance level (α = 0.05), this proves the validity of the linear model. It is also apparent from the table above that the coefficient of determination is 0.228, which gives an average correlation coefficient of 0.477 between the two variables E-selection and human performance. This result explains the impact of the E-selection variable on human performance by expressing an average positive relationship between its two variables with a percentage of 47.7%.

We also find that there is a statistically significant relationship at the significance level (α = 0.05) between the dimension of the independent variable (E-selection) and the dependent variable (human performance) whose calculated t-value is equal to 5.407 with a probable value (Sig = 0.000) that is below the significance level of 0.05. Based on the above, we reject the null hypothesis and consequently accept the alternative hypothesis "There is a positive and significant influence of the E-selection dimension on human performance in the company LAFARGE CIMENT OGGAZ".

2.3.3. Test of hypothesis H1-3:

Hypothesis 1-3: there is a positive and significant influence of the Electronic presence and absence system dimension on human performance in LAFARGE CIMENT OGGAZ company.

Table 5. Hypothesis test H1-3

Model	Sum of square	Ddl	Mean square	F calculated	Sig
Regression	2.529	1	2.529	11.929	0.001
Residues	20.992	99	0.212		
Total	23.521	100			
Variable	**Coefficient**	**Standard deviation**	**(t) calculated**		**GIS**
Constant	2.872	0.386	7.434		0.000
Electronic presence and absence system	0.308	0.089	3.454		0.001
Dependent variable: Human performance	Correlation coefficient **R= 0.328**		Coefficient of determination **R^2 =0.108**		

Source: Prepared by the authors using SPSS 25.

Through the results of the previous table, we see that the calculated F value amounted to (11.929) with a probability value of (Sig = 0.001), which is lower than the significance level (α = 0.05), this proves the validity of the linear model. It is also apparent from the table above that the coefficient of determination is 0.108, which gives an average correlation coefficient of 0.328 between the two variables

Electronic presence and absence system and human performance. This result explains the impact of the Electronic presence and absence system variable on human performance by expressing a weak positive relationship between its two variables with a percentage of 32.8%.

We also note that there is a statistically significant relationship at the significance level (α = 0,05) between the dimension of the independent variable (Electronic presence and absence system) and the dependent variable (human performance) whose calculated t-value is equal to 3.454 with a probable value (Sig = 0.001) that is below the significance level of 0.05. Based on the above, we reject the null hypothesis, and consequently we accept the alternative hypothesis "There is a positive and significant influence of the Electronic presence and absence system dimension on human performance in the company LAFARGE CIMENT OGGAZ".

2.3.4. Test of hypothesis H1-4:

Hypothesis 1-4: there is a positive and significant influence of the training dimension on human performance in LAFARGE CIMENT OGGAZ company.

Table 6. Hypothesis test H1-4

Model	Sum of square	Ddl	Mean square	F calculated	Sig
Regression	6.587	1	6.587	38.506	0.000
Residues	16.935	99	0.171		
Total	23.521	100			
Variable	**Coefficient**	**Standard deviation**	**(t) calculated**		
Constant	2.558	0.267	9.576		0.000
E-training	0.406	0.065	6.205		0.000
Dependent variable: Human performance	Correlation coefficient **R= 0.529**		Coefficient of determination **R2 =0.280**		

Source: Prepared by the authors using SPSS 25.

Through the results of the previous table, we see that the calculated F value amounted to to (38.506) with a probability value of (Sig = 0.000), which is lower than the significance level (α = 0.05), this proves the validity of the linear model. It is also apparent from the above table that the coefficient of determination is 0.280, which gives a correlation coefficient of 0.529 between the two variabs the E-training and the human performance. This result explains the impact of the E-training variable on human performance by expressing a strong positive relationship between its two variables with a percentage of 52.9%.

We also note that there is a statistically significant relationship at the significance level (α = 0.05) between the dimension of the independent variable (E-training) and the dependent variable (human performance) whose calculated t-value is equal to 6.205 with a probable value (Sig = 0.000) that is below the significance level of 0.05. Based on the above, we reject the null hypothesis, and consequently we accept the alternative hypothesis "There is a positive and significant influence of the E-training dimension on human performance in the company LAFARGE CIMENT OGGAZ".

2.3.5. Test of hypothesis H1-5:

Hypothesis 1-5: there is a positive and significant influence of the E-learning dimension on human performance in LAFARGE CIMENT OGGAZ company.

Table 7. Hypothesis test H1-5

Model	Sum of square	Ddl	Mean square	F calculated	Sig
Regression	8.018	1	8.018	51.202	0.000
Residues	15.503	99	0.157		
Total	23.521	100			
Variable	**Coefficient**	**Standard deviation**	**(t) calculated**		
Constant	2.024	0.306	6.610		0.000
E-learning	0.533	0.074	7.156		0.000
Dependent variable: Human performance	Correlation coefficient **R= 0.584**		Coefficient of determination **R2 =0.341**		

Source: Prepared by the authors using SPSS 25.

Through the results of the previous table, we see that the calculated value F amounted to (51.202) with a probability value of (Sig = 0.000), which is lower than the significance level (α = 0.05), this proves the validity of the linear model. It is also apparent from the table above that the coefficient of determination is 0.341, which gives a correlation coefficient of 0.584 between the two variables E-learning and human performance. This result explains the impact of the E-learning variable on human performance by expressing a strong positive relationship between its two variables with a percent of 58.4%.

We also note that there is a statistically significant relationship at the level of significance (α = 0.05) between the dimension of the independent variable (E-learning) and the dependent variable (human performance) whose calculated t-value is equal to 7.156 with a probable value (Sig = 0.000) that is below the significance level of 0.05. Based on the above, we reject the null hypothesis, and consequently we accept the alternative hypothesis "There is a positive and significant influence of the E-learning dimension on human performance in the company LAFARGE CIMENT OGGAZ".

2.3.6. Primary hypothesis test:

Hypothesis H1: there is a positive and significant influence of E-HRM on human performance in LAFARGE CIMENT OGGAZ company.

Table 8. Primary hypothesis test

Model	Sum of square	Ddl	Mean square	F calculated	Sig
Regression	5.162	1	5.162	31.028	0.000
Residues	5.989	99	0.166		
Total	11.151	100			
Variable	**Coefficient**	**Standard deviation**	**(t) calculated**		
Constant	0.969	0.587	1.652		0.000

E-HRM	0.747	0.134	5.570	0.000
Dependent variable: Human performance	Correlation coefficient **R= 0.680**		Coefficient of determination **R2 =0.463**	

Source: Prepared by the authors using SPSS 25.

Through the results of the previous table, we see that the calculated value F amounted to (31.028) with a probability value of (Sig = 0.000), which is lower than the significance level (α = 0.05), this proves the validity of the linear model. It is also apparent from the table above that the coefficient of determination is 0.463, which gives a correlation coefficient of 0.680 between the two variables E-HRM and human performance. This result explains the impact of the E-HRM variable on human performance by expressing a strong positive relationship between its two variables with a percentage of 68%.

We also note that there is a statistically significant relationship at the level of significance (α = 0.05) between the dimension of the independent variable (E-HRM) and the dependent variable (human performance) whose calculated t-value is equal to 5.570 with a probable value (Sig = 0.000) that is below the significance level of 0.05. Based on the above, we reject the null hypothesis, and consequently we accept the alternative hypothesis "There is a positive and significant influence of E-HRM on human performance in the company LAFARGE CIMENT OGGAZ".

2.3.7. Discussion of Results:

The obtained results reveal several advantages associated with the use of technology to manage human resources at company LAFARGE CIMENT OGGAZ (LCO):

- E-recruitment reduces candidate travel, saving time and effort for both candidates and HR professionals.
- The e-selection system streamlines the application process, allowing candidates to submit their CVs online and providing an overview of available positions. Furthermore, candidate data can be stored in a data warehouse for future reference in case of potential job opportunities.
- The electronic attendance and absence system enhance the performance of company LCO employees. An electronic recording system for arrivals and departures tracks employee movements, work schedules, and leaves, enabling the identification of reasons for employee turnover.
- Company LCO invests in learning centers equipped with modern tools to enhance its employees' skills. The management also encourages employees to work on creative ideas and participate in scientific conferences.
- Company LCO provides financial resources for online training of its employees, alleviating practical constraints such as travel and illness.
- Ultimately, the implementation of effective electronic human resource management practices contributes to the overall performance of employees

Conclusion :

In this research, we have attempted to highlight the different aspects that impact electronic human resource management (E-HRM). The experimental results obtained confirmed our hypothesis that E-HRM is linked to the improvement of human performance. In addition, according to the results obtained, we note that the correlation between the level of human performance and E-HRM with its

dimensions is quite high, which allows us to say that the dimensions of E-HRM (E-recruitment, E-selection, Electronic presence and absence system, E-training, and E-learning) positively and significantly influence human performance in the LAFARGE CIMENT OGGAZ company.

The success of E-HRM depends largely on the acceptance of the system by employees. Indeed, no system can function effectively if it is rejected by users. Therefore, organizations must clearly explain to employees the importance of the system as well as its work procedures, highlighting its key role in improving employee performance. This improvement in individual performance then contributes to the overall improvement of organizational performance. Thus, the success of E-HRM depends on effective communication and a shared understanding of the importance of the system by all members of the organization.

Recommendations:

After analyzing the results, we have found it useful to highlight recommendations closely related to electronic human resource management, with the aim of improving human performance. We propose the following:

- Encourage the transition from traditional management to electronic management and promote the widespread use of technology in administrative functions.
- Enhance the quality of Internet traffic and develop the features and operational tasks of internal (Intranet) and external (Extranet) networks.
- Emphasize the importance of human capital to mitigate resistance to change by strengthening training and development for individuals in the field of electronic management and digitization, fostering their skills and competencies, motivating them, and persuading them to embrace digital transformation and cope with new technology.
- Embrace the use of ICT (Information and Communication Technology) in all human resource management practices, not limiting it solely to learning and training.
- Cultivate awareness among senior management and at various organizational levels regarding the significance of E-HRM (Electronic Human Resource Management) techniques, considering them a key element for enhancing human performance.
- Optimize the utilization of new information and communication technologies in electronic human resource management to facilitate and streamline various tasks.

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