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The role of investing in human capital in improving employee performance: A case study of professors of the Faculty of Economic, Commercial and Management Sciences (University of El Oued)

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Abstract---This research paper shows the role of investment in human capital in improving employee performance for a sample of professors from the Faculty of Economics, Commercial and Management Sciences at the University of El Oued. The study aims to clarify the relationship between the two variables. To achieve the objectives of the study, we distributed a questionnaire to a sample of 81 faculty members, and we used SPSS program for analysing data and using statistical measures such as arithmetic mean, standard deviation, simple and multiple linear regression...etc.. We reached several results, the most important of which is that investment in human capital, which consists of (recruitment, training, education, and motivation) has a role in improving the performance of employees for the sample under study, which is a positive and strong correlation estimated at 77%.

Keywords---human capital, performance, recruitment, training, education, motivation.

1. Introduction:

Human capital is the key to the success of organizations, which has come to be seen as a point of strength and the ability of organizations to compete and achieve the strategic objectives set for knowledge management. In the third millennium, decision-makers are required to have more understanding of human capital and business development knowledge and considering it its most important asset in the present and future, and developing Programs based on human capital, its development, investment and preservation.

Investment in human capital is considered one of the most important elements that contribute to improving employee performance. Investment involves recruiting, training, education and motivation, and directly affects productivity and innovation within the organization. In addition to these points, investment in human capital helps build a society capable of renewal and development. Continuous growth, which benefits the entire economy by improving productivity and increasing competitiveness.

1.1 The main problematic

What is the impact of investing in human capital on improving employee performance at the Faculty of Economic and Commercial Sciences and Management Sciences at the University of El Oued?

It includes the following sub-questions:

What is the concept of investing in human capital?

What is the definition of improving employee performance?

How does investing in human capital affect the improvement of employee performance among the sample individuals in the study?

1.2 Hypotheses

To answer the study's problem, we established the following main hypothesis:

There is an effect of investment in human capital on improving the performance of employees in the sample under study.

From this, four sub-hypotheses emerge:

- There is an effect of recruitment on improving the performance of employees in the sample under study.
- There is an effect of training on improving the performance of employees in the sample under study.
- There is an effect of education on improving the performance of employees in the sample under study.
- There is an effect of motivation on improving the performance of employees in the sample under study.

1.3 Study Model

In light of the above, a hypothetical model has been prepared to illustrate the relationship between the study variables, where:

The independent variable is represented by investment in human capital and includes the following dimensions: recruitment, training, education, and motivation.

The dependent variable: improving employee performance

And this model can be illustrated in the following figure:

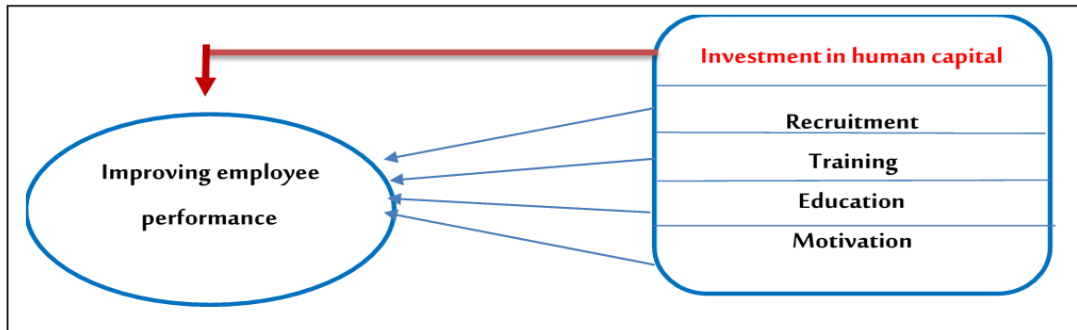


Figure 1: The hypothetical model for the study

Source: Prepared by the researchers based on previous studies

1.4 Study Objectives

This research aims to achieve the following objectives:

- To determine the level of investment in human capital at the Faculty of Economic and Commercial Sciences and Management Sciences at the University of El Oued.
- To take a look at the actual performance of the employees of the Faculty of Economic and Commercial Sciences and Management Sciences at the University of El Oued.
- To attempt to understand the relationship between investment in human capital and employee performance for the sample under study.
- Building and testing a mathematical model to clarify the relationship between investing in human capital and improving employee performance.
- Finally, an attempt to provide some recommendations to the Faculty of Economic and Commercial Sciences and Management Sciences at the University of El Oued through the research results

1.5 Study Methodology

1.5.1 Community and Sample of the Study:

The targeted sample of the study consists of all professors at the Faculty of Economic and Commercial Sciences and Management Sciences at the University of El Oued, totaling approximately 160 professors. We relied on a random sample by sending an electronic questionnaire to all professors via their professional emails, and 81 professors responded, representing a rate of 50%.

1.5.2 Study Tool:

To conduct the applied study and to address the problem and verify the validity or invalidity of the previous hypotheses and to test the relationship between the two variables: investment in human capital and improving employee performance, a questionnaire was prepared based on previous studies, and the questions were

adapted to align with the study sample. The questionnaire consists of two main sections :

Section One : Contains personal and professional information about the professor, which includes : gender, age, experience, and academic rank.

Section Two : This section is dedicated to the axes of the questionnaire and consists of two parts.

The first part is related to investment in human capital, which is the independent variable, and it has four dimensions distributed as follows:

- The dimension of recruitment is represented in phrases 1, 2, 3, 4.
- The dimension of training is represented in phrases 5, 6, 7, 8.
- The dimension of education is represented in phrases 9, 10, 11, 12.
- The dimension of motivation is represented in phrases 13, 14, 15, 16.

The second part is dedicated to questions related to improving employee performance as a dependent variable, containing nine phrases from 17 to 25, aimed at assessing the performance level of the professors under study

1.6 Framework of Study:

1.6.1 Human Framework: The study was conducted by professors of the Faculty of Economic and Commercial Sciences and Management Sciences at the University of El Oued.

1.6.2 Subject Framework: The study addressed two variables, which are an investment in human capital and the performance of the faculty members.

1.6.3 Spatial Framework: The study was conducted at the Faculty of Economic and Commercial Sciences and Management Sciences at the University of El Oued.

1.6.4 Temporal Framework: The field study between March and June of the year 2024

1.7 Statistical methods for analysing study data: To complete the applied study and to answer the research problematic and determine the validity of the hypotheses, the SPSS version 27 was used, in addition descriptive and inferential statistical measures, which are:

1.7.1 Descriptive statistic measures: using frequency, percentages, arithmetic means, standard deviation, and measures of shape such as skewness and kurtosis.

1.7.2 Simple linear regression analysis: to study the relationship between the study variables and to ensure the validity of the proposed model.

1.7.3 Multiple linear regression analysis: to test the effect of the dimensions of the independent variable (recruitment, training, education, motivation) on the dependent variable represented by the improvement of employee performance.

1.7.4 Alpha Cronbach reliability coefficient: This measures the reliability of the research tool, meaning obtaining the same results if the research is repeated under similar conditions using the same tool.

1.7.5 Criterion validity coefficient: This refers to the ability of the questionnaire to measure the variables it was designed to measure and to verify content validity and face validity

2. Theoretical Framework of the Research:

2.1. Investment in Human Capital: Human capital is defined as the sum of knowledge, skills, competencies, and experiences embodied in individuals that facilitates the creation of personal, social, and economic well-being. (Mićiak, 2023, p. 2)

Investment in human capital lies at the heart of strategies to enhance economic prosperity. Individuals, organizations, and countries increasingly recognize that high levels of knowledge, skills, and competence are essential for their future security, particularly regarding investment in people, within a framework that seeks to generalize learning to achieve long-term social and economic objectives by increasing investment in human capital. This requires a good understanding of the nature of human capital and its role in promoting individual, social, and economic well-being (OECD, 1998, p. 7)

2.1.1 The importance of investing in human capital (Snurkowski, 2024)

- The primary benefit of investing in human capital is increased productivity and innovation.
- Retaining and attracting employees in a competitive labor market represents a significant challenge for organizations, as attracting and retaining the best talent is crucial.
- Enhancing the organization's reputation, as leading organizations from investing in their human capital enjoy a good reputation in the market.
- Organizations need a workforce that can adapt to technological changes, which is achieved through investment in human capital.
- Investing in human capital significantly contributes to creating a positive workplace culture.
- Although investing in human capital requires initial costs, the financial benefits and returns are substantial in the long run.

2.1.2 Investment Methods in Human Capital

2.1.2.1 Recruitment :A process that focuses on activities related to attracting individuals, selecting them, and paying attention to outstanding human elements with diverse experiences and creative and innovative abilities, while considering the diverse age groups of knowledge, energy, enthusiasm, and creativity. (MWANGI, 2022)

2.1.2.2 Training: A continuous process to equip individuals with the skills and experience that enable them to perform their work with the aim of increasing productivity, or a process of transferring new knowledge, skills, and behaviours to enhance an individual's competence in performing specific tasks.

2.1.2.3 Education: A set of processes and activities aimed at improving overall capabilities, developing oneself, activating and adapting to the environment, and mobilizing individuals to become intermediaries for following up on knowledge and employing it efficiently and effectively within the organization.

2.1.2.4 Motivation: A collection of factors and variables that influence and drive individuals to exert greater effort in their work with precision and to avoid mistakes in exchange for obtaining what ensures the fulfilment of their diverse needs and desires and achieving their objectives

2.2 Improving the performance of employees: no matter how different their objectives and develop over time, there is a basic and general truth that applies to all organizations and is relates to their management, namely performance. It is the main motivation for the existence of any institution and the most contributing factor to achieving its main objective of survival and continuity

2.2.1 Definition of Performance

The concept of performance is one of the contemporary concepts that have garnered significant attention after organizations realized its importance. It is also one of the most common and widely used concepts in management and economics. **Wheelen & Hunger** view performance as "the final result of activities, measured by comparing the achieved results with the set objectives." (ARAMIDE, 2020, p. 3)

From **P. Drucker's** perspective, performance represents "the organization's ability to balance the satisfaction of shareholders and employees in the short term with continuity and survival in the long term." (Drucker, 2000, p. 40)

Stantosky also referred to the concept of performance from the perspective of efficiency, describing it as the results achieved from the interaction of the organization's activities and its resources. (Pintea, 2010, p. 10)

Based on the previous definitions, a comprehensive definition of performance can be given as the result and ability of an organization to optimally utilize its resources to realize its planned objectives into actual outcomes through the activities it undertakes, while adhering to the pre-set standards in light of its internal and external environmental conditions. In other words, performance is a measure of the organization's ability to achieve its objectives efficiently and effectively.

Through the definitions reviewed for the concept of performance, it became clear to us its close relationship and overlap with the concepts of efficiency and effectiveness.

Efficiency: It refers to completing tasks correctly and is also defined as the ability to accomplish required tasks with minimal resources. Efficient activity is the least costly activity, meaning it is the optimal use of resources at the lowest cost. It represents the relationship between inputs and outputs. (Sanchez, 2023)

Effectiveness: It reflects the act of doing the right things. It also represents a measure of how effectively an organization achieves its objectives, and is related to the quantity of final outputs without considering the amount of resources used to obtain them. On the other hand, effectiveness is defined as "the relationship between the achieved results and the expected results through measuring the deviation." (Martins, 2024)

2.2.2 Types of Performance: The difficulty in defining the concept of performance among researchers has led to various classifications based on certain criteria, including the following:

2.2.2 .1 According to the Nature Criterion

The concept of performance has long been associated with the purely financial level of the institution, but its scope has expanded to include other aspects such as economic, social, and others. There are several types of these:

Economic performance: This type of performance reflects the true condition of the institution and enhances the confidence of shareholders and customers in it.

This performance is usually measured through quantitative metrics such as profitability in its various forms (TUDOSE, 2022, p. 122)

Social performance: It is defined as "the ability of the institution to meet the needs of various stakeholders, that is, internal and external actors such as employees, shareholders, customers, and suppliers." (Autissier, Bensebaa, & Boudier, 2010, p. 530)

Administrative performance: Administrative performance relates to the implementation of plans, policies, and operations in an efficient and effective manner, achieved through the use of the best alternatives that yield the highest possible outputs. This performance can be evaluated using various methods of operations research and linear programming (Niswaty, 2023, p. 222)

Strategic performance : It is also called long-term performance, and it is used as an indicator to measure the excellence system, meaning it is one of the important indicators for the institution's distinction from its competitors.

2.2.2.2 According to the source criterion

Types of performance can be classified according to this criterion into:

Internal performance: Identify **Bernard** three types that represent a combination of the partial performances of the institution, which are reflected in financial, technical, and human performance (Bernard-Marr, 2022)

External performance: It is performance related to the external environment of the organization and the developments resulting from it. The success or failure of the organization in achieving this performance depends on its ability to respond to these developments and to monitor them effectively

2.2.2.3 According to the inclusiveness criterion, the following types fall under this classification:

Total performance : This type of performance is based on the idea that achieving performance levels comes from the contribution and interaction of all activities, functions, processes, and resources, and cannot be linked to any single factor or element alone.

Partial performance: This type of performance is realized at the level of a subsystem of the organization and is often one of its organizational functions, as the total performance of the organization is achieved through each subsystem meeting its objectives.

2.2.2.4 According to the functional criterion Performance is divided according to this criterion into :

Marketing performance: This is represented by the organization's ability to achieve its marketing objectives. The performance of this function is measured through a set of indicators such as market share, customer satisfaction, and the organization's reputation.

Financial performance: This relates to achieving the organization's financial objectives through its ability to build an effective financial structure and achieve an acceptable financial balance.

Human resource performance: The success and survival of the organization are closely linked to the performance of its human resources and achieving their effectiveness.

Production performance: This performance is achieved when the organization

attains higher productivity compared to competitors, while ensuring the production of high-quality products at the lowest costs.

3. Analytical Framework of the Research

3.1 General Characteristics of the Study Sample

This section pertains to the personal information of the survey respondents. These questions are dedicated to gender, age, professional experience, and academic rank, and the results are illustrated in the following table:

Table No. (1): Distribution of Study Sample Members by Functional and Personal Information

%	Frequency	Functional and Personal Information	
75,3	61	MALE	gender
24,7	20	Female	
4,9	4	Under 30 years	AGE
33,3	27	Between 30 and 40 years	
56,8	46	Between 40 and 50 years	
4,9	4	More than 50	
13,6	11	Under 2 years	professional experience
9,9	8	Between 2 and 5 years	
19,8	16	Between 6 and 10 years	
43,2	35	Between 11 and 15 years	
13,6	11	More than 15 years	
27,2	22	Assistant professor	academic rank
34,6	28	Associate Professor	
38,3	31	Professor	

Source: Prepared by the researchers based on the outputs spss –v. 27

From the table above, we notice that the percentage of males is 75.3%, while the percentage of females is 24.7%, indicating that the percentage of males is greater than that of females.

Regarding the age group, we observe that the largest group of respondents was aged between 40 to 50 years, accounting for 56.8%, while the next age group, from 30 to 40 years, accounted for 33.3%. The two groups under 30 years and over 50 years accounted for 4.9%. We can say that most of the faculty members in the college have surpassed the age of forty.

As for professional experience, most of the respondents had experience exceeding ten years, at a rate of 56.8%, while the group with less than ten years of experience is estimated at 43.2%. Concerning the academic rank of the respondents, the first place was that of professor 38.3%, followed by the Associate Professor at 34.6%, and lastly, the assistant professor at 27.2%. This is logical due to the factors of experience and age.

3.2 The Reliability and stability

Table No. (2): Stability Degree and Validity Coefficient

Validity coefficient	Cronbach's alpha coefficient	N phrases	Variables
0,964	0,930	16	Investment in Human Capital
0,950	0,903	9	Improving Employee Performance
0,975	0,952	25	Total Questionnaire

Source: Prepared by the researchers based on the outputs spss –v. 27

From the table, we notice that the total reliability coefficient of the study tool reached 0.952, which is greater than the minimum 0.6, indicating the stability of the study tool, and greater than 0.9, meaning it has an excellent level of reliability and stability. Additionally, all reliability coefficients for the study variables and their dimensions are also high, with values greater than 0.9.

The validity coefficient was calculated the square root of Cronbach's alpha reliability coefficient. We find that the total validity coefficient of the study tool reached 0.964, is a high value and suitable for the purposes of this study. We also observe that all validity coefficients for the study's axes and dimensions are great and appropriate for the objectives of this study, all exceeding 0.9., we can say that all Phrases of the study are valid for what they were designed to measure.

3.3 Internal consistency validity

It is calculated using the Pearson correlation coefficient between all phrases of the questionnaire and the dimension to which it belongs. It was found that the correlation coefficients at a significance level of 0.05 are lower, where statisticians suggest that if the correlation is statistically significant, the item achieves Internal consistency validity. We will present the obtained results in the following table:

Table No. (3): Internal consistency validity of the Dimensions of the Investment in Human Capital Axis

phrase4	phrase3	phrase2	phrase1	dimension of recruitment
0,803	0,848	0,916	0,865	Pearson of coefficient
phrase 8	phrase7	phrase 6	phrase 5	dimension of training
0,822	0,840	0,735	0,699	Pearson coefficient
phrase 12	phrase 11	phrase 10	phrase9	dimension of education
0,801	0,817	0,820	0,847	Pearson coefficient
phrase 16	phrase15	phrase 14	phrase 13	dimension of motivation
0,890	0,856	0,853	0,814	Pearson coefficient
0.000	0.000	0.000	0.000	significance level

Source: Prepared by the researchers based on the outputs spss –v. 27

The table shows that the correlation coefficients between each phrase and the dimension ranged from 69.9% to 91.6% at a significance level of 5%, with statistical significance levels of 0.000, which is less than 0.05. This confirms the Internal consistency validity of the phrases related to the investment in human capital dimension.

Table 4: Internal consistency validity of the Dimensions of Employee Performance Improvement Axis

	phrase 20	phrase 19	phrase 18	phrase 17	phrases
	0,818	0,770	0,742	0,530	Pearson coefficient
phrase 25	phrase 24	phrase 23	phrase 22	phrase 21	phrases
0,630	0,691	0,836	0,784	0,860	Pearson coefficient
0.000	0.000	0.000	0.000	0.000	significance level

Source: Prepared by the researchers based on the outputs spss –v. 27

The table shows that the correlation coefficients between each phrase and the dimension ranged from 53% to 86% at a significance level of 5%, with significance levels at 0.000, which is less than 0.05. This confirms the Internal consistency validity of the phrases related to the improving employee performance dimension

3.4 Coefficient Kolmogorov-Smirnov tess normal distribution

We will test whether the data for each of the three axes follows a normal distribution using the Kolmogorov-Smirnov coefficient, as shown in the table

Table No. (5): Tests of Normality

Sig	Kolmogorov-Smirnov	Tests
0.200	0.123	investment in human capital
0.200	0.106	improving employee performance

Source: Prepared by the researchers based on the outputs spss –v. 27

The table indicates that the data for the axes follows a normal distribution according to the Kolmogorov-Smirnov coefficient, which is determined based on Sig > 0.05. whenever the level of significance is greater than 0.05, the data follows a normal distribution. This condition is met for all axes, which have a value of 0.200, indicating that they all follow a normal distribution since Sig > 0.05

3.5 The Variance Inflation Factor and Tolerance test

To ensure the suitability of the data for the regression analysis hypotheses, It was confirmed that there is no high correlation between the independent variables using the Variance Inflation Factor (VIF) test and Tolerance test for each dimension of the independent variable, noting that the VIF should not exceed the value of (5), and Tolerance test value should be greater than (0.05). Table (6) illustrates the results of these tests

Table 6: Test of Variance Inflation Factor and Tolerance

Tolerance	VIF	independent variables
0,5410	1,849	recruitment
0,4140	2,414	training
0,3720	2,688	education
0,4880	2,048	motivation

Source: Prepared by the researchers based on the outputs spss –v. 27

We note that the values of (VIF) test for all variables are less than 5, ranging between (1.849 and 2.688), and that the values of Tolerance test ranged between (0.372 and 0.541), which are greater than (0.05). This indicates that there is no high correlation between the independent variables.

4. Results of the Statistical Analysis and Hypothesis Testing:

4.1 Statistical Analysis Results

In this section, we will analyse the survey axes to answer the research questions, utilizing the arithmetic mean on the Likert scale and the standard deviation of the sample respondents' answers to the survey related to the axes of investment in human capital and improving employee performance. For the variables of the study, a five-point Likert scale was adopted, where sample respondents were asked to give their level of agreement with each phrase according to this scale.

Strongly disagree :1 / Disagree :2 / Neutral :3 / Agree :4 / Strongly Agree :5

The responses are estimated according to the Likert scale, as illustrated in the following table

Table No. (7): Five-Point Likert Scale

4,2>X ≥ 5	3,4>X ≥ 4,2	2,6>X ≥ 3,4	1,8>X ≥ 2,6	1>X ≥ 1,8	Mean
Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	Response
Very High	High	Medium	Low	Very Low	Level

Source: Prepared by the researchers based on previous studies

4.1.1 Analysis phrases of the first axis to answer the following question:

What is the level of investment in human capital at the Faculty of Economic and Commercial Sciences and Management Sciences, University of El Oued?

Table No. (8): General Trend of Answers Regarding Investment in Human Capital

Level	Relative Importance	Std. Deviation	Mean	Dimensions of Investment in Human Capital	number phrase
Medium	3	0,883	2,777	Recruitment	
Medium	1	1,043	2 ,99	The faculty works to attract distinguished and competent professors	1

Medium	2	1,083	2,95	The faculty identifies scientific and knowledge gaps before attracting and Recruitment professor	2
Medium	3	0,971	2,79	The faculty attracts professors with creative abilities in all specializations	3
low	4	1,019	2,38	The faculty seeks to contract with professors from inside or outside the country with knowledge and experience	4
Medium	1	0,844	3,145	Training	
High	1	0,998	3,58	The faculty believes that the professor's training will be reflected in his performance and the total performance	5
Medium	2	1,189	3,25	The faculty has all the necessary material and human resources to train the professor	6
Medium	3	1,131	2,91	The faculty provides periodic training programs that allow the development and development of the skills of the profess	7
Medium	4	1,042	2,84	The faculty is interested with training professors in a way that aligns with cognitive needs	8
Medium	2	0,851	3,061	Education	
Medium	1	1,026	3,51	The faculty believes that education is the best means to empower the teacher and develop their abilities	9
Medium	4	0,978	2,77	The faculty educates professors periodically and continuously	10
Medium	3	1,061	2,89	The faculty works to form work teams in order to	11

				educate the professor and acquire skills and knowledge	
Medium	2	1,086	3,09	Professors learn among themselves inside and outside the faculty and constantly.	12
Medium	4	0,918	2,737	Motivation	
Medium	3	0,998	2,68	The faculty has an effective motivation system that Preserves professors in the faculty	13
Medium	4	1,067	2,62	The faculty always seeks to motivate distinguished and creative professors.	14
Medium	1	1,136	2,90	The faculty depends on moral motivation from thanks and certificates to encourage the professor	15
Medium	2	1,101	2,75	The faculty motivates professors by participating in decision-making	16
Medium		0,740	2,930	Investment in Human Capital	

Source: Prepared by the researchers based on the outputs spss –v. 27

The dimension of training it first in terms of relative importance according to the opinions of the study sample, with a mean of 3.145 and a standard deviation of 0.844. According to the study's scale, this dimension indicates a medium acceptance rate. It is notable that most responses for this dimension from the sample individuals reflected a medium level of acceptance, except for phrase number 5, which received a high level of acceptance. The mean for this dimension ranged between 3.58 and 2.84, while the standard deviation values ranged from 0.998 to 1.189. Based on the previous results, the faculty is concerned with training for human resources at mediem level, despite the availability of material and human resources

The dimension of Education it second in terms of relative importance according to the opinions of the study sample, with a mean of 3.061 and a standard deviation of 0.851. According to the study's scale, this dimension indicates a mediem acceptance rate. Furthermore, we observe that most responses regarding this dimension from the sample individuals reflected a mediem level of acceptance, with the mean for this dimension ranging between 3.51 and 2.77. The standard deviation values ranged from 0.978 to 1.086. Based on the previous results, the faculty interested acceptable and medium to the education of professors.

The dimension of recruitment, it third in terms of relative importance according to the opinions of the sample under study, with a mean of 2.777 and a standard deviation of 0.883. According to the study's scale, this dimension indicates a

medium acceptance rate. It is noteworthy that most responses to this dimension from the sample individuals a medium level of acceptance, except for phrase number 4, which showed a low level of acceptance. The mean for this dimension ranged between 2.99 and 2.38, while the standard deviation values ranged between 0.971 and 1.083. The results indicate that the faculty is interested in recruiting new members at a medium level.

The dimension of motivation, it fourth and last in terms of relative importance according to the opinions of the sample under study, with a mean of 2.737 and a standard deviation of 0.918. According to the study's scale, this dimension indicates a medium acceptance rate. It is also noted that most responses for this dimension from the sample individuals exhibited a medium level of acceptance, with the mean for this dimension ranging between 2.90 and 2.62. The standard deviation values ranged between 0.998 and 1.136. The previous results indicate that the faculty is interested in motivation is medium

4.1.2 Analysis of the second axis phrases to answer the following question: What is the level of improvement in employee performance at the Faculty of Economic and Commercial Sciences and Management Sciences, University of El Oued?

Table No. (9): General Trend of Answers Regarding Employee Performance Improve

level	Relative Importance	Std. Deviation	Mean	Phrases to improve employee performance	number phrase
High	1	0,833	3,80	The professor possesses the knowledge and expertise that enable him to achieve a high level of performance.	17
Medium	4	1,123	2,96	The faculty provides a suitable environment for the professor to reach a distinguished performance level	18
Medium	6	1,046	2,74	The faculty seeks to improve and rehabilitate the low-level professor	19
low	9	1,046	2,53	The faculty has modern and advanced methods in evaluating the performance of the professor	20
Medium	5	1,169	2,89	The faculty aims from evaluating the professor to improving and developing his performance	21
Medium	8	1,055	2,66	The faculty utilizes the	22

				results of the faculty performance evaluation to develop training or corrective plans	
Medium	7	1,082	2,68	The faculty establishes a motivational program for the professor to improve his performance after his recruitment	23
High	2	1,018	3,80	The professor has a desire to develop his abilities and improve his performance in faculty	24
High	3	1,089	3,70	Do you feel that you are performing at a high level in your faculty tasks	25
Medium		0,784	3,084	improvement in employee performance	

Source: Prepared by the researchers based on the outputs spss –v. 27

The table presents the trends of respondents regarding the improvement of employee performance at the faculty, where the mean for this axis was 3.084, indicating a medium level of acceptance according to the study's scale. The standard deviation was 0.784, suggesting little variation in the responses of the sample participants. The results also indicated that the medium acceptance rate for most phrases in this axis, with phrases number 17, 24, and 25 was high level, The mean ranged between 3.80 to 2.53, reflecting medium acceptance. phrase number (17) it first with the highest mean, while phrase number (20) it last with the lowest mean. These results indicate that the individuals in the study sample have the ability to improve the performance of their pedagogical and administrative tasks at a very acceptable level.

5.2. Testing the main hypothesis

5.2.1 The first main hypothesis: there is an impact of investing in human capital on improving the performance of employees for the sample under study

Table No. (10) : results of a simple linear regression variance analysis to test the main hypothesis

R ² Square	R	F Sig	F	Sig T	T	Std. Error	B	Model
0,594	0,771	0,000	115,59	0,000	10,75	0,229	0,697	(Constant)
						0,076	0,815	investing in human capital

Source: Prepared by the researchers based on the outputs spss –v. 27

The table clearly shows that there is a statistically significant effect of investing in human capital on improving employee performance at the 0.05 significance level.

There is a positive and strong correlation between the independent variable and the dependent variable, where the value of the correlation coefficient (R) was 0.771 with an estimated correlation strength of 77%. The explanatory power of the regression model, represented by the coefficient (R^2), which reflects the variance in the dependent variable due to changes in the independent variable, is 0.594. This suggests that investing in human capital explains 59% of the variance in employee performance improvement, which is a good explanation. The remaining percentage is explained by other variables outside the model. The significance of this effect is also confirmed by the (F) value, which is 115.59, significant at a level of 0.000, which is less than 0.05. The calculated (T) value is 10.75, with a statistically significant value of 0.000, which is also less than the significance level of 0.05. The simple linear regression model is estimated according to the value of the parameters as follows:

$$Y = 0,697 + 0,815 X$$

Y : improving employee performance

X : investing in human capital

5.2.2 Testing the sub-hypotheses of the dimensions of investment in human capital on improving employee performance through multiple linear regression as shown in the following table:

Table No. (11): results of multiple linear regression analysis for testing sub-hypotheses

Sig	T	BETA	Std. Error	B	independent variable
0,225	1,224	0,118	0,085	0,104	recruitment
0,130	1,529	0,168	0,102	0,156	training
0,185	1,426	0,166	0,107	0,152	Education
0,000*	4 ,496	0,456	0,086	0,389	motivation

Source: Prepared by the researchers based on the outputs spss –v. 27

The previous table indicates :

There is no statistically significant effect at the level ($\alpha \leq 0.05$) of the recruitment dimension on improving employee performance, as the calculated value of (T) was 1.224 with a significance level of 0.225, which is greater than the significance level of 0.05

There is no statistically significant effect at the level ($\alpha \leq 0.05$) of the training dimension on improving employee performance, as the calculated value of (T) was 1.529 with a significance level of 0.130, which is greater than the significance level of 0.05

There is no statistically significant effect at the level ($\alpha \leq 0.05$) of the Education dimension on improving employee performance, as the calculated value of (T) was 1.426 with a significance level of 0.185, which is greater than the significance level of 0.05

There is statistically significant effect at the level ($\alpha \leq 0.05$) of the **motivation** dimension on improving employee performance, as the calculated value of (T) was 4.496 with a significance level of 0.000, which is less than the significance level of 0.05

6. Results and Recommendations:

6.1. Results:

The most important results study of which are:

- The study revealed that the level of investment in human capital at the Faculty of Economic and Commercial Sciences and Management Sciences at the University of El Oued was medium according to the study scale, primarily due to lack of interest on motivation and effective recruitment of faculty members.
- The study indicated that the level of performance improvement at the Faculty of Economic and Commercial Sciences and Management Sciences at the University of El Oued was medium according to the study scale.
- The results of testing the main hypothesis showed a significant role of investment in human capital differently dimensions in enhancing the performance Professor at the Faculty of Economic and Commercial Sciences and Management Sciences at the University of El Oued.
- The results of testing the sub-hypotheses indicated a significant role of the motivation dimension in improving performance Professor at faculty of Economic and Commercial Sciences and Management Sciences at the University of El Oued.
- The results of testing the sub-hypotheses indicated no significant role of the recruitment, training, and education dimensions in improving performance Professor at the Faculty of Economic and Commercial Sciences and Management Sciences at the University of El Oued.

6.2. Recommendations:

- The faculty should develop programs to invest in human capital more effectively.
- The faculty must provide a suitable environment that helps professor improve their performance.
- It is necessary to contract with professors from inside or outside the country with knowledge and experience
- Attention to the training of professors in a manner commensurate with the knowledge needs
- Incentive awards should for distinguished and creative professors
- The college should adopt modern and advanced methods for evaluating professor performance.

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