

**The impact of human capital on the quality of higher education (Case study  
University of Akli Mohand Oulhadj Bouira)**

أثر رأس المال البشري على جودة التعليم العالي (دراسة حالة جامعة أكلي محمد أولحاج البويرة)

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**Abstract:**

Today, Algerian universities are facing a bet of achieving the quality of higher education in light of intense competition and the knowledge economy, and this can only be done through efficient human capital capable of achieving creativity and winning the satisfaction of community institutions through the formation of efficient scientific and professional capabilities. For this purpose, the study aimed to know the impact of Human capital in its four dimensions (knowledge, skills, capabilities, experiences) in achieving the quality of higher education at Akli Mohand Oulhadj University in Bouira.

In this context, an electronic questionnaire was designed for the purpose of collecting data from a sample of 110 professors. And we came up with a set of results that are consistent with the hypotheses of the study, which confirms that there is a relative impact of different dimensions of human capital in achieving the quality of higher education, and we concluded that there is a statistically significant relationship between the human capital in its dimensions and the quality of higher education at the university under study.

**Keys words: Human capital, knowledge, skills, experiences, capacities, quality of higher education.**

**JEL classification codes: M10; L15.**

**ملخص:** تواجه الجامعات الجزائرية اليوم رهان تحقيق جودة التعليم العالي في ظل المنافسة الشديدة والاقتصاد المعرفي، ولا يمكن تحقيق ذلك إلا من خلال رأس مال بشري كفؤ وقادر على تحقيق الإبداع وكسب رضا مؤسسات المجتمع من خلال تكوين قدرات علمية ومهنية كفؤة. ولهذا الغرض هدفت الدراسة إلى معرفة أثر رأس المال البشري بأبعاده الأربعة (المعارف، المهارات، القدرات، الخبرات) في تحقيق جودة التعليم العالي في جامعة أكلي محمد أولحاج في البويرة.

في هذا السياق تم تصميم استبيان الكتروني لغرض جمع البيانات من عينة قدرها 110 أستاذ، وتوصلنا إلى مجموعة من النتائج التي تتفق مع فرضيات الدراسة، مما يؤكد أن هناك تأثيراً نسبياً للأبعاد المختلفة لرأس المال البشري في تحقيق جودة التعليم العالي، وخلصنا إلى أن هناك أثر ذو دلالة إحصائية بين رأس المال البشري بأبعاده وتحقيق جودة التعليم العالي في الجامعة قيد الدراسة.

**الكلمات المفتاحية:** رأس المال البشري، المعارف، المهارات، الخبرات، القدرات، جودة التعليم العالي.

**تصنيف JEL:** M10، L15

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### **1-Introduction:**

The intensive competition in the business environment has led to significant changes in all areas, in the context of globalization and the knowledge economy, and improving the quality of education has become a fundamental objective of all the higher education institutions in order to enhance current educational policies, which has a positive impact on the development and progress of society because of the adoption of the quality system in all areas.

On the macroeconomic level, investment in human capital is today one of the major themes of public policy in developed countries to achieve the quality in all area, Algerian universities like others must open up to external changes by focusing on quality, and their success depends on the proper management of their tangible and intangible assets. The human capital is one of the most important strategic and fundamental resources, and it has become one of the foundations of success of the educational institutions, because individuals are able to absorb ideas that contribute to the challenges and exploit the opportunities imposed in the business environment.

The University of Bouira is one of the universities, which has to exploit the knowledge, skills, experience and capabilities of its human capital to achieve the quality of higher education.

#### **1-1- Study Problem:**

This paper tries to answer the following problem: how does human capital contribute to achieve the quality of higher education at the University of Akli Mohand Oulhadj Bouira?

#### **1-2- Sub-questions:**

- How does the knowledge contribute to achieve the quality of higher education at the University of Bouira? How does the skills contribute to achieve the quality of higher education at the University of Bouira?
- How does the experiences contribute to achieve the quality of higher education at the University of Bouira?
- How does the capabilities contribute to achieve the quality of higher education at the University of Bouira?

#### **1-3- Research hypotheses:**

##### **1-3-1- Main hypothesis:**

There is a statistically significant relationship between human capital and the quality of higher education at the University of Bouira

##### **1-3-2 Sub-hypothesis:**

- There is a statistically significant relationship between knowledge and the quality of higher education at the University of Bouira
- There is a statistically significant relationship between the skills and the quality of higher education at the University of Bouira
- There is a statistically significant relationship between the experiences and the quality of higher education at the University of Bouira

- There is a statistically significant relationship between the capabilities and the quality of higher education at the University of Bouira

**1-4- Research Objectives:**

The objectives of this study are

- To highlight the concepts of human capital and the quality of higher education
- To highlight the impact of human capital in achieving the quality of higher education at the University of Akli Mohand Oulhadj Bouira

**1-5- Study methodology:**

In this study, we employed a questionnaire research design to gather respondents' opinions of the factors related to human capital affecting the quality of higher education at the University of bouira.

In order to achieve the objectives of the research, a questionnaire was appropriately structured to cover all the aspects of human capital and quality of higher education, 110 electronic questionnaire were distributed at the university of Akli Mohand Oulhadj Bouira, and 102 were retrieved. The questionnaire was developed from extracts of literature that relate to the dimensions tested in this study. Most of the items were adapted from questionnaires that have already been tested for validity and reliability.

The questionnaire was divided into three parts: the first was devoted to the personal data of the sample (gender, age, years of experience, and academic rank). The second part relates to human capital and includes 20 questions. The second part relates to the quality of higher education and contains 12 questions. The 5-point Likert scale has been used to measure the interviewees' responses to the paragraphs of the questionnaire.

**2- Literature review:****2-1 Human capital:**

In a knowledge economy, people are considered as revenue creators rather than costs. Knowledge of people's competence is source of wealth creation. Human capital is valuable to the extent that it contributes to a firm's competitive advantage by improving efficiency and effectiveness, exploiting opportunities or neutralizing threat. They are the only assets that appreciate with use. Human capital is the employees' ability to do things that ultimately make the company works and succeeds (Samah, 2016, p5).

There is a large body of literature that has revealed that one of the most important factors of economic growth is human capital by its decisive influence on production through labor productivity and the rate effect by contributing to increased competitive advantage through innovation and diffusion technology (Pelinescu, 2015, p184).

Economists have always focused on the productive effects of the quality of workers. William Petty (seventeenth century) was the first economist we know who emphasized labor quality differences and who identified what much later was labeled human capital when he argued for an inclusion of the "value of

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workers" in accounting for wealth for actuarial purposes. In the *Wealth of Nations*, Adam Smith (1776) wrote in length on the incidence of workers' and employees' knowledge and skills on the production process and the quality of output. He also argued that wages should be determined (among other things) by the efforts in time, energy and money spent by workers to gain the skills required for their working tasks. When analyzing the determination of wages, he explicitly stated that education and learning were to be considered as "investments" in human beings. He saw that the productivity of skilled workers is higher than that of unskilled ones and consequently argued for a justification of higher earnings of the former as a result of skilled workers' investments. (Lars & Truls, 2001, p128).

The contemporary theory of human capital was developed and articulated by economists in the early 1960s, and is particularly associated with the work of Schultz and Becker (Tight, 2018, p210).

The human capital has been emphasized as one of the key success factors of a company. It can be assumed that most successful companies have organized or at least they should have organized their management of the human capital systematically (Samah, 2016, p3).

There many scholars and researchers who have defined human capital, in the table (1) we will highlight the most important definition of the subject:

**Table 1. Highlights of human capital:**

<b>Researcher</b>	<b>Definition</b>
T. Schultz (1961) G. Becker (1964)	Human capital refers to the individual knowledge, skills, experience and abilities
Hubert Saint-Onge (1996)	Human capital is the capabilities of the individuals required to provide solutions to customers
Caspi A et al (1998)	Human capital refers to the resources, qualifications, skills, and knowledge that are available to and acquired by individuals to maximize their own employability
Nick Bontis (1999)	Human capital is the combination of: education, experience and attitudes about life and business
Berkwitz Steven J (2001)	The accumulated present value of investment in employees, which is education, skills, experience, innovation and flexibility
Arab Human Development Report (2003)	Human capital is: the sum total of knowledge, capacities and skills acquired by human beings through education and practical experience
Oseni Abu-Bakr Idris, Igbinsosa .E Peter (2015)	Human capital is the knowledge, skills, abilities, and capacity to develop and innovate possessed by people in an organization

**Source: Prepared by researchers based on references approved in the study.**

There is a difference in defining the concept of human capital by experts, researchers and scholars, each according to its field, but it's noticed that most of them considered it as the sum of knowledge, skills, experiences, and abilities

possessed by employees which are exploited by the company to create a competitive advantage and create value for customers, this leads to achieve quality. Therefore, it is possible to identify the components of human capital, which are:

➤ **Knowledge:** it becomes a strategic resource of the organization as the basis of competitive advantage and its importance is highlighted by its addition of the value and its role in transforming the firms into the new knowledge-based economy.

Knowledge has been defined as information or facts possessed by a person in his mind for something, whereas the philosophical meaning of knowledge as expressed by Greek philosophy indicates that it is merely a broad perception (Nawal et al., 2020, p281). It is also defined as information combined with experience, context, interpretation, reflection, intuition and creativity (Guerdouba, 2018, p43).

There are many categories of knowledge and the most prominent classifications of knowledge is: (Nawal et al., 2020, p283)

- **Explicit knowledge:** Knowledge that is standard, formal, coded, systematic, rigid, quantifiable, transferable, and educational, as well as patents, copyrights, trade secrets, business procedures, standards, products, services, and schemes. The Reality of Knowledge Management in Organizations: Greater Amman Municipality Experience.
- **Tacit knowledge:** It is the knowledge that exists in the minds of individuals, the subjective, the informal, expressed in intuitive, qualitative, non-transferable, and learning ways, and is found in the work of individuals, teams, and organizations. This knowledge gives the organization its privacy, personality, and abilities to create knowledge. It is described as the organization member's experiences that have not been officially documented, and can be shared through conversations, and storytelling.

➤ **Skills:** it is defined as the ability of mobilizing, mixing and coordinating resources within a specific process in order to reach a certain result, which is recognized and evaluable, as they can be individual or collective (Malim & Hedjazi, 2015, p32), (G.Becker) and (J.Mesner) see that the organization's skills are divided into two components: (Yarub A. Alsiede, 2017, p182)

- **General skills:** These are known as productive and transferable skills across different institutions and are usually measured in years of special experiences in the labor market.
- **Specific skills:** These are defined as the skills produced in one institution only, and are usually measured by the number of years of work in the current institution and not transferred across institutions.

➤ **Experiences:** it is one of the concepts that are based on the level of accumulated knowledge, that individuals acquire through their work in the

current or previous jobs, and this is done through the ability to exchange knowledge between employees (Koussi, 2019, p159)

➤ **Capacities:** in general, it is the ability to do something meaningful, and having the ability to act does not mean that the action occurs, so the action does not happen unless the individual has the desire to do it, so the important thing is not the existence of ability but the use of the ability. (Koussi, 2019, p160)

## **2-2- Quality of higher education:**

Before talking about the quality of higher education, we have to talk about the quality as a concept, because the quality is a common term in our daily language, and it is frequently used in advertisements to attract customers to buy an item.

Different people perceive the quality differently. Yet, everyone understands what is meant by "Quality" In a manufactured product, the customer as a user recognizes the quality of fit, finish, appearance, function, and performance. The customer receiving the service may rate the quality of service based on the degree of satisfaction. The relevant dictionary meaning of quality is "the degree of excellence". (Chandrupatla, 2009, p1)

The concept of quality is one of the latest management concepts that are based on a set of ideas and principles that any department can adopt, in order to achieve the best possible performance.

The term "higher education" as the name implies literarily refer to that class of education, which is among the apex in the educational system of a country. It is the level of education, which supersedes all other in the educational hierarchy of a nation. (Olorunleke & Esi, 2014, p592)

In the last decades, many researchers and scholars have talked about the quality in the institutions of higher education, and they have adopted its principals with the universities, because around the world, higher education is under pressure to change. It is growing fast and its contribution to economic growth is vital.

Universities are, mainly, expected to create knowledge, improve equity among population, and respond to student (Fatima & Zine, 2017, p25). In the developed countries higher education is recognized as a key force for modernization and development, because Investing in education is bound to increase economic growth, improve income distribution, and reduce poverty.

The idea of applying the quality philosophy in education was first introduced by (Tribus) who claims that adapting total quality management to education is central to the idea of developing flexible adults able to cope with a changing world. The quality of higher education means a philosophy supported by a comprehensive toolkit, driven by students and staff, in order to identify, analyze and remove the barriers to learning. (Dawood, 2013, p337)

The researcher in the literature related to the subject, can find a difference about the classification of the principals of the quality of higher education and

we will review the most important dimensions agreed by the researchers: (Al Tai & Mohammed, 2018, p45)

➤ **Commitment of top management:** The commitment of top management is an essential element to implement and apply the principles of quality and achieve the quality strategy through educational institutions, which requires the top management to create an organizational environment that focuses on continuous improvement and creating a spirit of cooperation and partnership between Workers.

➤ **The participation of workers:** This is the best way to achieve continuous improvement in performance, and it is a process that requires strengthening communication skills between individuals, as the administration takes a set of measures that consolidate collective participation at the university institution, including launching awareness campaigns through meetings, publications, periodicals at all administrative levels.

➤ **Continuous improvement:** The real measure of the university institutions' ability to achieve and excel is their commitment to the continuous improvement of their activities and all their tasks. The results of the applied studies have proven that the environment with which the organization interacts is in constant change, and this requires continuous improvement and education, in addition to creativity and innovation in systems.

➤ **Training:** Training is important because it is a framework that enables workers to acquire new skills and experiences that enable them to perform their work with perfection and success. (Clintou) indicated that the application of total quality in institutions needs three types of training:

- Training on the principles and objectives of Total Quality Management.
- Training in personal skills to improve performance within work teams.
- Training in some organizational skills, such as training in statistical process control.

### **2-3- The impact of human capital on the quality of higher education:**

The role of human capital in the quality of higher education has been linked with globalization residual effect, positive externalities effect, innovativeness and creativity, because human capital is a way to develop the knowledge, skills, capacities and experiences of people, this will implies empowerment of people, enabling them to participate actively in their own development through the process of human capital formation. Thus human capital development is a people-centered strategy, it is basically the active participation of people in the development process.

There can be no significant economic growth in any country without adequate human capital development. As knowledge becomes more important, countries need to educate young people to a higher standard. The quality of knowledge generated within higher education institutions and its availability to the wider economy is becoming increasingly critical to national competitiveness.

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This poses a serious challenge to the developing world. (Adedeji & Campbell, 2014, p8)

Human capital plays a critical role in implementing the quality elements of higher education, and to fulfill this role, human capital must be designed to support the overall quality in a higher education institution, and this includes following quality management practices throughout the job processes themselves, and these results appear through two levels:

- First level: within the university, which is improving working and learning conditions, possibilities of generating new knowledge, innovation through a positive university culture, tools and means for better knowledge sharing, internal networks and better worker relations.
- Second level: which is outside the university, and is represented in improving the quality of outputs and overall returns, through better scientific publications and books, increasing intellectual capital and achieving quality of higher education.

Based on the above developing countries need Higher Education to provide increasing number of students, especially those from disadvantaged backgrounds. Higher Education also produces a body of students with a general education that encourages flexibility and innovation thus allowing the continual renewal of economic and social structure relevant to a fast-changing world. It teaches students not just what is currently known, but also how to keep their knowledge up to date, so that they will be able to refresh their skills as the economic environment changes. Furthermore, Higher education increases the amount and quality of research, thus allowing the developing world to select, absorb and create new knowledge more efficiently and rapidly than it currently does. The provision of formal education is seen as a productive investment in human capital which the proponents of the theory have considered as equally or even more equally worthwhile than that of physical capital. In a knowledge economy, tertiary education can help economies keep up or catch up with more technologically advanced societies. Higher education graduates are likely to be more aware of and in a better position to use new technologies. They are also more likely to develop new tools and skills themselves. Their knowledge can also improve their skills, while the greater confidence and know-how inculcated by advanced schooling may generate entrepreneurship, with positive effects on job creation. As regards residual effect, tertiary schooling also has indirect benefits for the economies. By producing well trained teachers, it enhances the quality of primary and secondary education systems and gives secondary graduates greater opportunities for economic advancement (Adedeji & Campbell, 2014, p8).



**3- Study results:****3-1- Validity and reliability of the study instrument:**

To measure the validity and stability of the study instrument, the researchers adopted the Alpha Cronbach's scale to measure internal coherence as shown in the table (2):

**Table 2.** Validity and reliability of the study instrument

The questionnaire topics	Phrasing	Cronbach's Alpha	Reliability coefficient
Human capital	(1-20)	0.926	0.962
Quality of higher education	(21-32)	0.804	0.896

**Source:** Prepared by researchers based on SPSS outputs.

The results shown in the table above demonstrating that the value of the (Cronbach coefficient) was high for the dependent variable Human capital at (0.926), while the value of the Cronbach coefficient of the independent variable quality of higher education was (0.804), and all these values are above the acceptable value of (0.70)(Bland & Altman, 1997; Cortina, 1993; Nunnally & Bernstein, 1994). Therefore, we can say that the axes of the questionnaire have a high degree of stability, which would give the same results if they were redistributed under similar conditions.

Then the square root of the (Cronbach alpha) test was calculated to measure the validity of the study instrument, which was (0.962) for the dependent variable Human capital, and (0.896) for the independent variable quality of higher education, the two are high values indicating the validity of the study instrument.

**3-2- Descriptive Analysis:**

**Table 3.** Mean, standard deviation and answer direction:

Dimensions	Mean	Standard deviation	Direction
Knowledge	3,7569	0,65264	Agree
Skills	3.4275	0,80925	Agree
Capacities	3,5000	0,87624	Agree
Experiences	3,6333	0,80758	Agree
Human capital	3.5794	0.80348	Agree
Quality of higher education	3,7559	0,62277	Agree

**Source:** Prepared by researchers based on SPSS outputs

Table (3) shows that human capital is important by the professors of Akli Mohand Oulhadj University in Bouira, as it comes with a mean of (3.5794) with a standard deviation of (0.80348), and it is located in the field "Agree" according to Likert's five-point scale. Moreover, the importance of human capital at the University of Bouira appears through the availability of its dimensions: knowledge, skills, capabilities, and experiences, which enhances the adoption of these factors as dimensions of human capital in this study.

In addition, it is shown from the table (3) that the dimension of knowledge ranked first among the dimensions of human capital, with a mean of (3,7569) which is located in the field "Agree" according to Likert scale, and its standard deviation reached (0.65264). Where the statement (Professors at this university seek to increase their knowledge by using multiple means and techniques) achieved the highest mean (4.6176).

Then the paragraphs of the dimension of experiences came in the second rank with a mean of (3.6333) which is also located in the field "Agree", with a standard deviation of (0.80758). Where the statement (Professors at this university seek to increase their knowledge by using multiple means and techniques) achieved the highest mean of (4.1108).

The results also showed that the paragraphs of the dimension of capacities came in the third rank, with a mean of (3.5000), which is located also in the "Agree" field, with a standard deviation of (0.87624), ), and the statement (the university seeks to prepare and train professors with high capabilities) achieved the highest mean estimated at (3.7353).

Moreover, in the last rank, it came the dimension of skills with a mean of (3.4275), which is also in the field "Agree" according to the Likert scale, and a standard deviation of (0.80925), and the statement (the university provides the necessary means to develop the skills of professors) achieved the highest mean estimated at (4.2353).

The results also indicate the approval of the target research sample to the terms indicating the quality of higher education with a mean (3,7559) with standard deviation (0,62277), and it is located in the field "Agree" according to Likert's five-point scale. In addition, the statement (The phrase came (the university attaches great importance to improving the educational process and achieving the highest possible quality) achieved the highest mean estimated at (4.5765).

### **3-3- Correlation matrix between Human capital and quality of higher education factors:**

In order to achieve the main objective for this study to evaluate factors associated to the human capital that influence the quality of higher education at the university of Bouira, we conducted further analysis of the association between all variables to determine the strength and direction of the relationships as shown in table (4):

**Table 4.** Correlation matrix between human capital and the quality of higher education:

	Human capital	Knowledge	Skills	Capacities	Experiences
Quality of higher education	0.826**	0.780**	0.630**	0.677**	0.721**
Sig	0.000	0.000	0.000	0.000	0.000

**\*\* Correlation is significant at the 0.01 level**

**Source:** Prepared by researchers based on SPSS outputs

The table (4) shows the correlation matrix between variables, where the correlation between the independent variables (knowledge, skills, capacities, experiences) and the dependent variable quality of higher education was estimated at (0.826) at the level of significance 0.01, since this value is positive which emphasizes the existence of a positive relationship between human capital and the quality of higher education, we conclude that there is a direct relationship between human capital and quality of higher education factors, which is evident because the quality of higher education is influenced by the human capital at the university of Bouira. It means that as the value of human capital increased, this led to enhancing the quality of higher education at the University of Study.

The results also showed that the correlation between the dimension Knowledge and quality of higher education is (0.780) at the level of significance 0.01, which also means that there is a positive relationship between the first dimension of human capital knowledge and the quality of higher education at the University of study.

Moreover, the correlation between the dimension skills and quality of higher education is (0.630) at the level of significance 0.01, which also means that there is a positive relationship between the dimension skills and the quality of higher education at the University of study.

And the correlation between the dimension capacities and the quality of higher education is (0.677) at the level of significance 0.01, which also means that there is a positive relationship between the dimension capacities and the quality of higher education at the University of study.

Finally, the correlation between the dimension experiences and the quality of higher education is (0.721) at the level of significance 0.01, which also means that there is a positive relationship between the dimension experiences and the quality of higher education at the University of study.

### **3-4- Testing the hypotheses of the study:**

To validate model the variance regression analysis was used to confirm the validity of the proposed model to test the main hypothesis and adopt the simple linear regression feature to test the main hypothesis as well as its sub-hypotheses, then we have adopted the following decision rule:

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- Acceptance of the hypothesis H1: there is a significant relationship if the value of the level of significance less than or equal to ( $\alpha \leq 0.01$ ).
- Rejection of the hypothesis H0: there is no statistically significant relationship if the value of the significance level is greater than ( $\alpha \geq 0.01$ ).

**3-4-1- Testing the main hypothesis:**

The main hypothesis is about the relationship between human capital and quality of higher education: There is a statistically significant relationship between human capital and the quality of higher education at the University of Akli Mohand Oulhadj Bouira.

**Table 5. :** validate the model the main hypothesis testing

Model	Total squares	Degree of liberty	Average squares	(F) Calculation	Sig
Regression	26.740	1	26.740	215.092	0.000
Error	12.432	100	0.124		
Total	39.171	101			

Correlation coefficient: (R = 0.826)

Determination coefficient: (R<sup>2</sup> = 0.683)

**F tabular: 6.8509**

**Source:** Prepared by researchers based on SPSS outputs

It is clear from the table (5) that the calculated value of F is (215.092) which is greater than the value of F tabular with a probability value of Sig (0.000), and it is less than the significance level (0.01), which proves the validity of the model. Also, it is shown from the same table that the correlation coefficient between the human capital and quality of higher education was (R = 0.826), and this indicates a positive correlation between them, also the coefficient of determination was (R<sup>2</sup>= 0.683) what means that approximately 68.3% of the changing quality of higher education is due to the change in human capital.

**Table 6.** Simple regression analysis results for the main hypothesis testing.

Variable	Coefficient	Standard Error	Beta	Calculation (t)	Sig
Constant	0.802	0.171		4.696	0.000
Human capital	0.766	0.052	0.826	14.666	0.000

Correlation coefficient: (R = 0.826)

Determination coefficient: (R<sup>2</sup> = 0.683)

Dependent variable: Human Capital

**T tabular = 3.390**

**Source:** Prepared by researchers based on SPSS outputs

Through the results shown in the table (6) above we conclude that there is a statistically significant impact for human capital in achieving the quality of

higher education at the university of Bouira, as the value of t calculated is (14.666), which is greater than the tabular value of t, with a level of significance (0.000), and it is below the significance level ( $\infty \leq 0.01$ ), therefore we accept the hypothesis: There is a statistically significant relationship between human capital and quality of higher education at the university of Akli Mohand Oulhadj Bouira at the significance level (0.01).

**3-4-2 Testing the sub-hypothesis:**

The following table reviews the results of the simple regression analysis the sub-hypotheses testing:

**Table 7. Testing the sub-hypothesis**

	<b>R</b>	<b>R Square</b>	<b>F Calculated</b>	<b>Sig</b>	<b>t</b>
<b>Knowledge</b>	0.780**	0.609	155.664**	0.000	12.477**
<b>Skills</b>	0.630**	0.397	65.710**	0.000	8.106**
<b>Capacities</b>	0.677**	0.459	84.736**	0.000	9.205**
<b>Experiences</b>	0.721**	0.520	108.291**	0.000	10.406**

**\*\* Level of significance 0.01**

**t tabular = 3.390**

**Source: Prepared by researchers based on SPSS outputs**

From the results shown in Table (7), it is clear that there is a statistically significant relationship between knowledge and the quality of higher education at the University of Bouira, where the calculated value of t ( $t = 12.477$ ) is greater than the tabular value of t, at a significant level (Sig 0.000), which is a value less than the significance level (0.01), and the correlation coefficient R indicates that there is a positive correlation between the independent variable knowledge and the quality of higher education, where its value was ( $R = 0.780$ ), and the determinant coefficient ( $R^2 = 0.609$ ) was interpreted that the change in knowledge leads to 60.09% of the change in the quality of higher education, and therefore we accept the first sub-hypothesis based on the presence of a statistically significant relationship between knowledge and quality of higher education as follows:

There is a statistically significant relationship between knowledge and quality of higher education at the University of Akli Mohand Oulhadj Bouira at the significance level (0.01).

Also, it is clear that there is a statistically significant relationship between skills of the human capital and quality of higher education for the University of Bouira, where the calculated value of t (8.106) is greater than the tabular value of t, at a significant level (Sig 0.000), which is a value less than the significance level (0.01), and the correlation coefficient R indicates that there is a positive correlation between the independent variable skills and the quality of higher education, where its value was ( $R = 0.630$ ), and the determinant coefficient ( $R^2 = 0.397$ ) was interpreted that the change in skills leads to 39.70% of the

change in the quality of higher education, and therefore we accept the second sub-hypothesis based on the presence of a statistically significant relationship between skills and quality of higher education as follows:

There is a statistically significant relationship between skills and quality of higher education at the university of Akli Mohand Oulhadj Bouira at the significance level (0.01).

It's also clear from the same table that there is a statistically significant relationship between the capacities of the human capital and quality of higher education at the university of Bouira, where the calculated value of t (9.205) is greater than the tabular value of t, at a significant level (Sig 0.000), which is a value less than the significance level (0.01), and the correlation coefficient R indicates that there is a positive correlation between the independent variable skills and the quality of higher education, where its value was ( $R = 0.677$ ), and the determinant coefficient ( $R^2 = 0.459$ ) was interpreted that the change in capacities leads to 45.9% of the change in the quality of higher education, and therefore we accept the third sub-hypothesis based on the presence of a statistically significant relationship between capacities and quality of higher education as follows:

There is a statistically significant relationship between capacities and quality of higher education at the university of Akli Mohand Oulhadj Bouira at the significance level (0.01).

As regards the experiences of human capital, the results of Table (7) also show that there is a statistically significant relationship between the experiences and quality of higher education at the university of Bouira, where the calculated value of t (10.406) is greater than the tabular value of t, at a significant level (Sig 0.000), which is a value less than the significance level (0.01), and the correlation coefficient R indicates that there is a positive correlation between the independent variable experiences and the quality of higher education, where its value was ( $R = 0.721$ ), and the determinant coefficient ( $R^2 = 0.520$ ) was interpreted that the change in experiences leads to 45.9% of the change in the quality of higher education, and therefore we accept the fourth sub-hypothesis based on the presence of a statistically significant relationship between experiences and quality of higher education as follows:

There is a statistically significant relationship between experiences and the quality of higher education at the University of Akli Mohand Oulhadj Bouira at the significance level (0.01).

**4- Conclusion:**

The results of the study confirmed the existence of human capital in its four dimensions at the University of Akli Mohand Oulhadj Bouira, and the same results also confirmed the existence of a statistically significant relationship between human capital in its four dimensions (knowledge, skills, capacities, and experiences) and quality of higher education at the University of Akli Mohand Oulhadj Bouira, from the perspective of its professors, this means that each dimension of human capital has an impact on achieving the quality of higher education at the university, which is consistent with the study hypotheses.

The same results also showed that the dimension of knowledge is considered the most important dimension in achieving the quality of higher education at the University, followed by experiences, capabilities, and then the last dimension, which is skills.

The results also showed that the University is concerned with its human capital, because it provides the various means and techniques to the professors seek to increase their knowledge, capacities, and skills, and this is interested in involving professors in training courses to develop their skills, increase their experiences and achieve continuous improvement that contributes to achieving the quality of outputs, through the application and use of knowledge.

As the results have shown, the University should provide training programs in order to encourage the team spirit among professors and teamwork, as well as participation in decision-making and developing problem-solving which has a great impact on enhancing the quality of higher education, because in the training session professors collect as much information and knowledge in order to promote teamwork and personal improvement.

In the same context, the University should also develop communication skills and various educational skills that help professors to work effectively and with higher performance, and provide the appropriate atmosphere for students to receive information, in order to achieve the quality of outputs at the University.

**5- Appendices**

**Questionnaire:**

In the context of carrying out scientific research on the topic: “The Impact of Human Capital on Achieving Quality in Higher Education”, we are putting in your hands this questionnaire directed at Akli Mohand Oulhadj University professors.

We ask you, our distinguished professors, to kindly answer all paragraphs of the questionnaire accurately and objectively, bearing in mind that your information will be used for scientific research purposes only.

**1- First axis: General data:**

**Gender:** Male  Female

**Age:** Less than 30  30-39  40-41  More than 50

**Years of Experience:** Less than 5 years  5-10  11-20  More than 20

**Academic rank:** Assistant Professor B  Lecturer Professor B  Assistant Professor A  Lecture Professor A  Professor of higher education

**2- Second : human capital**

Human capital is the sum of knowledge, skills, capacities, and experiences of an organization’s personnel.

**2-1 Knowledge**

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Professors at this university seek to increase their knowledge by using various means and techniques.					
The university is interested in involving professors in training courses to develop their knowledge.					
The teaching staff has the ability to apply and use the knowledge and bring it into practice.					
The university seeks to motivate faculty members to develop curricula, acquired knowledge, and methods of transmitting information.					
Professors have the knowledge necessary to perform their teaching tasks properly.					

**2-2- Skills**

The university works on selecting and attracting professors with distinguished intellectual potential.
The university adopts an incentive system to encourage professors to learn new technological and educational skills.



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The university gives priority to develop professors' skills.

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The university supports professors to come up with new creative ideas to solve problems facing them.

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The university provides the necessary means to develop the skills of professors.

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### **2-3- Capacities**

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The university provides the appropriate environment to activate the capacities of professors in the field of creativity and innovation.

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The university seeks to prepare and train highly qualified professors.

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The university works hard to improve and develop the capacities of professors.

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University is working to provide new methods of teaching.

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The university works to discover the capacities of professors and works to develop them.

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### **2-4- Experiences**

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The university provides an incentive system to attract experienced professors.

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The university offers incentives and rewards based on experience.

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Faculty members share knowledge, through the expertise that old professors provide to new employees.

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The university provides the appropriate environment for the exchange of knowledge, skills, and capacities between old professors and new employees.

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The practical and scientific experiences of the professors contribute to providing excellent solutions to the problems facing them.

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### **3- Third axis: the quality of higher education**

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The quality of higher education is achieved through senior management commitment to quality, employee participation, continuous improvement, and effective training.

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The university administration adopts an institutional mission, which emphasizes university education that meets students' needs.

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The university administration emphasizes the

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**Title:                    The impact of human capital on the quality of higher education...**

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quality of higher education as a shared value that all professors must embrace.

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The university seeks to provide the necessary competencies for the requirements of the labor market.

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The university administration is interested in developing educational technology continuously to achieve the required quality levels.

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The university is working to create an organizational culture that promotes entrepreneurship, teamwork, and knowledge transfer among professors.

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The university supports teamwork and motivates work teams.

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The educational programs are characterized by an understanding of various global and cognitive challenges to achieve continuous improvement.

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The university works to continuously improve the skills of professors in all aspects.

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The university attaches great importance to improving the educational process and achieving the greatest possible quality.

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Current programs are able to develop self-learning skills and support thinking and creativity.

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The university is working on studying the available training programs and investing them in improving the level of professors.

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