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The Role of Open University Education and its Impact on the Development of Intellectual Capital

Duha Khalid Abdul-Rahmman Al-Mallah[a], [a]Ministry of Higher Education and Scientific Research Northern Technical University Nenewa Technical Institute, 2019, Email: [a]duhakm@ntu.edu.iq

Despite the importance of human resources in general, but attention should be focused to a particular category of these human resources which is the basis of the development of universities, this category has the experience and knowledge and creative ability to make their development required in the fierce competition to extract competencies as one of the sources of scientific development. As the institutions of higher education have entered into open education (distance education, virtual education) represented by the locomotives of scientific and economic development, with its stay professors and technical technicians with expertise that contribute to the construction of universities, including the Northern Technical University. It is useful to establish research centres, information systems and to build departments and administrative units that contribute to serving university students to raise our university to open university education. The researcher found that the construction of administrative departments and units with the availability of scientific staff capable of advancing both present education and intellectual resources, with the existence of a right competitive environment which allowed the existence of new expert staff and to establish successful attempts experiments through the interchange of information and experiences through the Internet.

Key words: *Open University Education, Intellectual Capital.*

Introduction

Due to dramatic changes currently happening in knowledge expansion, open education exists accompanied with an increase in demand for open university education and educational technology, which is based on the philosophy of expanding the base of university education by providing opportunities for various groups of society, especially those deprived of access to education.

Iraqi universities give great importance to developing and strengthening the infrastructure of university education in general and open education especially, in order to build a promising generation that has diverse cultures and is based on a solid education. And a new start to excellence and progress in the development of e-learning across various stages and different approaches and methods. The universities have worked to develop and build modern curricula and courses with advanced techniques in line with the cultural cadres they possess and are promising to meet the requirements of the current era.

The research tackled an important topic and a new idea in the university education sector, namely how to invest human resources and scientific qualifications in preparing a plan and building sections and units that have the potential to lead open university education (distance learning, virtual education) and to serve the scientific process.

This development and openness has had positive effects which have led to increased attention to the rehabilitation and development of intellectual human resources and to preserve them because of their importance in the educational process, which is the cornerstone in the university and through this centres and sections of human development appear by their competitive roles and the introduction of "electronic training" offering educational and training programs through various electronic media.

Chapter One
Research Methodology

First: Research problem

The education sector in Iraqi universities suffers from a problem which is (**How to develop intellectual capital to keep up with open university education**).

Second: The Objective of the Research

It aims to prepare a Teaching staff leading and professional leadership able to cope with the massive flow of information technology, to make the university education more comprehensive and accessible to all members of society and all ages from the students of the

institute to graduate students, with its curriculum, curricula and educational methods updated and supported by modern technology.

Third: The Importance of Research

The importance of the research is great from the theoretical point of view because it provides a study of the educational library that was not mentioned previously by researchers. In practical terms, the research deals with providing the service and practical possibilities like providing professional and practical cadres for the management of open education, which in turn contributes to enriching the educational process and continuing the wheel of development and progress in our young university.

Fourth: The Hypothesis of Research

The hypotheses are assumptions exceptions that need to be validated and are formulated based on the default study model. Therefore, we have adopted a number of main and subsidiary hypotheses as follows:

The First Main Hypothesis

(There is a significant statistical correlation between open university education and intellectual capital) at the Northern Technical University. The following sub-assumptions are derived:

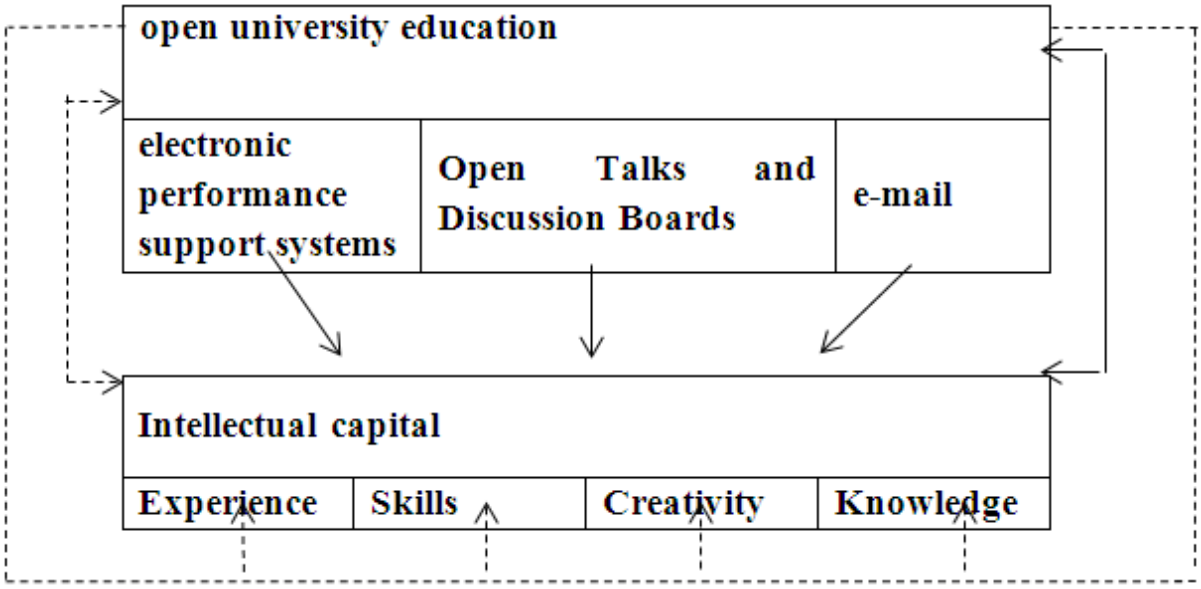
a) There is a significant correlation between e-mail and intellectual capital.
b) There is a significant correlation between Open Talks and Discussion(chatting) Boards and intellectual capital.
c) T. There is a significant correlation between electronic performance support systems and intellectual capital.

The Second Main Hypothesis

The presence of significant influence in the open university education and intellectual capital in the field researched and the following sub-assumptions are subdivided:

a. There is a significant effect of open university education and knowledge.
B. There is a significant effect of open university education and creativity.
T. There is a significant effect of open university education and skills.
W. There is a significant effect of open university education and experience.

Fifth: The Model of the Virtual Study



Sixth: Methodology of the Study

In the current research we have relied on the descriptive and analytical approach to achieving the objectives of the study, answer the questions and the choose hypotheses, through both axes of the study, theoretical and practical, in order to enable compatibility between these two components by study and analysis.

Seventh: Limits of the Study, which is focused on the basic study boundaries as follows:

1. Knowledge limits - The study dealt with both open education and intellectual capital.
2. Spatial boundaries - The study was completed at the Northern Technical University.
3. Time Limits - The study was conducted during the period from 18/2/2019 to 8/9/ 2019.
4. Human Boundaries - In our study, we adopted a survey of the views of the heads of departments and professors in the presidency of the Northern Technical University as a human boundary for the current study.

Eighth: Study Sample

The selection of the research sample is the core of the study and is a justification for testing of the variables and default model in accordance with the correct scientific foundations of the studied field, in order to achieve the objectives of the study and its directions so the head of northern technical university has been chosen.

The Theoretical Side

Basic concepts of open education, development and intellectual capital

First: The concept of open education

E-learning is one of the concepts that express the delivery of information or training through the Internet, including e-books, CDs and others. Through e-learning, students can gain greater control over the sources of information.

Open education is defined as "the educational institution, including content, classrooms, libraries, teacher Instructs, students and groups, all of which constitute real value, but communication between them is through the Internet"(Halafawi, Walid Salem Muhammad, p. 17).

(Al-Ahmari, Saadia, p. 4) defined it as "providing the educational content and the included explanations, exercises, and interaction and follow-up partially or comprehensively, remotely by advanced programs stored in the computer or through the Internet."

Procedural definition: It is one of means of supporting the educational process using the latest methods in the fields of education by the adoption of computers and storage media and networks. Regardless of its location and time.

Goals of Open Education

1. Create an interactive learning environment through new electronic technologies and a diversity of information sources and experience.
2 - Support the interaction process, between students and teachers through the exchange of educational experiences and views and dialogues using different channels of communication such as email, chatting and virtual classes.
3 - Provide teachers with the technical skills to use modern educational techniques.
4 - Provide students with the necessary experiences to use communication and information technologies.
5 - Create educational networks to organise and manage the work of educational institutions.
6 - Provide education that suits different age groups taking into account the individual differences between them (Halafawi, Walid Salem Mohammed, p. 5).

The Importance of Open Education and Its Necessities

1 - To meet the needs of distance education and open education, and to expand its programs to achieve the objectives of expansionary policies and provide educational service for all citizens and overcome the physical problems of the country in the construction of classrooms.

2. In the societies of developing countries, the human and material resources do not allow the provision of university requirements, where is the availability of curricula, courses, knowledge, information, methods and activities enables the student to benefits of what is available on the Internet.
3 - To support new teaching methods being on the learner and focuses on the importance of his capabilities and potential, and his individual characteristics and features (Ahmadi, Saadia, p. 13).

The Concept of Development

The concept of development is one of the most commonly used concepts in the present age. Institutions, mature organisations and individuals use this expression because of its indications of conscious management and ownership of the intellectual horizons which believe that the use of scientific methods is the only and best way to progress.

Therefore, development is the culmination of human efforts that are made for growth and progress to achieve prosperity for citizens and society. The term development does not mean plans, programs or projects to promote the lives of people, whether economic or social, but rather, all humanitarian work in the construction of all sectors and all fields and at all levels (Saad, 2009, p.14).

Hence, the concept of development took different forms and was accompanied by the existence of multiple concepts in its economic and social steps

- Kindale believes that growth means achieving more increases in output, while development is the environmental changes that accompany these outputs. This is the process by which real national income rises over a long period accompanied by an increase in economic well-being (Al-Mahawi, 2001, P. 1).
- Through this definition, development seeks to improve the standard of living of the individual, which has to be accompanied by an improvement in the social level as it is a comprehensive process that deals with all aspects of life.
- Ross defined it as a process by which the society can identify its needs and objectives and prioritise them, and then give confidence and willingness to work to follow these needs and objectives and to identify in and out the resources that has of relation to the achievement of needs (Kaabi, 2003, p. 15).
- Abu Zaid believes that development is a social process in its first place since economic and social dimensions cannot be separated as two sides of a single coin. That each complements the other (al-Tai, 2004, p. 18).

The United Nations has defined development since 1956 as the processes by which "the efforts of citizens and the government can be combined to improve economic, social and cultural conditions in societies to help them integrate into the life of the nation and contribute to its progress to the fullest extent possible."

Development has been defined as "an essential and vital process to move backward and developing societies to advanced stages, and some societies often fail to achieve this goal. This failure is because officials in these societies rely solely on economic inputs as means of achieving development, ignoring the role and effectiveness of other approaches Such as social, religious and political entrances. "

It is a process of cultural change. It is a change in the lifestyle, in the way it is practised and, in the way, it is conceived, a change in human relations to the natural and social environment together, a change that deals with methods of economic production and patterns of social behaviour. Including physical skills and moral values the change in the way of life in a society cannot be achieved without changing the people in society themselves, a change that stems from the reality they live in, in the direction of the desired change.

Third: The Concept of Intellectual Capital

"Is a group of people who have the knowledge, experience and achievements that enable them to contribute to the performance of their organisations and thus contribute to the development of their societies and indeed the world at large."

As (Helmy Eman, 1999, p8) defines intellectual capital as "a unique ability that the organisation excels in its competitors to integrate different skills that contribute to increasing value to buyers, and is a source of competitive advantage."

(Stewart, 1997, p5). "It is a description of transformational leaders that represent their ability to transform technology in research into manufacturing with a high success that contributes to the organisation's survival in the competitive world for a long time."
The intellectual capital "is the sum of the knowledge that individuals acquire during their lives and even the ideas they use to produce goods, services, in or out of markets." (Al-Enezi & Saleh, 2009, pp. 201-203)

Intellectual capital is a tool for strategic management towards development. In the case of a gap between intellectual capital and other capitals, much attention must be paid to human resources, polarisation, preparation, training and development to achieve the distinguished degree of expertise of the organisation. Wovdhuis & Danieis (2002) confirm that it is the knowledge of a phenomenon which is available in the thoughts and minds of the

Organization's outstanding workers, including skills, knowledge and guidance, which are missing by the Organization as soon as these workers continue in the organisation as indicated (2005Brinker), distinguished workers with high abilities and awareness and Widely, absorption it depends upon the success or failure of the organisation's strategy, which requires due attention be given. (Saleh 2013, 76).

The Importance of Intellectual Capital

Is a central pillar of acquiring intellectual capital since the research and investigation of workers with skills, abilities, expertise and intellectual potential are distinct and can be developed by the provision of ideas, ideas, consulting and the implementation of innovations that are owned only by creators, Therefore represents human capital is an essential strategic finding which must be given due attention as a central element to add value and through the achievement of its objectives accurately and objectively.

Therefore, it is necessary to be well invested through its energy, as it is the real capital which must provide opinions, ideas and proposals to develop the performance of the organisation and distinguish its output.

Based on the above importance, many organisations have faced the development of scientific training programs to develop the intellectual capital for its active and strategic role to raise the level of the performance of the Organization in general, and more importantly, many researchers and specialists have adopted the development of scientific standards and indicators that measure the potential of intellectual capital and develop ways and means to develop it through the introduction of computer programs to establish scientific foundations and specific criteria that can be measured for its development, as well as it is regarded as the most important tool in the reorganisation of intellectual capital (Wyman, 2, 2008).

Characteristics of Intellectual Capital

The intellectual capital is characterised by absolute privacy as it is dependent on the individual's decision to invest, which is limited and intangible and can grow (Said, 2015, 12), (Hassiba, 2009, 18 and Ibrahimi 2013) confirm that it contains the following: -

1. Intellectual Capital Privacy: Intellectual capital is never separated from its property and is inherent to it at all times and places. Moreover, It can only be formed by actual participation.
2. The limited of intellectual capital: The possibilities of its accumulation are closely related to the physical and mental capabilities of the individual, and because the

investment is increasing over time, the collection of investment returns limited the life cycle of the individual.
3. Human capital is increasing with frequent use in knowledge-based organisations
4. The life cycle of human capital is longer than the life cycle of technology, because the knowledge and experience of human capital, moving between human capital which is the most powerful and vital to renew itself and generate its renewable value.

Functions and Activities of Intellectual Resource Management (Zaki Mahmoud, p. 56)

1. The planning of intellectual resources which is associated with the goals and strategies of the university includes the human resources requirements of the appropriate number and quality, as well as the planning of the tracks that ensure a balance between the two sides of demand and supply for labour.
2. Analysis of jobs and businesses to determine duties and responsibilities and identify the requirements of the skills, capabilities and expertise necessary to fill them.
3. Evaluate the performance of employees to determine the efficiency of their performance in the job.
4. Training intellectual resources to increase their capacities and develop their performance.
5. Design and implementation of the program of intellectual maintenance in order to improve physical work.

Components of Intellectual Capital (Farhati Luiza, 2016)

1. Knowledge resources: general knowledge, student feedback and intellectual power of workers.
2. Human assets: knowledge, skills, creativity and experience. Intellectual capital consists of a combination of skills, abilities and knowledge, in addition to experience either previous or acquired through work.
3. Intellectual assets: information, written notes, guidance and publications. Intellectual assets formed when information, knowledge, ideas and data from human assets, transfer to be written documents, knows and clearly defined. Then the organisation deals with these intellectual assets, instated of dealing with individuals. Examples of intellectual assets include plans, engineering designs, and computer programs (Rawia Hassan, 2002, pp. 367-370).
4. Intellectual Property: The total rights that protect the use of ideas and information which has commercial value. Intellectual property gives its owner exclusive rights as a result of the knowledge and information he has created that others cannot use without permission. Leading industry organisations are working to acquire more IP, to achieve a competitive edge to cope with intense market competition.

5. Structural assets: These include culture, organisational models, processes, procedures and distribution channels.
6. Capital of relations: It reflects the nature of the relations that bind the organisation with its customers, suppliers and competitors or any other party that helps in developing and transforming the idea into a product or service. The management of intellectual capital can be seen as a strategy for future success. The managers in the third millennium are called upon to understand physical and intangible assets of intellectual capital, and to develop management practices that support 'knowledge harvesting'. These managers face a significant challenge to develop behaviours that value the intellectual capital, and then manage it as an asset.
In order to effectively manage intellectual assets in order to achieve a competitive advantage for the Organization, the value of these assets must be recognized. Some assets need to be developed and invested; some need to stop investing, while others may not be of value at all. This means that knowledge management is a powerful management tool. It is also necessary to develop management programs that focus on intellectual capital, so as to collect revenues from administrative and business functions such as legal, finance, human resources and information systems, which should seek to redefine themselves. The challenge here is to find a way to achieve a competitive advantage through its core capabilities and knowledge (W, Cornish and D, Lieewelyn, 2006, p11).

Intellectual Capital Tools

Knowledge

Knowledge is the source of perception, awareness and understanding of facts through the abstract mind or how information is obtained by experimenting and interpreting the results of the experiment or interpreting the news, or by meditating on the nature of things and self-reflection or by reading the experiences of others and reading their conclusions. Knowledge is linked to intuition and research to discover the unknowns and Self-development and technology development.

As defined by the Oxford English Dictionary as the experiences and skills acquired by a person through experience, education or theoretical or practical understanding of the subject, namely the awareness or experience acquired by the individual from reality or from reading or discussion (Sabrin Zaghloul, p.7).

Skills

Skills mean those groups of personal traits, social well-being, communication, language, personal habits, and optimism that characterise our relationships with others. Personal skills are complemented by fixed skills that require job techniques and many other activities.

A skilled person is an essential and effective part of the individual contribution to the success of an organisation. Especially those organisations that deal with individuals face-to-face which are usually more successful if they train their employees to use these skills. Examination or training of personal habits or characteristics such as trust and diligence can result in a return on investment for the organisation. For this reason, personal skills are receiving increasing attention from employers, in addition to specialized scientific qualifications (George and Paajanen, p. 4).

Capabilities

Is the energy or strength of one to do something and to be able to. It is a person's ability to possess the ability to be patient and bear difficulties, and express the ability to do everything that an individual can do mental or kinetic work, whether innate or acquired from the environment, The ability to act in a mental, legal, physical, moral or physical form, where capacity is defined as a language is both richness and easiness. It also involves the ability of an individual to perform an occupation or a specific activity resulting from his or her training and qualifications.

There are many types of abilities. There is the numerical ability, which is manifested in the performance of one's calculations and the use of numbers in a high literal sense, and there is the spatial ability, which means the skill of one's perception of things after changing their spatial position. There is verbal ability, which is related to the formation of sentences and words and quantity of words the person own, The ability to absorb, the ability of storage, competitiveness, etc., and we will discuss in this article the capacity in terms of the two aspects: mental and creative, as well as to address it as an economic concept (Tarawneh, Achim Yusuf, p. 130).

Practical Framework for Research

First: - Description of the Study Sample

Study Sample

The sample of the study included the Northern Technical University, where 65 questionnaires were distributed to the faculty of the Northern Technical University and 51 questionnaires were retrieved.

Method of Collecting the Sample

The researcher used the simple random sample method in distributing questionnaire forms to the teachers on the assumption that the society is homogeneous. Therefore, the researcher used the simple random sample and then the appropriate sample was withdrawn. The sample size reached 51 teachers and staff, which represented the study population.

Statistical Indicators

The researcher used statistical analysis on the data and information obtained from the research according to the (Likert) quintile scale. The researcher used the most important statistical indicators to suit the hypotheses of the research and its questions, as follows:
1- Frequency and percentage ratios: To find out the number and percentage of respondents within the research sample.
2- The arithmetic mean: It is used to determine the degree of approval of the sample investigated for questions.
3- standard deviation: It is used to find out the extent of dispersion of the answers of the sample in question to the degree of acceptance.
4. Person (correlation coefficient): It is used to measure the extent of the correlation of the research variables to each other and to determine the type of relationship whether it is direct (positive) or reverse (negative).
5- F test: It is used to determine the effect of the independent variables in the search on the dependent variable.

Second: Demographic Variables of the Research: A Description of the Demographic Variables of the Members of the Research Sample

Table 1: Frequency and percentage of the demographic variables of the research

Number of years of service			
	Service	**Duplicates**	**Proportion%**
Valid	**5-1**	13	25.5
	10-6	4	7.8
	15-11	9	17.7
	20-16	6	11.8
	25-21	8	15.7
	More than 25	11	21.5
	Total	51	100.0
Age			
Valid	**34-25**	10	19.6
	44-35	16	31.4
	54-45	18	35.3
	More than 55	7	13.7
	Total	51	100.0
Sex			
Valid	**Male**	26	50.1
	Female	25	49.9
	Total	51	100.0
Academic achievement			

Valid	**Bachelor**	3	5.8
	High Diploma	6	11.7
	Master 's degree	20	39.3
	Ph.D.	22	43.2
	Total	51	100.0

Note in Table (1):

1 - With regard to categories of years of experience the frequency is the highest in category 1-5 years, which is 13, 25.5% because the university is young.

2. With regard to the age groups in which the frequency of the age group 45-54 is 18, 35.3% This ratio gives the strength of the university because this age group has the experience.

3 - With regard to sex variable where the frequency of males is the highest, reaching 26, 50.1%, while the frequency of female 25, 49.9%, and these ratios are normal between males and females

4. In terms of academic achievement, the highest frequency doctoral master's group which was 22, 43.2%, and 39.3%, which is a natural proportion of human resources because the university is one of the new universities.

Third: Description and Diagnosis of Search Variables

1. The arithmetic mean and standard deviations of the responses of the open university education sample

Table 2: Below describes the research variables of open university education

	E - mail	**arithmetic mean**	**standard deviation**
1	e-mail leads the functions of open university education in terms of ease of use	4.57	0.806
2	Provides the possibilities for information exchange and views	4.33	0.864
3	provides advice and guidance instruction	4.37	0.774
4	Exchange of educational messages between teachers and students as a feedback tool	4.43	0.700
5	Means of communication through which to send instructions and administrative assignments and tasks	4.71	0.879
	The average	4.463	0.493
	Open Talks and Discussion Boards		
1	A tool for dialoging and discussion synchronously between the teacher and learner to be spoken at the same time	4.14	0.895
2	This tool allows the exchange of talk through its ready	3.98	0.860
3	The teacher and the learner meet in the open educational	3.96	0.916

4	Direct communication and interaction can be made in the	4.10	0.855
5	Answers to questions and queries of learners (individually or collectively) through a special channel for the educational	4.27	0.777
	The average	4.09	0.742
	Electronic Performance Support Systems		
1	Building a database on the Internet	4.69	0.469
2	Storage of educational, administrative and legal information in the computer.	4.41	0.669
3	Make information available on demand Learner can refer to it	4.49	0.809
4	Help the learner to inquire about questions and answers	4.43	0.781
5	Access to the necessary assistance needed by the learner without a review of teaching and university	4.29	0.693
6	**The average**	4.482	0.651
	The general average of e – learning	**4.345**	**0.629**

The results of Table (2) show that the open university education axis has an arithmetic mean of 4.345 and a standard deviation of (0.629). This indicates the homogeneity of the sample answers about the value of the arithmetic mean. But on dimensions level, the two axes of electronic performance support systems come more homogenous in terms of employee answers, and each received a mean of (4.482) and a standard deviation of (0.651). On the level of the paragraphs, paragraph (5) came in this dimension which is (a means of communication through which to send instructions and administrative assignments and tasks) Is the most homogeneous where the average obtained (4.71) and the standard deviation of (0.879) and the direction of these The paragraph is (strongly agree), and the general direction of the open university education axis is (OK).

Computational and Standard Deviations of the Sample Responses of Intellectual Capital

Table 3: Below describes variables for the removal of intellectual capital

	Remove intellectual capital	**standard arithmetic**	**standard deviation**
	Knowledge		
1	Our university gives attention to the development of the knowledge of its educational cadres	4.20	0.722
2	Our educational cadres have the knowledge to provide the best educational services	4.33	0.816

3	Our University aims to develop the knowledge of its educational cadres continuously	4.00	1.000
4	Our University provides the appropriate courses to gain its staff more knowledge	3.98	1.029
5	Our university is interested in developing the knowledge	3.86	0.849
	The average	**4.075**	**0.794**
	Skills		
1	Our educational cadres have excellent skills	4.02	0.883
2	Our cadres are characterized by their accurate skills	3.76	0.710
3	Our cadres rely on training and development to acquire skills	3.92	0.977
4	Our cadres are characterized by having expertise in their field	3.82	0.932
5	Our university has many skills that distinguish it in	3.86	0.872
	The average	**3.878**	**0.773**
	Capacity		
1	Our university possesses a cadre with creative abilities	3.76	1.012
2	Our cadres achieved the best abilities to develop the	4.16	0.880
3	The services of the educational process depend on the	4.02	0.761
4	Our university has achieved its objectives accurately to possess its cadres. Educational capacity	4.04	0.747
5	Our university is distinguished by having cadres with great	3.96	0.848
	The average	**3.988**	**0.731**
	Creativity		
1	Our cadres have innovative creative ideas to provide the best educational services	4.08	0.891
2	depends on the potential of our creative cadres to reach our	3.92	0.845
3	Create our cadres to provide the easiest strategies to deliver the scientific material to students	3.96	0.958
4	represents creativity from the basic priorities in the management of business and institutions	3.88	0.840
5	Our university encourages its cadres to provide innovative and advanced educational services	3.84	0.925
	The average	**3.937**	**0.797**
	General average of intellectual capital	**3.970**	**0.774**

The results of Table (3) indicate that the axis of intellectual capital has obtained a general mean of 3.970 and a standard deviation of 0.774. This indicates the homogeneity of the sample answers about the value of the arithmetic mean. (2) in this dimension, which is (our educational cadres know the best educational services) is the most homogeneous, where he got a (4.075) and a standard deviation of (0.794). (4.33) and a standard deviation of (0.808). The direction of this paragraph is (agreed), and the general trend to erase Intellectual capital is (strongly) agreed.

Test Hypothesis of the Study

First hypothesis test: which provides a significant correlation between open university education and intellectual capital

H0: There is no significant correlation between open university education and intellectual capital.

H1: There is a significant correlation between open university education and intellectual capital.

The Following Sub-Assumptions Resulted

1. There is a significant correlation between e-mail and intellectual capital.
2. There is a significant correlation between open conversations, discussion boards and intellectual capital.
3 - There is a significant correlation between electronic performance support systems and intellectual capital.

Table 4: Represents the correlation

		e-mail	Open conversations and discussion boards	Electronic performance support systems
Intellectual Capital	Pearson Correlation	**0.574****	**0.453****	**0.604****
	Sig.(2-tailed)	**0.001**	**0.001**	**0.000**
	N	**51**	**51**	**51**

**. Correlation is significant at the 0.01 level (2-tailed).

Table (4) refers to

There was a significant correlation between the electronic performance support systems and the intellectual capital in the research sample. The correlation coefficient of Pearson was significant and equal to 0.604 because of the sig value. (0.000), which is less than 0.01 with 99% confidence. This means that the first major hypothesis is achieved. There is a significant correlation between electronic performance support systems and intellectual capital.

At the Sub-Hypothesis Level

- The significant correlation between e-mail and intellectual capital where the correlation value was (0.574), because of the sig value. Equals (0.001) which is less than 0.01 with 99% confidence.

The correlational relationship was significant between the open talks, and the discussion panels and the intellectual capital where the correlation value was 0.453, because of the sig value. Equals (0.001) which is less than 0.01 with 99% confidence.

Test of the second main hypothesis: which prove the existence of a significant impact of open university education and intellectual capital:

- H0: No significant effect of open university education and intellectual capital.
H1: There is a significant effect of open university education and intellectual capital.

Sub-Assumptions Emerge

1- There is a significant effect of e-mail and intellectual capital.
2 - There is a significant impact of open talks, and discussion panels and intellectual capital.
3 - There is a significant impact of support electronic performance and intellectual capital.

Table 5: Represents the table of variance analysis

ANOVA[a]							
Model		Sum of Squares	Df	Mean Square	F	Sig.	R^2
1	Regression	**8.006**	**1**	**8.006**	**34.142**	**.000 [b]0**	**0.411**
	Residual	**11.490**	**49**	**0.234**			
	Total	**19.495**	**50**				
a. Predictors: (Constant), X							
b. Dependent Variable: Y							

The results of the F test indicate that the effect of the open university education and the intellectual capital shown in Table (5) shows that the calculated F value reached (34.142) at a significant level (0.05) where the value of P-value is (0.000) This means rejecting the null hypothesis and accepting the alternative hypothesis. This means that there is an impact of the open university education on intellectual capital.

Table 6: Effect of open university education and intellectual capital

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	**0.510**	**0.595**	**---**	**0.856**	**.0396**
	X	**0.796**	**0.136**	**.0641**	**5.843**	**0.000**
a. Dependent Variable: Y						

Table (6) indicates that the value of the effect is B = (0.510). The increase of the intellectual capital variable is one unit of standard deviations. This will lead to an increase in the open university education by 0.510% of standard deviation.

Table 7: Effect of the dimensions of open university education on intellectual capital

intellectual capital				Dependent Variable / Independent Variables
Indication effect	**B**	**R^2**	**F**	
Moral	**0.617**	**0.321**	**23.115**	E – mail
Moral	**0.396**	**0.209**	**12.954**	Open Talks and Discussion Boards
Moral	**0.744**	**0.372**	**29.006**	Electronic performance support systems

a) Table (7) indicates that the value of R2 is equal to (0.321). This means that the e-mail has explained (23.1%) of the changes in the intellectual capital and the value of (B = 0.617) The increase of e-mail by a unit of standard deviations will increase the intellectual capital by 61.7% of the unit deviation standard.

b) Table (7) indicates that the value of R2 is 0.209. This means that the open discussions and discussion panels explained 20.9% of the changes in the intellectual capital. The value of (B = 0.396). it means that the increase in changes in Open Conversation Variables and Discussion Boards One unit of standard deviations will increase intellectual capital by 39.6% of the standard deviation unit.

c) (Table 7) indicates that the value of R2 is 0.372. This means that the electronic performance support systems explained (37.2%) of the changes in e-learning which have reached (B = 0.744). i.e. an increase of applications changes by One unit of standard deviations will result in an increase of e-learning by 74.4% of the standard deviation unit.

Table 8: Represents the order of priorities of the effect of explanatory sub-variables on the adopted variable

Seq.	Variable Annotations	Effectiveness	the influence	Ranking
1	e-mail	**Moral**	**46.23%**	Second
2	Open Talks and Discussion Boards	**Moral**	**25.9%**	Third
3	Electronic performance support systems	**Moral**	**58.02%**	First

Table (8) above shows the order of priorities of the effect of the explanatory sub-variables on the dependent variable. It is noted that the axis of electronic performance support systems was the most influential in the research model.

Chapter Six
Conclusions

First: The Axis of Open University Education

1- The electronic performance support systems axis, got an arithmetic mean of 4.345 with a standard deviation of 0.629 indicating that there is a strong indicator of this axis, where this dimension was obtained in the first order, as shown in Table (2) and the first paragraph of this axis got the maximum arithmetic mean of 4.69 and the standard deviation 0.469.
2. The e-mail got an arithmetic mean of 4.464 and a standard deviation of 0.493. This axis was obtained in the second-order as shown in Table (2). The fifth paragraph of this axis obtained a higher mean of 4.71 and a standard deviation of 0.879.
3. After the open talks and discussion panels, got an average of 4.09 and a standard deviation of 0.742, where the third rank was given as shown in Table (2). The fifth paragraph of this axis obtained the highest mean of 4.27 and the standard deviation of 0.777.

Second: Intellectual Capital

1) Knowledge the first order, with an arithmetic mean of 4.075 and a standard deviation of 0.794, which is a strong indicator on this axis. The second paragraph of this axis had a mean of 4.33 and a standard deviation of 0.816. As shown in Table (3).
2) The capabilities got the second-place arithmetic mean of 3.988 and a standard deviation of 0.731, which is a strong indicator on this axis. The second paragraph of this axis obtained an arithmetic mean of 4.16 and a standard deviation of 0.88 as shown in Table (3).
3) The creativity was ranked third with an arithmetic mean of 3.937 and a standard deviation of 0.797. The first paragraph of this axis obtained an arithmetic mean of 4.08 and a standard deviation of 0.891 as shown in Table (3).

4) The skills obtained fourth place with a mean of 3.878 and a standard deviation of 0.773. The first paragraph of this axis obtained a mean of 4.02 and a standard deviation of 0.883 as shown in Table (3).

Third, the first main hypothesis was accepted, which states that there is a significant correlation between open university education and intellectual capital and rejecting the null hypothesis. The value of the Pearson correlation coefficient is significant and equal to 0.604 because the sig value is significant. (0.000), which is less than 0.01 and 99% confidence, as shown in Table (4).

At The Sub-Hypothesis Level, The Following are Explained

1- The significant relationship correlation between the electronic performance support systems and the intellectual capital, where the correlation value is 0.604, because of the significant value of sig. (0.000), which is less than 0.01 and 99% confidence.
2- The significant correlation relationship between email and intellectual capital, where the value of the correlation is 0.574 because of the moral value of sig. Equal to (0.001) which is less than 0.01 and 99% confidence.
3- The significant correlation relationship between open conversations & discussion boards and intellectual capital where the value of the correlation is 0.453 because of the moral value of sig. Equal to (0.001) which is less than 0.01 and 99% confidence.

Fourth*:* the acceptance of the second main hypothesis, which states that there is a significant effect of cloud computing on e-learning and rejects the null hypothesis. The results of the F test indicate that there is an effect of the open university education and intellectual capital where the calculated F value was 34.142 at a significant level 0.05. .Value equals 0.000 and is less than 0.05. This clearly demonstrates the impact of open university education and intellectual capital. As shown in Table (5).

Fifth*:* the value of R2 is 0.411, which means that open university education accounted for 41.1% of the changes in intellectual capital, as shown in Table (5).

Sixth*:* the value of the effect of (B) is equal to 0.510, i.e., the increase in the variable open university education is one unit of the standard deviations will lead to an increase of electronic education by 79.6% of the unit of standard deviation as shown in Table (6).

Seventh*:* The priorities of the effect of the sub-variables of the independent variable on the dependent variable were arranged as follows:

A - The university performance support system is the first, and its effect was 58.02%.

B) The e-mail is second, and its effect was 46.23%.
C) Open talks and discussion panels had an impact of 25.9%, which is the third.

***Eighth**:* Experts and technical workers in higher education institutions agreed that there is no effect of transition unless there is a high level of proficiency for the teachers in using computers.

Recommendations

1 - The researcher hopes to provide support systems for saving electronic performance because it reduces some development burdens that support storing and orders of university documents and the establishment of sessions include all the available facilities to read administrative tasks and responsibilities.
2 - The researcher emphasises the introduction and activation of the electronic database system, which allows for shared work between groups of teachers.
3 - The researcher believes that the activation of e-mail leads to high flexibility in electronic dealing and sending and receiving university documents without problems.
4- The researcher asserts that the intellectual capital supports the organised collective work of the professors working in the open university education.
5. The researcher aspires to increase the variables of open university education because the increase of one unit leads to an increase in the percentage of intellectual capital through the effect of the dimensions of university education.
6 - The researcher emphasises the need to implement open conversations and discussion boards, which help in increasing the skills and capabilities of teaching staff working in open universities.
7 - The researcher considers the need to develop teaching cadres for the service of open education.
8 - Provide all the requirements needed by the educational process through its connection to the Internet.
9 - The presence of teaching staff possessing educational skills and abilities reduces the suffering of institutions of open university education and the ways to use all modern applications.
10 - The establishment of a special building for information systems and training of teaching staff requires large amounts of money and maybe an obstacle to the development of open university education.

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S/ Questionnaire Form
To: Mr. ……

For being one of the persons concerned in this research and for your experience in the academic and administrative field, in your hands a number of items related to my entitled scientific research ((**The Role of Open University Education and its Impact on the Development of Intellectual Capital**)), so we seek for your cooperation to answer the attached items of this questionnaire through putting (√) mark before each item which identical with your opinion, and it is worth mentioning that these answers are for scientific research purpose only, and they will not be seen by any other persons except the researcher, and there is no need to mention your name, with best regards.

First: Personal information

Please put (X) before the right item.
1. Gender: Male ( ) Female ( ).
2. Age: from 25 to 34 years ( ), from 35 years to 44 year ( ), from 45 years to 54 years ( ), more than 55 years( ).
3. Scientific qualification: Bachelor ( ), High Diploma ( ), Master ( ), Ph.D. ( )
4. Years of service: less than 5 years ( ), from 6 to less than 10 years ( ), from 11 to less than 15 years ( ), from 16 to less than 20 years ( ), more than 25 ( ).

Second: Relevant Data of open University Learning

Please show your agreement on the following items by putting ( ) mark before the phrase that represents your view of point:

	The axis of open university learning	**Strongly Agree**	**Agree**	**neutral**	**Disagree**	**Strongly Disagree**
	E – mail					
1	e-mail leads the functions of university education open in terms of ease of use					
2	Provides the possibilities for information exchange and views					
3	provides advice and guidance instruction					
4	Exchange of educational messages between teachers and students as a feedback tool					

5	Means of communication through which to send instructions and administrative assignments and tasks					
	Open Talks and Discussion Boards					
1	A tool for discussion and discussion synchronous with the teacher and learner to be spoken at the same time					
2	This tool allows the exchange of talk through its ready programs					
3	The teacher and the learner meet in the open educational system					
4	Direct communication and interaction can be made in the event of webcasting					
5	Answers to questions and queries of learners (individually or collectively) through a special channel for the educational process as a discussion rooms available					
	Electronic Performance Support Systems					
1	Building a database on the Internet					
2	Storage of educational, administrative and legal information in the computer.					
3	Make information available on demand Learner can refer to it when needed					
4	Help the learner to inquire about questions and answers					
5	Access to the necessary assistance needed by the learner without a review of teaching and university					
	Remove intellectual capital					
	Knowledge					

1	Our university gives attention to the development of the knowledge of its educational cadres					
2	Our educational cadres have the knowledge to provide the best educational services					
3	Our University aims to develop the knowledge of its educational cadres continuously					
4	Our University provides the appropriate courses to gain its staff more knowledge					
5	Our university is interested in developing the knowledge systems of its cadres					
	Skills					
1	Our educational cadres have excellent skills					
2	Our cadres are characterized by their accurate skills					
3	Our cadres rely on training and development to acquire skills					
4	Our cadres are characterized by having expertise in their field of work					
5	Our university has many skills that distinguish it in performance					
	Capacity					
1	Our university possesses a cadre with creative abilities					
2	Our cadres achieved the best abilities to develop the educational process					
3	The services of the educational process depend on the capabilities of our cadres					
4	Our university has achieved its objectives accurately to possess its cadres. Educational capacity					

5	Our university is distinguished by having cadres with great abilities					
	Creativity					
1	Our cadres have innovative creative ideas to provide the best educational services					
2	depends on the potential of our creative cadres to reach our target of					
3	Create our cadres to provide the easiest strategies to deliver the scientific material to students					
4	represents creativity from the basic priorities in the management of business and institutions					
5	Our university encourages its cadres to provide innovative and advanced educational services					