

## **Intellectual Capital in Higher Education Institutions**

### **Features of Application in Al-Kunooze University College - The Requirements**

**P. Dr. Munir shaker Mohamad      P.A. Dr. Osama Nadhim Al-Abadi**

Al Kunooze University College      Al Kunooze University College

Basra -Iraq- [drmoneer@hotmail.com](mailto:drmoneer@hotmail.com)      Basra- Iraq- 00964-7807200666

0964-7734667091

#### **Abstract:**

The main aim of this research is to explain the concept of Intellectual capital, its advantages for high educations institutions, the second aim is to explain how to practice of the concept in Al- Kunoose Privet College. The research made a narrative study of what has been written about (IC) and summarized the ideas which facilitate the processes of application in Iraqi Hight education Institutions. The study concluded that there are signs of primary application of the concept in the college, though the concept is not clear, nor unified definition to the concept is available, nor identical procedures to its application. The recommendation suggested to the college a set of procedures and standards to facilitate the application accordingly.

***Key words:*** *Intellectual Capital, High Education Institutions Al-Kunooze Private College, Human Resources Capital*

### **Introduction:**

For decades, the prevailing scientific and social thinking was that the capital of any project, its value, and its importance in society lies in its in-kind capital, represented by its fixed assets (such as lands, buildings, cars, machines, mechanisms, and other real estate) and its current assets (such as the cash asset, the bank, debtors, and ending inventory .....). As for who manages these assets and who maintains, develops and exploits them (the human element), its importance as an asset was not taken into account. This concept has prevailed for a long time. The owners of the project feels unhappy if one of the fixed assets breakdown or stop working, and care has to be taken to repair it.

But if one of the workers feels ill or stopped working, the owner has no problem to replace him and fire him from the work regardless the efficiency or creativity he enjoy it. This situation lasted for decades until humanitarian concepts and considerations developed and trade unions and civil society institutions emerged. He began to think seriously about the concepts of quality, management of total quality, and began to feel the importance of the human element, so management and accountability for human resources appeared, and the concept of personnel management that prevailed for a long time was missed.

This development in human thinking continued in the last decades of the twentieth century and the current century, when the human element began to occupy a greater position than in previous periods. During the end of the twentieth century and the beginning of the twenty-first century, human thinking began a new phase that is not only concerned with the human element in general, but with a concept that focuses

on the creations of the human factor and its capabilities to bring about change and development the work. Concentration is started to be directed to the creative intellectual capabilities of the individuals. This concept represents what is called (Intellectual capital) which focuses on the intellectual capabilities of the worker and his ability to change and be creative in his work. This issue has become increasingly clear to many business owners. One of the people who directed the light to this concept is (Bill Gait) the owner of Microsoft and one of the richest people in the world when a journalist asked him a decade ago (Where does your wealth lies?) He replied (I have 1400 skilled engineers, it is my inexhaustible wealth, and here the journalist asked him, and what does this mean? He replied that they are able to return my wealth in any time wasted by me). This answer sheds light not on the importance of workers in the productive process, rather on those creative workers for their ability to create, change and develop the product (programs). In addition, it is not enough to have good human beings, but rather how to earn and keep loyalty.

Since that time, institutions, especially those interested in developing the product, or the services, began to pay serious attention to intellectual capital, as that part of the total capital of the project that is capable of bringing about change, development and creativity in the product, and giving it the required quality that is able to satisfy the consumer's need, push the project forward and make it able to compete and remain in the market.

### **Study Structure:**

In order to achieve its objectives, the research includes six Parts:

The First Part: Research Methodology, and includes the research problem, objectives, hypotheses, and contribution.

The Second Part: Discusses the theoretical bases of intellectual capital concept

The Third Part: Discusses the Characteristics of Intellectual Capital in Higher Education Institutions.

The Forth Part: Discusses the importance of Intellectual Capital in higher education institutions

The Fifth Part: Discusses the features of the application of Intellectual Capital in Al-Kunooze University College and the Suggestions for applicable model and the necessary requirements.

The Sixth Part: Includes the Conclusions and Recommendations

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### **The First Part**

#### **Research Methodology**

The researcher uses the inductive study of what has been written on the subject and discuss the different definitions given to its concept. The research also discusses the characteristics and components of intellectual capital, its relationship to knowledge, and the requirements for its application in the college under study. In addition, this part includes the discussion of research problem, its objectives, hypotheses, and the research contribution.

#### **Research Problem:**

Research problem can be summarized as: “The lack of sufficient clarity among most Iraqi higher education institutions on the concept of intellectual capital, its requirements of application, its benefits to the mentioned institutions, its methods of application, and its differences from the concept of normal capital, that working institutions deal with it, its management and accounting skills.

### **Research Objectives:**

The research aims to achieve the following objectives:

- 1- Providing theoretical basis of the concept of intellectual capital that enables us to use it in Iraqi higher education institutions.
- 2- Provide the necessary practice equipment and the necessary recommendations to the College under study for the purpose of application.

### **Research Hypotheses:**

The research seeks to prove the following hypotheses:

- 1-Providing an adequate theoretical basis, as well as explaining its characteristics in higher education institutions, will highlights the concept and enable the Iraqi ones to understand its significance and benefit and consequently the benefits of its practice.
- 2-Providing practical suggestions and recommendations will enable the College concerned practicing the concept and benefits from the application.

### **Research Contribution:**

Iraqi high educational institutions are considered among the most institutions in need of attention to intellectual capital and its practice due to their urgent need for

distinguished faculty members who have become affected by the conditions of reality, which prompted many of them to ignore the importance of creativity in work. For this, many of them have left Iraq to find better opportunities. On the other hand, this is what made these institutions lack the constituent elements of intellectual capital and the depth of the need to adopt this concept in order to maintain and develop these elements and evaluate excellence in the performance that they possess.

## **The Second Part**

### **The Theoretical Bases of Intellectual Capital**

The concept of intellectual capital is one of the modern concepts that began in the eighties from the last century and continued until the early nineties of the last century, when academics, consultants, and owners of institutions around the world noticed the importance of intangible assets, and their role in the survival, growth, and increase institutional returns. Where stakeholders in Japan at the end of the eighties noticed a difference in performance and business results between those institutions that have a higher percentage of intangible assets than others that focus on tangible assets.

(Prusak, L, (1996) study) noticed a discrepancy in performance of Japanese companies of similar size. After studying the subject, he found that the difference in the percentage of intangible assets (primarily the human element) owned by distinguished companies was the reason for their advancement over similar companies that do not have a good base for the purchasing element they have.

Many studies have dealt with the concept of capital, its nature and importance, (Brooking, A. (1997) and (Jaia, L.A. (2000).

Some other writers also identified three stages of the development of the concept of capital and the clarity of its importance and impact on institutions (GuthrieK, et al, 2012, 70) and (Al-Kardawi, 2014, 263-264), they are:

1- The First Stage: which began in the late eighties and extended until the end of the nineties of the last decade. This phase focused on a conceptual framework for (IC) and defining its importance.

2-The Second Phase: which extended from the end of the nineties of the last century until the beginning of 2004. This phase aimed at measuring the impact of (IC) on financial performance, creating high value for institutions, increasing their profitability, and maximizing their competitive capabilities.

3- The Third Stage: which began in early 2004, until now, and this stage focused on studying management methods and accounting for (IC) in all institutions of all kinds, and the supporters of this stage believe that the focus should be directed only on achieving the financial return but it must be expanded to include the enrichment of benefits and services provided to workers .

Accordingly, it is clear that the concept of (IC) is a recent concept, which appeared at the end of the last century and the beginning of the current century. As an attempt to take advantage of the intellectual assets and intangible assets owned by these institutions.

However, the legal status of (IC) is still weak, despite its importance, because the different countries, despite realizing this importance, did not pay attention to the need to include it in the paragraphs of the general budget and the need to define it,

thus forcing institutions to pay attention. The capital that is required to be shown in the budgets of institutions is only natural capital. The term capital does not necessarily refer to (IC).

**Intellectual Capital (IC) Definition:**

(IC) can be defined as: a part of the human capital of the organization, (Which is represented by an elite group of workers who possess a set of cognitive capabilities), enabling them to produce new ideas, or develop organizational ideas without others that enable the institution to expand its market share and maximize its strengths. (Al-Mafarji and Saleh, 2007, 17).

Some other definitions given to the (IC) are as follows:

-(Al-Saeed, 2008, 22) gives similar definition of (IC) he says “It is a set of values (other than the enterprise's natural capital) and includes components that help the enterprise to survive, improve its market share, and maximize its competitive capabilities”.

-Another definition given by (Stewart, A, 1998, 56) he says that (IC) is : “A group of intellectual assets existing in the institution, capable of creating its wealth, includes: the talents, skills and abilities of individuals, technology, and information available to the customers of the institution, and also includes: intellectual property rights; such as patents, copyrights, and methods of work”.

-(Matos & et al 2010) believes that (IC) is “A set of intangible assets in the institution, which include: individuals' knowledge, talents, experiences, level of education, and willingness to acquire and develop knowledge”.



-Daft R, (2010 ), 157) define (IC) as: “the knowledge assets present in the organization, which exist in the form of two types; Either apparent knowledge: which is easy to obtain and transfer to others in the form of documents, or Tacit knowledge: which is based on the personal experiences of individuals; which requires its exploitation so that it can be used”.

-(Brooking, A. (1997)) defines the (IC) as “the intangible assets that lead to an increase in the organization's ability to perform its tasks, and it is represented in the amount of the difference between the book value of its assets and liabilities and their fair market value”.

-(Jaia, L.A. (2000)): also gives another definition. He says that intellectual capital as the: “firm's ownership of knowledge, experience and skills, and intellectual capital consists of structural capital and human capital”.

From the previous discussion, it is obvious that:

1-There is no agreement on a specific concept of (IC), due to the novelty of the concept, and the diversity of researchers' specializations and the nature of their orientations. There are those who focus in their definition of (IC) on the human element, and what it possesses of capabilities, skills, knowledge, diverse experiences, and latent creations, and there are those who focus in their definition of (IC) on intangible assets, and their importance in maximizing the competitive value of the enterprise, its growth, and its continuity, and increasing its returns.

2- Most of the previous definitions agree on the three most important components of intellectual capital. They are human capital as the most important resource of the institution, and what it possesses of skills, capabilities, knowledge, trends, diverse experiences, latent innovations, etc., and structural capital and what it includes:

organizational processes in the institution, work procedures, research and development systems, and technology information systems, databases.

3 - There is a strong reciprocal relationship between the three components of (IC), where human capital builds structural capital, which in turn develops the relational capital of the organization, which leads to strengthening its position and maximizing its competitive capabilities among other institutions.

4- All previous definitions linked the institution's possession of (IC), its ability to invest and manage it, and the expansion of its market share, maximizing its strengths, developing its performance, increasing its efficiency and effectiveness, as well as achieving financial and moral returns that distinguish it from other institutions. Hence, increasing its capabilities and maximizing its competitive position.

5- The concept of (IC) is not based on the apparent knowledge existing in the institution only, but it is more concerned with tacit knowledge, and seeks to discover those with specializations and distinguished intellectual capabilities, and systematically seeks to exploit the experiences of these individuals, their skills, and their capabilities, and benefit from them. However, there is difficulty in setting specific criteria for measuring (IC) and following it up.

6- It is clear from the previous definitions of intellectual capital the extent to which it relates to education and knowledge. Knowledge is the main element in production, and it is the main determinant of the productivity of (IC) in various institutions. In light of the foregoing, it can be said that intellectual capital in higher education institutions is a set of intangible assets that higher education institutions possess and are responsible for maximizing their capabilities, enhance their competitive position, and include their skills and experience.

(Hegan, 2014, 48) said that the (IC) consists of a group of workers who possess capabilities and skills that can be employed without other members of the human capital in the cognitive aspects of the institution.

Intellectual capital, as indicated in many different sources, is concentrated in the institution; The most important of which are: Stewart (2001, 2):

1- ***The Employees of the Organization:*** those who present proposals and constructive ideas to improve the future of their organizations and increase their competitiveness through many sources including:

Cognitive knowledge, Advanced skills, Understanding systems, and Self-motivated creativity. (Al-Anzi and Nagham, 2001, 3):

2-***The Work System:*** where the organizational structure is the main driver of human resources in the institution, and therefore any defect in the organizational structure leads to disruption of work in the institution, even if the human resources are highly qualified, and the criterion for a successful organizational structure lies in its ability to exchange knowledge to the sites of need and this is done through an integrated information flow system, then the criterion for a successful organizational structure lies in its ability to provide an effective training system, to increase the capabilities of individuals, and their skill.

3- ***External Customers:*** External customers are the source of information about the quality of the services provided by the institution.

According to these three main sources, we need to pay attention to the workers in higher education institutions, including faculty members, researchers, students, and administrators who possess capabilities, knowledge, experiences, and various skills, and to use the best ways to benefit from this distinguished group, develop its performance, raise its efficiency, and encourage them to creativity and innovation. In addition to these, we need to develop the work within higher education institutions, and the use of advanced technology and information systems, So that it is able to invest in the human element, and benefit from its maximum potential, as well as the need to take care of the external customers of the organization, and take care of their proposals, and meet their desires and various needs, and handle the complaints submitted.

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**(IC) Relationship With Knowledge Management:**

Knowledge management - as an administrative practice - is a more detailed approach that is concerned with the activities of creating and acquiring knowledge in the short term, while (IC) is concerned with these activities in the long term. Knowledge management also aims to reach the highest possible level of (IC).

In addition, the relationship between (IC) and knowledge management is embodied in knowledge management investing the data of (IC), implementing it, and applying it directly to gain leadership and achieve competitive superiority (Al-Anzi and Saleh, 2009: 407).

Intellectual knowledge in higher education institutions is divided as seen by: (Al-

Zaher, 2009, 116-117), (Al-Zayadat, 2008, 40), (Alyan, 2008, 81), (Rifai, 2004, 26) and (Al-Anazi). and Saleh, 2009: 179-182) to the following:

1- ***Implicit knowledge***: It is that knowledge that exists within the minds of individuals, and includes a group of individuals, which they acquired through the accumulation of previous experiences and personal experiences. According to some studies, it constitutes about 42% of knowledge within institutions, higher education, and this knowledge is of a personal nature; which is difficult to obtain; Because it is stored inside the minds of the owners of knowledge, the institution concerned has to work systematically to exploit the experiences of these individuals, and consolidate it with the knowledge within higher education institutions.

2- ***Apparent knowledge***: It is that knowledge that is predominantly of a (scientific or academic) nature and is easy to obtain and transfer between the various organizational levels easily through official communication channels. Because they exist in the form of studies, research, or official reports, and focus is placed on them as the scientific product that higher education institutions can provide to society.

### **Third Part**

#### **Characteristics of Intellectual Capital in Higher Education Institutions**

From the foregoing, the advantages and characteristics attributable to (IC), if applied in institutions of higher education, can be summarized as follows:

##### **1-Organizational Characteristics:**

Intellectual capital is characterized by the following characteristics (Eid, 2010, 548) and (Al-Mafarji and Saleh, 2007, 27):

- Intellectual capital is created in light of flexible administrative structures:

In higher education institutions, (IC) is not concentrated in an administrative level alone, but it can include all administrative levels in varying proportions. Flexibility is the appropriate environment for innovation and containing new applications

\* (IC) cannot be obtained with money alone: It is a mixture of ideas, experiences, practices and understanding of professional aspects, as well as the need for a supportive organizational climate.

##### **2-Professional Characteristics:**

Intellectual capital requires the novelty of the academic aspects, but it cares more about education, training, and professional development, as it is characterized by high skills, diverse experiences, and different capabilities, specific to the practices of individuals within higher education institutions. According to (Eid, 2010, 548) and (Al-Mafarji, and Salih, 2007, 28):

\*(IC) Enjoys a high level of organizational learning. However, it is not required to obtain a specific scientific degree.

\* Active under enrichment training: However, It is more related to development than training.

\*Possessing many rare and diverse professional skills and accumulate experience.

\* It is difficult to find a replacement for those individuals who enjoy it

### **3- Personal and Behavioral Characteristics:**

Given that (IC) tends to take great risks, therefore, (IC) tends to deal with issues that are characterized by uncertainty (recent experiences), and also tends to take the initiative and present constructive ideas and proposals, in addition to the ability to resolve decisions without hesitation with high levels of intelligence and self-confidence (Boushaa' and Falaq, 2011, 5).

It is possible to identify the most important personal and behavioral characteristics of the individuals who own the (IC) in the institution and other characteristics of the capital as identified by: (Bani Khalid, 2010, 19), as follows:

- Tendency to take risks, embark on unknown activities, love to work in situations of uncertainty.
- Initiative and presentation of ideas and constructive proposals and decisiveness and not hesitation in taking decisions.

\*Distinguished intelligence, the ability to guess, good insight, and openness to experience and benefit from the experiences of others.

\* Mental ability with a high level of knowledge: represented by professors, researchers, faculty members working in higher education institutions, students, parents and beneficiaries of educational services.

\* May be on individual level and collective nature: It represents the individual with his ideas, knowledge, innovations, and striving towards achieving the best. These aspects represent the basis for the existence, growth and development of (IC), (Eid, 2010,548), (Al-Mafarji, and Saleh, 29, 2007),

### **Characteristics of Intellectual Capital:**

**Evolutionary nature:** (IC) (individual and collective) represents a basis for realizing a new capital that is the product of a previous, more developed intellectual capital.

\* **The implicit and explicit nature:** The implicit capital is represented in the knowledge, experiences, ideas, capabilities and skills that the individual possesses and is inseparable from him. while the explicit capital is represented in the production of the tacit capital that is separated from the individual, and is achieved in the form of a tangible material product, or an intangible product, which is the most important, and takes several different forms such as systems, programs, plans, patents and trademarks) and others.

\***Theoretical and applied nature together:** The fact that intellectual capital is formed. It is represented by the individual's ideas, theoretical knowledge, ideas that are applied and used in practice, and knowledge that can be considered as part of the capital and that can be used in practice.

\* **Experience and Intuition:** It is based on reason and logic and uses specific quantitative methods, as well as standard indicators, using techniques and software that support the normative aspects of intellectual capital.



\* **Depends on Value Creation:** Through outstanding performance that is reflected in the services provided to customers in order to achieve their satisfaction with the nature of these services.

\* **Inability to Replace:** This is due to the nature of the owners of intellectual capital and their dominant culture in the institution, and the inability to measure the extent of their contribution to achieving the competitive advantage of the institution due to the overlapping of activities and tasks, even if these elements are transferred to competing institutions; They find it difficult to adapt. It cannot be replaced or replaced by any other resource. It is also characterized by scarcity and uniqueness.

\* **It Does not Arise from a Vacuum:** It needs to be built, manufactured, managed, developed, and then maintained, and in the case of its management in the enterprise, it becomes her competitive weapon and ensures her survival in a highly competitive world.

\* **The Difficulty of Setting Standards to Measure it:** as many of the intellectual assets that the institution possesses, as well as the skills and experience of its employees, their skills and the information available to the institution about its external clients, is in the form of intangible mental knowledge, which is not registered and is not available to decision makers. While decision makers can follow up and measure physical capital, they lack clear criteria for following up and measuring the movement of (IC).

\* **Intangible and Immaterial:** This makes its evaluation and measurement very difficult, and its results are somewhat inaccurate. This is due to the novelty of the subject on the one hand, and the difference of scholars and researchers in defining it and defining its various components on the other hand.

In addition, (IC) is directly related to the science of accounting for human resources, which aims to quantitatively express the costs of recruitment, appointment, training, separation from the institution, and others. It also introduces a kind of challenge to the accounting profession. This is to provide administrative decision makers with the best available human resources.

Many planners and administrative leaders believe that despite the importance of developing human resources in general, focus should be placed on developing a special category of these resources. It is that category that possesses various experiences, knowledge, and creative capabilities, on which the development and prosperity of societies is based; This makes its development, investment, and preservation particularly important in light of the fierce competition for human competencies between different institutions. Therefore, the strategic view should shift to this category, and consider it as one of the most important sources of investment that can be developed and exported within the framework of what is called (IC)” (Haegan, 2007, 2)

According to this, institutions have begun to identify the members of (IC) that constitutes a stock for them, and to work on measuring it, and whose various capabilities help in achieving benefits for the institution. Two different paths are available, and interrelated, that govern looking at (IC). The first path is represented in knowledge and mental strength, and focuses on creating the knowledge field for the institution, while the second path is represented in the relying on available material and human resources, and focuses on how to achieve profits for the

institution (Hassan, 2005, 369). There is a set of basic starting points for the relationship of (IC) with higher education institutions. These are:

- 1- The human element is the most important factor that contributes to achieving development, the most important productive element that contributes to the accumulation of capital. This element will not play its role without education. As it is an important source of human capital. This helps in achieving technical progress that supports the sources of sustainable development.
- 2- Reformulating the higher education system to meet the challenges of society and its various problems, so that, it can survive and continue, in addition to the need for a valid legal system to exist alongside the educational system in providing an incubating environment for progress. It begins with adapting laws, systems, regulations, and instructions to be in line with the new educational system, in addition to the need to direct all energies, material and human capabilities towards knowledge advancement.
- 3- Increasing attention to human resource management: The people with different competencies, experiences, and skills are the people who bear responsibility for change in modern institutions, and work to achieve it. Competencies, at the present time, represent the main reason for achieving excellence and distinction among institutions. Hence stems the importance of (IC), such as the components of scientifically capable intellectual forces, and being the most valuable asset, where it works on developing and advancing projects.
- 4-The formation of intellectual capital requires the combination of various factors, example of this, the educational programs offered, time allotted for teaching and learning, the characteristics of the curricula, the competencies that he is

expected to acquire, learners enrolled in various educational programs, quality of education, opportunities available to learners to increase knowledge, and other practices based on reliable educational knowledge.

5-It is expected and should be the role of higher education institutions, to revolve around the idea of providing educational services that are specialized in nature, characterized by their direct link with national development plans, and seek to provide them with human resources capable of managing their operations in a conscious manner to achieve the desired goals.

6-Training represents the natural extension of higher education, which is specific to a special group and not others. Therefore, all educational institutions must be requalified. (Al-Zuhairi, 22, 2012).

The importance of (IC) for institutions of higher education can be determined by a set of points, including:

1- (IC) is the foundation's primary weapon in today's world, while Intellectual assets are the hidden force to ensure the survival of institutions.

2- It is the responsibility of higher education institution to build highly distinguished human minds, maximizing the human value of the organization's employees, as well as increasing its ability to generate high-value ideas.

3-Understanding the feelings and emotions of individuals, and communicate with them, this developing collective emotional intelligence which means the ability to understand them. This will be reflected in the performance of individuals within the organization.

4- The work on the improving the competitive advantage of the institution by providing more new scientific research, or developed scientific research, as well as discoveries and others.

5- Preserving the expertise and knowledge of the employees within the institution, and ensuring its survival to achieve important results for the institution and its desired goals.

6-Giving human development efforts the content of creativity and institutional learning on the one hand, and the value of knowledge capital and its institutions on the other hand, as well as supporting sustainable development, achieving economic growth, and social progress in an environment that takes into account governance standards.

7 - Assisting the stability of higher education institutions as a social system, creating a frame of reference for the institution's activities and work, and developing a sense of self.

8- Deciding the real value of the educational institution (market value), such as the difference between the book value and the real value of the institution. The greater the difference, the richer the institution will be in its intellect, intelligence, and knowledge.

9- Developing the capacities of higher education institutions, transforming them from mere knowledge-transmitting institutions into knowledge-producing institutions, and supporting them in a strong and continuous manner to participate effectively in the generation, development, and use of knowledge in education, research-based learning, investigation, and the release of human energies and mental capabilities of workers.

10- Assisting the trend towards a knowledge economy, increasing reliance on knowledge capital, and shifting the center of gravity in economic systems from a resource economy to a knowledge economy.

These recommendations indicate the importance of (IC), especially in light of the knowledge society we live in today. Accordingly, the main role of higher education institutions has become linked to the need to pay attention to the development, investment and management of (IC), As it is one of the most important resources through which the institution achieves a high and good competitive advantage. (Morsi, 2013, 887-888) and (Abdel-Wahhab, 2000, 53-54), (Prety, 2000, 157, 157), (Atteia, 2018, P.34)

#### **Fourth Part**

#### **The Significance of (IC) in Higher Education Institutions**

According to what is discussed in previous pages, one can conclude the extent of the significance of (IC) to high education institutions. Despite the importance of developing human resources in general, some believe that the focus should be directed to developing a special category of resources, which possesses various experiences, knowledge, and creative capabilities, on which the development and prosperity of societies is based.

Therefore, the strategic view should shift to this category as it is one of the most important sources of investment that can be developed and exported within the framework of what is called intellectual capital” (Haegan, 2007, 2). For this, institutions have begun to identify the stock of (IC) that constitutes a stock for them, and measuring it.

There are two different interrelated paths that govern looking for intellectual capital. The first path is represented in knowledge and mental strength, and focuses on creating the knowledge field for the institution, while the second path is represented in relying on available material and human resources, and focuses on how to achieve profits for the institution (Hassan, 2005, 369), (Salim,2014,16-23):

There is a set of basic starting points for the relationship of (IC) with higher education institutions, these are:

1-The human element is the most important factor that contributes to achieving development, the most important productive element that contributes to the accumulation of capital. This element will not play its role without education. As it is an important source of human capital that helps in achieving technical progress which supports the sources of sustainable development.

2- Increasing attention to human resource management; Those with different competencies, experiences, and skills are the ones who bear responsibility for change in modern institutions, and work to achieve it. Competencies, at the present time, represent the main reason for achieving excellence and distinction among institutions.

3- Knowledge represents the most important main asset in economic and social growth. Hence derived the importance of intellectual capital, such as the components of scientifically capable intellectual forces, and being the most valuable asset, (Prety, & Guthrie, J, 2000, 157, 157).

4- The formation of (IC) requires the combination of various factors. Such as the time allotted for teaching and learning, the characteristics of the curricula, the educational programs offered, the competencies expected to be acquired by the

learners enrolled in the various educational programs, the opportunities available to the learners to increase their knowledge, the quality of education and other practices based on reliable educational knowledge.

5- Reformulating the higher education system to meet the challenges of society and its various problems. So that it can survive and continue, in addition to the need for a valid legal system to exist alongside the educational system in providing an incubating environment for progress.

6- The role of higher education institutions should revolve around the idea of providing educational services that are specialized in nature, characterized by their direct link with national development plans, and seek to provide them with human resources capable of managing their operations in a conscious manner to achieve the desired goals.

7- Training represents the natural extension of higher education, which is specific to a particular group and not for others. Therefore, all educational institutions must be requalified (Al-Zuhair, 22, 2012).

The importance of intellectual capital for institutions of higher education can be determined by a set of points, (Morsi, 2013, 888) and (Abdel-Wahhab, 2000, 53) including:

1- Intellectual capital is the foundation's primary weapon in today's world; Intellectual assets are the hidden force to ensure the survival of institutions.

2- (IC) is one of the most valuable assets in the twenty-first century. Because it represents a strong scientific force capable of making fundamental changes to institutions, it is a source of imaginary wealth for the institution.



3- Building highly distinguished human minds, maximizing the human value of the organization's employees, as well as increasing its ability to generate high-value ideas.

4- Developing collective emotional intelligence, to understand the feelings and emotions of individuals, and communicate with them, to be reflected in the performance of individuals within the organization.

5- Enhancing the competitive advantage of the institution by providing more new scientific research, or developed scientific research, as well as discoveries and others.

6- Preserving the expertise and knowledge of the employees within the institution, and ensuring its survival to achieve important results for the institution and its desired goals.

7- Giving human development efforts to gain the creativity and institutional learning on the one hand, and the value of knowledge capital and its institutions on the other hand, as well as supporting sustainable development, achieving economic growth, and social progress.

8 - Enhancing the stability of higher education institutions as a social system, creating a frame of reference for institution's activities and work.

9- Determine the real value of educational institution (market value), such as the difference between the book value and the real value of the institution. The greater the difference, the richer the institution will be in its intelligence, and knowledge.

10- Developing the capacities of higher education institutions, transforming them from mere knowledge-transmitting institutions into knowledge-producing institutions, and supporting them in a strong and continuous manner to participate

effectively in the generation, development, and use of knowledge in education and research-based learning.

Previous discussion highlighted the concept of (IC) - especially in light of the knowledge society we live in today. For this, the main role of higher education institutions has become in need to be linked to development, investment and management of (IC), as it is one of the most important resources through which the Institutions achieves good competitive advantage.

## **Fifth Part**

### **Feachers of Application the (IC) in Al-Kunooze University College- Suggestions For Application**

Al-Kunooze University College is one of the private colleges operating within the scope of private higher education institutions in Iraq-Basra City. The college follows in its educational and administrative role the same systems followed by other higher education Institutions. In Iraq, like other developing countries, the concept of (IC) has not been put into practice. Rather, it is considered a modern concept that has not been circulated, applied, or understood in its dimensions and implications. However, the practical applications of the concept seem to be adopted by the college management (deanship) implicitly without adequate understanding to its dimension. work with this concept is dene despite the lack of clarity of its dimensions and requirements. It seems that the differences between the concepts of human resource management and personnel management led the College management to such practice due to the importance of human elements, and inspired

the management to take care of the distinct elements of the human resources, this includes both the teaching members and administrators. One of the features of the college's application of this concept is the appointment of many distinguished teachers who are retired from Government universities and also from private ones. Thought, many writers have written on (IC) such (Al-Kardawi, 263-264, 2014), and (Guthrie, J, et al, 2012), however, there is no clarity about the applications of the subject. Rather, it seems unlikely that it will be applied, due to its Nature that is difficult to measure, and no legal basis to impose it, despite the fact that talk about distinct elements often takes place among those interested, but the signs of actual application and interest in this aspect did not appear in many Institutions.

In Iraq the case is sensitive, because of the absence of such consideration to universities teachers, many have left Iraq, and the country will lose many of its distinguished professors. Other countries are taking the advantage of them in all fields, especially if we know that Iraq occupies an advanced rank among the developing countries in people intelligence.

In order to adopt a clear methodology for applying the concept of (IC) in the College of Al Kunooze (It can be applied in other colleges and universities), it is necessary to adopt a set of steps and procedures to clarify what is meant by (IC), its differences from other types of capital. To make it within the distinct administrative framework, it has to define its requirements in order to adopt the concept within the scope of the college's work in the foreseeable future. This is aimed to develop the college's work and transform it to a brilliant university, to face high competition between private

colleges, and to make it able to meet the requirements of the success of the newly opened scientific departments.

These proposals call for:

\*-There should be theoretical understanding to the model, its dimensions, and components and its position in relation to the total natural capital that forms the basis of the institution's assets.

\*-Developing particular model which explain the (IC) and its components and differences from other sorts of natural capital. Figure (1) explains the suggested model for this purpose.

\*- Developing particular criteria by which faculty members who possess the characteristics of a person who embodies (IC) will be diagnosed. Also state the required standards to measure the values the members of (IC) can produce to total capital of the college.

\*-Determine the required procedures that the college should take to encourage distinguished individuals to develop their potential and intentions to enter the category that possesses (IC), and keeping transparent records for this purpose.

Therefore, the following steps attempt to put some suggestions for doing that:

**First: Theoretical bases Understanding of (IC):** This is explained and discussed in the previous pages of this research, and could be used to understand the concept of (IC), and for explaining the difference between the (IC) and other kinds of capital.

**Second: Developing Applicable Model:** The model which may distinguishes between the (IC) and the rest of the capital classifications (in-Kind Capital), which can be appropriate to high education institutions is developed through discussion of many models set by other writers, it is as Shown in Figure (1).

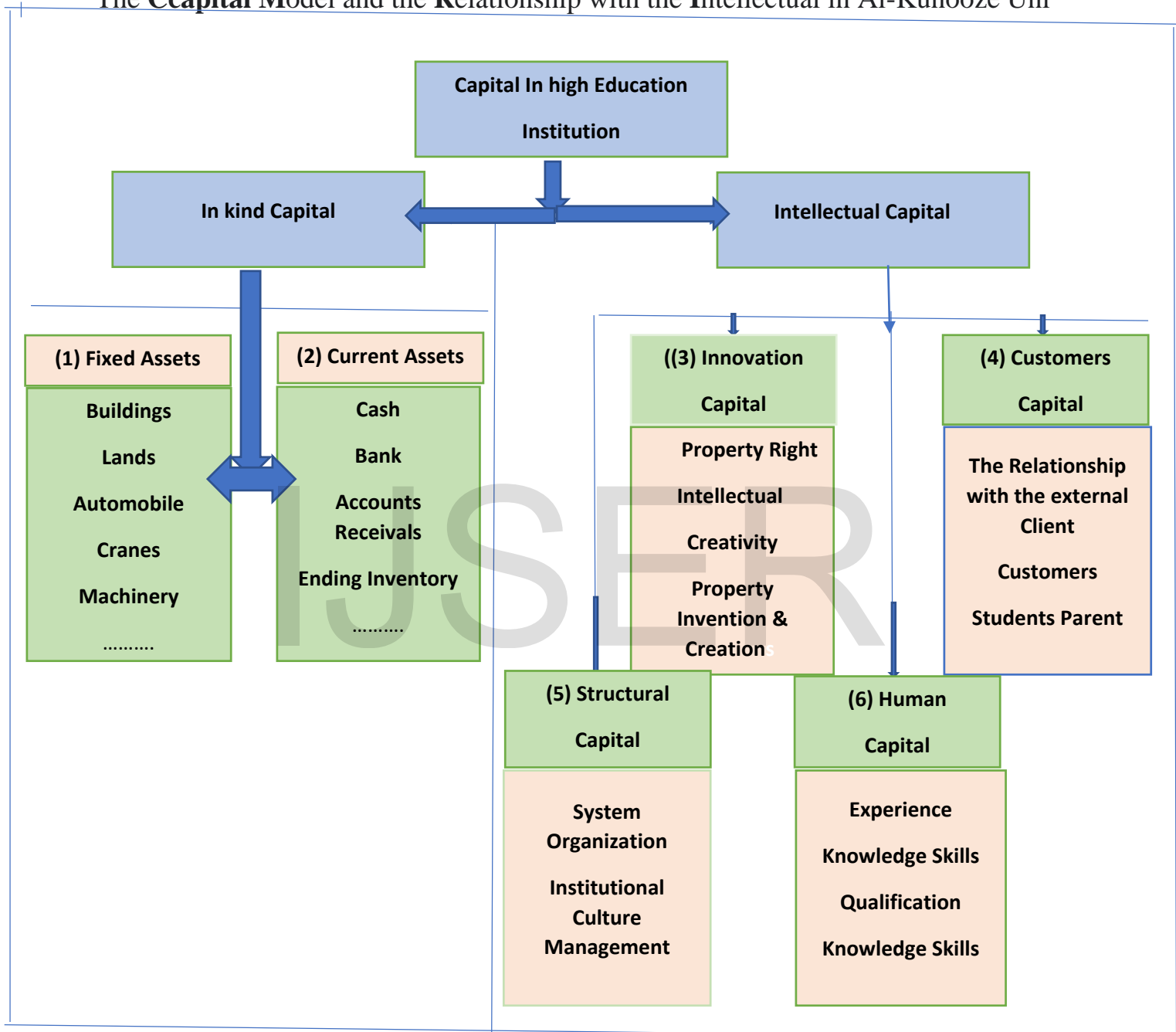
1-In the College concerned, as it is the case for other high education institutions, the model of the capital uses the In-Kind Capital Figure (10)- (1,2). Very rare to find one of them uses the intangible assets as Good Will or Property Rights.

2- The ambition is to use all kinds of capital classification i. e :( 1,2,3,4,5,6) when there is an ability and experience to the college concerned (and other high education entities) to measure the value of all kinds of intellectual capital in Figure (1), i.e., (3,4,5,6,).

3-Current time the intention is to use the In-Kind capital as well as intellectual capital related to high specialized and skilled people (such as the creativity, innovation, special skilled) which support the college and its position in the society and market which if ignored for a long period may be missed from the college. Those kinds of Capital are represented by the In - Kind Capital as well as No:3 and No: (3and 6).

Figure No. (1)

The **Ccapital Model** and the **Relationship with the Intellectual** in Al-Kunooze Uni



As regards AL-Kunooze College, one of the most important points to mention is that the college administration has given this subject appropriate attention before its features became clear to the college and had the desire to apply the concepts of this type of capital, which is an important issue, given that the unwillingness of management of many institutions stand as a barrier to apply a lot of advanced administrative applications.

The College administration has put a lot of the college's physical capabilities to achieve the goal of attracting distinguished elements who possess intellectual capital and constitute an important part of the college's capital. This aspect is considered an important basis for applying the concepts of (IC). The previous model includes the types of capital that higher education institutions may adopt especially Capital number (3 and 4) where many types of (IC) can be understood.

The Model Mentioned in Figure (1) -intellectual capital - contain the following sorts of capital:

**A-*Human Capital*:** It is related to the human resources of the organization, and includes the efficiency of workers, their human energies, and their mental capabilities. Here, the college is supposed to provide evaluation methods to confirm the capabilities of workers (to certain degrees) and their ability to develop them quarterly or annually.

Naturally, these evaluations are based on general human elements evaluation forms and evaluations of line managers with annual achievements in all areas of activities that he performs.

**B- *Structural Capital*:** It is related to the infrastructure of the institution; it includes buildings, equipment, and the intangible structure of the institution, and includes:

policies, procedures, programs, and systems. Structural capital also includes the following (organizational capital and Operations Capital, which refers to knowledge, evidence of work, and good practices.

**C- Customer Capital:** It includes the organization's relations with its customers, Student, externals particularly parents of students and customers related to the college and determines the extent to which the institution is able to draw inspiration from the opinions and experiences of customers and benefit from their convictions in its activities and directions.

**D-Innovation Capital:** It includes intangible assets, intellectual property rights of the institution, patents and innovations, including research that carries creative ideas. It is what constitutes intellectual capital, including its creations, innovations and distinguished activities. (Larsen, H. & et al 1999, 20), (Mouristen, J, & et al, 2001,363) and (Chen, J, & et al 2004, 200)

### **Third: Determining the Criteria for Intellectual Capital in the College:**

Human Capital is related to the human resources of the organization, and includes the efficiency of workers, their human energies, and their mental capabilities. Here, the college is supposed to prepare two sorts of criteria, the first is to decide the people who own the (IC), second a criterion of how to measure the merits they have. Example of the merits which can be considered as attractive activities for (IC) are:

A- The number of research and studies papers published annually in specialized international journals with a clear scientific return and reflecting the positive reputation of the college.



B- The number of books written annually and published with ISSPN bearing the name of the college and reflecting the positive reputation of the college.

C- Number of the participation in specialized international scientific conferences and meeting, attended annually and the studies and researches produced, that raises the reputation of the college globally.

D- Number and type of activities and events that are carried out inside and outside the country, which provide benefit to students and others, promote the reputation of the college globally or nationally, and meet the scientific accreditation standards of the Ministry of Higher Education.

E- Developing the curricula, methods of teaching and communicating them to students, and creativity in communication attracting students, which is reflected positively in understanding scientific subjects, gaining their loyalty to the college, and following up on its various activities.

F- High ability to prepare and present training programs and scientific meetings for faculty members from among his colleagues to raise their scientific and teaching level, which reflects positively on their scientific levels and motivates them, and contributes to creating an atmosphere of broad scientific knowledge in the college.

These criteria, and others, may be used by the college and developed continually according to the work environment.

**Fourth: Clear Procedures to be Adopted by College Departments:**

Because of its sensitivity, there should be clear procedures to be followed to decide the (IC) members and the measurement criteria. These criteria are to diagnoses the (IC) members and to measure their merits. Accounts department and human resources department should be concerned about these procedures and criteria. In

fact, they should develop particular procedure to decide who are the (IC) members and the value of creativity and innovation they have. This of course should be under the supervision of College Deanship. Special Committee should be formed from professors and specialized people who take the responsibility to decide such criteria and procedures with a special control process from the college management.

**Hypotheses Testing:** The discussion made in the second, third, and fourth parts of the study clearly prove the first hypothesis.

The discussion made in the fifth parts and the model suggested in Figure (1) prove the second hypothesis.

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## Sixth Part

### Conclusions and Recommendations

#### **1- Conclusions:**

From the foregoing discussion, the following conclusions can be derived:

1- Intellectual capital is considered a modern concept that has not been applied or worked on to benefit from its advantages. This is valid for many educational institutions in many countries, including Iraqi. However, the features of its application in the college subject of the study are obvious to the follower due to its importance. It is one of the distinguished elements that have not been exploited enough to the extent that Iraqi educational institutions have benefited from its merits.

2- There is no unified definition of intellectual capital, and its concept and importance differ between those concerned, as it overlaps in its importance with the importance of the human element in many institutions.

3- It is difficult to measure or evaluate and set clear criteria, but its management can be understood if its concept is understood. Many institutions are concerned with the distinguished its features, and set a method for rewarding, but its application in a scientific and systematic manner is still elusive.

4- It is closely related to knowledge management, given that it is built on the basis of a person's ability to excel in understanding practical cases and his ability to know their secrets and their overlapping aspects and explore their depths, which requires access to their knowledge aspects and putting them into practice or solution, which makes intellectual capital based mainly on Knowledge. Knowledge is the basis for building training programs to stimulate the elements that the institution wants to develop and include them within the concept of intellectual capital.

5- The absence of a legal text obligating institutions to show intellectual capital within their budgets.

6- Intellectual capital is clearly distinct from other types of capital in that it is owned by the person who holds it and cannot be given to another person or entity, as it is distinguished by being an individual property of its owner.

7- Despite the lack of practical applications of the concept in the Iraqi scientific institutions, the features of its application in the college under study seem clear despite the lack of clarity of the concept, which facilitates its application in a scientific and systematic manner.

8- The lack of interest on the part of the legal authorities and trade unions to include in the budgets any reference to the need to show intellectual capital within their information, which means that states and government institutions are not aware of this aspect.

### **2- Recommendations:**

To the extent that the application of intellectual capital is of paramount importance to Iraqi institutions to raise their market value and importance in society and to strengthen their competitiveness, its application at the level of the country as a whole represents a very great importance, especially for a country like Iraq, which is characterized by being one of the countries that contains many distinguished people who are capable of development in all fields. This prompted many to leave the country to get the interest they lack in our institutions. Therefore, the necessary following recommendations in this field seem very important:

- 1- The need to expedite the application of intellectual capital in our educational institutions and to expand its application in the college under study.
- 2- The need to introduce the concepts of intellectual capital in the educational curricula in Iraqi schools and colleges in general, to clarify its importance, dimensions and benefits to the implementing agencies.
- 3- Expanding the presentation of the topic and calling for it in practical seminars and conferences to clarify its dimensions and importance.
- 4- Putting material and moral incentives in Iraqi educational institutions to encourage the development of elements that have the capabilities to form part of the intellectual capital.

5- Educational institutions have to adopt the concept and offer its benefits to the institution, the state and the individual for the purpose of the elements possessing intellectual capital expanding their participation in the service, expansion and development of their institutions.

6- Developing the human resources and accounts departments in our institutions to accommodate the aforementioned concept of capital and building the necessary standards for its diagnosis and measurement and the necessary forms and records for that.

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