



The effect of intellectual capital on the Total quality management of higher education and scientific research institutions in Baghdad

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Abstract:

The purpose and goal of the research revolves around the diagnosis of intellectual capital as the logical indicator to study an effective human resource management practice, and its influential role in determining the overall quality management of higher education institutions and scientific research in Baghdad.

To achieve the purpose of the research, an upgraded standard questionnaire was used to collect data and distribute it to the selected sample in a statistical manner from the study population of (5) institutions affiliated with the Ministry of Higher Education and Scientific Research in Baghdad. A sample of (83) faculty and employees in the community of the researched institutions were targeted. They are known for their competence, experience and expertise within the elite measurements in managing human resources qualified for serious and efficient work. The extraction of results was based on the statistical package (SPSS), using the statistics of the arithmetic mean, standard deviation, coefficient of variation, Spearman correlation coefficient and multiple regression, and statistical tests represented by (t, F).

According to the results extracted and analyzed, a set of conclusions related to the extent to which the intellectual capital has a distinct role in the development of total quality management in the areas of top management, continuous improvement and strategic planning for quality related to the implementation of the comprehensive strategy of the institutions of the Ministry of Higher Education in Baghdad. Certainly, the results reached show the moderation of the availability of the necessary infrastructure to enhance the intellectual capital in higher education institutions in Baghdad, which requires an effective review of their organizational structures, as well as attracting and creating client and human capital, as they constitute an added value for developing mental and knowledge maturity For the elite teachers and distinguished employees who

possess the ability to think, analyze, create, innovate, and employ knowledge, experience and skill in the field of learning and education.

Among the most prominent recommendations reached by the research is that it is of the utmost importance for the institutions department of the Ministry of Higher Education in Baghdad to evaluate and evaluate their intellectual assets of teachers and employees, and to develop a strategic plan that includes identifying their current and future needs for human capital from teachers and employees with scientific competence and holders of experience certificates and awards Scientific and patents.

Key terms in the research: intellectual capital , total quality management, institutions Ministry of Education Higher education .

Introduction:

With the end of the twentieth century, the world witnessed the emergence of a new economy that relied heavily on knowledge as the most important of them A source for creating value and developing wealth, because economic development today is based on an abundance of information.

An abundance of scarce resources is not, because the influence of knowledge becomes decisive for the entire economic activity as it becomes the origin of the main role for any economic or social growth, and from it the transformation of the world from research and collision to sources of resources It is rare to find research to control as much knowledge as possible.

These changes that occurred exceeded the organizations' ability to adapt to them, which led them to re-establish Given the concepts and principles on which it was founded, these organizations made sure of their knowledge and skills Humankind is your most important competitive advantage. She switched from her interest in her tangible capital to her interest in a family Its intangible funds (knowledge and intellectual wealth) which gave rise to the term "intellectual capital" which And its importance increased in economic institutions, especially after the liberalization of financial and economic systems in light of globalization. On the other hand, the organization's ability to achieve high levels of performance makes it a guarantee of success In the first place, something will not be achieved without adopting the quality system, which has become a basic criterion for evaluating institutions, As a management style that aims to develop its performance and modernize its management and structures in line with local and international developments.

Especially since this era has become known as the era of quality.

What accelerated the liberalization processes was the occurrence and growth of the information and communication revolution and high technology The role of knowledge as a human unit of wealth is based on creative energies, experiences and skills.

Generating new knowledge and producing new applications, as the process of generating new knowledge is broad and focused What is important is what gave birth to the concept of intellectual capital and the widespread interest in it, because it has become so high The total value of business organizations may reach (90%) of their total market value.

It was only able to enter the service sector, especially as the size of service organizations increased, and the density increased Competition between them.

The purpose of the study

1-Identify the concept and the most important information of different types and explain the criteria for its measurement.

2. Learn about the evolution of growth

In increasing educational quality, the investigative cloth is success in organizations.

3. Establishing clear standards for measuring quality in higher education.

Study curriculum:

Every study published in a scientific framework needs a scientific research method that the researcher relies on in order to obtain it

Based on the results, with the purpose of answering the problem, as well as proving the correctness of the hypotheses

(Exploration) was previously adopted in the scientific astronomy of the Sabil.

In analyzing the most important concepts related to intellectual capital and the quality of (kidnapping) based on the dimensional method

Higher education in the light of some available literature for the two subjects for later testing on the institution

We used case techniques to get into the field.

. Collecting data from the institution in question, regarding the University of Batna

Results.

Based on the presented problem, and as preliminary answers to the various questions, we put forward the following hypotheses:

There is a significant statistically significant effect between intellectual capital and the quality of education (for TQM).

And quality in higher education in the studied sample

Scientific and social implications.

1. The great importance of intellectual money science being the main resource in the knowledge economy.

2. The role that the quality of higher education plays in ensuring the survival and viability of institutions.

3. Improvement of universities' outputs in line with the requirements of the external environment (Market Employment).

4. The University of Batna was chosen as a sample to test the hypotheses, the opinions of the researchers, as we are postgraduate students and professors.

This university at the same time

This sample of respondents is on the one hand, and in terms of the facilities provided by this university.

-- Case Study

Keyword.

Intellectual capital is one of the most important modern terms in human resource management

The first topic: previous studies and field research methodology

This topic deals with a presentation of some previous studies and their discussion in a grim way through the presentation of six studies and research related to the topic that occurred between four Arab and two foreign studies, as well as the orientation towards entering to clarify and explain the research methodology from the field side including the problem, importance, objectives, the study community, its sample, research tools and means Extract the results .

First: Reviewing some previous studies

1-A study (Ibrahim and Al-Shabani: 2011) "The impact of intellectual capital on technological perfection and its implications for cost reduction."

The field study aimed to clarify the nature of intellectual capital, its development and its impact in raising the degree of technological perfection on reducing costs in the National Furniture Company in Nineveh. The study concluded that the development of intellectual capital plays a pioneering role in the process of continuous improvement by raising the degree of mastery, which in turn is the main pillar for achieving the sustainable competitive advantage of the researched company.

1 (Smith, Collins, Clark (2011) study: "Building and investing intellectual capital and the role of both human and material resources on a group of global companies."

The application of the study relied on a community of (57) international high-tech companies to test the nature of the relationship between human, social and intellectual capital, and its correlation with the creativity achieved by these researched companies. The study focused on the organizational capabilities to create knowledge and to give an idea of how companies develop intangible capital. The study assumed that the physical capital represented by machines, equipment, machines and funds has a positive relationship with the intellectual capital. It also assumed that human capital in the researched companies correlates positively with intellectual capital, in addition to the existence of a positive correlation between intellectual capital and organizational creativity. The study found that organizational creativity is a function of intellectual capital, in addition to the existence of constructive interaction between human, material and social capital with intellectual capital.

2 (Phathak Study: 2013) "Intellectual Capital in Small Teams: Towards a Methodology for Acquiring Intangible Assets".

The study aimed to propose a model for intellectual capital for small groups of workers in knowledge-based industries, and to adopt a specific methodology for completing the audit of intellectual capital at a high level. The study is the pioneer in a series of successive studies aimed at revising and modifying both the model and the methodology by two different types of companies, one of which is a general chemical industrial products company, and the other is a service company that provides consulting in the field of management. Results applicable to knowledge-based work teams were reached by setting the conditional list of

intellectual capital indicators, which are "human capital", which is represented by alignment with values - team structure - trust - reputation - respect - team learning (demonstrated knowledge) ; (Latent knowledge) - leadership - technical and scientific expertise. As for "working capital", it is represented by knowledge management and dissemination - customer management - learning from project implementation. With regard to "client capital," it included both "market interest and knowledge - marketing and business development support."

3 (Study (Zouda: 2013) "The Role of Intellectual Capital in Knowledge Management"

The field study aimed at identifying the effect of the dimensions of intellectual capital on knowledge management, diagnosing and determining the relationship between the two variables studied, and in determining the level of effectiveness of intellectual capital variables and the dimensions of knowledge management in the National Insurance Company (SAA). The study concluded that there is a great interest on the part of the company that put the research into attracting and attracting individuals with high skills and experience to benefit from them in the areas of innovation and creativity, in order to achieve outstanding performance, and suggested the need to develop a strategy that includes identifying the company's needs for intellectual capital from qualified individuals .

The high level, with the need to take into account the knowledge experiences of those who have strategically distinguished business and activities.

(Study (Al-Halashmon: 2015) "The Degree of Application of Total Quality Management Standards in the Hebron Electricity Company."

The study aimed to identify the degree of application of comprehensive quality management standards in the Electricity Company, to identify deficiencies and successes in its applications, and to identify the most important obstacles and problems in the application. The results of the study showed that the company's management dealings with comprehensive quality on the basis that it is a long-term strategic plan, All the necessary support for implementing the quality standards was of a medium degree, and the management worked to verify the application of the principles of comprehensive quality and assessed the progress in that, and the management made a periodic review of the quality objectives with a medium degree.

1 (A study (Ezzat: 2018): "Integration of Balanced Scorecard and Total Quality Management and its impact on achieving competitive advantage in industrial companies in Hebron Governorate."

The study aimed to try to uncover the effect of applying the industrial companies operating in the Hebron governorate on the dimensions of the modified balanced scorecard and the elements of total quality management, and to identify the concept of the traditional balanced scorecard and the extent of commitment. From industrial companies in the Hebron governorate to the components of Total Quality Management. It was high, and the largest scores were the degree of support and commitment of the top management to the quality philosophy and the degree of consumer focus for each of them, followed by the degree of continuous improvement in the quality of processes, procedures and systems, then focus on employees and finally strategic planning for quality.

The current study differs from previous studies in that the topic differs because the study sheds light on the effect of intellectual capital on the overall quality management of higher education and scientific research institutions in Baghdad according to the available data and information and to the extent that other researchers have not previously dealt with the researcher's knowledge, and this will take precedence. In this vital field of human resource management and total quality management. It can also be said that the previous studies differ from the current study in terms of purpose and importance, but they are close to them in some theoretical foundations to some extent. The current study dealt with some institutions affiliated with the Ministry of Higher Education in Baghdad to implement the research topic. It is one of the important Iraqi institutions that differ in their organizational culture, direction and mission from the rest of the organizations that lead to the different nature of work and the tasks assigned to it. Indeed, this is what supports and strengthens the current study in benefiting from the degree of credibility in the presence of intellectual capital in it and its importance to society.

The current research in its general framework is complementary to the previous research efforts that have been reviewed, but in general it can be said that the aspects of benefit from previous studies were to form the theoretical side of it by identifying some sources and research. Studies that have to do with the background knowledge of the current research. It also contributed to crystallizing the current research objectives, building the hypothesis plan, selecting the appropriate statistical means to analyze the research sample and determining the appropriate means to test the studied hypotheses, as well as assisting in designing the scale adopted in the current research by studying the approved specifications.

Third: The research problem, its importance and objectives

The research problem lies in two aspects, one of which is epistemic, which is the attempt to answer an important question related to the extent to which the intellectual capital possessed by some of the institutions affiliated with the Ministry of Higher Education and Scientific Research in Baghdad is enhanced in ensuring its comprehensive quality management. As for the practical side of the problem, it is represented in the fact that many of the institutions in question still lack a clear vision of the importance of intellectual capital and how to employ human capabilities and expertise by activating the comprehensive quality management that guarantees its outstanding performance. Hence, the research problem can be highlighted in a more clear way by asking the following questions:

To what extent are some higher education institutions in Baghdad interested in researching the importance of both intellectual capital and total quality management?

What is the nature of the relationship between the intellectual capital and its dimensions with Total Quality Management?

To what extent does the intellectual capital contribute to achieving the comprehensive quality management requirements of some higher education and scientific research institutions in Baghdad?

Intellectual capital is attracting at the present time an increasing interest by Iraqi universities aiming to achieve development, which makes it imperative that they support total quality management in a complex environment that only those with creative minds who are capable of bringing about change and renewal are able to make them succeed and continue. Accordingly, the importance of research falls within the following framework:

Addressing a vital and important issue for the success of the institutions affiliated with the Ministry of Higher Education and Scientific Research in Baghdad represented by intellectual capital as one of the most intangible and valuable assets in achieving total quality management, which constitutes a modest scientific addition that can help researchers in the field of management sciences to identify the importance of intellectual capital And work to apply it in the field.

- The importance of research is based on being an attempt to raise the interest of university leaders towards intellectual capital in public universities affiliated with the Ministry of Higher Education and Scientific Research in a capacity that represents a distinct strategic asset of great importance in the field of supplying government and private institutions with their needs of scientifically and practically qualified staff to exercise their valuable role in implementing management comprehensive quality.

The researcher aspires to achieve several goals from the research, the most important of which are the following:

- Presenting an intellectual perspective on the concept of intellectual capital and its various dimensions and its impact on total quality management, using well-studied methods and based on scientific sources that provide researchers with a scientific breakthrough on these two important variables.

- To identify the extent of university leaders 'awareness of the concept and dimensions of intellectual capital and the ability to activate total quality management at the level of Iraqi universities.

Clarifying the relationship between intellectual capital and total quality management of the institutions of the Ministry of Higher Education and Scientific Research in Baghdad.

Fourth: The research model and its hypotheses

For the purpose of achieving the research objectives, it is required to prepare a hypothetical model that clarifies the nature of the relationship between the research variables, as shown in Figure (1).

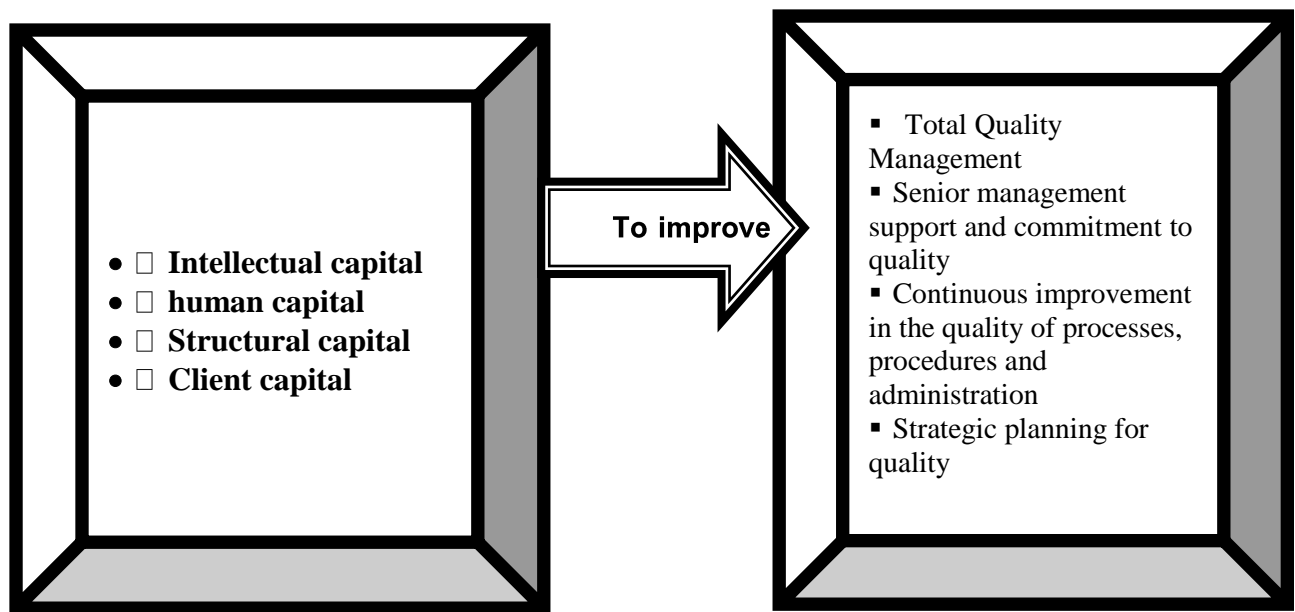


Figure (1) the proposed research

To achieve the objectives of the research and test its hypothesis scheme, the researcher proposed two main hypotheses, as follows:

□ The first hypothesis: Enhancing the role of intellectual capital (developing human capital, activating structural capital, activating client capital) is positively linked with improving the overall quality management of higher education institutions in Baghdad through (application of support and commitment of the top management to quality, continuous improvement in Quality, and strategic planning for quality).

□ The second hypothesis: Enhancing the role of intellectual capital (developing human capital, activating structural capital, activating client capital) has a positive effect in supporting the total quality management of higher education institutions in Baghdad through (application of support and commitment of the top management to quality, continuous improvement in Quality, and strategic planning for quality).

Fifthly, the study methodology and research tools

This research is characterized by adopting the descriptive and analytical approach in presenting and measuring the concepts of intellectual capital and total quality management based on the questionnaire (Appendix 1) as it was applied in its quantitative form through the use of standard models, and applied at the level of some institutions of higher education and scientific research in Baghdad. The study of the problem that is the subject of the research was distinguished by linking two important variables in quality management and human resources management, and building a standard model for research in institutions oriented towards achieving success. The questionnaire included two parts, the first being the personal characteristics of the research sample that

affected the respondents' response to its items, including general information such as (gender, age, educational attainment, number of years of service, etc.).

The field of research included some institutions of higher education and scientific research in Baghdad affiliated with the Ministry of Higher Education and Scientific Research in Iraq, and a research community consisting of (5) universities was taken: Baghdad, Al-Mustansiriya, Al-Iraqiya, Al-Nahrain, and Baghdad University Economic Sciences, and a sample of teachers and employees was selected (17).) From each university, so that (85) individuals are excluded from it because there is no complete answer, so that the sample for the purpose of analysis is (83) teachers and employees only.

A set of statistical methods appropriate to the nature of the data were used and processed using the ready-made program (SPSS), the most prominent of which is the arithmetic mean to determine the level of response of the sample members to the research variables, the standard deviation to measure the degree of absolute dispersion of the response values from their weighted arithmetic mean, the intensity of the response on the scale to measure the level of the response strength For each question, the coefficient of variation to measure the degree of relative dispersion and determine the importance of the variables based on the values of the answers from their mean, the correlation coefficient (Spearman), the regression analysis, and the test of both (t) and (F) to test the significance of the correlation coefficient and the significance of the regression coefficient.

1) The second topic: theoretical background on intellectual capital and Total Quality Management (TQM)

2) Both intellectual capital and total quality management are two major topics in modern management science as they are related to how to harness the internal environment of the organization in favor of success in the external environment by developing the requirements for effectiveness and efficiency in human resources management and total quality management in a manner appropriate and giving it a competitive advantage appropriate to seize environmental opportunities through Improving standards along with achieving their goals.

3) First: the concept of intellectual capital, its dimensions and its measurement

4) The term capital is one of the terms that give several meanings, in light of administrative thought, Intellectual capital expresses the knowledge value that organizations possess to generate an intellectual flow (Talukdar, 2: 2008). It is "the set of intangible values that are part of the organization's capital, which includes human, structural and relational components that contribute to the production of new and innovative ideas that help to survive and improve market share."

5) And maximizing the competitiveness of the organization "(Al-Saeed: 2008, 69). The term intellectual capital began to be used explicitly in accounting and management studies in the nineties of the twentieth century. The future of the organization and its continued existence in the external environment (Al-Ali, 2003: 10). (Al-Anazi and Saleh, 170: 2009) explained that the intellectual capital represents a group of workers who possess mental capabilities whose elements are knowledge, skill, experience, and values that can be employed And investing them in increasing intellectual contributions to improve the formal, technical and operational performance of the organization.

6) Intellectual capital reflects the source of innovation and innovation, as well as being an indicator of its economic performance and a milestone of its success, supremacy and continuity (Ghorbani et al., 2012: 5208). Intellectual capital is represented in both intellectual and cognitive assets, and is not related to physical assets at all. Intellectual capital is a term used to refer to interconnected intangible assets that enable the organization to develop its skills, experiences, innovations and innovations in raising its core capabilities that it uses to face challenges and exploit opportunities and in its continuous support to create added value for customers (Zouda, 15: 2013). Finally, Ousama & Mustafa (2014: 10) defines intellectual capital as “important sources such as information, technical techniques, experience, philosophy, management, intangible assets, and human resources that are used to help create and increase the value of the organization and the economic knowledge that leads it to achieve its goals.

7) And (Stewart) has shown a detailed presentation of intellectual capital as consisting of three main elements illustrated in Figure (2), namely: (Abdul-Daam, 2013: 84)

8) (1) Human Capital: It includes the skills, experiences and mental capabilities necessary to find solutions, which constitute a source of innovation and creativity in the organization. It is also known to human resource management professionals that workers are the most important component of human capital. Knowing that humans are an element of difficulty and complexity at the level of identification and measurement, because capabilities, knowledge and experience can be implicit (latent) in them. (Daft, 2003: 408) defined human capital as the economic value of the knowledge, experience, skills, and capabilities that workers possess. (Al-Qaisi and Al-Ta’i, 2014: 716) stressed that the tacit knowledge of the individual is the basis of human capital, and it is composed of the combination of four secondary elements, which are the individual's moral structure, learning, experience, and trends.

9) (2) Structural Capital: It is represented in information systems, structure, patents, copyrights, copyrights, and trade name or trademark protection. Roos (2001) emphasized that structural capital consists of administrative processes, information systems, organizational structure, intellectual property, and any other intangible assets that it owns.

▪ 12) The organization, but it does not appear in its general budget, as well as other dimensions such as: information systems, databases, policies, procedures, and administrative processes (Louisa, 2016: 59). Grantman also stressed that structural capital represents a more comprehensive and in-depth view as it consists of the systems, procedures, structure and strategies by which the production system is operated and the products are delivered to customers on time and in accordance with environmental variables (Al-Noor, 2017).

▪ 13) Relational Capital Customer: It is represented in the customer's satisfaction, loyalty, and the extent to which the customer is retained by meeting his desires, participating in the organization's work, and building bridges of cooperation, love and familiarity with him. It also represents the value of the relationships that the organization maintains with its customers through increasing customer satisfaction and loyalty, and the extent to which it is retained, by paying attention to his suggestions, listening to the complaints submitted by him, finding effective solutions to them as quickly as possible, and

his participation in its business and deals or establishing strong cooperative relations (Obaid, 2000: 13). The client capital expresses the knowledge related to the stakeholders, especially the customers influencing the life, continuity and survival of the organization, and the core of the client capital component lies in the existing knowledge of customers that must be acquired to ensure the continuation of their loyalty to the organization and to gain new customers. Accordingly, the literature depicts that the reflections of the strength of human and structural capital are directed towards developing the relationship with customers to achieve their satisfaction and loyalty by identifying the knowledge required to meet their needs, desires and aspirations, and forming a network of strategic alliances with the external environment with the aim of appealing to the organization, gaining its approval and pushing it towards building strong interactive relationships with Clients (Solitander, 2006: 198)).

▪ **Second: The concept of Total Quality Management, its dimensions and programs (Total Quality Management)**

▪ A- The concept of Total Quality Management (TQM). The traditional administrative patterns are no longer valid methods for higher education institutions, especially since the current stage of the world's life is characterized by rapid development and change, which makes the task of universities and colleges in our society more accurate and more difficult than before. Universities and colleges must notice this development Rather, it must precede it and lead it to direct the sound face in every direction to serve humanity, despite the tendency of some universities, including American universities, towards the quality of the performance of colleges and universities in the 1930s, between the researcher (Newz and Andy Charles) who is the first to draw attention to issues of gender and quality in education And planning and not being satisfied with the quantitative aspects to raise the quality of institutions (Al-Rubaie, Magdy, Kazar: 2019) and in 1969 the International Institute for Educational Planning of the UNESCO held a symposium that included the world's leading economists and educators. This symposium left behind a great impact that is still echoed in educational circles even Now (UNESCO: 1995 157,152)

▪ It is to achieve the satisfaction of the current and prospective subscribers by monitoring all their desires and needs related to the service provided and the interaction of the costs of the actors in the organization (Hammoud: 2005). Also, Total Quality Management was defined as mentioned in (Mustafa, 2015) as: a contemporary management philosophy whose essence is to inspire the expectations of the participants and workers , And aims to continuously improve operations to achieve the desires and expectations of the subscribers through trained work teams, and quality includes all stages of work from the first step until dealing with the subscriber.

▪ B- Dimensions of Total Quality Management

▪ Support and commitment of the top management to the philosophy of quality / and there is complete agreement on the importance of supporting the top management and its commitment to the success of TQM. Some have indicated that the importance of supporting the top management is beyond merely allocating the necessary materials as each organization sets a set of precedents.

The organization is unable to demonstrate its long commitment to support the program and will not succeed in implementing TQM (Falaq 2013, 270).

▪ Continuous improvement in the quality of processes, procedures and administrative systems / which is a set of processes for introducing continuous small innovations on the product or service, and the product quickly becomes, with the accumulation of these improvements a new product that is completely different from the original product, as it is a philosophy of continuous search for the necessary methods to improve the processes and it includes identifying The best in terms of applications and instilling a sense of ownership by workers, and sometimes in reducing the time required to perform the work, reducing waste or reducing the number of injuries (Al-Jubouri, 2010: 207).

▪ Strategic Planning for Quality / Strategic planning for quality is one of the most important features of modern management, and it is a process that the organization undertakes to define its strategy or make decisions about allocating its resources to follow this strategy in order to make future decisions or determine the future direction, and is meant by strategic planning for total quality or what is called engineering Quality is the process of setting major goals to obtain long-term quality, in addition to taking major steps to achieve those goals with the development of indicators and measures of the level of performance (Odeh, 2019). The term ISO represents an abbreviation of the name of the International Organization for Standardization, which is: International Organization of Standardization and its headquarters The international organization in Geneva, Switzerland, as it includes more than one hundred countries in its membership, and it is concerned with standardizing specifications and standards in the world, and the number 9000 symbolizes a series of specifications that specialize in quality management in industry and services, and it is the most famous in the world for its association with international trade. Planning for quality depends on specific steps, namely: Muhammad (2003).

▪ A - Determine the beneficiary or the customer.

▪ B - What are clients' needs and expectations.

▪ C - developing the product and service at the level of the customer's needs and expectations.

▪ D - developing systems that allow the organization to add the required skills to provide quality.

▪ E - a different coverage Students obtaining skills and knowledge transferable to the university

▪ Benefits of achieving total quality management in universities as between them (Awad: 2006, 20)

▪ - Quality control, evaluation, development and review of curricula

▪ - Evaluating performance in the university educational system and developing performance measurement standards

▪ Providing services to students

▪ - Developing teamwork style

▪ Creating organizational structures that focus on the quality of education in universities

- The third topic: analysis of research results and hypothesis testing
- This topic includes an analysis of the field aspect using descriptive and inferential statistics through testing the hypotheses put forward at the level of application of some institutions of higher education and scientific research in Baghdad.

▪ **First: the research community and its sample**

▪ The field of research consists of (35) institutions affiliated with the Ministry of Higher Education and Scientific Research in Baghdad alone. A community has been selected for the purposes of testing the proposed hypotheses of (5) universities, constituting (14%) of it. The universities are Baghdad, Al-Mustansiriya, Al-Iraqiya, Nahrain, and Baghdad of Science Al-Iqtisadiyah University, which is the oldest and the best in accepting students for the past five academic years. The sample of the study reached (83) teachers and employees, and they were selected by random stratified method from each university (17) individual, and where (2) a questionnaire was neglected from the analysis due to lack of answers.

▪ The percentage of males in the studied sample was (72%) and females (28%), and most of their ages were more than (40) years, exceeding (69%). The years of service for the research sample were more than (10) years in university work, up to (79%). The percentage of those who were teaching was (17%), and with the rank of employees (83%). The research has been recorded in the fact that (84%) of the sample are graduates of Iraqi universities, and the rest (16%) are graduates of foreign universities, with different specializations that fall between management sciences, law, mathematics, engineering, dentistry, pharmacy, science, chemistry, biology and physics.

▪ **Second: the research tool and field study procedures**

▪ The two researchers used the questionnaire as a research measure, and they developed it as a tool for collecting data and information, after reviewing the theoretical literature related to intellectual capital and total quality management. The research tool was presented to (5) arbitrators specialized in management sciences with the rank of professor and assistant professor in the specializations of comprehensive quality management and human resources management at the College of Business and Economics at the University of Baghdad, who gave a good opinion in drafting the paragraphs of the questionnaire, and its suitability for the field for which it was developed, either By agreeing to the importance of the difficulty, modifying its wording, or deleting it because it is not important. The majority opinion was taken in the judging process, and the content was validity (97%) to be in its final, predictable form with scientifically acceptable results.

▪ And statistically, the coefficient of stability of the tool was extracted using the Cronbach alpha equation. Table (1) shows the statistically achieved stability coefficients for the two variables of the resolution, which were very high, making them measurable and suitable for scientific research purposes in the field of testing the proposed hypotheses within the limits of the current study.

Table (1) Reliability coefficients for the two variables of the search tool by Cronbach-Alpha method

variable ient	Number of paragraphs	Stability coeffic
(1)Intellectual capital	40	0.90
(2)Total Quality Management	9	0.86

Source: From the researcher's work, depending on the field study data
The current field study was also conducted according to scientific steps arranged according to the standards of specialized studies in organizational behavior, starting with the preparation of the research tool in its final form, and identifying the individuals of the research sample. The questionnaire remains valid for analysis, and it is the questionnaire that formed the research sample, as was previously explained. Then the data were entered and processed using the Statistical Package for Social Sciences (SPSS). Finally, the results were extracted and analyzed using descriptive statistics to identify general data for the type of research sample, arithmetic averages, standard deviations, percentages and coefficient of variation, in addition to using the correlation and regression coefficients to test the two hypotheses presented..

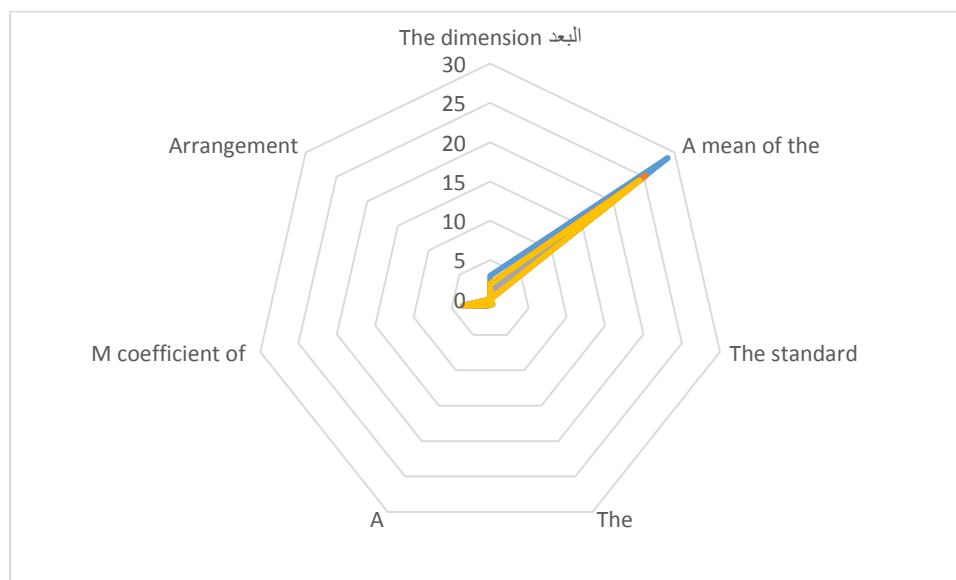
Descriptive statistics of the results of intellectual capital and its

Table (2) Descriptive statistics of the results of intellectual capital and its dimensions in institutions of higher education in Baghdad

Arrangement	M coefficient of variation	A evaluation	The percentage	The standard deviation	A mean of the arithmetic	البعد The dimension
Human	3.35	0.968	%66	Center	28.9	3
Structural capital	3.41	0.863	%68	Center	25.3	2
Client capital	3.60	0.765	%72	good	21.3	1
Intellectual capital	3.45	0.838	%69	Center	24.3	2

Source: From the researcher's work, depending on the field study data

Figure -1
Descriptive statistics of the results of intellectual capital and its



From the work of the researcher based on the data of Table No.2 It is evident from Table (2) that the level of evaluation of intellectual capital in higher education institutions in Baghdad from the perspective of teachers and employees in them has reached an arithmetic mean of (3.45), and a corresponding percentage (69%), with a standard deviation of (0.838), which indicates the average perception of resources. However, the degree has not reached a high level of acceptance, to the point that the teachers in it are considered an intellectual capital, especially the presence of approximately (31%) of the sample individuals who emphasized the loss of higher education institutions in Baghdad standards of interest in knowledge, experiences, abilities and innovations, which is a high percentage. About a third of them, which may negatively affect their future and the ability to enhance their desired role in the advancement of educational reality in Iraq. The order of the dimensions of intellectual capital appeared in contradiction to what is supposed to be in knowledge organizations such as the colleges concerned with science, learning and education, so that the order of relative importance appeared according to the sample's perspective, customer capital first, then structural capital, and then lastly, human capital.

At the same time, the arithmetic mean, standard deviation, percentage, and coefficient of variation were extracted for the dimensions of total quality management specified for the institutions of higher education in Baghdad, in order to find out the extent of interest in them and their importance according to the perspective of their teaching and staff, and according to what is presented in Table (3).

Table (3) Descriptive statistics of total quality management results and its dimensions for higher education institutions in Baghdad

The dimension	Arithmetic mean	Evaluation	percentage	A standard deviation	Coefficient of variation	Arrangement
Support and commitment of senior management	3.60	good	%72	0.860	23.9	1
Continuous quality improvement	3.55	good	%71	0.888	25.0	3
Strategic planning for quality	3.21	center	%64	0.795	24.8	2
Total Quality Management	3.83	center	%69	0.783	20.4	1

Source: From the researcher's work, depending on the field study data
 It is evident from Table (3) that the level of Total Quality Management in higher education institutions in Baghdad has achieved an arithmetic mean (3.83), a standard deviation (0.783), and a percentage (69%), which indicates a middle level of feeling the importance of caring for the local community and developing improvement programs And its role and adding value to workers, students, government and other stakeholders, as well as taking into account the legal, economic and ethical aspects in its application and implementation on the studied practical reality. There is an emphasis found by the surveyed sample, which is that about (31%) confirmed that educational institutions do not go towards comprehensive quality management, especially with regard to strategic planning for quality in them.

This could be due to reasons related to what the Iraqi society is going through in general, and higher education institutions in particular from difficult circumstances and many value challenges that have affected their integrated approach towards the beneficiaries of their services. Finally, TQM as a variable according to the sample's perspective has indicated that it is more important than the intellectual capital itself. And in places, under the current circumstances, the work of total quality management by educational institutions should take place in the presence of the current human resources, even if they are not at a distinct intellectual capital level.

▪ **Fourth: To test research hypotheses**

The first main hypothesis indicated that there is a significant correlation between enhancing the role of intellectual capital through its dimensions (human capital, structural capital, client capital), and managing the overall quality of higher education institutions in Baghdad through its dimensions (support and commitment of the higher management to the philosophy of quality, improvement Continuous quality in processes, procedures and administrative systems, strategic planning for quality). Table (4) shows the results of the analysis of the Spearman Correlation Coefficient between intellectual capital and total quality management, and it was confirmed at the macro level that there is an acceptable statistical correlation with an approximate mean degree between them, which was reflected by the coefficient that reached (0.63) at a significant level (0.01).), And under the degree of freedom (81).

The result confirms the acceptance of the first main hypothesis with the three secondary hypotheses branching from it in light of confidence in the verified decision (99%) that the quality of higher education institutions in Iraqi society improves with the presence of enhancing the role of intellectual capital in them in its three areas: developing human capital and activating structural capital, And activate the customer capital. The researcher believes that the intellectual capital in Iraqi colleges can cast a shadow over the development of the TQM system if it searches for what distinguishes it in terms of enhancing the role of intellectual capital from the rest of the many colleges in Iraqi society, and in a way that creates a spirit of competition between them in the field of honorable competition that pours In the interest of scientific development.

Table (4) The relationship between intellectual capital and total quality management For institutions of higher education and scientific research in Baghdad

Independent variable	Total Quality Management
Dependent variable	
Intellectual capital	0.63
Human capital	0.53
Structural capital	0.56
Client capital	0.77

Source: From the researcher's work, depending on the field study data.

The level of significance (0.01) sample (83)

Within the framework of the inferential treatment steps for the study hypotheses, and after analyzing the relationship between enhancing the role of intellectual capital and total quality management, the study plan and its hypotheses require determining the level of influence between them according to what was reported by the second main hypothesis to verify the impact of intellectual capital (through its dimensions human capital Structural capital, customer capital) in the adopted variable represented by total quality management (through its dimensions support and commitment of the top management to the quality philosophy, continuous improvement in the quality of processes, procedures and administrative systems, strategic planning for quality). The researcher used a multiple regression analysis, and the results shown in Table (5) indicated that there is a significant effect of intellectual capital in its three dimensions on total quality management at the level of higher education institutions.

The calculated value of (F) was (25.35), which is greater than its scheduled value of (2.37) at two degrees of freedom (3, 81), and the value of the coefficient of determination for the model as a whole was (0.397), which explains the percentage of (39.7%) of real contribution To enhance intellectual capital by measuring the three dimensions of improving the overall quality management of higher education institutions in Baghdad, with a corresponding (60.3%) explanation for other variables not present in the current research model, which is a large percentage that other researchers need to search and test in order to obtain strength To influence the important dependent variable, which is Total Quality Management.

A look at Table (5) shows beta coefficients (B), and testing (t) for each dimension of intellectual capital in TQM, and the highest impact on it, was done through activating the role of client capital, then activating the task of capital Structural, and ultimately customer capital development. Perhaps it is useful to discuss it in light of the results achieved that confirm that the great challenges that higher education institutions face in Baghdad have increased the intensity of competition between them and their presence at risk.

What threatens it, represented by the specter of collapse and fall, and what makes that related to its survival with improving its capabilities in the field of total quality management by changing its strategy, management culture and the quality of its intellectual capital.

The departments of higher education institutions in Baghdad are keen to enhance the role of intellectual capital in their administrative, organizational and environmental systems in pursuit of the performance of their work and increase the level of profitability for quality by creating what distinguishes them in the application of systems of law, ethics and economics and assessing future risks resulting from their application, given the complexity of intellectual capital in its various dimensions . Intellectual capital has emerged to overturn the balance of power in organizations in general and educational institutions in Baghdad in particular, and it provides appropriate solutions to make better use of human, organizational and environmental resources in taking the relevant right with a great competitive advantage represented by Total Quality Management. In any case, the survival and continuity of higher education institutions in Baghdad

depends (39.7%) on their possession of intellectual capital, which has become the decisive factor that creates the added value for all its resources, which in turn is reflected in improving the comprehensive quality management that ensures the continuity in its growth, progress and obtaining leadership in Iraqi educational market. And it has been proven that activating the role of client capital has a stronger impact than developing human capital, and activating structural capital in improving the overall quality management of higher education institutions in Baghdad.

Table (5) The influence relationship between intellectual capital and total quality management For institutions of higher education and scientific research in Baghdad

The value (t)	Beta value (B)	Standard error	Independent variable
Intellectual capital	0.997	0.763	5.035
Human capital	0.793	0.520	2.805
Structural capital	0.809	0.66	2.964
Client capital	0.985	0.783	2.744

Source: From the researcher's work, depending on the field study data.

The fourth topic: conclusions and recommendations

First: the conclusions

- 1) Complementing the requirements of scientific research, and based on the researcher's findings, he presents a number of conclusions and recommendations necessary to improve the performance of higher education and scientific research institutions in Baghdad.
- 2) The existence of an impact to play the important role of enhancing intellectual capital in supporting the overall quality management of higher education institutions in Baghdad through its main dimensions (human capital, structural capital, client capital) that constitute a prerequisite for the performance of its mission in society. Changes in its external environment require extrapolation to its future and the development of appropriate strategies.
- 3) The emergence of deficiencies among faculty and staff in their understanding of intellectual capital and its basic dimensions (human capital, structural capital, client capital) as explained by personal interviews conducted with them, and is matched by a strong awareness of the overall quality management of higher education institutions for their workers in a manner that requires rethinking of Its implications for the future. 5) The study found that intellectual capital is an appropriate way to miss opportunities for higher education institutions to lose societal superiority and implement their strategic

vision in stimulating cooperation between workers to motivate them to achieve higher achievement and ensure competition between them to obtain learning and educational development opportunities within the framework of the existence of standards for the overall quality management of the corresponding organizations.

4) There is a high conviction that supporting the intellectual capital of institutions of higher education and scientific research requires achieving the standards of total quality management.

Second: Recommendations

1) That the success of applying the principles of total quality management necessarily depends on the level of conviction, commitment and support of the top management first of the comprehensive quality management approach in order to implement the plans and programs of total quality management in higher education institutions.

2) It is incumbent upon the institutions of higher education and scientific research in Baghdad to pay attention to the role of intellectual capital as it strengthens its impact in improving TQM, while making it part of its organizational culture so that it can be used seriously to achieve its strategic objectives in light of the intense competition between them on the one hand, and with the external environment of On the other hand.

3) The importance of attracting teachers and creative employees, motivating them and evaluating them to become a source of strength for the organization in seizing the opportunities available to the universities belonging to it within the framework of building and developing the distinguished human capital, with their scientific knowledge, experiences, various skills, and distinguished innovations.

4) The need to make building intellectual capital and developing comprehensive quality management for education institutions in Baghdad a fundamental issue in its strategic vision for the distant future, while preparing appropriate training programs for its senior management leaders, in order to develop the dimensions of intellectual capital in them and refine their talents in order to achieve all that is new Long-term decisions, strategies and plans.

5) Initiate an operational plan to activate the role of universities affiliated with the Ministry of Higher Education and their interaction with society, especially those organizations, companies, and official and semi-official departments that benefit from their services by providing research

Studies, consultations and courses in continuing education related to activating its charitable and voluntary role for the development of continuous improvement of comprehensive quality and related to strategic planning for quality in a manner of coordination and meaningful community cooperation.

- In order to generalize the desired benefit, the researcher would like to continue the scientific journey by researchers in universities and colleges that are the subject of the research and the necessity of directing them towards preparing some scientific researches bearing the following titles:

a. The impact of strategic intelligence for administrative leaderships in building intellectual capital by mediating total quality management for higher education institutions in Baghdad.

B. The impact of intellectual capital on the strategic vision and achieving sustainable competitive advantage for higher education institutions

The relationship between strategic decision-making and enhancing the mission of government colleges in the higher education environment in Iraq.

References:-

- 1) Al-Jubouri, Maisar (2010). **Quality Management: Aspects of Theory and Realistic Experiences**, Institute of Public Administration, Riyadh.
- 2) Hammoud, Khudair Kazim, 2005) **“Total Quality Management”**, first edition, Al Masirah House for Publishing and Distribution, Jordan.
- 3) Al-Douri Zakaria Mutlak and Saleh Ahmad Ali (2009), **Empowerment and Economics of Trust in Third Millennium Business Organizations**, Amman, Al-Yazouri Scientific Publishing House for Publishing and Distribution.
- 4) Al-Rubaie Mahmoud Dawood, Majdi Hassan Shaker, Kazar Mazen Hadi (2019) **“Total Quality Management in Higher Education”** Joint Article, Baghdad, Iraq.
- 5) Zouda, Ramzi (2013), **The Role of Intellectual Capital in Knowledge Management: A Case Study in the Sa District**, Master Thesis, Faculty of Economic, Business and Management Sciences, Algeria, University of Mohamed Khoudir.
- 6) Al-Saeed, Hani Muhammad (2008) **Intellectual Capital: A Contemporary Administrative Breakthrough**, First Edition,
- 7) Abdul-Daem, Ali Abd al-Salam (2014), **The Impact of Certain Human Resources Management Practices on Human Capital Investment**, Master Thesis, College of Management and Economics, University of Baghdad.
- 8) Obaid, Nagham Hussein Nehme (2000), **The Impact of Intellectual Capital Investment on Organizational Performance: A Field Study in a Sample of Mixed Industrial Sector Companies**, Master Thesis, College of Business and Economics, University of Baghdad.
- 9) Izzat, Abu Mariya Revolution (2018) **“The Integration of Balanced Scorecard and Total Quality Management and its Impact on Achieving Competitive Advantage in Industrial Companies in Hebron Governorate”**, Master Thesis, Hebron University, Palestine.
- 10) Ali, Asim Shehadeh (2010) **“Human Resources Development in Light of the Application of Total Quality Management Principles in Universities”**, The Islamic University, Malaysia.
- 11) Al-Anzi, Saad Ali (2015), **Elements of Power in Leadership**, Baghdad, Adnan House and Library for Publishing, Distribution and Printing.
- 12) Al-Anzi, Saad Ali Hammoud, and Saleh, Ahmed Ali (2009), **Intellectual Capital Management in Business Organizations**, Amman, Al-Yazouri Scientific Publishing House for Publishing and Distribution.
- 13) Odeh, Kassir (2019) **“Strategic Planning for Total Quality (TQM) and its Relationship to Functional Performance under ISO 9001 Standards”**, thesis, University of Oran 2, Algeria.
- 14) Awad, Muhammad, (2006) **“Total Quality Management in Higher Education Institutions and Information Centers,”** First Edition, Al-Maysar Publishing House, Amman, Jordan.

- 15) Falaq, Saliha (2013). Total Quality Management as an Entrance to Increasing the Competitiveness of Banks, *Journal of Ijtihad for Legal and Economic Studies*, University Center of Tammantgust, Algeria, vol 2
- 16) Louaiza, Ferhati (2016), The Role of Intellectual Capital in Achieving the Competitive Advantage of Economic Institutions in the Light of the Knowledge Economy, Algeria, Faculty of Economic, Business and Management Sciences, University of Mohamed Khoudair, Master Thesis
- 17) Muhammad bin Abdulaziz, Al-Omairah (2003), The Relationship of Total Quality with Job Performance in the Health Sector. Master's Thesis in Administrative Sciences: University of Riyadh.
- 18) Mustafa, Ahmed Sayed, "Total Quality Management and ISO 9000 A modern guide to quality and competitiveness with the translation of texts of the concepts and guidelines of the ISO organization", Egypt. 2005
- 19) Al-Noor, Sulafa Al-Tayyib Mustafa (2017), The Role of Intellectual Capital in Achieving the Competitive Advantage of Banks in Sudan, Master Thesis, College of Graduate Studies, Sudan University of Science and Technology.
- 20) Al-Halshmoun, Abd Al-Rahman Hisham (2015) "The Degree of Implementation of Total Quality Management Standards in the Hebron Electricity Company" MA Thesis, Hebron University, Palestine.
- 21) Ghorbani, Mohmood, Mofaredi, Baratali and Bashiriyah, Somayeh, (2012), Study of the relationship between intellectual capital management and organizational innovation in the banks, *African Journal of Business Management*, Vol. 6 (15) PP. 5208 - 5217
- 22) Al-Ali, N. (2003), *Comprehensive Intellectual Capital Management: Step by Step*, John Wiley & Sons, Inc., Hoboken, New Jersey.
- 23) Ousama, A. Hammami, H. and Mustafa, A. (2014), Intellectual Capital and Islamic Banks Performance in the GCC, 6th European Conference on Intellectual Capital ECIC 10-11 April.
- 24) Daft, Richard, L., (2003), *Management*, 6th, ed., Publisher Thomson, South-Western, New York.
- 25) Stewart, T.A. (1999). *Intellectual Capital: The New Wealth of Organizational*, New York: Doubleday - Currency.
- 26) Solitander, M. (2006), Balancing the Flows: Managing the Intellectual Capital Flows in Inter - Organizational Projects, *The Electronic Journal of Knowledge Management*, VOL. 4, No.2.
- 27) Smith (2011), *Defining corporate social responsibility: a system approach for socially responsible capitalism*, University of Pennsylvania,, P11.

أثر رأس المال الفكري على إدارة الجودة الشاملة لبعض مؤسسات التعليم العالي والبحث العلمي في بغداد

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مستخلص البحث

يتمحور غرض البحث وهدفه حول تشخيص رأس المال الفكري بوصفه المؤشر المنطقي لدراسة أحد ممارسات إدارة الموارد البشرية الفاعلة، ودوره المؤثر في تحديد إدارة الجودة الشاملة لبعض مؤسسات التعليم العالي والبحث العلمي ببغداد.

ولتحقيق الغرض من البحث تمّ استخدام استبانة قياسية مطورة لجمع البيانات والمعلومات وتوزيعها على العينة المختارة بطريقة إحصائية من مجتمع الدراسة البالغ (5) مؤسسات تابعة لوزارة التعليم العالي والبحث العلمي ببغداد. وجرى استهداف عينة (83) من التدريسيين وموظفين في مجتمع المؤسسات المبحوث من المشهود لهم بالكفاءة والتجربة والخبرة ضمن قياسات النخبة في إدارة الموارد البشرية المؤهلة للعمل الجاد والكفاء.

وفي ضوء الاستنتاجات المستخرجة الى كون رأس المال الفكري له دوراً مميزاً في تطوير إدارة الجودة الشاملة بتنفيذ الاستراتيجية الشاملة لمؤسسات وزارة التعليم العالي ببغداد. وبالتأكيد ان النتائج التي تم التوصل اليها توضح وسطية توافر البنية الاساسية اللازمة لتعزيز رأس المال الفكري في مؤسسات التعليم العالي ببغداد، ومن أبرز التوصيات التي أكد إليها البحث، إنه من الأهمية بمكان قيام إدارة المؤسسات التابعة لوزارة التعليم العالي ببغداد بتقييم وتقويم موجوداتها الفكرية من التدريسيين والموظفين، ووضع خطة استراتيجية تتضمن تحديد احتياجاتها الحالية والمستقبلية من رأس المال البشري من التدريسيين والموظفين ذوي الكفاءة العلمية وأصحاب شهادات الخبرة والجوائز العلمية وبراءات الاختراع.

المصطلحات الأساسية في البحث: رأس المال الفكري، إدارة الجودة الشاملة، مؤسسات وزارة التعليم العالي والبحث العلمي ببغداد.

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