

## Role of Knowledge Accumulation In Estimating Public Budget In Iraq: A study in Public Budget Department/Ministry of Finance

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### Abstract:

This research aimed to shed light on highlighting the role of accumulating knowledge in enhancing the accuracy of the general budget in the General Budget Department of the Iraqi Ministry of Finance. This research is based on a questionnaire and designed according to a set of scientific sources, and it was distributed to workers in the General Budget Department To the Iraqi Ministry of Finance. After relying on a set of statistical methods in analyzing the data, a campaign was reached from the conclusions that identified a strong positive correlation between the dimensions of knowledge accumulation, and the accuracy of the general budget estimate and based on these conclusions. Proposals were presented regarding the need to train workers in the field Preparing the general budget to increase their capabilities and expertise in their field of work.

**Keywords:** accumulation of knowledge, intellectual capital, budget estimates, budget Department, general budget.

### دور تراكم المعرفة في تقدير الموازنة العامة للدولة دراسة في دائرة الموازنة العامة/وزارة المالية العراقية

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### المستخلص:

يهدف هذا البحث إلى إلقاء الضوء على دور تراكم المعرفة في تعزيز دقة تقدير الموازنة العامة في دائرة الموازنة العامة بوزارة المالية العراقية. هذا البحث مبني على استبيان مصمم وفق مجموعة من المصادر العلمية، وتم توزيعه على العاملين في دائرة الموازنة العامة لوزارة المالية العراقية، بعد الاعتماد على مجموعة من الأساليب الإحصائية في تحليل البيانات، تم التوصل إلى الاستنتاجات التي حددت وجود علاقة إيجابية قوية بين أبعاد تراكم المعرفة ودقة تقدير الموازنة العامة، وبناءً على هذه الاستنتاجات، تم تقديم مقترحات بشأن الحاجة إلى تدريب العاملين من خلال تطوير قدراتهم وخبراتهم في مجال عملهم.

**الكلمات المفتاحية:** تراكم المعرفة، رأس المال الفكري، الموازنة العامة، تقديرات الموازنة، دائرة الموازنة.

## A.Introduction

Knowledge is the competitive advantage that was and still is the most important resource, and its embarrassment for organizations. This important resource can leave the organization's holder and forfeit it. The knowledge that he owns will leave with him forever. This will lead to the organization losing this knowledge, and here the crucial role of the accumulation of knowledge appears. Through its focus on preserving knowledge, preserving it by strengthening it in warehouses dedicated to preserving knowledge, and creating what is known as organizational memory, originally split from the knowledge that intellectual capital possesses, which represents the most effective workforce and is distinct in the organization and is perhaps the most prominent aspect that It depends on the accumulation of knowledge, and its dimensions are the processes that require building future developments, based on data and information, and knowledge collected in the past and current periods, and this in particular applies to financial budgets, which are prepared for future periods of time based on the available data and information used by workers In the budget department, for the purpose of preparing a future financial budget and the course of financial work for the next period, which the government will adopt with regard to the issue of government spending ,How to classify the expenditures of these funds and the sources of obtaining them, and create a state of balance between revenues and payments (Expenditures). Thus,the accumulation of knowledge will be directed towards presenting financial budgets as close as possible to reality, and achieving the desired goal, by providing the allocations planned by the state, and prioritizing public expenditure.

- Research methodology
- theoretical framework
- data analysis
- Conclusions and recommendations

## B.Research Methodology:

❖ **The Research Problem:** The essence of accumulating knowledge concept is based on a number of matters related to acquiring, retaining and retrieving knowledge based on experience and distinct traits, as well as information stored throughout the history of the organization, which can be applied in dealing with financial decisions that represent the essence of

financial budgets, as well as allocating funds to implement The state's counsel, identifying the sources of funds and how to collect them, and this knowledge or information is present in the minds of workers, and the repositories of knowledge of different types, and in light of the foregoing, the research problem arises through the following questions:

1. Is there a significant effect of accumulating knowledge (intellectual capital, organizational memory, and repositories of knowledge) and enhancing the accuracy of budget estimation?
2. is there a significant effect of the accumulation of knowledge (intellectual capital, organizational memory, and repositories of knowledge) in enhancing the accuracy of budget estimates?
3. Does the effect of dimensioning and accumulating knowledge differ in the accuracy of budget estimation?

❖ **The Importance of Research:** The importance of the research is related to the aspect related to the importance of its goals represented by answering the questions that represent the research problem, and the results of testing opportunities that will be dealt with later, and based on the above, the importance of the research will be observed in two aspects:

1. The first aspect: It is the theoretical dimension of research that aims to achieve the benefit of researchers seeking to uncover issues of knowledge accumulation, as well as estimating the general budget, and validating research hypotheses related to the results of diagnosing the dimensions of knowledge accumulation in the General Budget Department of the Iraqi Ministry of Finance.
2. The second aspect: It is the field aspect represented by the expected answers to the research problem in the direction of proving or denying the validity of the research hypotheses related to the results of the accumulation of knowledge in the organization. The research sample enhances the accuracy of estimating the general budget.

❖ **Research objectives:**

1. Providing a theoretical and field study for the General Budget Department of the Ministry of Finance under consideration for accumulating knowledge and its role in enhancing the accuracy of estimating the general budget.
2. Defining the accumulation of knowledge, and defining the administration of the General Budget Department with this concept in addition to defining

the role of accumulating knowledge in enhancing the accuracy of estimating the general budget.

3. Challenging appropriate methods and methods to enhance the accuracy of estimating the general budget by adopting the accumulation of knowledge in the General Budget Department.

❖ **Research Form:** Figure 1 shows the hypothetical Model B of this research, showing the variables under selection, which express the basic implications of the topic, and on this basis a hypothetical model has been built that expresses the relationship between the independent variable and is the accumulation of knowledge and the adopted variable, which is the accuracy of estimating the general budget

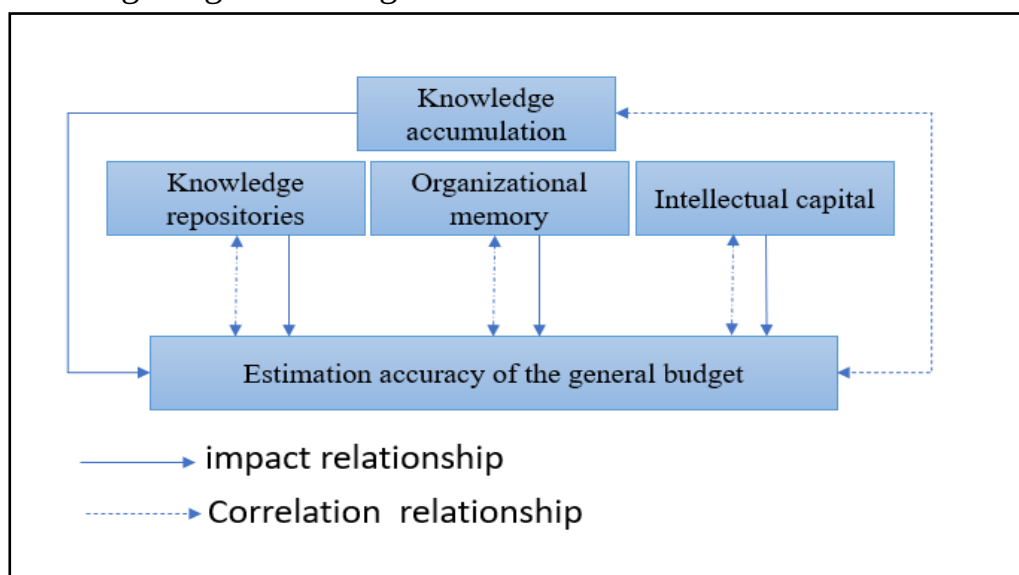


Figure 1: research framework

❖ **Research Hypotheses:**

The first main hypothesis: There is a significant correlation between the accumulation of knowledge and the accuracy of estimating the general budget, and the following sub -assumptions are derived from it:

- There is a significant correlation between memory ,intellectual capital and the accuracy of estimating the general budget
- There is a significant correlation between organizational memory and the accuracy of estimating the general budget.
- There is a significant correlation between the repositories of knowledge and the accuracy of estimating the general budget.

The second main hypothesis: There is a significant effect of accumulating knowledge in enhancing the accuracy of estimating the

general budget and subdividing the following sub-assumptions.

- There is a significant effect of intellectual capital in enhancing the accuracy of estimating the general budget.
- There is a significant effect of organizational memory in attributing the accuracy of estimating the general budget.
- There is a significant effect of knowledge repositories on the accuracy of estimating the general budget.

❖ **Research Methodology and Technologies:** The researchers relied on the descriptive and analytical approaches, in the theoretical aspect of the research as a major position, due to its high suitability for this type of research, as well as the field side starting with the collection of data through a form described by the researchers in Table 1, and with regard to analysis techniques, programming has been adopted Prefab SPSS V.23 According to which descriptive analyses and appropriate tests were performed to study correlations and impact.

### C.The Theoretical Framework for Research:

❖ **Accumulation of Knowledge:** The technical progress in various fields is not only the result of innovation, or innovative activities, but also that the creative and creative activities of other organizations have a role in what the organization is achieving in creativity, based on the knowledge acquired by the organization regardless of the source of this knowledge, whether internal or external, as Progress based on creativity and innovation will not succeed in an individual framework, as it must be a collective cumulative building based on the accumulated knowledge possessed by the organization.

Creating and unifying organizational knowledge will gain success only through the processes of accumulating and disseminating knowledge, which depends on the ability to absorb knowledge, and acquire it through cropping this knowledge, sharing it and receiving it from internal and external parties, as the organization needs these capabilities in order to achieve a successful accumulation of knowledge (Shafritz, E.W. Russell, Borick, & Hyde, 2017, 68).

The fortunes of modern economies are increasingly dependent on knowledge-based activities, as knowledge workers today represent an important and critical aspect of their ratio to the total workers of the organization. As knowledge workers are high-ranking employees, they

apply the knowledge (theoretical and analytical) gained through formal learning, as well as their practices in their fields of work, as knowledge workers are guided and managed in different ways than traditional workers, and they are motivated by challenging tasks and solving unconventional problems Therefore, the organization depends on the relentless and serious endeavor to keep them and keep them in the organization (Shah, Mikesell, & Mullins, 2007, 74).

Intellectual capital carries a great deal of knowledge and experience, accumulated over a long period inside and outside the organization as well as experiential intelligence and the use of this knowledge freely in their organizations .As what they provide solutions to the problems facing the organization are formulated in the form of ideas that are translated into words and dialogue with them and the exchange of knowledge with the designated parties, leading to framing ideas to confront problems and solve them, based on the accumulation of accumulated knowledge, which in turn contributed to providing new knowledge added to the balance Cognitive organization (Zhicheng, Zhuoer, Shing, & Wah, 2016, 81).

The accumulation of knowledge is one of the effective processes that constitute the constitution of the technical path, since actors with multiple technical paths arising over the course of work practices generate knowledge, in addition to the knowledge they possess, and they share and exchange this knowledge through the networks of the actors themselves, as the accumulation of knowledge through the activities of the organization will lead to the creation of new knowledge that will be acquired by other workers in the organization, and these workers will adopt the new knowledge that originally indicated an exception to the accumulated knowledge in the organization (Bhanary, 2014, 52) As the practical knowledge resulting from the new knowledge of the organization contribute to the deviation from the original organization and technical track, and this deviation happened because of the intellectual capital that the acquisition of knowledge, developed, and then transfer them to a new field, and therefore, the actors of the organization can have To deviate from the technical path, and to create a special place for new knowledge, and these outlets lead to applications in various fields, and may lead to abandoning the original techniques in effect.

Individuals working in the organization carry a great deal of

knowledge and experience, in their heads, accumulated over a long period throughout their careers, and even their entire lives, as well as their experimental intelligence, and the ability to use much of the knowledge they possess freely.

Depending on the experience of the workers that extends throughout their lives in previous periods, it is routinely relied on this experience in the face of problems, and if this idea is taken and applied by the workers then the knowledge that the group possesses accumulates much more than what a person can be able to learn individually. So, this knowledge that the group possesses will be added to the knowledge balance, and this balance is used when facing certain problems (Chatenier, Verstegen, Biemans, Mulder, & Omta, 2009, 59).

❖ **Intellectual Capital:** The intellectual capital strategic supplier most critical for organizations seeking to achieve a competitive edge future, I have pointed out (Todericiu & Stăniț, 2015, 76) To intellectual capital as the new wealth of organizations, as well as the material, intellectual knowledge, information, intellectual property and experience that can be put in use to create wealth, as it is known And in the same context the Intellectual capital as comprehensive energy, and the ingenuity of wealth creation by investing knowledge as an essential resource, while he indicated (Zhicheng et al., 2016, 32) However, intellectual capital includes intellectual material, information, intellectual property, and experiences that can be put into practice to create wealth and known (Setianto & Sukmana, 2016) Capital intellectual as sources and intangible capital such as knowledge, experience, philosophy and intangible assets, and human resources that are used to help create and increase the Organization 's value, and knowledge of the form , which leads to the adoption of the organizations on the intellectual capital in achieving its objectives.

While That intellectual capital is considered to be the competencies of an intangible nature that allow the creation and maintenance of the advantage and the competitiveness of the organization, and based on the foregoing (Todericiu & Stăniț, 2015, 24). the researchers believe that intellectual capital is one of the fundamental assets in the organization, and is characterized by intangibles, as well as its ability to achieve an advantage Competitive and competitive advantage of the organization.

❖ **Memory Control Starting:** Organizational memory is a basic concept in organizational learning theories , as well as knowledge management, and its link to knowledge management continued in being a fundamental component in practices related to knowledge management, and the learning (Bhanary, 2014, 22) The concept of organizational memory refers to ensuring the availability of knowledge generated in a particular place, in other place (Chatenier et al., 2009, 13).

It is the preservation and recovery of all past things and remembering them, and this concept relates primarily to the two factors, while the concept of broader and more acceptable organizational memory by researchers in the field of knowledge management indicates that the organizational memory is the acquisition, drawing and retrieval of knowledge and experience from Storage repositories (i.e. memory), which in turn will be reflected in subsequent individual behavior Then indicated that memory (Practices, 2012, 23).

It is the preservation and recovery of all past things and remembering them, and this concept is primarily related to the workers, while the concept of the wider and more accepted memory by researchers in the field of knowledge management indicates that the organized memory is the acquisition, retention and retrieval of knowledge and experience from the storage repositories (i.e. memory), This, in turn, will be reflected in subsequent individual behavior (Bhanary, 2014, 33)

While (Zhicheng et al., 2016, 20) That organized memory is information stored from the history of the organization that can be applied to financial decisions, along with information, and types closer to the contents of memory, can be included, such as knowledge, for example, models, as the contents of memory can be stored in different warehouses, and organizational memory operations, such as search and retrieval, and it works on the base of the memory, which allows the actual use of the memory contents. Organizational memory consists of concepts and information that are not found in the technology of the organization, and the minds of its members and can be partially represented by concrete aids, as well as natural memory, such as databases. It also consists of concepts and information that are organized and represented in the records and computed files, and these have two functions, namely Representation, interpretation, representation may refer to facts only (knowledge, or



experience, to a specific context or situation), while adaptation and learning is strengthened by providing reference frameworks, procedures, guidelines, or a means of collecting previous information to apply to new situations (HÖGYE & McFERREN, 2014, 41).

❖ **Knowledge Repositories:** Over the past three decades managers, the regulatory role of information technology has evolved, and has shifted in the role of handling large amounts of transactions effectively, i.e. providing information to support decision-making activities, and this shift in paradigm is caused by the fact that most organizations of information systems changed their names in the 1970s Past, from data processing (data processing) To management information systems (management information systems) Moreover, the extent of the market in the 1990s accelerated this shift in focus (Nemati et al., 2000: 18) The concepts of Knowledge Base Management System (KNMS), and the repository of knowledge (KW) are analogs to a database management system (DBMS), and data warehouses, for the purpose of arriving at a standard practice for a knowledge base management system, the knowledge base management system (KBMSIT) is a computerized application to manage (create, enhance, and maintain) the knowledge base in its general form and in a totally similar way to the database management system, which is a computerized application for managing the database.

Knowledge repository may be seen as supportive, integrated, and time variable for management decision-making processes, but unlike data repositories, knowledge repositories are a mixture of volatile (volatile) and non-volatile (volatile) objects and components. Volatile and non-volatile of course, it not only stores data, but it also stores information and knowledge employees and consultants are a major repository of knowledge of the organization, but these people leave and take their information and skills with them, and documents such as procedure manuals, store rules and operations, computer software and databases are a repository of knowledge as well, and many organizations are constantly working to include their important business processes in Computer systems. Good documentation needs to identify and understand the location of these materials, and if the organization lacks this, the real repository of knowledge of the organization's operations is often the program code itself.

❖ **Estimating governmental Public Budget:** The budget is one of the most important tools of Fiscal policy and its importance appears as it does not reflect the political program of the government, through which it works to finance its internal and external policies in all its financial, social, economic and political sectors, and therefore the general budget numbers must reflect the orientations of the government and its political and financial program (HÖGYE & McFERREN, 2014, 42) state budget is not only accounting operations, but is more than that, it is administrative decisions in the first place and has specific financial value, and its political, financial and economic goals range on varying degrees of importance.

Despite the trends related to the concept of budget, all directions for the concept of budget come in a single pawn that includes similar elements and ideas, as all modern countries agree on different systems, provided that their financial activities are carried out according to a specific, accurately defined entity that includes the total state (Expenses) and imports, called this entity. The general budget, as the budget is provided as a forecast or forecast of government expenditures and revenues in the fiscal year (Setianto & Sukmana, 2016, 28) Then this concept evolved to be seen as the main public tool that the government can use to control and guide society in all economic, social and political aspects as it is the main tool or mechanism for defining and defining general goals and determining the amount of financial data required to achieve them (Shafritz et al., 2017, 8) While referring (Zhicheng et al., 2016, 16) That the financial budget is a collection and capitalization plan that enables the completion of tasks and the performance of functions for official authorities. The financial budget as a detailed plan related to the acquisition and use of financial and other resources during a specific period of time, as well as being a plan for the future expressed in quantitative or digital form.

❖ **The importance of governmental public budget:** The evolution in the history of modern thought -a relationship- has been perceived clearly by economists, politicians and citizens of the importance of the role of government in economic, political and administrative public and social activity, and here the role of the budget through which comes the embodiment of the implementation of the distribution and allocation of financial resources necessary for this role and to reflect these Importance (Ibrahim & Mohan, 2018, 4).

The general budget is one of the most important government data because it reflects the government's policies in various economic, social and service areas as it is associated with a number of different areas and dimensions, and for this reason the public budget acquires special importance as a result of the nature of the activities and functions of government administration or public administration itself (Mohammed, 2000, 13) While both pointed out (Sharif, 2006, 17) and (Practices, 2012, 19) That the importance of the budget can be perceived through our knowledge of the roles, functions, and goals it achieves, which are summarized as follows:

1. Regulation of obtaining and disbursing public funds, controlling, and controlling them in a way that achieves the specified goals is essentially an administrative control tool for the various authorities.
  2. Setting plans and programs necessary to finance economic and social development projects, which helps decision-makers make good decisions about public affairs and is therefore an administrative tool for economic and social planning.
  3. Intervention to limit the impact of cycles, economic fluctuations, and financial crises, as well as protection from corruption and irresponsible disposal of public money.
  4. Achieving a fair financial, economic, and social balance through the specific disciplines of each sector, category, or region and in a manner that reflects the priorities and priorities of the government in a specific period, therefore it is a coordination tool through which the interdependence is achieved between different government activities.
  5. It is the primary source of information for each party or person concerned to know the position and trends of the government and its Fiscal policy and its allocation and purposes in various economic, social, development and investment projects.
  6. The budget embodies the government's approach, philosophy, and vision towards the national and global financial situation and situation as a comprehensive strategy embodied in the form of numbers, forests, goals, activities, programs, and directions of public activities in all fields.
- ❖ **The functions of the budget of the General State:** Many researchers refer to proverbs (Shafritz et al., 2017, 21) to the presence of many functions that have acquired the character of contemporarily, and which have been achieved by methods, forms, and advanced types of budgets, for example:

1. Specialist: To ensure capital flows in different sectors of the economy and allocate resources between competing requests.
2. Distribution :Ensure the distribution of capital between groups, regions, social classes, and different policies.
3. Stability: That is, making use of public money to achieve economic and political stability, and this requires an accurate estimate of the economic and political impact of government operations.
4. Growth: Through benefiting and investing previous jobs to facilitate economic growth, create wealth and build an economic and political climate that encourages this.
5. Response: Through the establishment and financing of programs, which achieves and responds to the requirements and needs of society that those programs were found to satisfy.
6. Efficacy: that is, achieving the overall goals efficiently and effectively through the outputs of economic and political programs.
7. Reducing costs: by choosing and choosing the best way to achieve these goals by efficient and complete economic means.
8. Communication: by achieving administrative and financial harmony and communication between the various administrative departments and departments.

#### **D.practical Side:**

❖ **Public Budget department overview:** She is responsible for financial planning for the federal budget for the Republic of Iraq in accordance with the central directives and goals of the general plan of the state, the first approval of the budget in its current directions for directives, investment and planning budgets for the public sector, organizing unified tables for current and investment spending, preparing controls and powers to dispose of the complex amounts of the budget, and coordinating them in the light of the directions set for them Approval of the staff of ministries and entities not associated with the Ministry (workforce plans) and ensuring that the necessary funds are approved in coordination with the relevant authorities, contributing to expressing opinions on the financial aspects of the various legislations, preparing statistical tables for the financial situation and the federal budget for the Republic of Iraq, and developing methods of financial planning.

This department is headed by a general manager who holds at least

an initial university degree in the field of the department's work, and the general manager is assisted by female employees with the rank of assistant general manager who holds an initial university degree, and the budget department consists of the following departments: Source: Ministry of Finance official website. Mfo.gov.iq/

1. Expenses.
2. Revenue.
3. Angels.
4. Follow up the movement of operating (expenses).
5. Tracking the movement of investment expenditures.
6. Preparing the budget.
7. Public sector budgets.
8. Coordination and statistics.
9. Calculator.

❖ **Description of the questionnaire:** The research relied on its procedures on a questionnaire form, designed based on a number of sources, and references specialized in the variables of this research, aiming to collect data, and this will contribute decisively to achieving the achievement of the research goals, as shown in Table (1):

| Table (1): Description of the questionnaire                                                      |                          |                        |
|--------------------------------------------------------------------------------------------------|--------------------------|------------------------|
| Approved sources                                                                                 | The number of paragraphs | The searched variable  |
| 1. Accumulation of knowledge                                                                     |                          |                        |
| (Rastogi: 2003)<br>(Bhanawat & Bhanawat: 2012)<br>(Osama & Mustafa: 2014)<br>Source: researchers | 7                        | Intellectual capital   |
| (Wash: 1991)<br>(Stijn & wensley: 2001)<br>(Jennex & olfman: 2003)<br>Source: researchers        | 7                        | Organizational memory  |
| (Nematietal: 2000)<br>(Fireston: 2010)<br>Source: researchers                                    | 8                        | Knowledge repositories |
| 2. Estimating the budget                                                                         |                          |                        |
| (Hoggy: 2002)<br>(Hoyye: 2002)<br>(Mackiewicz etal: 2003)<br>Source: researchers                 | 8                        |                        |

Source: Prepared by two researchers using the sources mentioned.

• DESCRIPTION and diagnosis of research variables:

Table(2) Description and diagnosis of search variables

| Coefficient of variation% | deviation The normative | the middle Arithmetic | Answer scale      |    |                |    |         |   |          |                  |                |    | Variables       |  |
|---------------------------|-------------------------|-----------------------|-------------------|----|----------------|----|---------|---|----------|------------------|----------------|----|-----------------|--|
|                           |                         |                       | Strongly disagree |    | I do not agree |    | neutral |   | Agree    |                  | Strongly agree |    |                 |  |
|                           |                         |                       | %                 | T  | %              | T  | %       | T | %        | T                | %              | T  |                 |  |
|                           |                         |                       |                   |    |                |    |         |   |          |                  |                |    |                 |  |
|                           | a .Intellectual capital |                       |                   |    |                |    |         |   |          |                  |                |    |                 |  |
| 4.06                      | 0.555                   | 4.0619                | 2.1               | 2  | -              | -  | -       | - | 85.6     | 83               | 12.4           | 12 | X <sub>1</sub>  |  |
| 3.99                      | 0.489                   | 3.9897                | 2.1               | 2  | -              | -  | -       | - | 92.8     | 90               | 5.2            | 5  | X <sub>2</sub>  |  |
| 2.22                      | 1.47358                 | 2.2165                | 46.4              | 45 | 25.8           | 25 | -       | - | 15.2     | 15 <sup>th</sup> | 12.4           | 12 | X <sub>3</sub>  |  |
| 3.04                      | 1.38362                 | 3.0412                | 17.5              | 17 | 27.8           | 27 | -       | - | 42.3     | 41               | 12.4           | 12 | X <sub>4</sub>  |  |
| 4.06                      | 0.555                   | 4.0619                | 2.1               | 2  | -              | -  | -       | - | 85.6     | 83               | 12.4           | 12 | X <sub>5</sub>  |  |
| 4.21                      | 0.64450                 | 4.2062                | 2.1               | 2  | -              | -  | -       | - | 71.1     | 69               | 26.8           | 26 | X <sub>6</sub>  |  |
| 4.06                      | 0.5555                  | 4.0619                | 2.1               | 2  | -              | -  | -       | - | 85.6     | 83               | 12.4           | 12 | X <sub>7</sub>  |  |
| 3.6628                    | 0.80795                 | 3.66275               |                   |    |                |    |         |   | 68.31428 |                  | 13.4285        |    | Overall index   |  |
| B - Organizational memory |                         |                       |                   |    |                |    |         |   |          |                  |                |    |                 |  |
| 3.99                      | 0.48936                 | 3.9897                | 2.1               | 2  | -              | -  | -       | - | 92.8     | 90               | 5.2            | 5  | X <sub>8</sub>  |  |
| 4.27                      | 0.66951                 | 4.2680                | 2.1               | 2  | -              | -  | -       | - | 64.9     | 63               | 33             | 32 | X <sub>9</sub>  |  |
| 4.27                      | 0.66951                 | 4.2680                | 2.1               | 2  | -              | -  | -       | - | 64.9     | 63               | 33             | 32 | X <sub>10</sub> |  |
| 2.24                      | 0.67350                 | 2.2371                | -                 | -  | 88.7           | 86 | -       | - | 10.3     | 10               | 1              | 1  | X <sub>11</sub> |  |

• DESCRIPTION and diagnosis of research variables:

Table(2) Description and diagnosis of search variables

| Coefficient of variation%  | deviation The normative | the middle Arithmetic | Answer scale      |   |                |    |         |   |         |    |                |    | Variables       |
|----------------------------|-------------------------|-----------------------|-------------------|---|----------------|----|---------|---|---------|----|----------------|----|-----------------|
|                            |                         |                       | Strongly disagree |   | I do not agree |    | neutral |   | Agree   |    | Strongly agree |    |                 |
|                            |                         |                       | %                 | T | %              | T  | %       | T | %       | T  | %              | T  |                 |
| 2.22                       | 0.69562                 | 2.2165                | 1                 | 1 | 88.7           | 86 | -       | - | 8.2     | 8  | 2.1            | 2  | X <sub>12</sub> |
| 4.06                       | 0.5555                  | 4.0619                | 2.1               | 2 | -              | -  | -       | - | 85.6    | 83 | 12.4           | 12 | X <sub>13</sub> |
| 3.99                       | 0.48936                 | 3.9897                | 2.1               | 2 | -              | -  | -       | - | 92.8    | 90 | 5.2            | 5  | X <sub>14</sub> |
| 3.5771                     | 0.60598                 | 3.55608               |                   |   |                |    |         |   | 59.9285 |    | 13.12857       |    | Overall index   |
| C - Knowledge repositories |                         |                       |                   |   |                |    |         |   |         |    |                |    |                 |
| 4.27                       | 0.66951                 | 4.2680                | 2.1               | 2 | -              | -  | -       | - | 64.9    | 63 | 33             | 32 | X <sub>15</sub> |
| 4.27                       | 0.66951                 | 4.2680                | 2.1               | 2 | -              | -  | -       | - | 64.9    | 63 | 33             | 32 | X <sub>16</sub> |
| 4.06                       | 0.5555                  | 4.0619                | 2.1               | 2 | -              | -  | -       | - | 85.6    | 83 | 12.4           | 12 | X <sub>17</sub> |
| 3.99                       | 0.7686                  | 2.3093                | 1                 | 1 | 83.5           | 81 | -       | - | 14.4    | 14 | 1              | 1  | X <sub>18</sub> |
| 4.27                       | 0.5555                  | 4.0619                | 2.1               | 2 | -              | -  | -       | - | 85.6    | 83 | 12.4           | 12 | X <sub>19</sub> |
| 4.27                       | 0.48936                 | 3.9897                | 2.1               | 2 | -              | -  | -       | - | 92.8    | 90 | 5.2            | 5  | X <sub>20</sub> |
| 4.06                       | 0.66951                 | 4.2680                | 2.1               | 2 | -              | -  | -       | - | 64.9    | 63 | 33             | 32 | X <sub>21</sub> |
| 3.99                       | 0.66951                 | 4.2680                | 2.1               | 2 | -              | -  | -       | - | 64.9    | 63 | 33             | 32 | X <sub>22</sub> |
| 2.0125                     | 0.63075                 | 3.9368                |                   |   |                |    |         |   | 67.25   |    | 20.375         |    | Overall index   |

• DESCRIPTION and diagnosis of research variables:

Table(2) Description and diagnosis of search variables

| Coefficient of variation% | deviation The normative | the middle Arithmetic | Answer scale      |   |                |   |         |   |       |    |                |    | Variables     |
|---------------------------|-------------------------|-----------------------|-------------------|---|----------------|---|---------|---|-------|----|----------------|----|---------------|
|                           |                         |                       | Strongly disagree |   | I do not agree |   | neutral |   | Agree |    | Strongly agree |    |               |
|                           |                         |                       | %                 | T | %              | T | %       | T | %     | T  | %              | T  |               |
| D - Budget estimation     |                         |                       |                   |   |                |   |         |   |       |    |                |    |               |
| 4.06                      | 0.5555                  | 4.0619                | 2.1               | 2 | -              | - | -       | - | 85.6  | 83 | 12.4           | 12 | X23           |
| 4.21                      | 0.64450                 | 4.2062                | 2.1               | 2 | -              | - | -       | - | 71.1  | 69 | 26.8           | 26 | X24           |
| 4.06                      | 0.48936                 | 4.0619                | 2.1               | 2 | -              | - | -       | - | 85.6  | 83 | 12.4           | 12 | X25           |
| 3.99                      | 0.48936                 | 3.9897                | 2.1               | 2 | -              | - | -       | - | 92.8  | 90 | 5.2            | 5  | X26           |
| 4.27                      | 0.66951                 | 4.2680                | 2.1               | 2 | -              | - | -       | - | 64.9  | 63 | 33             | 32 | X27           |
| 4.27                      | 0.66951                 | 4.2680                | 2.1               | 2 | -              | - | -       | - | 64.9  | 63 | 33             | 32 | X28           |
| 4.06                      | 0.5555                  | 4.0619                | 2.1               | 2 | -              | - | -       | - | 85.6  | 83 | 12.4           | 12 | X29           |
| 3.99                      | 0.48936                 | 3.9897                | 2.1               | 2 | -              | - | -       | - | 92.8  | 90 | 5.2            | 5  | X30           |
| 4.11375                   | 0.5702                  | 4.1134                |                   |   |                |   | 80.4125 |   |       |    | 17.55          |    | Overall index |

For the purpose of identifying search variables, and identifying the extent of agreement between the individuals surveyed on the existence of these variables, a number of descriptive statistical tools were used, as in Table.(2)

❖ **Description and diagnosis of cognitive accumulation variables:**

- **Description and diagnosis of intellectual capital:** Discloses the table (2) for variables for the intellectual capital ratio agreement reached (81.472%), with a mean of (3.6627), or a standard deviation of (0.80795) and the coefficient of variation (3.6628%) and notes that the proportion of Agreement on the variables of intellectual capital ranged between (27.6%-98%), as the two variables occurred (x1, xg) Those who indicate that there are many people with experience in the field of financial budgets, in addition to occupying the budget department employees with academic qualifications (Bachelor or more), and they obtained an agreement rate of (98%) for both variables, and an arithmetic average of (4,0619) For both variables, and with a standard deviation of (0,000) for both variables, and a coefficient of variance of (4.06%) for both variables.

- **Description and diagnosis of organizational memory:**

Table (2) discloses that the variables related to organizational memory have an agreement rate of (73.05714%) with an arithmetic mean of (3,55608), with a standard deviation of (0,60598), and with a different coefficient of (3,577%). It is noted that the percentage of agreement on Organizational memory variables ranged between (10.3%-98%), as the variable got (x8) Which indicates the availability of a database containing details of financial budgets that were prepared in the past, as it obtained an agreement rate of (98%) and an arithmetic mean of (3,9897) with a standard deviation of

(0.48936) and a coefficient of variation of (99.3%).

- **Description and diagnosis of knowledge repositories:** Table (2) shows that the variables for the repositories of knowledge obtained an agreement rate of (87,625%), with an average of (3,9368), with a standard deviation of (0.63075), and a difference coefficient of (2,0125%). Note that the ratio agreement on warehouses variables pain Arafa ranged from (15.4%-98%) as obtained variables (x20, x19, x17), Which indicates reliance on the information base greatly when formulating the budget, and that all budgets created by the budget department are stored electronically with the department, as well as that the old employees themselves are an important repository of knowledge repositories in relation to the budget department, as these variables got a percentage An agreement reached (98%), with an average of (3,9897; 4,0619; 4,0619), respectively, and with a standard deviation of (0,555; 0,555; 0,48936) respectively, and with a different coefficient of (4,06%, 4.27% and 4.27%), respectively.

❖ **Description of the variables for estimating governmental public budget**

Table (2) shows that the variables related to the budget estimate obtained an agreement percentage of (97,9625%) and an average mean of (4,113), with a standard deviation of (0.5702) and a different coefficient of (4,113%) who indicate the approval of the annual budget estimate on the budgets of previous years, and that when preparing and preparing for the budget for the coming year, several alternatives are evaluated and analyzed to choose the best ones to achieve the goals previously determined, as these two variables got an agreement rate of (98%), and an arithmetic mean of (4,0619), and a standard deviation of (0,555) and a coefficient of variance of (4 and 06%).

❖ **Test correlations between search VARIABLES:**

Table (3) the overall and partial correlations between search variables:

| Budget estimate | Dependent variable<br>Independent variable |                           |
|-----------------|--------------------------------------------|---------------------------|
| 0.863           | Intellectual capital                       | Accumulation of knowledge |
| 0.939           | Organizational memory                      |                           |
| 0.943           | Arafa warehouses                           |                           |
| 0.97            | The overall index                          |                           |

Source: Prepared by researchers based on the outputs of the (SPSS).



Table (3) shows the correlation coefficients between the accumulation of knowledge variable as the independent variable, with an estimate of the financial budget as the dependent variable, as it is advisable to have a correlation relationship between the accumulation of knowledge, and the budget estimate as the value of the total correlation coefficient amounted to (0.97) A significant value at the level of significant significance (0,05), and at the level of partial correlations between the accumulation of knowledge and budget estimation, it is also clear that all relationships were positive, as the values of partial correlation coefficients (0,683, 0,939, 0,943) respectively.

#### ❖ Test The Effects of Knowledge Accumulation In Budget Estimation:

Table (4) the effect of diminishing knowledge accumulation in estimating governmental public budget

| Values F |            | R <sup>2</sup> | Budget estimate |                    | Dependent variable<br>Independent variable |
|----------|------------|----------------|-----------------|--------------------|--------------------------------------------|
| Tabular  | Calculated |                | B1              | B0                 |                                            |
| 3.9201   | 278.434    | 0.746          | 0.863           | 0.906<br>(16.686)* | Intellectual capital                       |
| 3.9201   | 707.103    | 0.882          | 0.939           | 1.207<br>(26.591)* | Organizational memory                      |
| 3.9201   | 762.818    | 0.889          | 0.943           | 0.930<br>(27.619)* | Knowledge repositories                     |
| 3.9201   | 1501.766   | 0.941          | 0.970           | 10124<br>(38.753)* | Accumulation of knowledge                  |

\* Table prepared by researchers based on program outcomes SPSS  $p \leq 0.05$

- **The effect of intellectual capital in estimating governmental public budget:** Table (4) discloses the relationships of the moral influence of intellectual capital in estimating the budget, as the value of (F) Calculated (278.434), the largest of Tabulated value amounting to (3.9201) at degrees temperature (1,95), and non-abstract level (0.05), and this result indicates the presence of the effect of the independent variable in the approved variable, as it stood at factor Selection ( $R^2$ ) Worth. (74.6) This indicates boil that (47.6%) of the differences interpreted in estimating the budget interpret capital intellectual, and the rest due to random no variables can be controlled, or they are not included originally in the form of regression through the follow-up transaction values ( $\beta$ ) and test (t) It has found that there is a significant effect of intellectual capital in estimating the budget,

and this is illustrated by the calculated value (-) of (16.686) which is significant because it is greater than its tabular value of (658%) at the level of significance (0,05) and at two degrees of freedom (1.95).

**- The effect of organizational memory on estimating governmental public budget:** Table (4) discloses the effects of organizational memory in estimating the budget, as the value of (F) Calculated (707,103), which is greater than its tabular value of (3,9201) at two degrees of freedom (1,95) and at a moral level (0,05), and this result indicates the presence of a significant effect of the independent variable, in the dependent variable, as it reached Parameter value ( $R^2$ ) What is its value (0,882) and this indicates that (88.2%) of the differences explained in the budget estimate are explained by the organizational memory, and the rest is due to random variables that cannot be controlled or that they are not originally included in the regression model, and by monitoring the values of coefficients ( $\beta$ ) and test (t) It found that there is a significant effect of organizational memory in estimating the budget, and this is illustrated by the value of (T) Calculated, the (26.591) which is moral because it is greater than Tabulated value amounting to (10658) India level significantly (0.5) degrees of freedom (1.95).

**- The effect of knowledge repositories on estimating governmental public budget:** Table (4) discloses the relationships of influence of knowledge repositories in estimating the budget, as the value of (F) Calculated (762,818) which is greater than its tabular value of (3,9201) at two degrees of freedom (1,95) or at a moral level (0,05), and this result indicates the presence of a significant effect of the independent variable, in the dependent variable, as it reached a value Coefficient of expansion ( $R^2$ ) Worth (0.889). This indicates that (88.9%) of unexplained differences in estimating the budget interpret knowledge repositories, and the rest due to random variables cannot be controlled, or it is already included in the model gradient, through follow-up transaction values ( $\beta$ ) and test (t) It has found that there is an effect of knowledge repositories on budget estimation, and this is illustrated by the value of (t) Calculated, amounting to (27.619), which is significant because it is greater than Tabulated value amounting to (1.658) at the abstract level (0.05), and degrees of freedom (1.95).

- **The overall effect of the dimensions of knowledge accumulation in estimating governmental public budget:** Table (4) discloses the significant influence relationships of knowledge accumulation in estimating the budget, as the calculated value reached (1501.766) which is greater than the tabular value of (3,9201) at two degrees of freedom (1,95), and at the level of significance (0,05) This result indicates that there is a specific effect of the independent variable in the dependent variable, as the value of ( $R^2$ ) What is its value (0,941) and this indicates that (94.1%) of the differences explained by the budget estimate are explained by the accumulation of knowledge, and the rest is due to random variables that cannot be controlled, or that they are not originally included in the regression model and by following a value ( $\beta$ ) and test (t) It has found a significant effect of the accumulation of knowledge in estimating the budget, filtering this through a value (t) calculated, which is (38,753), which is significant because it is greater than its tabular value of (3,9201). India has a significant level (0,05) and two degrees of freedom (1.95).

❖ **Test the variance of the effect of diminishing knowledge accumulation in estimating governmental public budget:**

Table (5) Results of a stepwise regression analysis

| $R^2$ | Variables                                                              | Stage      |
|-------|------------------------------------------------------------------------|------------|
| 0.889 | Knowledge repositories                                                 | The first  |
| 0.927 | Knowledge repositories,<br>organizational memory                       | the second |
| 0.946 | Knowledge Repositories,<br>Organizational Memory ,Intellectual Capital | The third  |

\* Table prepared by researchers based on program outcomes SPSS.

The results of Table (5) refer to the results of a gradual regression analysis to show the amount of variation of the effect of knowledge accumulation in terms of importance and influence in budget estimation, as the results showed a level of variance in the influence of explanatory variables expressed by the accumulation of intellectual (capital) knowledge organizational memory, stores of knowledge In estimating the budget, it is clear that after the repositories of knowledge alone (0.889) of the changes that occur in estimating, as it is clear that the repositories of knowledge alone explain (88.9%) of the changes in the budget estimate, and that (11.1%) refers to Random variables included in the regression model to become (92.7%), and this indicates an increase in the importance of the

effect of organizational memory in estimating the budget, and after that, it was introduced after intellectual capital, so the explanatory capacity of the regression model increased to (94.6%), and this indicates an increase in the importance of the effect Intellectual capital in budget estimation.

### **E. Conclusions:**

1. That one of the most prominent things that can be concluded is that the accumulation of knowledge (intellectual capital, organizational memory, and repositories of knowledge) is aware of the importance in the budget department and is an important aspect of building and estimating the budget and enhancing the accuracy of its estimates.
2. The results of describing and diagnosing the research variables showed that the accumulation of knowledge dimensions has obtained a relatively high agreement percentage by the respondents, and this indicates that the accumulation of knowledge has a prominent role in the accuracy of enhancing the accuracy of budget estimation.
3. it became clear that the effect of accumulating knowledge in its dimensions (intellectual capital, organizational memory, knowledge repositories) in the accuracy of budget estimation came morally, as the highest effect of knowledge accumulation in the accuracy of budget estimation focuses on the dimension of knowledge repositories and this indicates that the repositories of knowledge, human, paper, and perceptibility, the index contributed greatly to the accuracy of the budget estimate, and then contributed to its strengthening with the greatest degree of accuracy.
4. The results of the gradual regression analysis showed the amount of variation in the effect of the accumulation of knowledge in its dimensions (intellectual capital, organizational memory, knowledge repositories) in terms of importance and influence in enhancing the accuracy of budget estimation, or the knowledge repository variable acquired a high level of importance and impact, on the one hand, and high The effect of organizational memory and intellectual capital on the other hand, and this confirms the results of the analysis of past correlations and impact.

### **F. Recommendations:**

1. The necessity of directing attention towards the relationships that the current research has revealed about its direction and levels, in the framework of two variables, the accumulation of knowledge (intellectual capital, organizational memory, knowledge repositories), and the accuracy of budget estimation.

2. The researchers suggest the necessity of emphasizing the development of skills in the capabilities of the cadres working in the field of financial budgets, through their participation in training courses and access to the latest versions of research and scientific sources to increase their knowledge that contribute clearly to the accuracy of estimating the budgets that they formulate.
3. Providing infrastructure, such as computers, and computer requirements (such as software and assistive devices) that would help to document, store, and retrieve all data and information about previous budgets in order to benefit from them in accomplishing current and future budgets accurately.

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