



# Contractual Budgeting as a Tool for Sustainable Development

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## **Author's contribution**

*The sole author designed, analysed, interpreted and prepared the manuscript.*

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## **ABSTRACT**

General budget of the Iraqi state have a great importance in the lives of most Iraqis, Without them no salaries for employees, retirees, the security services, municipal services and healthy. Despite this importance, it is preparing a manner that lead to the waste of public money, in addition to lead to the phenomenon of financial and administrative corruption. In order to avoid the waste of public money, at the operational and investment budget, budget it is necessary to prepare according to mechanisms contractual budget by:

-Concluding a service contracts, partnership with the private sector (P3S)

-Concluding a contracts (B.O.T) with the foreign companies.

As well as the contractual budget, contribute to reducing the state budget deficit.

*Keywords: Contractual budget; sustainable development.*

## **1. INTRODUCTION**

The resources of the general budget constitute the backbone of the Iraqi state, and that the resources of this budget depend at a rate of more than 80% on revenues generated from the sale of oil, whose prices in the global market have fallen significantly, which has generated a

budget deficit estimated at about 30%, and the country is in an abnormal circumstance as the war on terrorism. It continues and drains the country's financial resources. On the other hand, the country's infrastructure is broken in most sectors. These conditions have been accompanied by internal and external displacement for several million from Iraqi. At the

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same time, there is financial and administrative corruption in most parts of the Iraqi state.

In light of these conditions and the acute shortage of economic resources and the continuous depletion of available economic resources, the method of preparing the general budget of the Iraqi state should be changed in order to address a large part of the problems referred to above, and I think that the planning and preparation of the general budget of the Iraqi state should be according to the contract system method.

Or the so-called contractual budget, as the mechanisms available within the contractual budget, if applied appropriately, can address main aspects flows:

- First: contractual budget providing the country's infrastructure, including schools, universities, hospitals, streets, parks, factories, and others, through the use of some contracting mechanisms applicable in the contractual budget.
- Second: contractual budget reducing, to a large extent, the waste of funds as a result of financial and administrative corruption, after its suitability with the circumstances of Iraq, and the formation of a committee of experts for contracting directly linked to the Prime Minister, and it contracting with solid companies from Japan America and Western Europe, thus can protect Iraqi funds from corruption, thieves and others.
- Third: Improving the services provided to citizens through service contracts with the private or public sector instead of the low level of services currently provided to citizens by government agencies, such as municipal, health and social services.

## 2. RESEARCH PROBLEM

The general budget of the Iraqi state at the present time is prepared according to the traditional method or the items weighted that was applied in 1921 in the United States of America and other countries, after that four methods appeared budget, but Iraq still uses that old method, and this method suffers from:

First: Weak expenses control despite the many routine procedures.

Second: Weak performance procedure evaluation of the implementing agencies of the

projects, and thus the funds are disbursed without obtaining an achievement corresponding to those funds spent [1,2]. Despite the passage of thirteen years and the spending of huge funds, the situation of the country has not changed. Rather, the resting of the infrastructure is greatly consumed, whether it is roads, buildings, health and social institutions and others. It would have been better for the Ministry of Planning to undertake a major campaign to re-engineer operations in all state institutions [3,4]. Can Iraq at this time, especially in those institutions that achieve losses at their operational losses, that cooperation with United Nations organizations, as happened in South Africa and other countries and change from losing companies to profiting companies.

## 3. RESEARCH HYPOTHESIS

The Research is based on Testing the Following Hypothesis,

The use of the contractual budget method in planning and preparing the general budget of the Iraqi state will lead to:

- First: Achieving effective control over the Iraqi funds that are spent annually from the general budget of the Iraqi state.
- Second: Obtaining actual projects or infrastructure that can be measured quantitatively through the use of some contracting mechanisms in the contractual budget.
- Third: Reducing the state's general budget deficit.

## 4. RESEARCH GOALS

The research goals to use a modern method in planning and preparing the general budget of the Iraqi state that will reflect positively on the outputs of the state's general budget. At least we see correct beginnings for social, economic, educational and health development, as well as a clear improvement in the quality of services in the operational side of the budget.

## 5. RESEARCH IMPORTANCE

The importance of the research comes from the abnormal circumstance that the Iraqi state's general budget is going through as a result of the drop in oil prices and the war that Iraq is waging against terrorism, and what drains it of great financial resources, which led to a high deficit

budget and at the same time Iraq's urgent need for basic infrastructure such as schools, hospitals and services Municipal, health and others.

## 6. RESEARCH SOCIETY AND SAMPLE

The researcher relied on published studies and research and also on the questionnaire to obtain data from the 25 research sample, as the questionnaire was prepared to be from two axes. The first deals with the role of the contractual budget in building an effective control system to prevent waste, manipulation and embezzlement of public money, and the second focuses on the contribution of the contractual budget In reducing the Iraqi state budget deficit through

service contracts, P3S contracts, and B.O.T contracts.

## 7. SOURCES OF INFORMATION COLLECTION

The research data was collected from the following main sources:

1. Books, scientific periodicals, references, available websites and studies related to the research topic.
2. The questionnaire, as one of the statistical methods commonly used by researchers, distributed the questionnaire to the sample chosen from faculty, as shown in the practical side later.

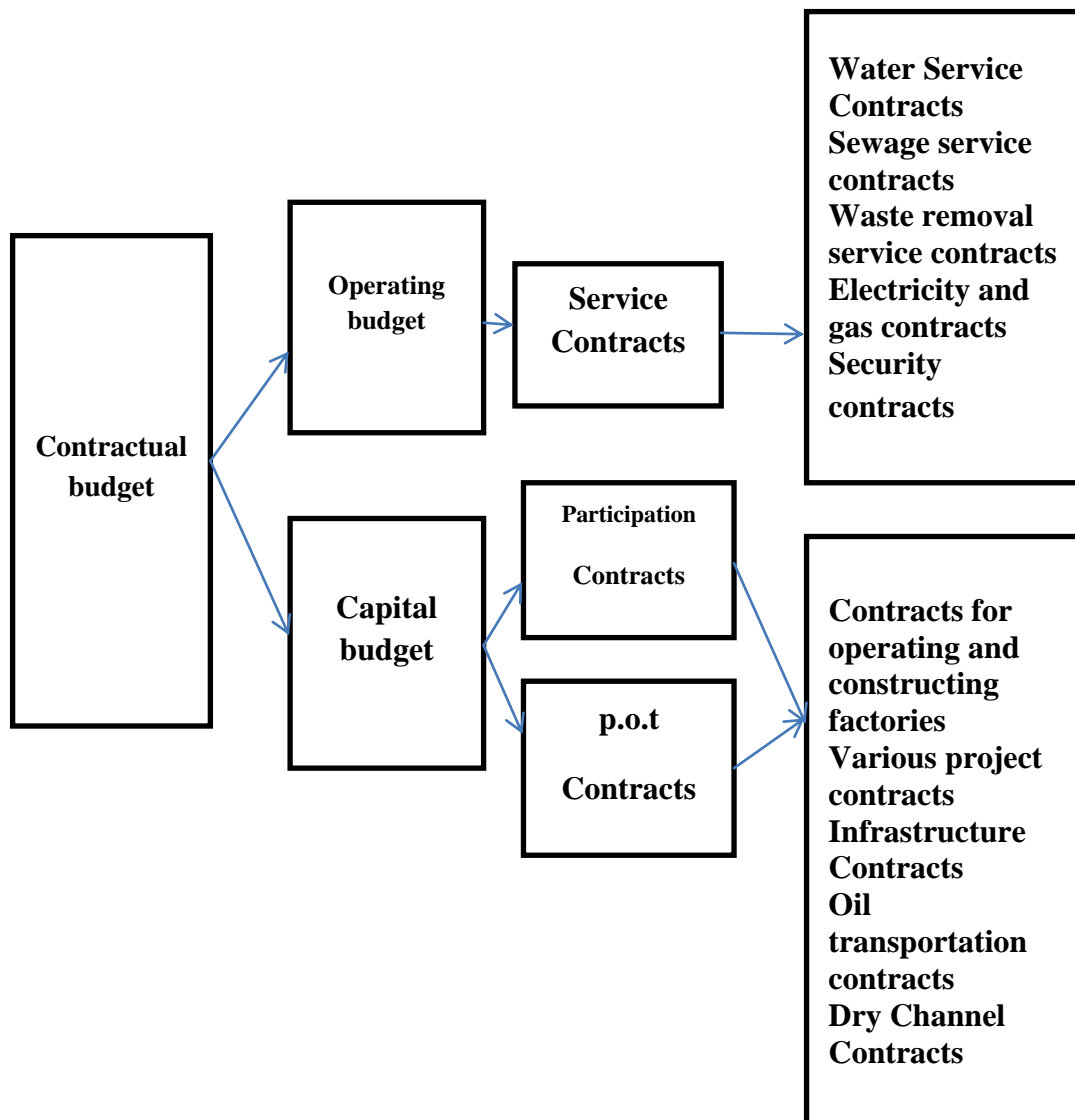


Fig. 1. Research plan

## 8. THEORETICAL FRAMEWORK FOR CONTRACTUAL BUDGET

### 8.1 Concept of the General Budget

The concept of the general budget can be viewed from several angles, There is the legal, political, economic, planning, administrative and oversight concept, However, the state's general budget from the accounting point of view is a statement that shows the expenditures spent by the state and the revenues it obtains, and the state provides through the budget millions of opportunities Work for its employees and provides various healthy, social and security services to wide segments of society.

The importance of the budget can be imagined when the provision of services, salaries, and wages to large segments of society stops, such as employees, retirees, the army, the police, and social welfare. There are five methods for preparing the state's general budget, four of which were invented and applied in the American territories and transferred to the countries of the world, and the fifth was appeared in 1995 in the Scandinavian countries and applied in the countries of Europe, America, China and others.

### 8.2 Methods of Planning and Preparing the General Budget

We will briefly review the methods of planning and preparing budgets with the most prominent advantages and disadvantages, which are as follows: [5, p. 22].

#### 8.2.1 First: Budget of Items or appropriations (the traditional budget)

Its application in America began in 1921 on the basis that it is an executive budget for all sectors of the state. Expenditures are classified on basis a functional such as programs, projects and jobs, as well as an economic classification into current and investment expenditures. On this basis, expenditures of one nature are grouped into sectors or homogeneous groups, main (sections) and sub-section (Items), this method has main disadvantages are:

- 1- Weak control over expenditures despite the many routine procedures and focus on formal and legal procedures, as is the case in the Iraqi state, where expenditures are made on the same project more than once and using several devious methods. For

example, the main street between al-Bayaa and al-Amil neighborhood leading to Yarmouk was spent on it more than three times.

- The first was the muqarnas bricks were placed on both sides of the central island.
- The second the muqarnas bricks were raised from the central carrot and planted began.
- The third was an iron fence.
- The fourth the iron fence was raised and all of these the money was spent on the central carrot of the street without being prevented by internal control and auditing in the Municipality of Baghdad.

- 2- Weak performance evaluation of the entities implementing the projects, as the focus is on expenditures without see to the projects that are obtained, and thus it is difficult to measure the efficiency of the use of economic resources, especially since the projects are sold more than once. USA and many countries abandoned the budget of items a long time ago and applied other methods, but Iraq still uses them in preparing the state's general budget despite its flaws. Any achievement or project, and if it is obtained, it will be at high costs and low quality. Frankly, the continuation of the Iraqi state in adopting the preparation of its general budget on the basis of budget of items or the traditional budget will lead to more waste of available economic resources without obtaining any achievement or project, and this is what we see in Iraq from 2003 until 2021.

#### 8.2.2 Second: performance programming budgeting

In 1954, the American David Novak presented the concept of performance budgeting and how to apply it to the US Department of Defense, then the US Congress commissioned Senator Hoover to study and develop the foundations and rules of the federal budget on the basis of performance budgeting according to accurate cost criteria and indicators. In 1965 the concept of program and performance budgeting appeared and attracted the interest of many from the countries of the world, the United Nations to issue a publication entitled Program Budget. Among the

most prominent advantages of this type of budget is the following: [Maher and others, 36]

- 1- Giving government agencies a clear picture of the cost of investment projects that they implement within the state's general budget during the fiscal year.
- 2- Determining the accountability of the managers of government units for the projects that are implemented during the year within the state's general budget in terms of planning, implementation, performance evaluation and the amount of financial allocations required for those projects, and this matter does not exist in the traditional budget.
- 3- The percentages of actual performance completion are compared with what is planned under the budget and according to the cost standards, which played the role of control and auditing by linking the inputs and outputs with a focus on the achieved outputs.

### **8.2.3 Third: Planning - Programming - Budgeting**

Despite the many advantages enjoyed by the budget program and performance compared to the traditional budget or the item budget and its application in many countries such as the United States of America, Britain, Canada, Sweden, Chile, Colombia, Egypt, Indonesia, India and others. However, this method failed to link between Sub-objectives and main goals and its limitation to short-term projects, and could not comparison between projects in terms of cost and benefit, this type of budget appeared in the US Department of Defense during the period when the ministry's spending increased as a result of the high cost of the war in Vietnam and the lack of resources needed for that spending, and in 1962 The Ministry of Defense adopted this type of budget and succeeded in planning war spending, rationalizing and achieving the highest benefit at the lowest cost by differentiating between alternatives in terms of cost and benefit achieved so that projects that benefit more than cost are adopted [6, p,110].

In 1966, America began to apply this method in the federal budget based on the order of US President Johnson, and this method was used by giant American companies and private sector institutions.

The most important advantages of this type of budget are the following: [7, p,186].

- 1- Studying projects in terms of importance and economic feasibility and choosing the appropriate alternative to implement them based on cost-effective indicators and criteria that take into account the cost-benefit criterion.
- 2- Rationalizing the expenditure of the state's general budget as a result of differentiation between projects and linking between the cost of inputs and outputs for different projects.
- 3- The link between financial allocations for annual projects and long-term projects.

### **8.2.4 Fourth: zero budgets**

There is no doubt that each method of preparing the state's general budget has advantages and disadvantages, so we see the world changing from one method to another based on the economic, social and security conditions it is going through, At the same time what distinguishes this method from other methods, and each method is trying to address the shortcomings of the previous methods, so it is illogical to use to budget of items that appeared more than 90 years ago at present as it is in Iraq.

Texas Computers Company used the zero budget in 1970 in preparing its general budget with the aim of reducing its expenses by 5% as the company is going through unfavorable financial conditions, in 1973 Jimmy Carter learned about this method in the budget and ordered its application in the state of Georgia, where he was governor of the state, and after the success of its application and later became president of the United States of America, he ordered that this method be circulated on the federal budget. In 1977 this method was applied in the European Common Market countries and in many private companies and multinational companies.

The foundations of building a zero budget:

- 1- Studying the projects and programs for the previous fiscal year and identifying the programs that stop and the programs that require continuing to be implemented, and at the same time identifying the programs and projects for the current fiscal year, provided that the principle of cost and benefit is taken into account and the

choice of the best alternative among the available alternatives.

- 2- Allocating the necessary funds in the budget to cover the programs and projects (projects of the current year and the previous year that are required to be completed in the current year after assessing their feasibility) that are started to be implemented at the beginning of the new year.
- 3- Launching the implementation of projects and programs from the beginning of the fiscal year, i.e. from scratch, this leads to an increase in spending at the beginning of the fiscal year for the purpose of exhausting financial allocations [8, p40].

### 8.2.5 Fifth: contractual budget

#### 8.2.5.1 Concept contractual budget

It means preparing the state's general budget on the basis of a system of contracts or deals between an implementing agency (foreign companies, local companies, public sector companies) and the central or federal government, meaning that the state presents its projects to the implementing agencies for the purpose of contracting with them to implement those projects at the lowest possible cost and with the highest benefit. It is obtained and takes into account the time element in the implementation of projects, and this can be measured quantitatively. It is currently used in many countries such as Canada, America, China, Japan and Europe, and the first attempt to implement this type of budget was in 1996 AD in the New Zealand Ministry of Finance [9, p 1].

As for Iraq, there is a peculiarity represented in the lack of experience and the lack of qualified Iraqi companies, which prolongs the implementation period of projects and raises their costs at the expense of the Iraqi citizen and consequently the loss of time. Therefore, the contract must be between a higher committee of experts linked to the Prime Minister directly and international companies In order to touch the citizen the projects that are completed.

#### 8.2.5.2 Advantages of contractual budgeting

- 1- It helps in providing radical solutions to many of the problems facing government departments, in particular the elimination of government red tape, poor performance and low quality of municipal services

provided to citizens, through the conclusion of service contracts on the operational side of the budget [6, p115].

- 2- Re-drafting the state's general budget in a way that helps link the budget to long-term planning for projects that require that.
- 3- It helped to implement government projects efficiently and economically, which leads to the delivery of project outputs to citizens and rationalization of public spending.
- 4- To greatly reduce the financial and administrative corruption that hits its roots in Iraq.
- 5- It leads to reducing the state's general budget deficit by concluding P3S partnership contracts with the private sector and bot contracts B. O.T. in providing the country's infrastructure.
- 6- The mechanisms that are used to identify projects of relative importance to the public will help in the political, security and moral stability of the people, and they are as follows.

- First - The projects planned to be implemented are determined in the budget and then announced to the citizens and discussed in the media, which may require adjusting priorities in the implementation of projects, and that the goal of this step is so that the public is an observer, in addition to the control of the parties supervising contracts.
- Second - The projects agreed upon in the first step above are announced to the international companies, and the countries whose companies are contracted are identified, such as Japan, Germany, France, America, Britain and other developed countries, as this procedure has a positive impact on the psyche of the citizen because of what they suffer from the spread of financial corruption and administrative and lack of confidence in the political class.
- Third - The names and nationalities of the winning companies will be announced, and it is okay for the company's manager to present the most prominent works carried out during the last ten years.
- Fourth - Those companies that win project contracts (service contracts, partnership contracts, bot contracts) are required to not be subcontractors, but the contracting companies are the ones that implement the projects, and the focus is on the quality

of the contract outputs and the time component.

- Fifth - Keeping the regulatory bodies away from the work of companies and holding these companies accountable is done through the application of the contract terms in which the project outputs, time and cost are determined. Experts are sought in defining the objectives of each project. Government interference is prevented in the work of foreign companies so that corruption does not enter them.

### 8.2.5.3 Types of contractual budget contracts

The drop in oil prices has led to a scarcity of the Iraqi state's economic resources and a clear budget deficit, which requires searching for new formulas that will reduce the budget deficit and provide goods and services to large segments of society and also contribute to the implementation of infrastructure. These formulas provide indirect financing to the general budget. The state, which is of different types, but it participates in its entirety by relying on the local or foreign private sector and on public sector companies and foreign companies, and the most important of these formulas are: [5, p29].

#### 8.2.5.3.1 First: service contracts

They are contracts concluded with the private or public sector and related to the operational aspect of the budget in order to provide many types of municipal, health and social services to citizens. These contracts include (contracts providing potable water, cleaning and waste removal contracts, afforestation contracts, postal

service contracts, contracts Health services, telecommunications contracts).

#### 8.2.5.3.2 Second: P3S partnership contracts

Partnership contracts are one of the forms of cooperation between the public and private sectors, according to which the private sector finances, designs, builds, operates and maintains some public services and production projects, according to specific contractual formulas agreed upon by both sides, as in the electricity industry and others. There are many models for partnership contracts with the private sector, the governance can choose the appropriate form according to the nature of the project in which the private sector is to participate, below are samples of the partnership contracts.

#### 8.2.5.3.3 Third: build-own-operate-transfer, (B.O.T)

B.O.T project contracts mean those projects entrusted by the government to a local or foreign public or private company to establish and manage a specific project and bear all its costs under a contract with the government and under its control. After the expiry of the contract term, the ownership of the project is transferred to the state, and the B.O.T contracts are characterized by providing the country's infrastructure in light of the scarcity of economic resources and the accompanying deficit in the state's general budget. The researcher believes that these contracts are very suitable for Iraq if it is better used, and there are many formulas in this The type of contracts are as follows Table 2.

**Table 1. Examples of partnership contracts between the state and the private sector within the contractual budget**

No	Type of contract	The details
1	Personnel provision contract	The private sector provides employment for some projects such as cleaning and maintenance projects.
2	Technical Contracts	The private sector provides the skilled workers, engineers and experts that some joint ventures need.
3	Contracting Contracts	The private sector provides the contracting requirements of materials and others, according to the requirements of the contracting contract. It is not required to be building contracts only, but rather absolute, including building and operating factories.
4	Rental contracts	The private sector provides assets through long-term lease contracts, especially for giant projects such as gas and oil pumping pipelines and their accessories.
5	production contracts	The private sector provides production requirements and operates factories of great importance to large sectors of society.
6	Franchise Contracts	The private sector invests in production or services for a long period and under certain conditions within the concession contract.
7	Mustapha contracts	The private sector invests in certain areas of land for a long period, such as building parks and establishing industrial cities.

**Table 2. Samples of contracts for B.O.T projects between the state and foreign companies within the contractual budget**

No.	Type of contract	The details
1	Build-Own-Operate-Transfer	The foreign company builds the project and operates it for a long period so that it recovers its cost with profits and at the end of the contract term its ownership is transferred to the state.
2	Build- Lease- Transfer	The foreign company builds the project and leases it to others, and after the expiration of the long lease contract and the recovery of the gesture with the profits, its ownership is transferred to the state.
3	Lease- Renovate- Operate – Transfer	The foreign company leases an existing project for a long-term lease, then renews and operates it, and after recovering its cost with profits, and at the end of the lease term, the ownership of the renewal and additional construction operations returns to the state.

[5,p. 31]

*Note that each contract formula is appropriate for a specific sector or activity. For example, Contract No. (1) is suitable for strategic infrastructure projects, such as gas and oil pumping projects over long distances through mountains, deserts, and perhaps seas, and Contract No. (2) is suitable for building giant bridges and highways, And other infrastructure projects, As for Contract No. (3), it is suitable for factories in the industrial sector, the agricultural sector, tourism and others in Iraq.*

### 8.3 Requirements for Implementing Contractual Budget Contracts

First: Given the spread of the phenomenon of financial and administrative corruption in most government activities, and for the purpose of protecting contractual budget contracts from them, a committee of experts that is directly linked to the Prime Minister must be formed. This committee adopts everything related to contractual budget contracts, whether operational or investment, as follows:

- 1- The Experts Committee is responsible for preparing the infrastructure of legislation, laws and regulations that facilitate its work when contracting with internal and external parties in accordance with the contractual budget mechanisms.
- 2- The Committee of Experts receives the proposed projects from the different sectors of the Iraqi state and arranges their implementation according to their importance and the society's need for them after studying the economic feasibility of each project.
- 3- The expert committee is supervises to specialized bodies or committees of a technical nature to follow up on projects that are implemented based on criteria related to cost, quality and implementation period. The comparison

between companies is done in referring contracts based on that, then the responsibility accounting for each project or stage of its stage is determined, and a database is prepared for each A project to facilitate the process of following up on its implementation, identifying deviations that occur and addressing them as soon as possible.

Second: Contracting with solid foreign companies to implement investment contracts according to contracting mechanisms in the contractual budget, provided that each contract is published in the media, and television seminars are organized to explain the expected benefit of each project and the period of completion. The main thing is to achieve transparency, gain the confidence of citizens, and achieve popular control through the Fourth Authority.

Third: Suspending the work of other regulatory and governmental bodies as far as contractual budget contracts are concerned (service contracts, partnership contracts, bot contracts) in order to prevent the infiltration of government red tape and financial corruption into them. Follow-up and monitoring mechanisms are established by the expert committee.



## 9. THE PRACTICAL FRAMWORK FOR RESEARCH

This topic includes the study of the contractual budget variable as a tool for effective control of economic resources, and the contractual budget variable through its mechanisms, a tool for sustainable development.

### 9.1 First: The Methods of Data Collection

To prove the hypothesis of the research, a questionnaire was designed consisting of two axes, the first axis was designed to measure the role of the contractual budget in reducing the phenomenon of financial corruption in the operational and investment activities of the state and consists of ten questions, while the second axis was designed for the use of contractual budget mechanisms in the provision of infrastructure and others in The state's public resources remained scarce and it consisted of eleven questions, and the number of questionnaire forms was twenty-five, and the Five Point Liker Scale was used.

### 9.2 Second: Description of the General Information of the Research Sample

Table 3 shows that the percentage of PhD holders, a certificate from the Higher Institute of Accountancy, a master's degree, and a higher diploma is 64%, 0.4%, 28% and 0.4%, respectively, and that the percentage according to the scientific title, professor, assistant professor, teacher, assistant teacher is 1.2%, 4%, 1.6%, 3.2%, respectively, and this means that the researcher relied on a sample of people with expertise in the field of accounting, business administration and other specializations, and their answers were useful and based on the statistical analysis of the research.

### 9.3 Third: Testing the Validity and Reliability of the Questionnaire

The following tests were conducted on the questionnaire to verify its validity and reliability, as follow:

#### 9.3.1 Content validity test

It means the ability of the questionnaire to express the goal for which it was designed. There are several ways to measure the validity of

a questionnaire, and the most important, most common and accurate is the comparison method (The comparison of Extreme Groups). The idea of this method is to arrange the questionnaire results in ascending order and is divided into two groups, and 27% of the highest scores are selected as the first group and 27% of the lowest scores as a group. Again, the (t-test) are calculated according to the following formula:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$$

The average of the first group and the average of the second group, respectively. They are the variance of the first group and the variance of the second group, respectively. Then we compare the calculated t-value (7.25) with the tabular t-value (1.645) at a significance level of 0.05 and a degree of freedom (1.28). If it turns out that the calculated is greater than the tabular, there are differences between the two averages and the questionnaire is honest in its measurement and vice versa.

#### 9.3.2 Test the stability of questionnaire

Reliability means that the questionnaire scale gives the same results when applied to the study population after a period of time. There are many statistical methods to show the stability of the resolution scale, and they all depend on the idea of the correlation coefficient, and one of the most important, valid and common formulas is the Guttman L.A. formula.

$$R = 2\left(1 - \frac{S_1^2 + S_2^2}{S^2}\right)$$

R: Stability coefficient

$S_1^2$  : Variation in scores for individual questions

$S_2^2$  : Variation in the degree of marital questions

$S^2$  : Variation of scores for all questions

The tabular value of the validity test is (1.645), while the calculated value was greater than the tabular value, and this confirms the validity of the resolution scale. The stability coefficient is more than 0.5, which confirms the stability of the resolution scale.

**Table 3. Shows a description of the research sample in terms of certificate and scientific title**

Certificate/ scientific title	Doctorate	Certificate of the higher institute of accountancy	Master	High diploma	Total
Professor	3	-	-	-	3
Assistant Professor	9	1	-	-	10
Lecturer	4	-	-	-	4
Assistant lecturer	-	-	7	1	8
Total	16	1	7	1	25

**Table 4. Shows the results of validity and reliability coefficient**

Questionnaire	T calculated (honesty)	R stability coefficient
Contractual budgeting as an effective tool for controlling economic resources	8.33	0.79
Contractual budgeting through its mechanisms is a tool for sustainable development	8.26	0.83
Total	8.30	0.82

**Table 5. Shows the extent of the difference in the opinions of the research sample when answering the paragraphs of the questionnaire**

Research axes / scale	Arithmetic mean	Standard deviation	Variation coefficient
Contractual budgeting as an effective tool for controlling economic resources	<b>4.34</b>	<b>0.657</b>	<b>6.6057</b>
Contractual budgeting through its mechanisms is a tool for sustainable development	<b>4.38</b>	<b>0.635</b>	<b>6.8976</b>

**9.3.3 To test the extent to which the opinions of the research sample differ when answering the questions of the questionnaire**

Table 4 shows the degree of difference in the opinions of the research sample regarding each axis of the questionnaire. The coefficient of variation for the axis of the contractual budget as an effective tool for controlling economic resources amounted to (6.6057), while the coefficient of variation for the axis of the contractual budget through its mechanisms is a tool for development in light of the scarcity of economic resources. (6.8976) the reason for the convergence of the coefficient of difference between the two axes is due to the homogeneity of the research sample and the similar vision towards the research topic.

**9.4 Fourth: Analyzing the Answers of the Research Sample**

**9.4.1 The arithmetic mean, standard deviation, and T-test**

Table 6 shows the analysis of the answers of the research sample for the axis of the contractual

budget as an effective tool for controlling economic resources, as the arithmetic average for this axis ranges between 28.386 for the second question (measurement of the cost of services provided by the companies that have been contracted with in order to monitor their selling price that the companies set for those companies). Services such as the prices of services using roads or bridges or health or educational services) and 39.102 for the first question (modern methods of control can be used such as the use of standard costs, benchmarking and budgets for the purpose of controlling projects in terms of cost and performance efficiency), as the analysis shows a discrepancy in the views On the oversight role that the contractual budget can play, everyone agrees on the oversight role of the contractual budget, but the difference is in the degree of effectiveness, and the researcher believes that the reason for the difference is mainly due to the relative modernity of the subject.

Table 7 shows the analysis of the research sample's answers to the contractual budget axis through its mechanisms as a tool for sustainable development, as the arithmetic average ranges between 4.20 for the eighth question

**Table 6. The arithmetic mean, standard deviation and T-test of the contractual budget axis as an effective tool for controlling economic resources**

<b>No</b>	<b>The details</b>	<b>Arithmetic mean</b>	<b>Standard deviation</b>	<b>T . test</b>
1	Modern methods of control can be used such as the use of standard costs, benchmarking and budgets for the purpose of controlling projects in terms of cost and performance efficiency.	<b>39.102</b>	<b>0.581</b>	<b>39.102</b>
2	Measuring the cost of services provided by the companies that have been contracted with in order to monitor their selling price that the companies set for those services, such as the prices of services for using roads or bridges or health or educational services	<b>28.386</b>	<b>0.726</b>	<b>28.386</b>
3	It is necessary to focus supervision on the mechanisms of partnership contracts with the private sector, whether local or foreign, because financial corruption usually infiltrates them.	<b>34.322</b>	<b>0.510</b>	<b>34.322</b>
4	The contractual budget helps reduce deviations between the amounts estimated under the budget's investment spending and the actual amounts allocated to development projects in the budget.	<b>29.032</b>	<b>0.653</b>	<b>29.032</b>
5	Providing public services to citizens by the private sector, such as electricity services, transportation services, or communications under partnership contracts, will reduce the funds that the state contributes to its budget and reduce the financial corruption that accompanies it.	<b>29.698</b>	<b>0.737</b>	<b>29.698</b>
6	The contractual budget contributes to reducing the deficit in the Iraqi state budget as a result of the participation of the private sector through P3S partnership contracts and bearing the costs of providing goods and services or through B.O.T contracts in providing the costs of establishing high quality infrastructure in the country.	<b>29.044</b>	<b>0.707</b>	<b>29.044</b>
7	The contractual budget reduces the state's obligations in the field of insurance as a result of risk sharing between it and the private sector participating in the partnership contracts	<b>29.044</b>	<b>0.702</b>	<b>29.044</b>
8	Provisions of control over the financial payments provided by the state for its share in the partnership contracts with the private sector, and that these payments are compatible with what the participating private sector provides and also in proportion to the percentages of completion of the partnership projects	<b>29.305</b>	<b>0.723</b>	<b>29.305</b>
9	The control of the contractual budget contracts of the state should be far from the influence of the corrupt on the oversight bodies. Therefore, it is necessary that the oversight bodies on budget contracts be linked to the Prime Minister or the Speaker of Parliament to ensure their independence and not influence them.	<b>34.082</b>	<b>0.645</b>	<b>34.082</b>
10	It is necessary to form an effective oversight body to monitor the state budget contracts prepared on the basis of the contractual budget to prevent the penetration of corrupt members of the oversight bodies and others into the contractual budget contract deals	<b>38.570</b>	<b>0.586</b>	<b>38.570</b>
		<b>36.759</b>	<b>0.657</b>	<b>36.759</b>

**Table 7. The arithmetic mean, standard deviation and T-test of the contractual budget axis through its mechanisms, a tool for sustainable development**

<b>No</b>	<b>The details</b>	<b>Arithmetic mean</b>	<b>Standard deviation</b>	<b>T. test</b>
1	The application of the contractual budget requires the availability of legal legislation that serves as infrastructure, such as the investment law and legislation that facilitates the executive authority to conclude P3S partnership contracts or bot contracts B.O.T and others.	4.60	0.500	46.000
2	That the executive authority has a desire to apply modern methods such as the contractual budget when preparing the general budget of the Iraqi state	4.48	0.714	31.360
3	A committee of experts is formed that is directly linked to the Prime Minister to carry out contracting with sober foreign companies away from the procedures currently in force, some of which are part of financial and administrative corruption.	4.32	0.627	34.441
4	The expert committee, after consulting with specialists, determines the appropriate mechanism for contracting with foreign companies, such as the mechanism of B.O.T bot contracts or P3S partnership projects and others.	4.24	0.663	31.960
5	Economic feasibility studies are prepared for the projects that are selected based on their economic, social, technological and security importance to the country before contracting with solid foreign companies.	4.52	0.510	44.322
6	The Committee of Experts determines the duration and costs of completing the project and the companies to be contracted with, provided that the contracts include clear clauses on the quality of the project and penalty clauses when the executing companies delay.	4.28	0.792	27.033
7	The Committee of Experts provides the appropriate ground for preparing the state's general budget according to the contractual budget method, including training the cadre who prepares the budget, as well as the cadre that follows up the implementation of projects, provided that this is headed by one of the experts directly linked to the Prime Minister.	4.28	0.678	31.553
8	Contractual budgeting mechanisms of both types, partnership contracts and B.O.T contracts, will lead to an increase in the capital assets of the Iraqi state, as bridges and other service institutions will eventually become the property of the state and part of its capital.	4.20	0.645	32.533
9	The contractual budget achieves the required harmony between short-term planning (projects that are completed in less than a year) and long-term or strategic planning (projects completed in more than one year).	4.36	0.700	31.143
10	The participation of the private sector with the state in partnership contracts within the contractual budget mechanisms provides the opportunity for the state to provide goods and services that it cannot provide alone and at the same time are of high quality.	4.40	0.645	32.533

No	The details	Arithmetic mean	Standard deviation	T. test
11	It is necessary for the expert committee to have a set of criteria to guide it when contracting, as well as a set of criteria for evaluating the quality of projects completed by local authorities (public sector companies) and foreign companies.	4.48	0.510	31.143
		4.38	0.635	46.418

*Note: The significance level value for all t values is  $P=0.000$  for each of the two axes questions, knowing that the tabular t value is 1.708 at the 0.05 level and 2.485 at the 0.01 level. This means that all t values are highly significant, and there are significant differences for the respondents' answers for each question and for the whole of each axis*

(the contractual budget mechanisms of both types, partnership contracts and BOT contracts, will lead to an increase in the capital assets of the Iraqi state, bridges and other service institutions In the end, it becomes the property of the state and part of its capital) and 4.60 for the first question (the application of the contractual budget requires the availability of legal legislation that serves as infrastructure such as the investment law and legislation that facilitates the executive authority to conclude P3S contracts or B.O.T contracts and others), as the analysis shows The agreement of the opinions of the research sample with what the researcher put forward about the role that the contractual budget plays in providing infrastructure and other projects despite the scarcity of Iraq's economic resources.

## 10. CONCLUSIONS

- 1- The work environment in the government sector at the present time is not suitable in terms of staffing and other requirements for applying the modern method in preparing the general budget of the Iraqi state, so they use the method of balancing items that appeared in 1921.
- 2- The importance of the general budget of the Iraqi state for Iraqi citizens is very great if we know that the salaries of employees in government institutions, retirees, security forces and the social protection network are funded from the state budget and these segments constitute a large percentage of the Iraqi people and that their inputs from the budget drive economic, health and social activity in the country Given the importance of the budget for large sectors of the population, it is necessary to prepare it according to the latest methods.
- 3- The state's general budget, which is prepared according to the method of items or the traditional budget, has contributed to wasting public money in the operational and investment aspects, and therefore the money is spent without obtaining the corresponding achievement. It is mentioned and if a certain achievement is obtained, the costs are high compared to neighboring countries.
- 4- The high percentage of waste, loss, theft and the like in the Iraqi state budget requires the adoption of appropriate quantitative and cost standards in

contracting from local or international companies.

## 11. RECOMMENDATIONS

- 1- The contractual budget contributes to reducing the phenomenon of financial corruption, because it provides the means and mechanisms for internal control that will prevent manipulation, fraud and fraud to a large extent despite the mixture of financial, administrative and political corruption in Iraq.
- 2- The contractual budget contributes to reducing the budget deficit in general and in the investment aspect in particular, as the contracting mechanisms of types, participation contracts and bot contracts B.O.T. It will provide a lot of services and infrastructure without the state paying anything but its share in the partnership contracts. Rather, the projects established under the bot contracts will become, after the end of the contract, part of the assets of the Iraqi state, such as bridges, roads, factories, refineries, giant oil transport projects, as well as the dry canal project to transport Goods through Iraq from Asia to Europe and back.
- 3- The contractual budget, and through its mechanisms, will provide the necessary expertise and important competencies that the country needs, as it is contracting with sober foreign companies to implement B.O.T projects.
- 4- The economic movement that results from the contractual budget as a result of its various contracts will contribute to some degree in reducing the level of unemployment and also in transferring experience and knowledge to the Iraqi environment.
- 5- The contractual budget, if it is well prepared and implemented, it contributes to achieving clear and visible urban landmarks for projects in Baghdad and the governorates, which contributes to raising the morale of citizens and reduces the psychological burdens on them, especially when the citizen compares his destroyed country with neighboring countries that are less wealthy and more urban.
- 6- The contractual budget contributes to creating a modern industrial environment through the transfer of project technology to Iraq and this technology remains

endemic even after the companies leave at the end of their contracts, when a contract is made with Toyota, for example, to establish a car factory in Iraq or contract with American or German companies To manufacture products in Iraq and transfer some of its factories to it, as happens in East Asian countries or in Turkey, Iran and Saudi Arabia, even if on a lesser scale.

- 7- To provide the elements of success for the application of the contractual budget method, it is necessary to create the appropriate environment for it through a set of appropriate regulatory and legal procedures and legislation, and to prepare for this matter at the highest levels of the Iraqi state.

### COMPETING INTERESTS

Author has declared that no competing interests exist.

### REFERENCES

1. Available: <https://grants.nih.gov/grants/how-to-apply-application-guide/format-and-write/develop-your-budget.htm>
2. Available: <http://patriotplaintalk.blogspot.com/2011/04/what-does-contractual-mean-in-line-item.html>
3. Available: <http://council.nyc.gov/downloads/pdf/budget/2014/contracts.pdf>.
4. Available: <https://www.uaf.edu/finserv/omb/budget-planning/>.
5. Jadoua, Yasser Hamid Abbas. The extent to which the contractual budget method can be applied in preparing the Jordanian general budget, an unpublished master's thesis, College of Economics and Business - Gadara University, "Irbid Jordan"; 2015.
6. Salloum, Al-Mahayni. The state's general budget between preparation, implementation and control - a field study of the Iraqi budget, Journal of Administration and Economics, Al-Mustansiriya University, "Baghdad, Iraq"; 2007.
7. Al-Hajjawi, Hussam Abu Ali. Scientific and practical fundamentals of governmental accounting. second edition, Dar Al-Hamid for Publishing and Distribution, "Amman, Jordan; 2004.
8. Al-Obaidi, Al-Jazrawi, Alawiyin. Governmental accounting, first edition, Al-Dar Al-Shamiya Publishing Library, "Amman, Jordan"; 1998.
9. Al-Rashidi, Al-Mufleh. The State's General Budget - Development Has Become a Necessity, Administrative Development Journal, Issue 137, Institute of Public Administration, "Riyadh, Saudi Arabia; 2015.

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