



كلية الهندسة - جامعة بغداد



جمعية كليات الهندسة  
اعضاء اتحاد الجامعات العربية

# The Barriers of Consultants Acquisition in the Iraqi Construction Projects According to Standard Bidding Documents (Developing A Program for The Bids Preparation Stage)

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**Abstract**— The efficiency and experience of the consultant have a significant impact on the success of the construction project, as the construction project needs consulting services, starting from the preparation and planning stage to the stages of delivery, operation and maintenance. Therefore, many countries have recently paid attention to the procurement system for consulting services. This research deals with the obstacles facing the contractual entities in Iraq, when applying the standard bidding document for consultancy service, the practical aspect of the study relied on the initial interviews, collection and analysis of case studies, and then applying and analyzing a five-scale questionnaire, The most prominent obstacles were the low percentage of experience, low application of the document, failure to receive the required training and poor communication with the competent authorities in preparing the document by the contracting authorities, in addition to the impact of the economic and administrative factors of the projects on the application of the document. A program was prepared for the purpose of assisting the contracting authorities to prepare a typical bid request for consulting services in accordance with the required criteria. The proposed program was tested on a case study related to a consultative bid request for a government construction project, and it achieved the required results in preparing the typical bidding documents.

**Keywords**— engineering consultant, standard bidding document, consultancy service bids.

## 1. Introduction

The construction Consultancy Services can be defined as an ideological technology based on innovation and knowledge in the field of construction projects' environment [3]. The construction consultancy service in the project can be described as a value creation activity. 'Value' can be conceptualized as where a consultant uses better technology, combines resources more efficiently, or aids the client to pay a lower price such that the project meets present needs without losing its ability to meet future needs. The importance of choosing the proper consultant for each project cannot be underestimated. The cost of project consultancy services, including design, is typically 1% to 2% of the overall project life cycle cost.

Saving a little portion of the Consultant's cost, possibly one percent or less of the project is not justified taking into consideration the given possible hazards. The client should realize the importance of Consultant selection on the project quality, as a result numerous countries start to enhance their consultant procurement plan, by enlarging the influence of consultant acquisition regulations [5]. The Ministry of Planning in Iraq began working on improving the procurement system of the public sector by issuing a number of methodologies and forms aimed at controlling the government contracting process (The Standard Bids forms (SBDs), Forms for the Procurement Plans, Indications of Performance, Guidelines for Archiving Procedures, and so on). The Iraqi Standard bidding documents were prepared by the General Government

Contracts Directorate of the MoP under the World Bank's supervision. The preparation of SBDCS's forms and procedures were based on the criteria and selection methods used by FIDIC and the World Bank's consultant selection procedures and guidelines. The documents have been modified to comply with Iraqi laws and legislation. In the year of 2016, the Iraqi government mandated the public sector's contractual bodies to apply the standard bidding documents in their government-financed projects [2]

## 2. The Standard Bidding Document for the Consultancy service

Before the obligatory implementation of the standard bidding documents, contracting with consultant in the governmental construction projects were conducted in two ways [1]:

- A. With local consultants according to a contract prepared by the Iraqi engineers' unions called the architectural engineering contract.
- B. With international consultants using (FIDIC contracts for client and consultant model agreements).

When the SBDs came into force in July 2016, the request for proposal for the selection of consultants according to SBDs was applied by the contractual entities for the purpose of obtaining professional services for governmentfunded projects. The MoP collaborated with Multilateral Development Banks ("MDBs") to create the Standard Document, which reflects what are considered "best practices." The importance of the SBDCS lies in the significant impact that the consulting engineer has on the success of the project. The SBDCS is distinguished from other documents related to construction projects by its specialized nature; **Table 1** shows the differences between the application of SBD for consulting services and the application of non-sectorial SBD (SBD for works and SBD for goods and supplies) in construction projects.

**Table 1:** The difference between the types of procurements in the construction projects

Procurement of construction consultancy service	Procurement of construction works and goods
Based on knowledge	Based on product

Shortlists	Open competition
Price plays a secondary role	Price is the main criterion
Not to open technical offers publicly	Public Opening of bids
Terms of Reference (Work Program)	Detailed Specifications(bills of quantities)
A two-stage procedure	One-stage procedure
There are usually negotiations	The negotiations are exceptional

## 3. The Mechanism of the SBDCS Implementation

According to the World Bank Guide 2001,[6], the steps for selecting consultants can generally be identified as follows:1- Term of reference (TOR) preparations;2- Budget and cost estimation;3-Advertising;4-Short-listing;5- Request for proposals (RFP); 6-Proposal preparation and submission; 7-Proposal receipt and opening;

8- Proposal evaluation; 9- Choosing a consulting firm and negotiating with them and; 10- Agreements.

The fifth section of Article Eight of the instructions of implantation the governmental contracts No. 2 of 2014[6] defines the mechanism for announcing the work of consulting services in one of the contracting methods that stipulated in Article 3 of the above-mentioned instructions (direct invitation, limited tender, single bid), SBDCS can be used with the following consultants selection methods:

- A. Quality-cost-based selection (QBCS): it is the preferred method for selection of consultants. According to the Government Contract Implementation Guide (Part IV)[4], the percentage of the weights shall be distributed as follows, 80%-60% of the bid technical and 20%-40% of the financial offer. The distribution of these weights is changed accordingly to the nature and complexity of the advisory mission. The minimum qualification is also determined in the bid request document; the chosen consultant is the consultant who got the highest technical and financial evaluation.

- B. Fixed budget selection (FBS): According to the Government Contract Implementation Guide (Part IV), this method is appropriate when the advisory mission is easy and precisely identifiable and when there is a defined limit for the budget which must be shown in the bidding request.
- C. Least-Cost Selection (LCS): According to the Government Contract Implementation Guide (Part IV), this method is suitable for selecting consultants for tasks of a standard or routine nature only (audit, engineering design of uncomplicated works, etc.).

#### 4. Methodology of the study

The methodology included two stages of data collection, a theoretical study represented in literature reviews and a practical study that included the following:

- A. Preliminary interviews with 15 specialized experts the main frameworks that assess the reality of Iraqi construction consultancy service and SBDCSs' implementation were determined, six projects as a case study were proposed, and the questionnaire's society was outlined.
- B. Case Study: Due to expletory nature of this study a case-based methodology was depended, this type of methodology is very helpful in developing well-ground visions [7], six cases study of bidding documents for consultant acquisitions in governmental construction projects according to SBDCS were considered. The aim is to provide actual cases of the issues in the SBDCS's implementation and enhance our knowledge of the factors that affect the involvement of the public contractual department in acquisition procedures for consultancy service according to SBDCS, The evaluation of the selected bidding documents was based on the required processes according to SBDCS, World bank guidelines (selection and employment of consultant), Iraqi instruction for the implementation of the governmental contract no.2,2014 and Iraqi guide for governmental contracts implementation (part 4).The results of the case study analysis refer to the following:  
1-Low level of training to implement the SBDCS,2-The absence of a qualified team to prepare the terms of reference for consulting services, which negatively affects the response to the bid request,3- Poor communication and follow-up by the competent authorities,4- Both

SBDCS and governmental instructions and guides to implement the contractual need further review and modification and unification,5- Low level of private sector consultants' participation in the governmental biddings.

- C. Questionnaire: After determining factors affecting the application of the SBDCS, a Questionnaire was applied to ensure the comprehensiveness of the results, The researcher conducted a five-point Likert's scale questionnaire which was prepared depending on experts' interviews, literature review and case studies, The questionnaire structure was classified into the following sections : general information, level of experience in SBDC , the document suitability, the document Applicability.
- D. Questionnaire analysis to Determinie the level of public and private contracting experience for the society concerned with the research, Determining the suitability of the standard document to reality, determining the percentage of training on the document and its follow-up, and the appropriateness of contractual legislation with the application of the document, determining the impact of the document on the success of construction projects in Iraq
- E. Building computer program for preparing and construction consultant bid' according to SBDCS.

#### 5. The Study Society

The Selection of the survey's sample was based on the specific document's nature, and the authorities responsible for its application. The questionnaire was mainly focused on the governments' contracting departments, as they are primarily responsible for the success of SBDCS's implementation, the study society also include respondent from engineering consultancy service offices in both public and private sectors as shown in **Figure 1**.

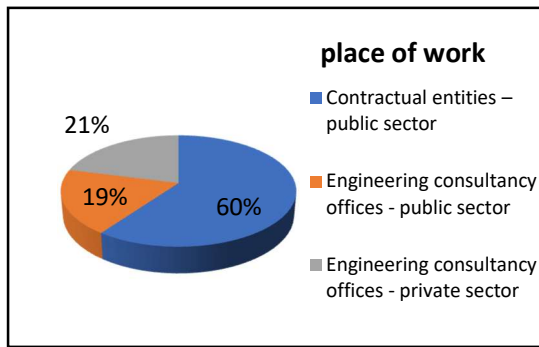


Figure 1: Study's Society

## 6. Results and Discussions

### 6.1 Assessment the Level of Experience in SBDCS

The arithmetic average for assessing the level of experience of respondents in SBDCS ranges from medium to low, with a high degree of standard deviation and a positive coefficient of skewness, which indicates the lack of experience of public and private sector cadres (contractual bodies and consultants), especially in the process of preparing the terms of reference., preparing the shortlist and the consultant evaluation process as shown in the **Table 2**.

Table 2: Level of Experience in SBDCS.

Paragraphs	Mean	S.D.	Skewness
Request for proposal (RFP)	2.3	1.174	0.428
Terms of Reference (TOR)	2.39	1.217	0.278
Evaluation process	2.23	1.000	0.358
Select the suitable contract	2.45	1.201	0.303
short listing	2.08	1.192	0.28
evaluation report	2.57	1.145	0.150

### 6.2 Assessment of SBDCS's suitability

This section aims to explore the suitability of the information provided in SBDCS with the reality of contracting. Results in the **Table 3** indicate that the level of appropriateness of the information provided in the document to reality is medium, which indicates the need to review the sections of the document and modify them to appropriate the reality of the contracting for consultancy service, as clarification of the financial evaluation methods for the least cost method and the fixed budget method need to be added in the data sheet of instructions to consultants, form for the single bid method need to be added, the contract conditions of the contract need to be reviewed as there is not enough information to determine the maximum time period to start work after signing the contract and the terms of service receipt, There is no space designated to add additional conditions required by the contracting authority in the special conditions section of the contract, besides the need to create a special form for contracting with individual consultants.

Table 3: level of information provided.

Paragraphs	Mean	%RII	Level of information
letter of interesting	0.956	51.2%	Moderate
Letter of invitation	0.798	70.8%	High-Moderate
Instruction to consultants(G.C) & data sheet	1.094	53.4%	Moderate
General Conditions of Contract (GCC)	1.351	75.6%	High-Moderate
Special Conditions of Contract (SCC)	1.204	57.2%	Moderate
TOTAL	1.090	58.8%	Moderate

### 6.3 Estimating the suitability of SBDCS's criteria for construction projects in Iraq

**Table 4** clarifies the RII of criteria evaluation according to respondents' answers, over 92% of RII weight was given to the technical proposal which is considered as the main criterion in consultant selection. About 39% of RII weight given to financial weight, most of the respondents consider the financial proposal of the consultant is not a very

significant factor to evaluate and select qualified consultants.

Concerning technical evaluation criteria, results show that the qualifications, availability, and commitment of the key staff proposed was ranked as the highest criterion followed by the criterion of methodology to achieve the project objectives and mitigate project risks than the criterion of Consultant’s relevant experience for the assignment.

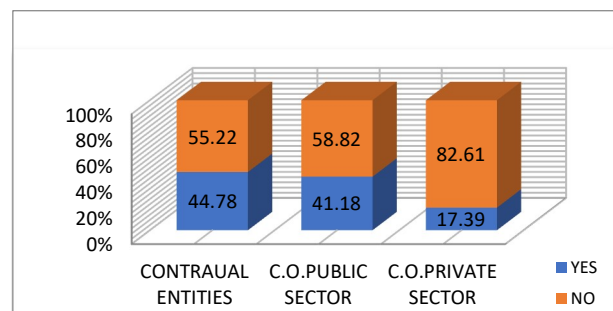
The extent and quality of participation by National Consultancy Firms in the assignment (in internationally bidding projects) was classified as the fourth criterion in evaluating the technical proposals. The criterion, which was ranked fifth in terms of importance, was the criterion of training or transfer of know-how provisions. According to the results of **Table 4** the RII the consultant adequacy for the assignment was ranked as the highest criteria in the main team consultant, team’s general qualifications as the second, consultant Experience in the region as the third.

**Table 4:** Selection Criteria

	Criteria	RII	Rank
Main criteria	Weight of technical proposal.	92%	1
	Weight of financial proposal.	39.4 %	2
Technical criteria	Consultant’s relevant experience for the assignment	62%	3
	Methodology to achieve the project objectives	80.2 %	2
	The qualifications of the key staff proposed	91.8 %	1
	training or transfer of know-how provisions	40.8 %	5
	participation by National Consultancy Firms in the assignment	43.8 %	4
	general qualifications	84%	2
Main team criteria	adequacy for the assignment	91%	1
	Experience in the region	56.2 %	3

### 6.4 Implementation Percentage

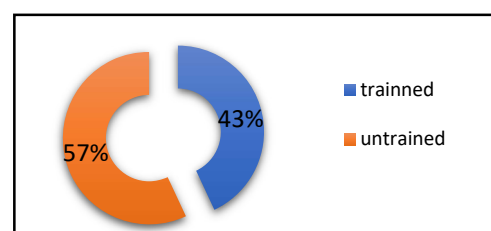
**Figure 2** shows that the implementation of SBDCS is less than 50% in the targeted society, which attributes it to the lack of use of the advisory services in the important stages of the construction projects in Iraq, and that was negatively affected the success of the Iraqi construction projects according to what was mentioned in the reports of the Ministry of Planning which identified the obstacles of construction projects implementation in Iraq, besides, successive economic crises reduced the allocation of investment projects in the federal budget, which led to cancellation and suspension lots of construction projects. The percentage of private sector participation in the governmental bidding during the last five years is 17% as in figure 2. The low percentage indicates that contractual entities are neglecting the invitation of the local consulting offices in their biddings, it is required to emphasize the implementation of the steps required in the SBDCS’s document especially in biddings announcement to encourage the participation of the private sector. Besides, the directives issued by the Ministry of Planning, as indicated in order No.4/7/17985, on the 3<sup>rd</sup> of DEC.2020 should be obligatorily applied, which encourages the private sector’s participation.



**Figure 2:** Implementation Percentage’s Classified by Place of Work

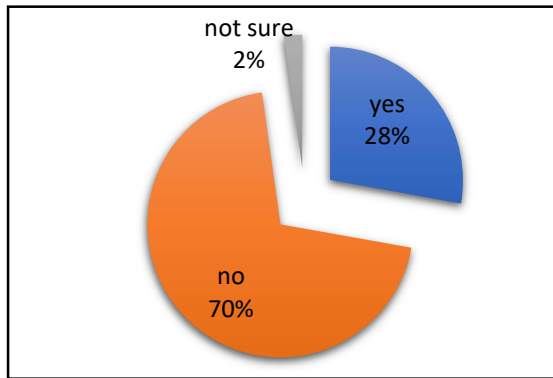
### 6.5 Training and Outsourcing assistance

The results in the **Figure 3** indicate the low level of training on the document, as it reached 43% of those who applied the document.



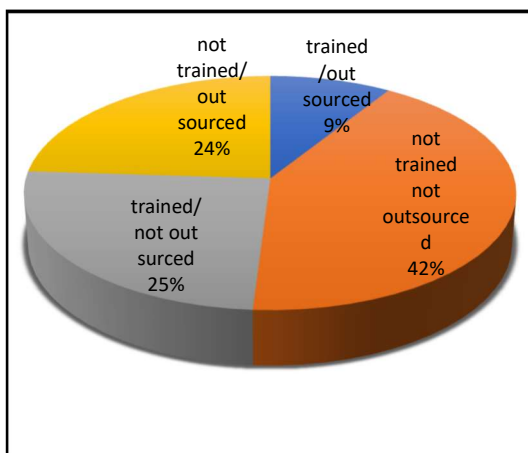
**Figure 3:** Training Percentage

Results also indicate the low percentage of outsourcing assistance to help to implement the document as in **Figure 4**.



**Figure 4:** Out Sourcing Assistance

**Figure 5** explains the reason for the existence of mistakes of SBDCS application, as most of the cadres who applied the document were not trained and did not seek the assistance of the competent authorities when applying the SBDCS.



**Figure 5:** training /out sourcing assistance

**6.6 Implementation Obstacles**

The results in **Table 5** indicate the unanimity of the respondents on the need of the contractual entities (C.E) and the local consultants for training on the use of the SBDCD, as most of the contracting authorities suffer from a lack of training, most of the individuals from the C.E who received training as TOT are charged with other tasks and are not free to train, also it was noted that most of the training courses are targeting the contracting departments of the ministries’ headquarters and neglecting the other departments, the results indicated the need to review the current contractual instructions due to the presence of several differences between the SBDCS and the instructions for implementing government contracts No.2 of 2014,as the differences regarding the selection of

consultants, Article No. 8, Section VI (Contracting Methods) in the instruction document, stipulates contracting by the limited tender method, the direct invitation method, and the single bid method, while the document states: to apply ROI procedures, in addition to the fact that the standard document does not contain the method of the single bid which confused the contracting authorities, besides difference between the selection methods for the document between the guide to implementing government contracts, Part IV, and the SBDCS. The guide provides four methods for selecting consultants (the selection method based on quality, the method of selection based on quality and cost, the method of selection based on the lowest price, the method of selection based on fixed budget ) While the standard document states three methods (mentioned previously :QCBS,LCS,FBS).

Regarding the external factor, the results indicate that the noticeable impact of the delay in the administrative procedure and economic and political conditions on the SBDCS application, as the economic crises which led to the insufficient allocation of investment projects and the delay in approving the federal budget, resulting in the decrease in the development of new projects.

**Table 5:** SBDCS obstacle

Paragraph	Mean	S.D	RII%
Your entity need qualified staff to handle SBDCS procedure	4.06	0.728	81.2 %
Your entity staff need training on SBD	4.11	0.793	82.2 %
Current contractual legislations need to be review and modified	3.78	0.824	75.6 %
The application of the document is affected external factor such as the political and economic conditions, and administrative procedures	3.21	0.756	64.2 %

**7. The Proposed Computer Program**

The weak experience of most contractual entities in the preparing the bids stages was noticed as a result of the lack of training and the low percentage of SBDCS application,

so The researcher develops a computer program that helps the contractual entities to enhance the efficiency in consultants' bids preparation, The computer model was created by the Visual Studio 2019 platform using C# language; the program was developed to prepare typical biddings documents, When preparing the bid, the program guides the user with a sequence of steps and information required for each stage of preparation, . Preparation according to the invitation methods stipulated in the instructions for the implementation of government contracts No.2, 2014 (Controls No.8) which are:

- Limited bid method
- Direct invitation.
- Single source method.

Figure 6 shows the flow chart the proposed program.

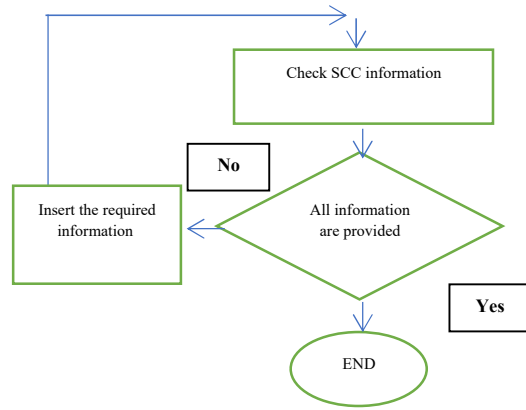
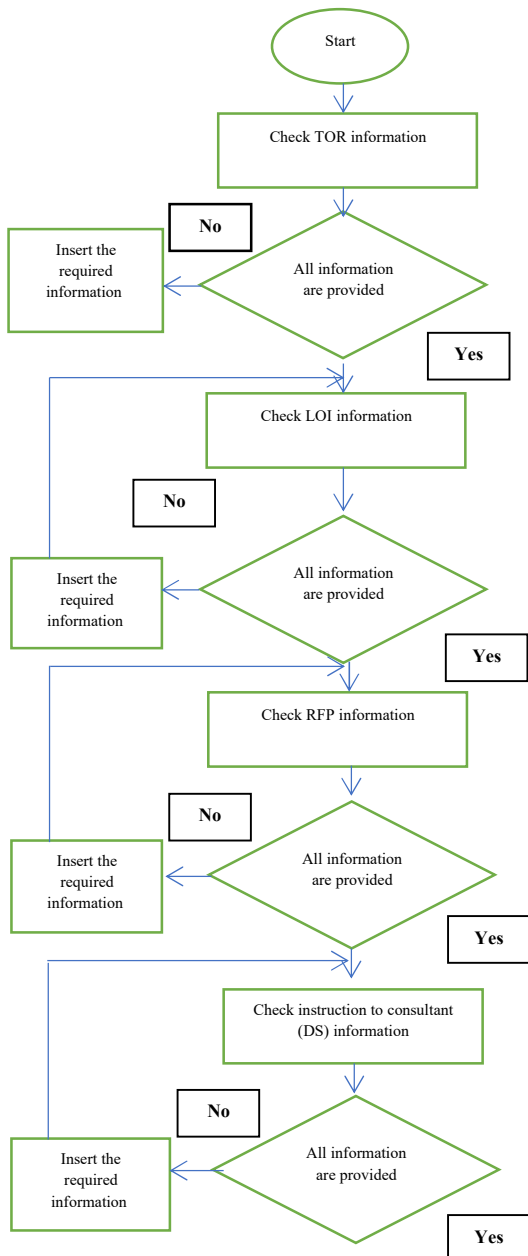


Figure 6: The Flow Chart of the Proposed Program

The program was applied to the standard documents of consultancy services for a case study, the purpose of which is to measure the effectiveness of the program for preparing model documents and diagnosing the paragraphs required to be mentioned, as in Table 6

Table 6: Application of the program to a case study

project details	Sec.	degree	results
Study and Audit the Technical, Commercial and Financial Offer submitted from aspecific consultant to construct	TOR	25%	Five paragraphs need more details, 7 necessary paragraphs are not mentioned, the program did not activate the LOI window until all the required paragraphs were completed in TOR

Suspension railway	LOI	55.55%	Assuming that all paragraphs of the TOR are completed as required in the program and move to the invitation letter, the program indicated that four paragraphs that must be provided in the letter of invitation
	Instruction to consultant	53%	Assuming that all data of the invitation letter is completed, the program indicated that it is necessary to provide 12 paragraphs to complete all the required information within the datasheet of the instructions to consultants.
	A special condition of the contract	50%	When completing the required information in the data sheet, the special conditions window for the contract is activated. The program indicated that there is a lack in the required information, the program does not allow exit from the window except when all data is completed

## 8. Conclusions

Many factor affecting the application of SBDCS were identified based on the analysis of the questionnaire, the interviews of specialized experts, and observations through study and comparison of practical study cases for implementing the standard bidding documents of consultancy service, It was noticed that there is a low level of specialized experience in SBDCS due to lack of adequate training, and lack of specialized staff in dealing with standard bidding documents in the contractual departments of the public sector. The standard request for consultant proposals needs to be reviewed in several paragraphs. There is no guide for the selection of consultants according to the Iraqi standard bidding document for consultancy services. Low percentage of training on SBDCS implementation, the selected trained person as a TOT is assigned to other tasks, Weakness in the following -up with the competent authorities represented by the DGGC of the Ministry of Planning, which led to occur errors in the implementation of the document. The application of SBDCS is affected negatively by several external factors, such as the economic crises, mismanagement, and the political situation.

## 9. Acknowledgements

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## Abbreviations

SBDCS	Standard bidding document of consultancy service.
TOR	Term of refrence
LOI	Letter of invitation
RFP	Request for proposal
SCC	Special contract condition
CE	Contracting entities

## معوقات حيازة الاستشاريين في المشاريع الانشائية العراقية وفق وثائق العطاء القياسية (تطوير برنامج لمرحلة اعداد العطاءات)

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**الخلاصة** – تؤثر كفاءة وخبرة الاستشاري تأثيرا كبيرا على نجاح المشروع الانشائي ، حيث يحتاج المشروع الانشائي الى الخدمات الاستشارية بدءا من مرحلة الاعداد والتخطيط وصولا الى مراحل التسليم والتشغيل والصيانة لذلك اولت العديد من الدول مؤخرا اهتماما بنظام المشتريات الخاص بالخدمات الاستشارية ، يتناول هذا البحث العوائق التي تواجه الكيانات التعاقدية في العراق عند تطبيق الوثيقة القياسية الاستشارية ، اعتمد الجانب العملي للدراسة على المقابلات الاولى وجمع وتحليل الحالات الدراسية ومن ثم تطبيق استبيان خماسي المقياس وتحليله ، كانت ابرز المعوقات هي نسبة الخبرة المنخفضة ، التطبيق القليل للوثيقة ، عدم تلقي التدريب المطلوب وضعف التواصل مع الجهات المتخصصة باعداد الوثيقة من قبل الجهات التعاقدية ، بالاضافة الى تأثير العوامل الاقتصادية والادارية للمشاريع على تطبيق الوثيقة ، تم اعداد برنامج لغرض مساعدة الجهات التعاقدية لاعداد طلب عطاء نموذجي للخدمات الاستشارية وفقا للمعايير المطلوبة، تم اختبار البرنامج المعد على حالة دراسية تخص طلب عطاء استشاري لمشروع انشائي حكومي ، وقد حقق البرنامج المقترح النتائج المطلوبة في اعداد العطاء النموذجي

**الكلمات الرئيسية** – استشارات هندسية ، وثيقة العطاءات القياسية ، عطاءات الخدمات الاستشارية.