A survey investigation for the Corruption in Iraqi Construction Projects

[1] Abdulnasser M. Abbas, [2] Haleem K. Hussain, [3] Ahmed Sagban Saadoon
[123] Dept. of Civil Engineering, College of Engineering
[123] University of Basrah, Iraq

Abstract: Corruption is the major threaten to the societies, especially in developing countries. It has changeable aspects, among these, that which related to the construction projects. This study presents a survey tested respondent's opinion on corruption of construction projects in Iraq. The survey based mainly on the persons who have personal experience and work in a miscellaneous strips concerning to this field, they divided into three groups; these are university professors (lecturers), engineers and contractors. The majorities of responding who participate strongly in the survey are the engineers; however, the university lecturers come in the second grade, and finally the contractors. The essential objective of this study is to identify the reality of corruption in the Iraqi construction projects and attempting to determine some solutions to minimize this serious issue.

Keywords **- Corruption, Constructional, Project, Iraq.**

I. INTRODUCTION

The International transparency is a non-governmental organization ranking the global world countries according to the corruption perception index, which is depend mainly on the score of each country. This score is varied from 0 to 100, when the corruption index decreases; this score increased to reach near 100 which mean that the country is very clean from corruption.
Unfortunately, the international transparency in 2017 puts Iraq in a rank of 169/180 with a score of 18/100 [1], this indicates that Iraq is one of the most corrupted countries in the world.
Actually, the corruption pest is not existing in a single sector of the country, it affects all the society aspects. Corruption may be existed as a bribe, Embezzlement, Kickbacks and fraud. However, the dangerous field that the corruption acts on is the construction projects, which costs the country huge amount of money. Therefore, this study conducted to present a specified view on some problems on the corruption of the construction industry in Iraq. In this study, a questionnaire consisting of more than 25 items was prepared and submitted to a community slice worked in the construction projects, they are university lecturers, engineers and the contractors that are working in the construction industry. This study is aimed to improve the awareness against the corruption to construct a basis suitable of the infrastructures in Iraq.

II. LITERATURE REVIEW

The definition of corruption that stated by the United Nations is offering, giving, extradite or petition, explicitly or in explicitly anything of worth to affect the behavior of a formal in the procurement or picking operation or in construction contract fulfillment [2]. Over the few decades, many studies have considered on the corruption, in the United Kingdom it is found by CIOB [3] that 51% from a slice consists above 1000 respondents had direct experiments of corruption, and at least on a single opportunity, 41% of the practitioners directly or indirectly offered a bribe. Corruption, as the study found, exists in more than one aspect of the UK construction projects, and hence, to minimize corruption to the lower levels, more action must be done by the government. Thereafter U.K. government responds by introducing the Bribery Act [4] which is become effect in April 2011; this act requires construction associations to confirm their obligation to struggling corruption [5]. However, the Bribery Act [4] carries on company's senior officials the liable for non-resisting corruption.

In fact, Corruption may appear at any stage of the project such in planning, design, inspection, bidder and signing of contract, construction, service providing with operation and finally, the maintenance process as shown in table (1) [6].

Construction industry is known as one of the biggest industries in the whole world [7], However, as compared with the other sectors of industry, constructions projects possess an encouraging credit because it is generally associated with collapse of business and regarding to minimum records linked with incomplete projects because of many matters such as time exceeding and cost, high scale of disputes, and the market environment are highly competitive [8], [9]. In the meantime, there are many factors that affect the construction industries, such as various kinds of stakeholders (designers, employers, suppliers, contractors…etc.), different resources (materials, equipment and labor), political and complete design, and managerial factors and economic, all these factors make the construction industry one of the riskiest business [10].
On the other hand, there are many features that make the sector of construction prone to corruption, these are: 1. Competitive; 2. A huge number of subcontractors; 3. A lot of permits and approvals; 4. It is difficult to contrast pricing of projects when they presented individually; 5. The opportunities for retards and overtakes; and finally 6. The fact that the quality of work may be concealed [11].

Table 1: Corruption forms in the construction project cycle [6]

Stage of service delivery	Examples
Planning stages	• Project used as vote winners/opportunities for personal gain not on basis of priority/availability of financial resources. • Planning in favour of high value infrastructure (white elephant projects) and against the interest of the poor.
Inspection stages	• Bribing inspectors.
Design	• Corrupt selection of consultants for feasibility studies, preparation of specifications/bid documents. • Over designed and overpriced projects. • Bribe for favourable environmental impact assessment/planning proposal/approval.
Bid and contract signing Stage	• Kickbacks for construction and supply contracts. • Lack of competitive/inequitable contract practices. • Entertainment'. • Corrupt civil servants selling recommendations for contracts. • Politicians influence choice of contractors or nature of contract.
Construction	• Changing subcontract party after receiving bribes. • Misuse of vehicles and funds. • Cutting corners, ignoring rules, by passing procedures • Payment for equipment, materials or services which were not supplied. • Concealing substandard work. • Bribe the relevant official to certify that the work was done according to specification. • Non-implementation.
Service delivery	• Ghost/absent workers. • Siphoning off supplies to market. • Favouritism in hiring/promotions • Use of contacts/money to get better/faster service. • Elite capture of infrastructure services.
Maintenance and management stages	• Corruption in procurement of equipment and spare parts. • Withholding needed approval/signatures of gifts/favours. • Corruption increases costs meaning lack of resources for O&M. • Bribes to win O&M contracts/ personnel appointments. • Lower standard of construction creates need for expensive repair and maintenance.
Subscription process	• Consumers pay money in order to speed up the process. • Extra-legal payments for new connections. • Officials are paid to turn a blind eye to unauthorized connections.
Billing system	• Opaque system of billing. • Irregularities in ledger of paid bills.
Disconnection	• Disconnecting customers in good standing. • Extorting money to reconnect. • Extorting money to prevent disconnection.
Fault redress	• Extorting money for repairs that are meant to be free. • Gift giving in return for favours in fault redress.

III. TYPES OF CORRUPTION

1 Briberies are highly common, especially in the developing countries, it consists of gratuities and gifts, the use of mediators and hospitality [12], [13].

2 Fraud is defined as economical crime includes different acts such as trickery, swindle, deceit or misinformation [14], [15].

3 Kickbacks are unlawfully rewards paid to gain a decision for an individual has power position, like selection of contractor [16]-[18].

4 Collusive tendering is defined as a secret pact between many sides to a fraudulent. While, bid rigging appears when the former makes criteria so as to gain the contract by the preferred tenderer [19].

5 Embezzlement appears when an official scrounges or purposely misapplies project funds for political spoil or an individual reward [20]. On the other hand, the outcomes of embezzlement consist of overdue or nonpayment of suppliers and contractors, uncompleted projects, and low-standard workmanship.

6 Fronting appears if an official inside government proxy or client organizations which produce front associations so as to gain construction contracts. In the meantime, these companies earn illegal or unfair interests in awarding the public contracts due to the powerful positions of owners in the government [21], [22]. Then, these contracts are authorized to another construction companies for personal gain.

IV. RESEARCH METHODOLOGY

There are many advantages of data gathering by the questionnaire method; first of all, it supplies dependable and adequate information, secondly, it offers huge anonymity, because there are no eyes contact between the respondent and the interviewer, and finally, it is a suitable method that used when explores about critical subject such as corruption.

In the recent work, a questionnaire method was used to collect the required data, a prepared questionnaire was submitted to the society slice that works or involved in the construction projects; they were lecturers at the college of engineering, engineers and constructional contractors. The presented questionnaire consists of general information about the respondent, multiple choice questions. Figures 1 to 4 illustrate general background about the respondents.

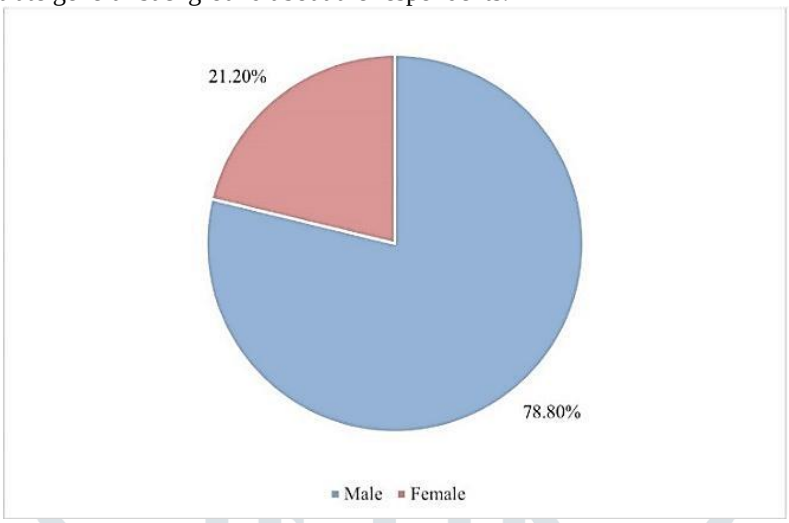

Figure 1: Respondent Gender

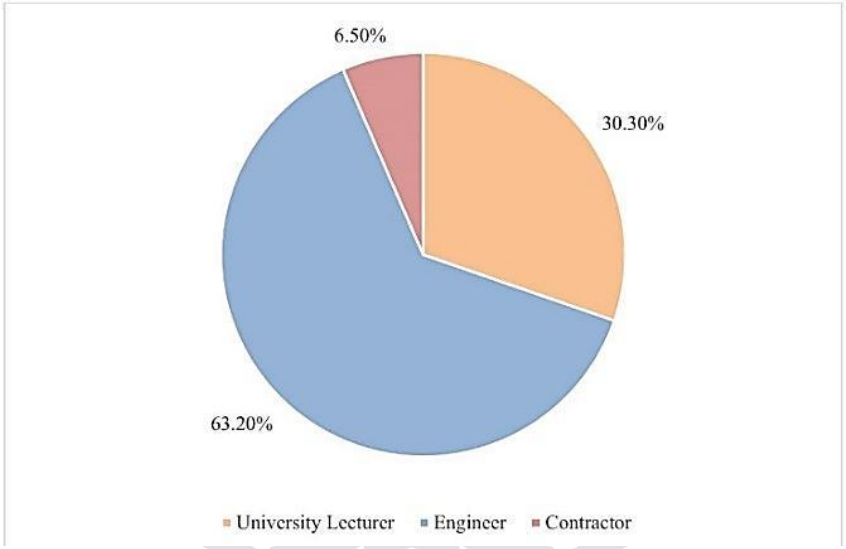

Figure 2: Respondent Job title

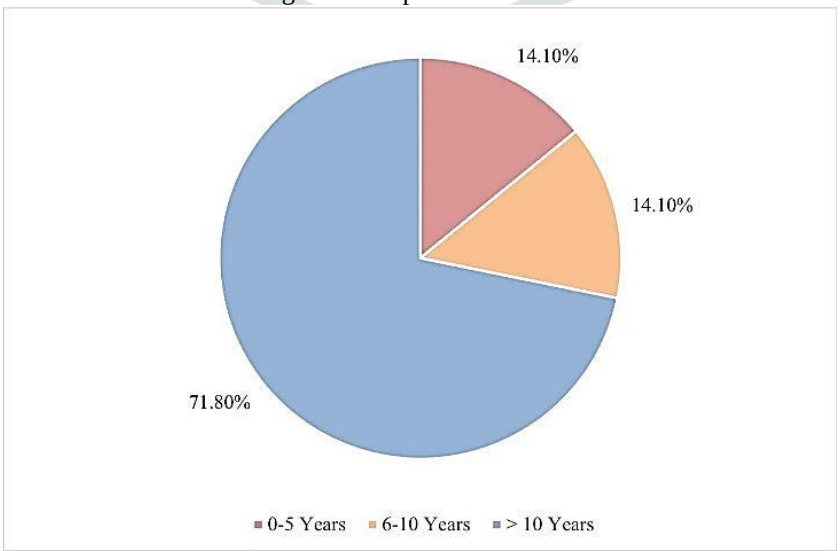

Figure 3: Year of service for respondent

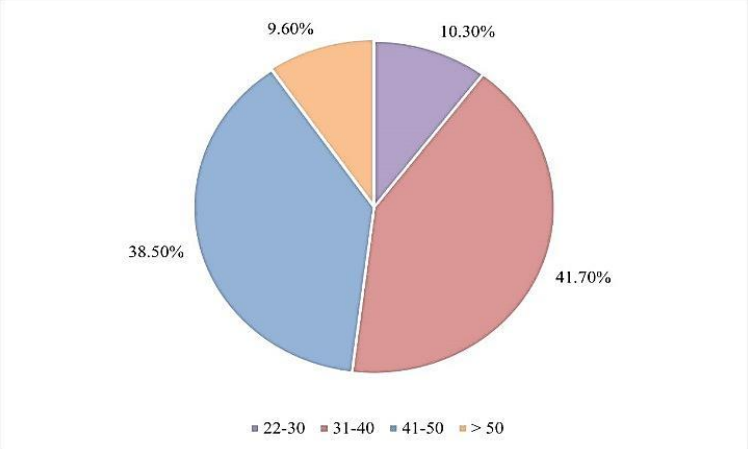

Figure 4: Respondent age

V. DISCUSSION OF RESULTS

In the recent investigation, a survey was embodying of at least 155 respondents. They gave their opinion on the corruption at the constructional projects. Unfortunately, 73.1% of the respondents believe that corruption nowadays becomes a general culture, on the other side 10.9 % of them did not accept this idea, while the rest of them was suspicious of this issue. About 85.2 % of them believe that there is a huge corruption in the constructional projects, while 12.9 % of them suspect of the corruption existence, and 1.9 % deny this idea. There are two sides that responsible for managing the projects, the implemented company and the supervised company. There are 92.9 % of respondents insist that both of them are share in the corruption, while 3.9 % and 3.2 % thinks that the responsibility is on the supervisor and implemented companies respectively.

On the other side, constructional materials should be well tested according to the standard specifications. Therefore, respondents have answered many questions concern about this section. About 50.8 % of them thinks that the constructional materials are may be tested according to the standards specification, while 31.0 % said that the tests are done inadequate manner, while the rest prefer to be on the opposite side. The other problem is that, are the whole taken samples of the construction materials are tested? In this matter, 23.5 % of the respondent says yes, while 37.9 % and 38.6 believe that the whole taken samples were not tested or may be tested.

Corruption in the construction site may be done by manipulating the quantities and cheating in the quality of the construction materials. Table 2, shows the respondents opinion, which is given the worst impression about that. The results show that most of the participants believe that the manipulating in the quantitates (59.4%) and cheating in the quality of the constructional materials (64.1%) exists.

Table 2: Corruption due to manipulating and cheating

Question	Believe in %	Not believe %	Suspicious %
Is there any manipulating in the quantities that used in construction projects?	59.4	6.4	34.2
Is there any cheating in quality of the used construction materials?	64.1	3.2	32.7

In order to conduct the diversity of the respondent opinions, a set of questions was provided with a scale from 1 to 5 (1, weak, 2. Medium, 3. Good, 4. Very good, 5. excellent), as shown in Table 3. In this table, it can be seen that most of the answers were varied between the weak and intermediate, the cooperation in the project site between the engineers and the employee or between the university lecturers and the engineers is not in the adequate level. This will create a weak society at the project and therefore allow to increase the indifference of the public interest and maximize the opportunities of corruption.

Table3: Five scale questions

Question	1	2	3	4	5
Cooperation extent between the engineers	27.7	47.7	20.6	2.6	1.3
Cooperation between engineers and workers	20.1	44.2	27.5	6.0	2.0
Quality of the resident engineer in the project	20.1	55.2	20.8	1.9	1.9
Quality of workers	27.9	61.0	9.1	1.3	0.6
Cooperation between the engineers and university professors?	53.3	32.9	9.7	3.2	0.6

A part of work of this investigation, an interview was done to explore more reasons about the corruption in the construction projects, and the results could be listed as follows:

1- The circle of the resident engineer not working effectively, and some of these engineers are new and not have the adequate experience, they may be not able to take a serious decision because they afraid if they take this step, they may demobilize.

2- There are bribes and a covert understanding between the administration staff and the construction contractors against the resident engineer which makes the circle of the resident engineer weakened.

3- Nowadays, there are many of the so-called turnkey projects, in which, the contractor provides all of the designs and quantities tables. Unfortunately, most of these documents are missing the required laboratory tests for completion of the infrastructure structures, such as water and sewage projects. In such circumstances, many of construction errors are always buried under the ground.

VI. HOW CAN CORRUPTION BE MINIMIZED

There is an undeniable fact that corruption is one of the social phenomenon which is deep rooted in the mankind history. It is like many crime patterns that may take place in the work procurements via governments and regional authorities, as a reason of a huge of money that participates in one purchase while monitoring of the project expenditure is difficult. So that, it is necessary to create strategies to reduce any corruption hazard and corrupt attitude in the construction projects [23].

In this survey, some strategies to minimize corruption was presented as shown in Table 4 and Figure 5. From the results that obtained from the survey, Figure (5), it can be shown that most of the participants prefer the factors A4 and A7 which have more than 70 % of their opinion. While factors A1, A3, A8 and A9 becomes in the second degree, the rate of these factors varies from 60 % and 70 %. However, the less factor that has been the record is A5. About this issue, a question was asked of the participants about their involvement in any awareness sessions against corruption, the answer was disappointing because of 87 % of them not involved in such sessions.

Minimizing corruption in construction projects is not easy but it is possible, it should take the factors that listed in Table 3 seriously, and educate the staff members and the society about the risk of corruption, and explain how the life will be if we minimize corruption, like in the developed countries, the corruption exists but in lower levels, but many services for their people are offered and many of them live in approximately high living standards.

Table 4: Activities should be taken to reduce corruption

Factor	Activity
A1	Activation of committees monitoring form the beneficiary side
A2	Conduct periodic visits to the project's site by the experts
A3	Increase the unannounced visits to the project site
A4	Certifying the engineering designs by qualified consultants
A5	Force the staff to participate in awareness sessions against corruption
A6	Certify the contracts by a neutral party
A7	Activate the sanctions system against the violators
A8	Activate the incentive system according to the working hours
A9	Exploitation of working hours in an appropriate manner

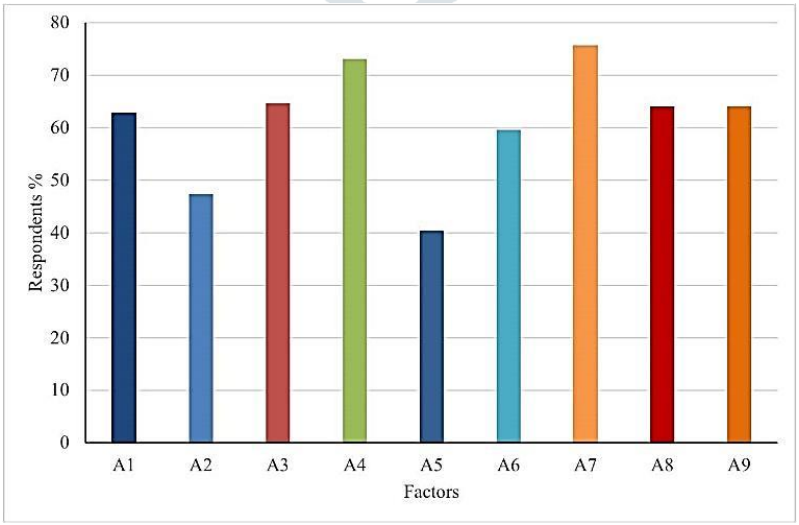

Figure 5: How to minimize corruption (respondent opinions)

VII. CONCLUSION

Corruption is a community scourge. In fact, it cannot be totally terminated, but we seek to minimize it in such a way that not effect on the people life. This may be done by a serious cooperation between the government and the community. The main concluded activities are as follows:

1- Increase the unannounced visits to the site of the construction projects.
2- Activate the sanctions system against the violators.
3- Activate the incentive system according to the working hours.
4- Force the staff to participate in awareness sessions against corruption.
5- Provide a resident engineering circle with an adequate experience and powerful in making decisions.

REFERENCES

[1] International Transparency, 2017 Transparency International. (2016). "Corruption perceptions index 2016." http://www.transparency.org/news/feature/corruption_perceptions_index _2016i (Feb. 8, 2017).
[2] UN 2006, p. 4-36 UN (United Nations). (2006). "UN procurement practitioners'handbook."https://www.ungm.org/Areas/Public/pph/channels/PPH.pdfi (Nov. 2, 2015).
[3] CIOB (Chartered Institute of Building). (2006). "Corruption in the UK construction industry. (http://www.ciob.org.uk /document /corruption -uk-construction-industry) (Jul. 5, 2016).
[4] The Bribery Act, 2010 Bribery Act, 2010, c. 23 (U.K.).
[5] Donohoe, S. (2011). "The Bribery Act 2010: Implications for building surveyors."Struct. Surv., 29(1), 26–34.
[6] Sohail, M. and Cavill,v, 2016 Corruption in construction projects WEDC, Loughborough University, Leicestershire, LE11 3TU, UK, 2016.
[7] Nunnally S. W., Construction Methods and Management, 7th Edition, University of Florida, 2007.
[8] Barrie, D. & Paulson, B. C., 1992. Professional Construction Management. USA: McGraw-Hill.
[9] Cooke, B. & Williams, P. N., 2009. Construction Planning, Programming and Control. 3rd Ed. Chichester; Ames,IA: Wiley-Blackwell..
[10] Al-Sayegh, S. M., 2008. Risk assemssent and allocation in the UAE construction industry. International Journal of Project Management, Volume 26, pp. 431-438.
[11] Stansbury, N. (2005) Exposing the foundations of corruption in construction. In Global Corruption Report (2005) Special Focus: Corruption in Construction and Post Conflict Reconstruction.
[12] Gordon, K., and Miyake, M. (2001). "Business approaches to combating bribery: A study of codes of conduct." J. Bus. Ethics, 34(3-4), 161–173.
[13] Amundsen, I. (2000). "Analysis and definition of corruption and its common forms." U4 Anti-Corruption Resource Centre, Bergen, Norway.
[14] Tabish, S. Z. S., and Jha, K. N. (2012). "The impact of anti-corruption strategies on corruption free performance in public construction projects." Constr. Manage. Econ., 30(1), 21–35.
[15] Vee, C., and Skitmore, R. M. (2003). "Professional ethics in the construction industry." Eng. Constr. Archit. Manage., 10(2), 117–127.
[16] Alutu, O. (2007). "Unethical practices in Nigerian construction industry: Prospective engineers' viewpoint." J. Prof. Issues Eng. Educ. Pract., 10 .1061/(ASCE)1052-3928(2007)133:2(84), 84–88.
[17] Sohail, M., and Cavill, S. (2008). "Accountability to prevent corruption in construction projects." J. Constr. Eng. Manage., 10.1061/(ASCE)0733 -9364(2008)134:9(729), 729–738.
[18] Osei-Tutu, E., Badu, E., and Owusu-Manu, D. (2010). "Exploring corruption practices in public procurement of infrastructural projects in Ghana." Int. J. Manag. Projects Bus., 3(2), 236–256.
[19] Le, Y., Shan, M., Chan, A. P. C., and Hu, Y. (2014). "Overview of corruption research in construction." J. Manage. Eng., 1061/(ASCE)ME .1943-5479.0000300, 02514001.
[20] Hartley, R. (2009). "Fighting corruption in the Australian construction industry: The national code of practice." Leadership Manage. Eng.,.1061/(ASCE)1532-6748 (2009) 9:3 (131), 131–136.
[21] De Jong, M., Henry, W. P., and Stansbury, N. (2009). "Eliminating corruption in our engineering/construction industry." Leadersh. Manage. Eng., 10.1061/(ASCE)1532-6748(2009)9:3(105), 105–111.
[22] Bowen, P., Akintoye, A., Pearl, R., and Edwards, P. J. (2007). "Ethical behaviour in the South African construction industry." Constr. Manage. Econ., 25(6), 631–648.
[23] Patrick X.W. Zou, Strategies for Minimizing Corruption in the Construction Industry in China, Journal of Construction in Developing Countries, Vol. 11, No. 2, 2006