

Construction Contracting Management Obstacles in Palestine

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Abstract The construction industry is complex, widely varying and many factors influencing its projects' outcome. As construction projects become larger and more complex, managing these projects and their challenges become more complicated and core element for success. During the past few years, many of the construction projects in West Bank went beyond timeline with extra cost overruns, many obstacles faced the contracting process, and generally the contracting career failed to take what it deserved of commensurate development. The objectives of this paper are to study the construction contracting sector in Palestine, highlighting this sector problems and obstacles from the perspective of local contract parties (project owners, consultants, contractors and donor countries institutes), investigating their importance and comparing these observations with those in other more governor and profitable surrounding Arab countries, in order to develop solutions and improve the current sector situation. Results from the study showed that the problems related to the career ethics are the most important problems that the Palestinian construction sectors suffers from. The results also showed that the major construction contracting problems are: policy adoption of awarding the bid to the lowest prices not to the most accurate, delaying contractor owed payments, currency exchange changing value, owner deceleration in decision making, little projects size in relation to contractors number, construction materials changing prices due to inflation, declining in the country economic situation, contractors manoeuvres by downloading some prices on other items and presence of conflicts between tender documents. Based on these findings, proposed solutions are developed for solving and improving the current state. Also, a proposed framework solution was developed for solving and avoiding the resulted most important problems and improving the current sector state. Finally, recommendations for the Palestinian National Authority (PNA) and the competent authorities, the (PCU) and the different local contract parties are presented in this paper helping them in overcoming the current sector related obstacles.

Keywords Contracting, Consultant, Contractor, Contract Management, Construction Industry

1. Introduction

With construction contracts becoming larger and more complex, managing these contracts become a core element for the success of any project. For a successful project, it is crucial that the requirements of the construction contract and obligations are understood and fulfilled by all involved parties to achieve all contract expected benefits as efficiently and effectively as possible.

Managing the construction contracting goes much further than ensuring that the agreed terms of the contract are being met. It is expanded to cover the whole process of "systematically and efficiently managing contract creating, execution, and analysis that made with customers, vendors, partners, or employees for the purpose of maximizing

financial and operational performance and minimizing potential risk"[1]. Contracting management also entails negotiating the terms and conditions in contracts, ensuring compliance with the terms and conditions, charges and cost monitoring, ordering and payment procedures, documenting and management reporting, contract maintenance and agreement on any changes that may rise during its implementation or execution.

During the past few years, many of the construction projects in the West Bank went beyond schedule and cost, and many obstacles faced the contracting process for reasons believed to be outside the control of both contractors and owners. Such problems and obstacles have given rise to many claims and conflicts. Therefore, this study investigates that widespread phenomenon and its associated problems from the perspective of the local contract parties. Comparing the current contracting situation with other surrounding Arab countries, where the contracting sector is considered to be more profitable and governed, provides feedback for future improvements in the

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Published online at <http://journal.sapub.org/ijcem>

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ongoing construction contracting management.

1.1. The Construction Sector in Palestine

The construction sector is one of the key economic sectors and the main force motivating the Palestinian national economy. The Palestinian construction sector is considered to be one of the most productive sectors. Its contribution to the Palestinian GDP is increasing since the PNA establishment to reach 11.1% in 2010[2]. In addition, construction is one of the most important sectors in the assimilation of labour force throughout Palestinian cities and towns. Where, in 2010, the construction sector employed about 13.2% of labourers directly, and a higher percentage indirectly in factories, other services and productive sectors related to this sector[3]. Also, construction sector activates many other sectors such as the construction supporting industries and the construction materials trading and it constitutes an important element in attracting investments.

1.2. Previous Studies

In fact, there is a significant scarcity in the conducted studies related to the construction contracting sector in Palestine, especially in the West Bank. A number of scholars studied factors affecting the construction industry in Palestine, while some of them studied a particular related aspect of the construction industry.

Abu Shaban[4] studied the factors affecting the performance of construction projects in Gaza Strip using Key Performance Indicators (KPIs). His KPIs enabled a comparison between parties regarding the degree of agreement about the main affecting groups. In addition, Al-Hallaq[5],[6] determined the causes of construction business failure in Gaza Strip by using a questionnaire survey and reviewing case studies.

Several studies were carried out in Gaza Strip covering many aspects of the construction sector and assessing the status of this sector there, but few were conducted in the West Bank. Generally, most of these studies were primarily based on collecting information through reviewing books and global references for viewing the general factors and problems affecting the construction sector, not from the local sector stakeholders point of view and sufferance. Also, most of these researches were analyzed only from the point of view of one construction sector stakeholder (mainly contractors), which may give biased non-holistic results. While, this study is distinctive by the way of collecting the research related data, that was mainly depending on collecting real and practical problems faced by the different construction sector stakeholders in the West Bank, through meetings held with some local contractors, owners, consultants and donors countries representatives, so as to give a holistic unbiased views of the parties opinions.

Many previous related studies found that the bad political situation in Palestine due to the Israeli occupation has the major effect on the Palestinian construction sector. As an

illustration, Osaily[7] illustrated that the political situation was the major barrier that prevents implementing sustainable construction in West Bank. Also, Al-Najjar[8] clarified that Strikes, Israeli attacks and border closures were the most critical factors affecting project delay in Gaza Strip.

While, Elghandour[9] found that the vagueness in project design and bill of quantity is the main claims causes in the construction industry sector in Gaza Strip. Abdalaziz[10] found that lack of qualified consultant's staff is the most severe factor affecting the designs and documents quality in the construction industry. Al-Hallaq[5],[6] showed that delay in collecting dibs from clients (donors) is the main cause of contractors failure. Whereas, Karriri[11] showed that the financial capabilities of contractors is the most critical factor affecting contractors' decision in participation in the construction tenders in Gaza Strip.

It should be noted that all previous studies proposed some solutions and recommendations for the current situations based only on analyzing the questionnaires results, researcher personal experience and/or asking experts in this domain. While, through this study a comparison was performed between the construction contracting sector in Palestine and other Arab adjacent country with an obvious clear success in this sector such as KSA and Jordan, searching for effective solutions and procedures succeeded in those countries to be adopted by our local sector, enhancing get out from its nowadays crisis.

1.3. Construction Contracting Management Problems in Palestine

Generally, construction contracting career in Palestine failed to take its deserved development with the commensurate birth event of our Palestinian state due to many constraints and obstacles. After the PNA entry and the need of many infrastructures and buildings development, many projects were hoped to be tendered. This led to intense competition, tough and declining in the project prices allocated to the contractors, reducing the contractor profit rate and thus many problems raising between contractors and owners.

In this research, problems in managing the construction contracting sector in West Bank have been compiled through making interviews with some contracting stakeholders (contractors, engineers, supervisors, consultants and some donor countries institutions representatives), also by reviewing some local publications that reflects some local stakeholders sufferance in the construction sector. The research aims to prepare a holistic view of problems facing the construction sector stakeholders in Palestine especially in West Bank in order to generate proposed solutions for these problems. These collected problems were sorted and classified into 11 major problems in order to facilitate their study and collect the related information. Every major problem included several minor problems related to the major one. The following are the main problems'

classifications:

- 1) Financial Problems.
- 2) Political Problems.
- 3) Administrative Problems.
- 4) Problems related to the tender documents (contracts, drawings).
- 5) Problems related to the specifications and materials adaptation (Quality).
- 6) Problems related to the contract parties themselves.
- 7) Problems related to the sector environment.
- 8) Problems related to the natural environment.
- 9) Problems related to the arbitrations and disputes solving.
- 10) Problems related to the technology use.
- 11) Problems related to the career ethics.

2. Methodology

2.1. Defining the Palestinian Construction Contracting Management Obstacles

Construction contracting problems were identified through investigating and negotiating the problems from the perspective of the local contract parties. Interviews with some local contractors, projects owners, site engineers, consultants, and donors countries representatives were held randomly, so as to survey there suffering related problems. Then problems of similar nature were grouped together; giving rise of eleven main groups.

2.2. Questionnaire Design

The collected problems were used in developing a postal questionnaire with the objective of investigating the main important construction contracting problems that Palestine suffers from. The designed questionnaire was reviewed and its validation was checked by different selected arbitrators. Many amendments were conducted, making questionnaire more abbreviated and improved prior to sending it to the representative research sample.

2.3. Questionnaire Distribution

Three populations were targeted in this research. The first population included the contracting projects' owners and their representatives including First Class consultants who have a valid membership in the engineering association. The second population represented by the contractors companies of the First, Second and Third categories who have valid registration in the Palestinian Contractors Union. The third population represented by the donor countries institutes.

The questionnaire was distributed to the selected sample in the three main Palestinian cities (Nablus, Ramallah, and Hebron) representing the three regions of Palestine (Northern, Middle and Southern regions). (310) questionnaires were distributed to the research; including (183) contractors, (21) project owners, (92) project consultants and (14) donor countries institutes. The

questionnaire was distributed at the beginning of the year 2012 using many ways and techniques due to responses deficiency of the research sample, such as:

- Direct distributing by hand.
- An electronic questionnaire to be filled electronically through a special website link, here is the questionnaire link: <https://docs.google.com/spreadsheets/viewform?formkey=dEtheWInZTRQakdwNWIUeDV5MTdIVkE6MQ>
- Sending it by fax.
- Phoning for either asking about the company's addresses, emails, fax and/or reminding them to fill the questionnaire

2.4. Results Analysis

Questionnaire responses were analysed using (SPSS) program, interviews with some experts and professionals of the local stakeholders were held to enrich the research results.

2.5. Solution Framework

Comparisons with the construction sector in other Arab countries (KSA and Jordan) were conducted, proposing solutions for the resulted main problems and suggesting recommendations to improve the current construction sector in Palestine. A framework solution was performed for presenting and summarizing the recommended actions and procedures for solving and avoiding research highest importance problems.

3. Results and Discussion

Data analysis was carried out using SPSS program, different statistical methods and techniques were used such as; average means, standard deviations, descriptive statistics presented the prevalence percentages of some finding, 4-point likert scale and bivariate analysis. The main analysis results are discussed below:

3.1. Descriptive Analysis for the Palestinian Contractors Classification Degrees

Analysis found that a great portion of the Palestinian contractors classified in the first class in the PCU as shown in Figure 1.

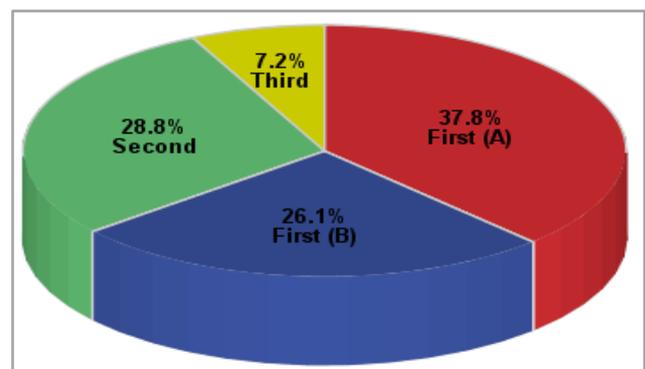


Figure 1. The contractor's classification under PCU degree categories

It can be seen from Figure 1 that about 63.9% of the contracting companies are classified in the First class (both categories A&B). This result indicates that the current contractor's classification depends mainly on the executed projects areas, and there is no follow-up and reclassification system for the current classified contractors to decrease the classification degree of the unreleased requirements companies. That leads to the need of reconsidering the classification procedure to be more precise and appropriate.

3.2. Construction Contracting Problems Analysis

In order to analyse each construction contracting problem, a four-point likert scale used to assess the importance degree of each problem included in the questionnaire, ranging from "Does not matter, low importance, medium importance to high importance".

Then, each problem was ranked according to the value of its average starting from the largest average to the smallest average, by giving the value 1 for the problem that have the largest average value, 2 for the problem that have the second largest average value, and so on. The process continued in the same way until reaching the smallest average value among all problems.

Table 1 shows the degree of importance for each main problems category and its arithmetic mean, ranked from the highest rated importance that has rank number (1) to the lowest rated importance with rank number (11).

Table 1. Degree of Importance for Main Problems

Rank No.	The main problems category	The importance	Mean
1	Eleventh: Problems related to the career ethics	High	3.47
2	Fifth: Administrative problems	High	3.43
3	Second: Problems related to the tender documents (contracts, drawings)	High	3.33
4	Fourth: Political problems	High	3.27
5	Seventh: Problems related to the sector environment	Medium	3.24
6	Sixth: Problems related to the contract parties themselves	Medium	3.19
7	First: Financial problems	Medium	3.11
8	Ninth: Problems related to the arbitrations and disputes solving	Medium	3.09
9	Third: Problems related to specifications and materials adaptation (Quality)	Medium	2.93
10	Tenth :Problems related to the technology use	Medium	2.80
11	Eighth: Problems related to the natural environment	Low	2.27

The descriptive results indicate that "the problems related to the career ethics", have the greatest importance among the other main problems. this mainly referred to the absence of the censorship and the competent authorities from organizing the construction contracting profession and obligating its regulating laws. Also, it is referred to the poor

communication between the contract parties which leads to estrangement between parties and misunderstanding satisfying the contract documents requirements. Thus, this result illustrates the importance of caring about rising awareness among the contract parties to ensure ethical work climate and to achieve their desires of less hassle working climate.

Also, analysis shows that "the administrative problems" has the second greatest importance. This may be referred to the weakness of the administrative system and the poor organizational structures that controls most of our contracting companies. Also, this may be referred to the unfixed administrative stuff in the contracting companies mainly in the contractors companies who change's their stuffs after getting classification.

Peculiarly, results shows that "the financial problems" have the seventh top importance ranking among the others, while during our pre-questionnaire interviews almost all interviewers were complaining about the bad financial situation that they are suffering from, but the results of this research found that the financial problem is not a real problem as all parties complains, but there are much more important real problems that must be dealt with and solved. On the other hand, this result may be attributed to the whole dominating bad economical situation in Palestine, which push contractors to work even without earning, just to work and remain in the labour market.

3.3. Analysis of the Highest Disparity Problems

Table 2 shows the highest disparity problems among all research problems. Problems of the highest standard deviations (SD) have the highest disparity in responses.

Table 2. Problems Having the Highest Disparity

Problem	mean	SD
1. Not using the Palestinian Index in pricing	2.82	1.09
2. The Palestinian Unified Contractor Contract doesn't go out to implementation and legal obligation	3.13	1.05
3. Barriers against foreign investment, importing labors and materials	2.95	1.11
4. Non-activation of the Palestinian Arbitration Law and Chambers	3.04	1.06
5. Not effectively enable the use of electronic tender	2.51	1.05

This wide diversity in responses indicates contract parties lack of awareness of some main construction contracting terminologies i.e. the Palestinian Index, the Unified Palestinian Contract, the Palestinian Arbitration Law and Chambers and the electronic tender. Thus the importance of raising contract parties' awareness by these terminologies had been manifested as well as by training courses and publications.

3.4. Analysis of the Most Causes of Claims and Disputes

Figure 2 shows the most probable causes of claims and

disputes and their responses voters percentages.

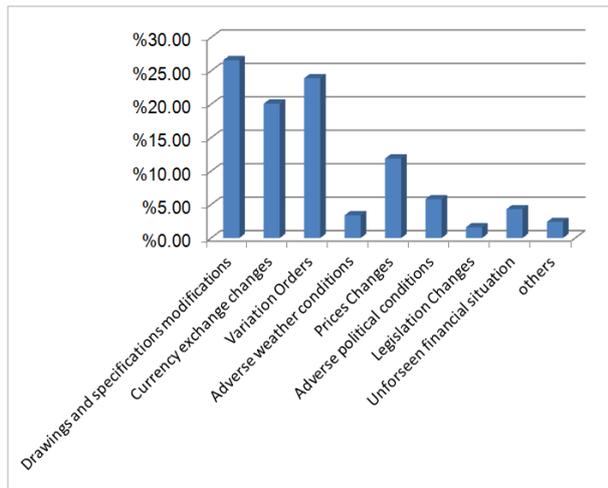


Figure 2. The most probable causes of claims and disputes

It can be seen from Figure 2 that most probable causes of claims and disputes are “drawing and specifications modifications”, where about (26.6%) of the sample subjects agreed on this point. This result was not surprising as most times tenders drawings specially, plan levels are not well studied when tendering, that leads to BOQ modifications and thus quantities and prices changes which mainly causes disputes between parties on agreeing the base of considering these changes. This occurred mainly in the electromechanical drawings and specifications that needs precise design and specifications, modifications in these systems causes tremendous increase in the project cost.

3.5. Bi-variate Analysis of the Respondents Work Type and their Qualification

Bivariate means linking two questionnaire variables together to study the effect of one variable on the others. The two variables; respondents' work type and respondents' qualification were correlated as shown in Figure 3.

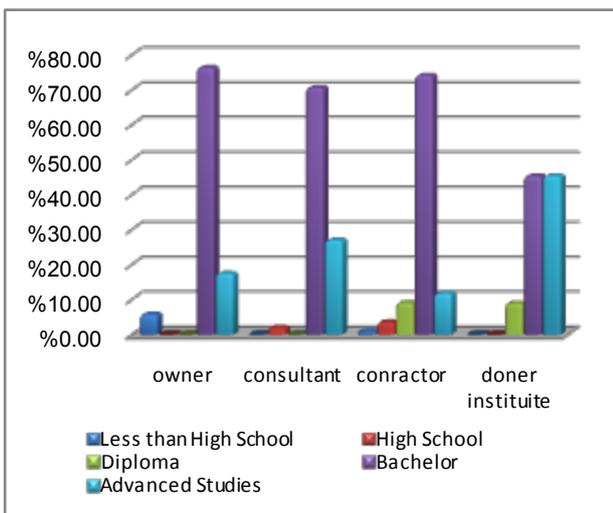


Figure 3. Respondent work type Vs. qualification

Resulted analysis shows that the Palestinian contract community is well educated. It is worth noting that most of the contractors are highly educated, where 71.9% of them had just completed a Bachelor degree. This result is inconsistent with the other contract parties complaining about contractors ignorance and uneducated, it can be justified by the Palestinian people hard working and upgrading aspirations by educating their sons and employing them in their companies, but companies still managed by the old mentality of the uneducated parents.

3.6. Analysis of the Highest Importance Problems

Table 3 shows the minor problems that have the highest importance and their arithmetic means.

Table 3. Problems Having the Highest Importance

Rank No.	Problem	The Importance	mean
1	Rates burning due to intense competition between contractors	High	3.89
2	Policy adoption of awarding the bid to the lowest prices not to the most accurate	High	3.81
3	Delaying paying owed payments by the owner	High	3.76
4	The changing value of currency exchange	High	3.60
5	Owner deceleration in decision making	High	3.58
6	The size of projects is little in relation to the number of contractors	High	3.58
7	Construction materials changing prices due to inflation	High	3.56
8	Declining in the country economic situation	High	3.54
9	Some contractors manoeuvres by downloading some prices on other items	High	3.52
10	Presence of conflicts between tender documents	High	3.46

Those highest importance problems were considered in the comparison with other Arab countries in order to propose solutions for them.

4. Framework Solution and Recommendations

The most important problems and obstacles were compared with the related situation in other Arab companies (Jordan and KSA) to make some recommendations enhancing the current Palestinian situation.

4.1. Framework Solution for the Highest Importance Problems

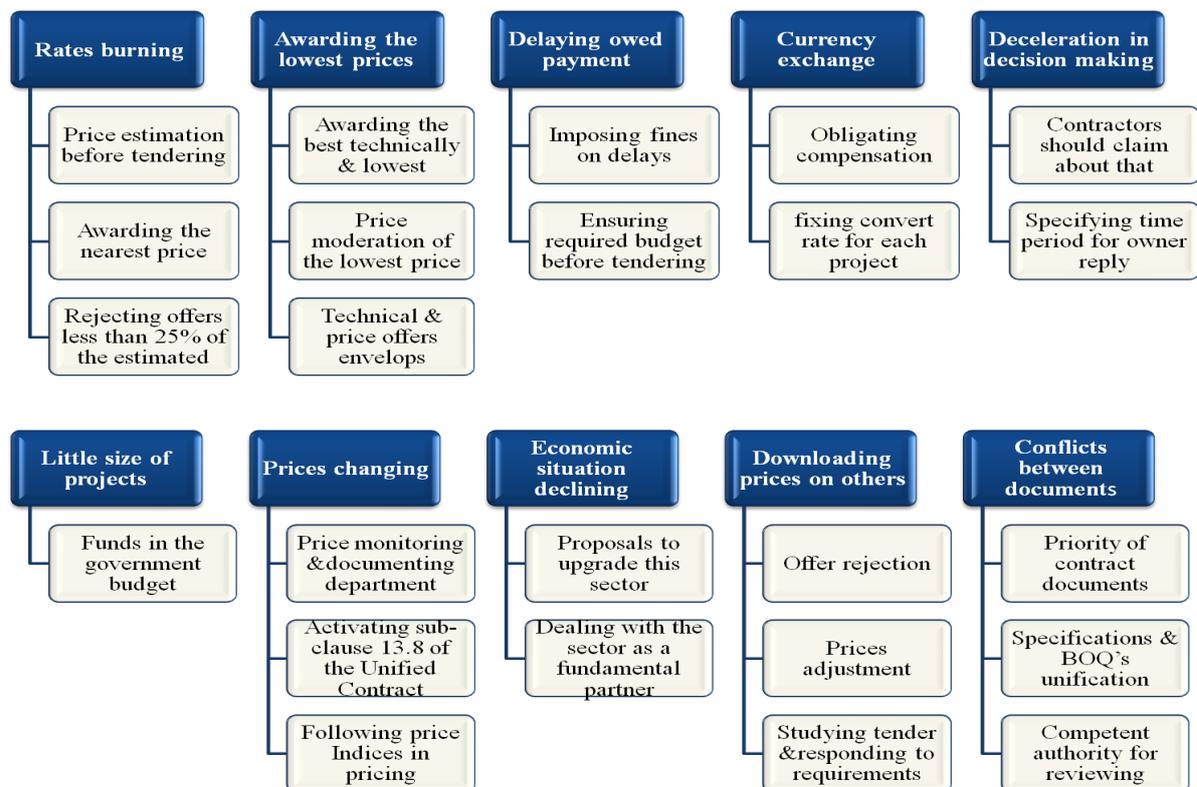


Figure 4. Main construction contracting sector problems and their proposed solutions framework

A framework solution was performed for presenting and summarizing the recommended actions and procedures for solving and avoiding research top ten highest importance problems as shown in Figure 4, so as for assisting contract parties in visualizing the current situation and how to solve or prevent them. These proposed procedures include the following:

- There must be a complete and accurate study for tender prices by the owner side before tendering and awarding the tender to the nearest price of the real one.
- Rejecting any tender offer reduced by more than 25% from the estimations or the current prices[12].
- Offers examination commission have to award the lowest price bid and technically the best that correspond to the conditions and specifications. In addition, to exclude inconsistent offers with conditions and specifications according to this regulation and system rules[12].
- Offers examination commission have to make sure of price moderation for the lowest price offer corresponding to the conditions and specifications[12].
- Compliance with imposing fines on project owners (employers) when they delay paying any of the contractor's owed payments as set out in the two sub-clauses 14.7 & 14.8 of the Unified Palestinian Contract[13].
- Obligating fixing and identifying currency convert rate for each project at the base date of the tendering[14].
- If the owner declares in his decision making, then the contractor should claim about this matter to ensure his rights

and gains his owed compensations by law, as mentioned in sub-clause 20.1 of the Palestinian Unified Contract[13].

- Calling the government to work on including in the country general budget for 2013, sufficient fund provisions to launch adequate capitalist projects in the construction sector[15].

- The application of sub-clause 13.8 "Adjustments for changes in cost" of the Unified Palestinian Contract should be activated, and the (table of adjustment data) should be attached with the (Appendix to Tender)[13].

- Establishing Prices Monitoring and Documenting

Department in the PCU responsible for dealing with and regulating materials changing prices through following up suppliers and construction materials manufacturers, so as to get changes of the construction materials, issuing special circulars for the prices amendment and publishing these circulars and some main materials prices updates to contractors[15].

- Recommending PCU and competent authorities conducting researches and proposals to upgrade the sector, while government have to study these proposals and put them into action. Also, government is required to deal with the sector as a real and a fundamental partner in decision making, planning, plans implementation and enacting the sector governing legislations[15].

- Cautions against contractors relying on the method of downloading some prices on other tender items because it is an undesirable consequences adventure[16]. In case of

bidder priced an item in a wrong or exaggerated way, then the concerned tenders commission have the right to reject the offer or adjusting the price within the contractor knowledge[14].

- Contractor is responsible for studying tender documents accurately before tendering and inquiring about any included conflicts among them.
- Competent authority should carry the responsibility of reviewing and checking the engineering offices drawings and other related documents before tendering.
- There is a necessity of preparing special studies describing items and reckon methods of buildings, roads and electromechanical fields, general BOQ, measurement methods, technical specification and circulating them on the engineering offices to be implemented.

4.2. Main Proposed Problems and Obstacles Solutions and Avoidance Procedures

Moreover, analysis showed the importance of reviewing and reconsidering the current Palestinian Contractors Union (PCU) classification procedures. Classifying contractors according to more precise and appropriate conditions, taking into account contractors' real qualifications, experiences and previous projects performances. This can be gained by adopting the following proposed procedures:

- Making regular re-classification for contractors, assuring their adherence to the conditions and potentials that they were classified upon.
- Contractors following up by: contractor's main office visits and checks, site visiting and inspection and reconnaissance of project owner opinion according the contractor's performance[17].
- Getting a classification certification must be conditioned by passing a capabilities exam, which should cover the main themes related to the construction contracting[18].
- PCU may require contracting company founder to be an engineer or a partner with engineer[19].
- Applying punitive actions in case of contractors' defaults, violation being proven[20], such as:
 - 1) Not referring any tender on the contracting company or institution until after the completion of the defaulting project or lifting default causes.
 - 2) Contractor deprivation for a specific period from participation in government tenders in case of contractor being reported to more than one complaint from the project owner in any tender or for the same tender.
 - 3) Lessening the company or institution classification category.
 - 4) Classification reconsideration if the contractor did not practice contracting work for more than two years without justifiable reasons.
 - 5) Contractor classification cancelling in case of withdrawing more than one project during five years after withdrawing his first project.
 - 6) Deleting the contractor classification from the classification records and forwarding him to the Public

Prosecutor, if it was proven that the contractor introduced false certifications.

Also, results shows the importance of increasing contract parties' awareness according to some construction contracting terminologies and qualifications and ensuring ethical work climate. This can be achieved by arranging training courses, specializing magazines and workshops.

For enhancing achieving the previous proposed procedures aiming for taking out the Palestinian construction sector from its real crisis; we propose formulating an urgent high council for this sector, especially during this period and these current conditions, which should include representatives from this sector influencing and regulating parties. This formulated council should be responsible for directing positioning of a comprehensive strategy for getting this sector out of its crises and enhancing its performance, including adopting all related conducted researches and studies and conducting the required ones searching for effective solutions to be implement.

5. Conclusions

The Palestinian construction sector is facing severe crises, which would limit its economical achievement and ability. This situation necessitates accelerating in rectifying the Palestinian contracting sector crisis and solving its remarkable problems in limiting the expansion of this sector's problems and crises.

The problems related to the career ethics is the most important main problem category. This illustrates the importance of rising awareness among the contract parties to ensure ethical work climate and achieve their desires of less hassle working climate.

The main resulted recommendations for the different concerned parties enhancing them in updating the current status of the Palestinian construction contracting sector:

- The Palestinian Contractors Union (PCU) recommended to reconsider its current classification procedures, following up its current classified contractors, applying punitive actions in case of defaults and violations and increasing its members awareness and qualifications .
- The government and the high policies ageness are recommended to activate the construction sector regulating laws and regulations and obligating their applications.
- The projects owners and donor countries institutes are recommended to prepare accurate study for tender prices before tendering and awarding the tender to the nearest price of the real one. In addition to, not delaying paying their payments and decision making.
- Contractors are recommended to study the tender documents accurately when bidding and responding to the contract documents requirements. Also, not to rely on the method of downloading some prices on other tender items and rates burning because they are undesirable consequences adventure.

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