

Identifying the Critical Problems of Construction Contracting Management in Palestine

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ABSTRACT

The Palestinian construction sector is one of the key economic sectors and is the main force motivating the national economy. However, it is complex and affected by many constraints and obstacles that influence its outcomes. Therefore, this research was conducted with the aims to survey the construction contracting problems in Palestine from the different local contract stakeholders' points of view; namely: contractors, owners, consultants and donor countries and institutions. 73 problems were collected and considered in this research and grouped in eleven main groups; namely, financial, political, administrative problems and problems related to the tender documents (contracts, drawings), specification and material adaptation (quality), contract parties themselves, sector environment, natural environment, arbitration and dispute solving, technology use and career ethics. A questionnaire was administered to evaluate the importance of the construction related problems. 310 questionnaires were distributed as follows: (183) contractors, (21) project owners, (92) project consultants and (14) donor countries and institutions. The results show that the highest ten important problems that Palestinian construction sector suffers from are as follows: rates' burning due to intense competition between contractors, policy adoption of awarding the bid to the lowest price and not to the most accurate one, delaying owed payments by the owner, currency exchange changing value, owner deceleration in decision making, little size of projects in relation to the number of contractors, construction materials' changing prices due to inflation, decline in the country's economic situation, some contractors' maneuvers by downloading some prices on other items and presence of conflicts between tender documents.

KEYWORDS: Contracting, Obstacles, Construction, Problems, Palestine.

INTRODUCTION

The construction industry is vast and varies from homes to highways, hospitals and many other constructions. It is one of the largest dollar generating segments of the world economy. It gives rise to many other related industries, such as steel, concrete, lumber, carpet, furniture, paint, paving, mining, shipping

among other industries. However, the construction industry is complex, and many factors influence the outcome of a construction project. As construction projects become increasingly more complex, the challenges associated with managing these projects become more complicated. The need for qualified construction managers is tremendous, and opportunities abound for those interested in the work (Jackson, 2010).

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One of the main success keys in construction projects is proper contract management. Contract management can be defined as the process that enables both parties of a contract to meet their obligations in order to deliver the objectives required from the contract. Also, it involves building a good working relationship between customer and provider. It continues throughout the life of a contract and involves managing proactively to anticipate future needs as well as reacting to situations that arise. The main aim of contract management is to obtain the services as agreed in the contract and achieve value for money. This means optimizing the efficiency, effectiveness and economy of the service or relationship described by the contract, balancing costs against risks and actively managing the customer-provider relationship. Contract management may also involve aiming at continuously improving the performance over the life of the contract (OCG, 2002).

The Palestinian construction sector is considered one of the most productive sectors that are associated with the Palestinian Territory settlement process after the year 1994, where there was political stability, especially by the establishment of Palestinian National Authority (PNA) in the Gaza Strip and certain parts of the West Bank, which resulted in an active movement in the building and construction field (PCU/ 1, 2003). The Palestinian Central Bureau of Statistics (PCBS) shows that the construction sector contribution to the Palestinian GDP is increasing since the PNA establishment to reach 11.1% of the Palestinian GDP in 2010. This is a large proportion covered by this sector, thus this sector is positively affecting other various economic, social, educational and vocational sectors and other Palestinian institutions (PCBS/ 1, 2011). However, 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 the

obstacles of construction contracting in the West Bank in Palestine from the combined view of the local contract parties (contractors, owners, consultants and donor countries and institutions).

LITERATURE REVIEW

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. Mahamid et al. (2012) conducted a study to identify and rank the delay causes in road construction projects in the West Bank in Palestine. Contractors indicated that the top five delay causes are: segmentation of the West Bank and limited movement between areas, political situation, progress payments' delay by owner, delays in decision making by owner and low productivity of labor. Consultants indicated that the top five affecting causes are: political situation, segmentation of the West Bank and limited movement between areas, awarding project to lowest bid price, shortage in equipment and ineffective scheduling of project by contractor.

Many local construction projects report poor performance due to many causes, such as (UNRWA, 2006, cited in Enshassi, 2009):

- unavailability of materials.
- excessive amendments of design and drawings.
- poor coordination among participants.
- ineffective monitoring and feedback.
- lack of project leadership skills.

Mahamid and Bruland (2012) concluded that 100% of road construction projects implemented in the West Bank suffered from cost overrun. Mahamid et al. (2012) found that 70% of construction projects implemented in the West Bank experienced a delay between 10 – 30% of the contracted duration.

Mahamid (2011) indicated that the most severe factors affecting time delay in road construction projects in the West Bank in Palestine from the owners' perspective are: poor communication between construction parties, poor resource management, delay

in commencement, insufficient inspectors and rework.

Al-Najjar (2008) concluded that the top affecting factors that cause time overrun in building construction projects in Gaza Strip as perceived by contractors are: strikes, Israeli attacks and border closures, lack of materials in markets, shortage of construction materials at site, delay of material delivery to site, cash problem during construction, poor site management, poor economic conditions (currency, inflation rate,... etc.), shortage of equipment and tools at site and owner delay in freeing the contractor financial payments.

Enshassi et al. (2005) identified the essential factors and their relative importance that affect accuracy of cost estimation of building contracts in the Gaza Strip. The results of analyzing 51 factors considered in a questionnaire survey concluded that the main factors are: location of the project, segmentation of Gaza Strip and limitation of movement between areas, political situation and financial status of the owner.

Elghandour (2006) conducted a study that aimed at identifying and evaluating the existing claim management process in the construction industry sector in Gaza Strip. This was gained through using a questionnaire survey on both contractors and owners and reviewing case studies. The research found that the main causes of claims are: the vagueness in project design and bill of quantity, awarding contracts to the lowest offer and border closure and main road closure resulting in delaying project activities and increasing materials' prices, which lead to the emergence of claims. The study also revealed that both contracting parties had problems in handling claims, the supervision team was lacking the proper experience to handle claims, the contractor failed to notify the owner side in the proper time period and in a clear-cut manner and that there had been no documented procedures that could be tracked when checking claims.

Karriri (2008) conducted a study to collect and categorize the factors affecting bidders' participation in the construction tenders, so that to encourage the bidders to participate and compete strongly in the

construction tenders, with minimum level of conflicts and maximum level of benefits for both contractors and clients. These were investigated throughout a postal questionnaire which covered classified building companies, working clients and consultants in Gaza Strip. The study results showed that the most critical factors affecting contractors' decision to bid or not are: financial capabilities of contractors and clients, the financial value of the project, the clients' payment policy, availability of construction raw materials and stability of the construction industry.

Abdalaziz (2009) discussed the main factors affecting design and contractual documents' quality in construction industry in Gaza Strip, in order to assist all stakeholders to plan effectively before starting a project, beginning with the design phase, by creating awareness and paying sufficient attention to minimize the problems and eliminate extra costs incurred to make corrective actions in order to amend defective design. The study found that the most severe factors were: lack of qualified consultant's staff, lack of time available for checking and correlating all the information on all design documents, lack of experience on similar projects, designer's unfamiliarity with construction materials and techniques that will be used in the project and absence of an experienced overall design manager. On the other hand, it has been found that the most occurring causes of design deficiency were: reduced design fee levels, selection of designers on the basis of lowest price selection strategy, allocation of staff to more than one project at the same time, unstable client's requirements, last minute changes by the client and unwillingness of client to pay fee commensurate with the design of high-quality services.

Mahamid (2012) conducted a study to identify the factors that have the potential to cause contractors' business failure in the West Bank in Palestine and to determine their impact level from contractors' viewpoint. A survey of 84 contractors from the West Bank in Palestine was performed. 44 factors were considered in this study and were listed under the

following three groups: (1) financial, (2) Managerial and (3) external. Contractors have ranked the following factors as highly influential with huge potential to cause contractors' business failure: fluctuation in construction material cost, delay in collecting payments from clients, lack of experience in contracts, low margin of profit due to competition and closure and limitation of movement of people between the West Bank areas.

RESEARCH METHOD

73 problems in the construction contracting sector in the West Bank in Palestine have been compiled through making interviews with some contracting stakeholders (contractors, engineers, supervisors, consultants and representatives of some donor countries and institutions), as well as by reviewing some local publications that reflect some local stakeholders' sufferance in the construction sector. Then, problems of similar nature were grouped together; giving rise of eleven main groups: 1) financial problems 2) political problems 3) administrative problems 4) problems related to tender documents (contracts, drawings) 5) problems related to specification and material adaptation (quality) 6) problems related to contract parties themselves 7) problems related to sector environment 8) problems related to natural environment 9) problems related to arbitrations and dispute solving 10) problems related to technology use 11) problems related to career ethics. The problems were tabulated in a questionnaire form. The questionnaire was developed in order to evaluate the importance of the identified problems. Data was gathered through a survey, analyzed by using importance index, taking into account the combined view of owners, contractors, consultants as well as donor countries and institutions.

Questionnaire Design

The collected problems were used in developing a postal questionnaire with the objective of investigating

the main important construction contracting problems that the construction sector in Palestine suffers from. Then, the designed questionnaire was sent to some local construction experts to check its content and its validation. Many amendments were conducted that improved the questionnaire prior to sending it to the representative research sample.

Questionnaire Distribution

Four populations were targeted in this research: contractors of the first, second and third categories who have valid registration in the Palestinian Contractors Union (PCU), owners' representatives, first class consultants who have valid membership in the engineering association and donor countries and institutions.

The questionnaire was distributed to the randomly 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 as follows: (183) contractors, (21) project owners, (92) project consultants and (14) donor countries and institutions. The following ways were used to distribution and collection the questionnaires:

- Direct distribution and collection by hand.
- An electronic questionnaire to be filled electronically through a special website link; here is the questionnaire link: <https://docs.google.com/spreadsheet/viewform?formkey=dEtheW1nZTRQakdwNWIUeDV5MTdIVkE6MQ>
- Sending and receiving the questionnaire by fax.

RESULTS AND DISCUSSION

Respondents

The results show that 59.3% of the research sample subjects were contractors, 25.4% were consultants, 9.5% were owners and 5.8% of the sample subjects were donor institutions. Regarding the position of the respondents, the results show that 44.3% of the respondents were project managers, 27% of them were

site engineers and 25.9% of them were firm managers. This indicated that the questionnaire respondents were almost the key persons in their firms.

Problem Analysis

Analysis of Financial Problems

Figure 1 shows all the financial problems represented in a bar diagram, allocating the importance distribution of responses, their percentages and ranking numbers according to their importance.

Analysis results show that problem number (3): “delaying owed payments by the owner” is the most important problem among the financial problems.

Interviews with a number of contract parties in the studied sample illustrate that many projects are owned by the Ministry of Woks. PNA is suffering from financial crises due to its political circumstances,

which complicates fulfilling its obligations, leading to the emergence of the highly important problem of delaying paying the contractor-owed payments and thus causing great losses to contracting companies.

Another highly important problem which can be inferred from the analysis was problem number (1): “the currency exchange changing value”. This problem is attributed to high currency fluctuation during the past 8 years, sometimes reaching 25% and leading to huge losses to contracting companies, particularly because many tenders are pricing in dollars, especially in financially supported projects.

Also, problem number (2): “construction materials’ changing prices due to inflation” scored a very high importance, mainly affected by high fluctuation in reinforcing steel prices during the past years.

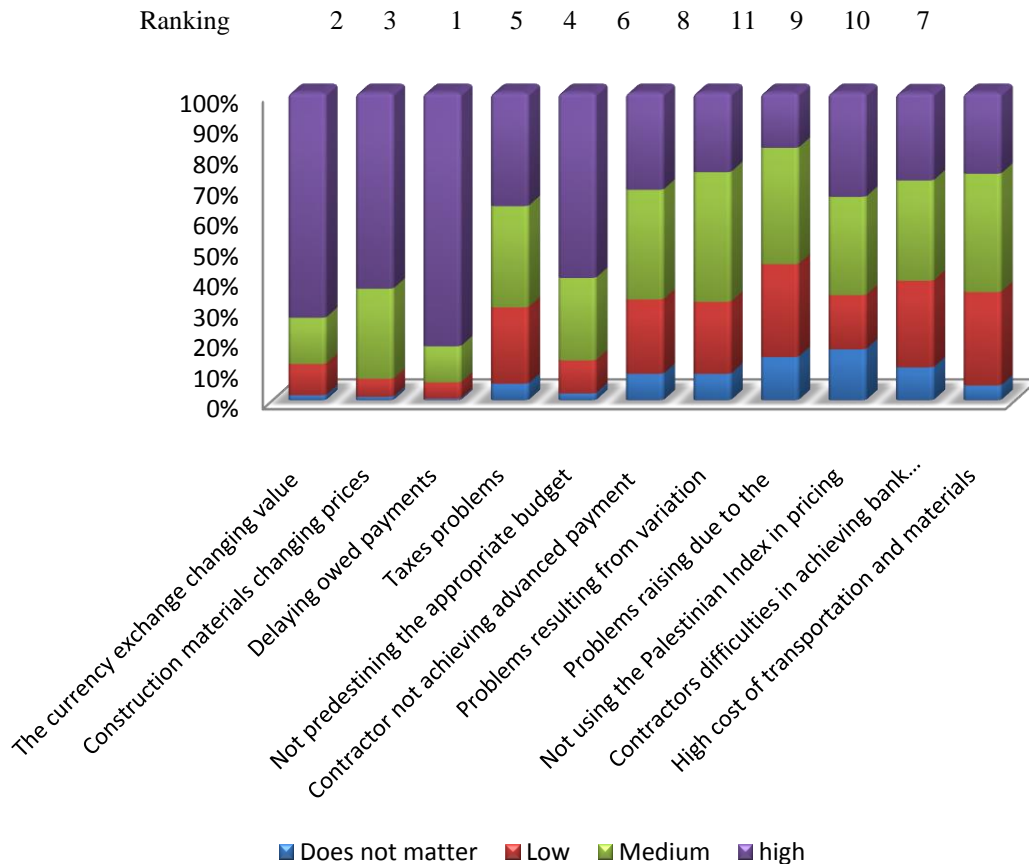


Figure (1): Analysis of financial problems

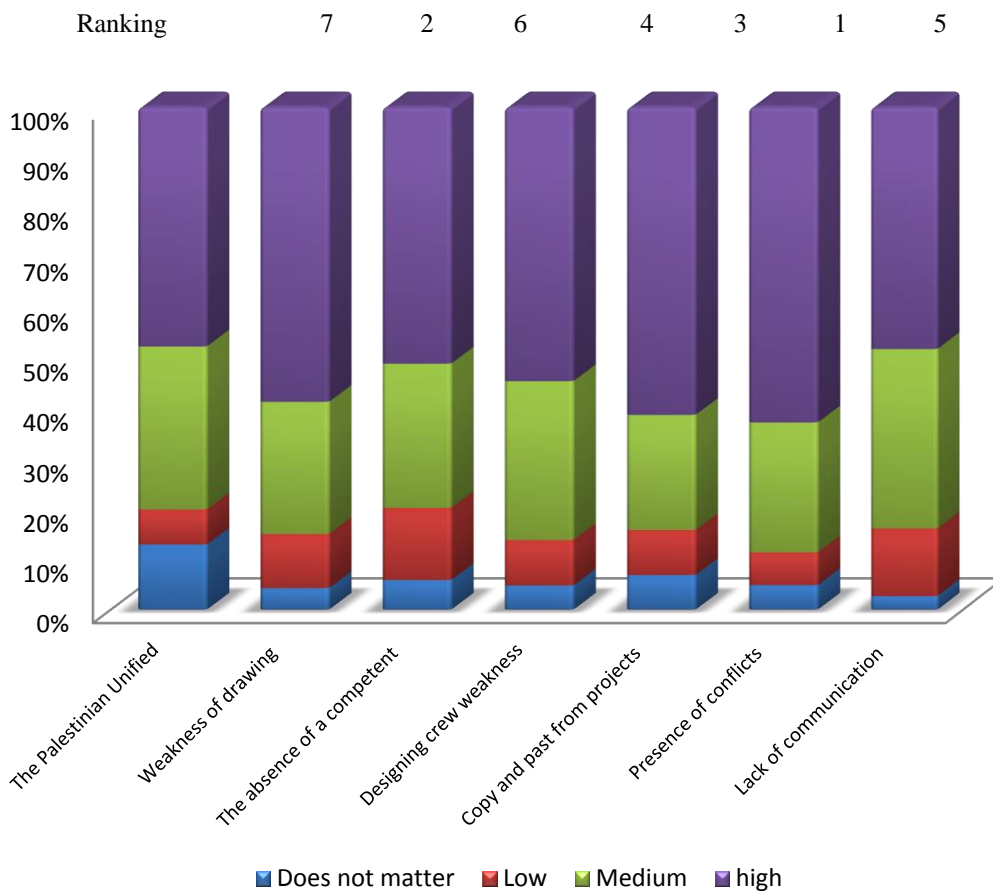


Figure (2): Analysis of problems related to tender documents (contracts, drawings)

Analysis of Problems Related to Tender Documents (Contracts, Drawings)

Analyzing the problems related to tender documents includes stating each problem’s arithmetic mean for responses, its overall importance category and ranking number.

Analysis of these problems are presented in Figure (2) in a bar diagram, allocating the importance distribution of responses, their percentages and ranking numbers.

Results show that problem number (6): “presence of conflicts between tender documents” is the most important problem among the problems related to tender documents. Interviews with a number of contract parties in the studied sample illustrate the presence of conflicts between tender documents caused

by inaccuracy, deficiencies in preparing tender documents and lack of competent authority for tender document revision before tendering.

Analysis of Problems Related to Specification and Material Adaptation (Quality)

Regarding this group of problems, responses to each included problem statement were categorized according to importance. Each statement’s importance percentage, arithmetic mean and ranking number were calculated.

Figure (3) shows all the problems related to specification and material adaptation, represented in a bar diagram allocating the importance distribution of responses and their percentages.

The results show that problem number (3):

“weakness of the Palestinian Standards Institution role” is the most important problem among the problems related to specifications and materials.

Interviews with a number of contract parties in the studied sample indicate that not specifying Palestinian specifications for materials and equipment to be adopted in projects leads to consultants’ diversity in describing the BOQ according to their experience.

Also, difficulties appear in tender pricing due to lack of clarity in specifying the items properly. On the other hand, many consultants avoid precise description so as not to be accused by bias to the products of a specific company. Therefore, if there were a clear description in the Palestinian specifications, then consultants embarrassment would be avoided.

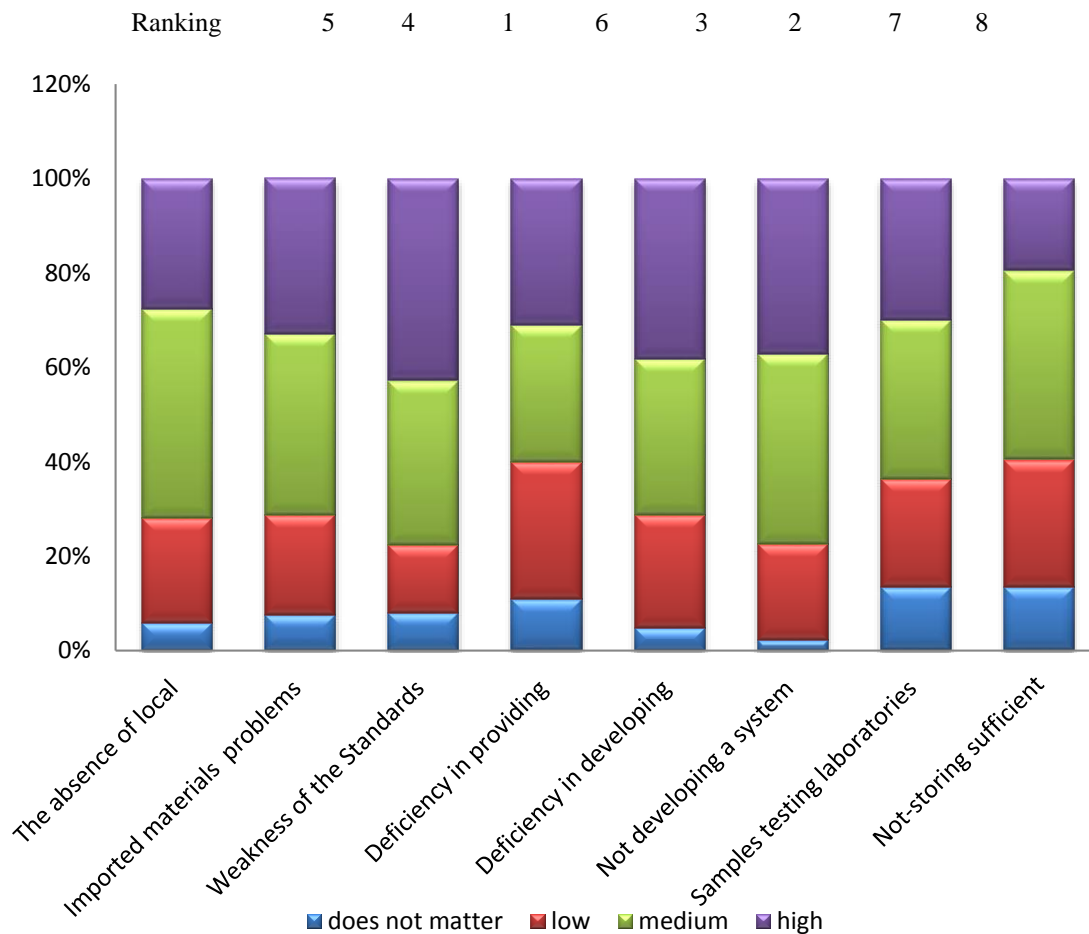


Figure (3): Analysis of problems related to specification and material adaptation (quality)

Analysis of Political Problems

Figure (4) illustrates the analysis of political problems, showing each problem statement’s importance percentage and ranking number. Analysis shows that problem number (2): “Israeli restrictions on imports” is the most important problem among the

studied political problems.

Analysis of Administrative Problems

Figure (5) shows all the administrative problems represented in a bar diagram allocating the importance distribution of responses, their percentages and ranking

numbers. Results show that problem number (5): “policy adoption of awarding the bid to the lowest

price and not to the most accurate one” is the most important problem among the administrative problems.

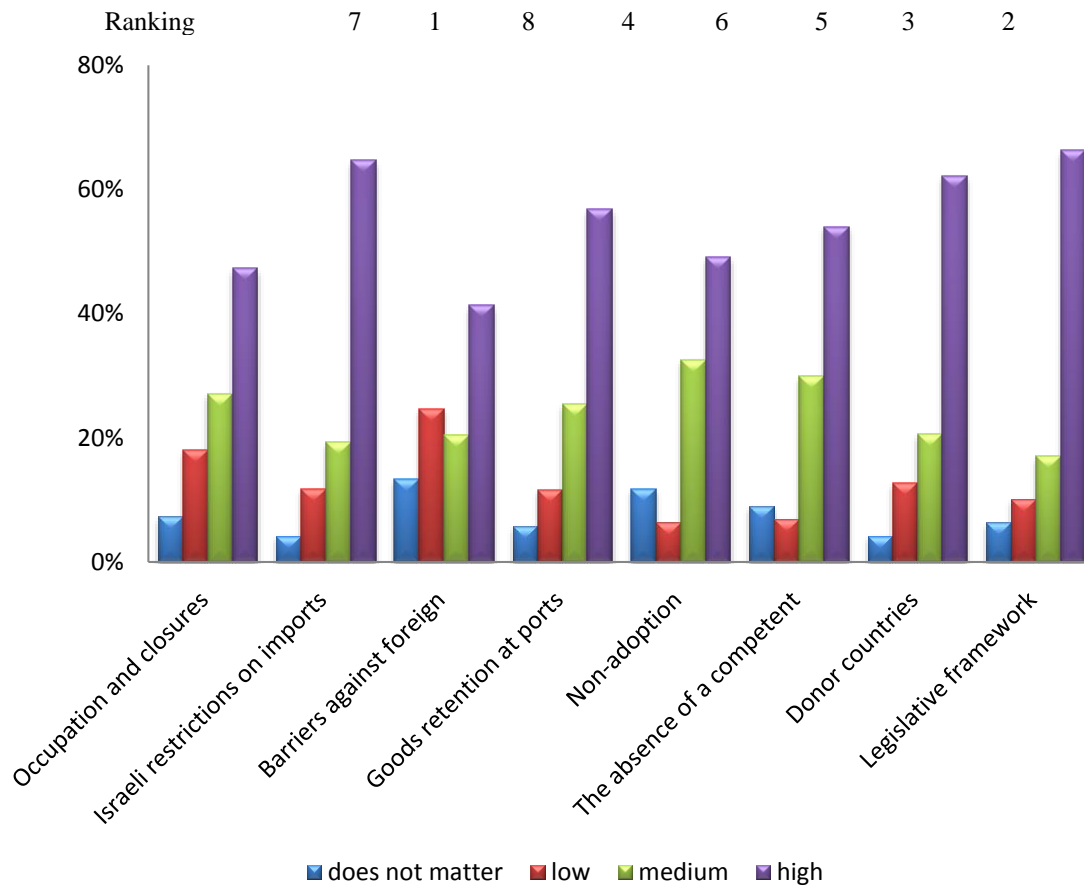


Figure (4): Analysis of political problems

Interviews with a number of contract parties in the studied sample indicate that not excluding offers which are less than the estimated cost sometimes leads to refer the tender to a contractor with poor experience. Falling in execution delays and contractor losses adversely affect the general financial situation in Palestine. That is because contractor loss or bankruptcy will lead to payment inability of the contractor which adversely affects suppliers and causes financial losses.

Analysis results also showed that problem number (3): “owner deceleration in decision making” is the second most important one among these problems. This problem may occur due to the owner’s farness

from the matters of the project, owner or his representative not attending the project meetings regularly or due to bureaucracy in decision making and project management which leads to delays in the project’s execution.

Analysis of Problems Related to the Contract Parties Themselves

Problems related to contract parties themselves are represented in Figure (6) in a bar diagram allocating the importance distribution of responses, their percentages and ranking numbers. The results show that problem number (7): “contractor team lack

readiness to the project's type" is the most important problem among the problems related to the contract

parties themselves.

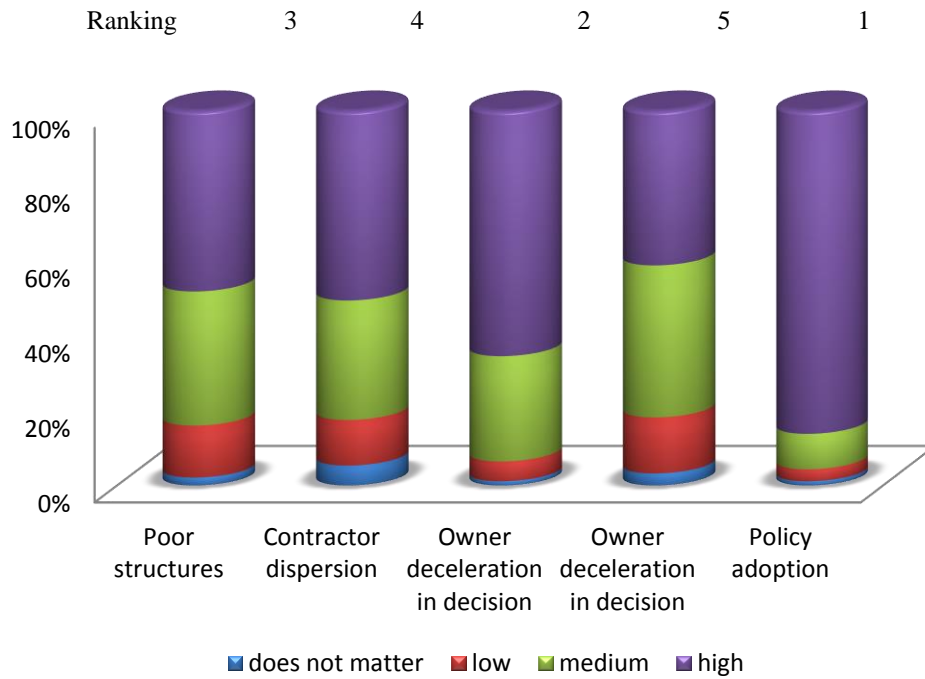


Figure (5): Analysis of administrative problems

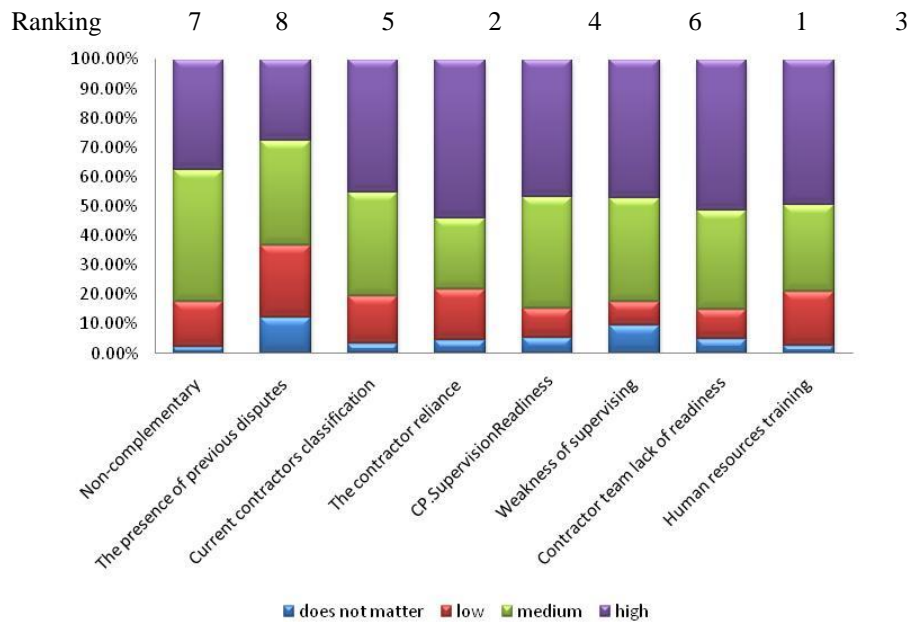


Figure (6): Analysis of problems related to the contract parties themselves

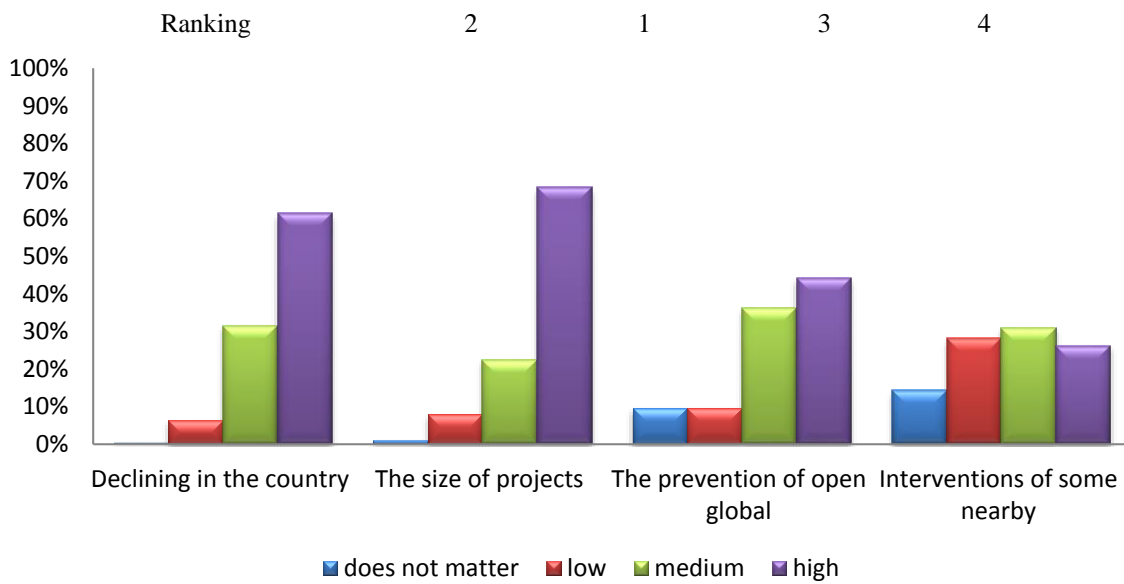


Figure (7): Problems related to the sector environment

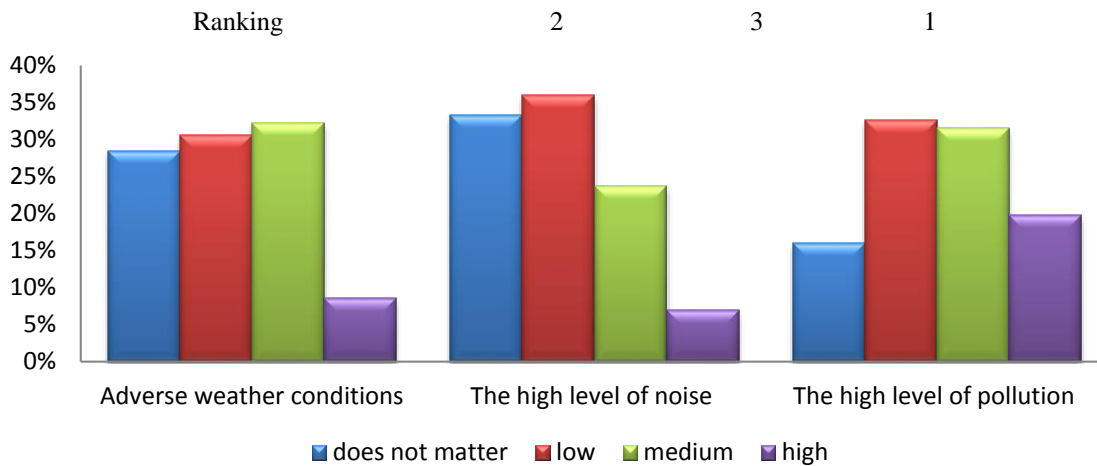


Figure (8): Analysis of problems related to the natural environment

Interviews with a number of contract parties in the studied sample indicate that lack of contractor team’s readiness may be attributed to the instability of the team members and that contractors continually change their team members without training the new employed ones. Also, contractor’s dependence on untrained recently graduated engineers to follow up the site matters causes the appearance of this problem as well

as so many other problems.

Analysis of Problems Related to the Sector Environment

Analysis results are shown in Figure (7). All the problems related to the sector environment are represented in a bar diagram allocating the importance distribution of responses, their percentages and ranking

numbers. Results show that problem number (2): “the size of projects is little in relation to the number of contractors” is the most important problem among the problems related to the sector environment.

Interviews with a number of contract parties in the studied sample indicate that this problem appears due to the bad financial and political situation of the country. Also, it may be due to the improper contractors’ classification that leads to ineligible contractors’ appearance and thus to improper competition.

Analysis of Problems Related to the Natural Environment

Figure (8) shows all the problems related to the natural environment, represented in a bar diagram allocating the importance distribution of responses, their percentages and ranking numbers. The results show that problem number (2): “the high level of noise” is the lowest important problem among the problems related to the natural environment and among all other problems in all categories.

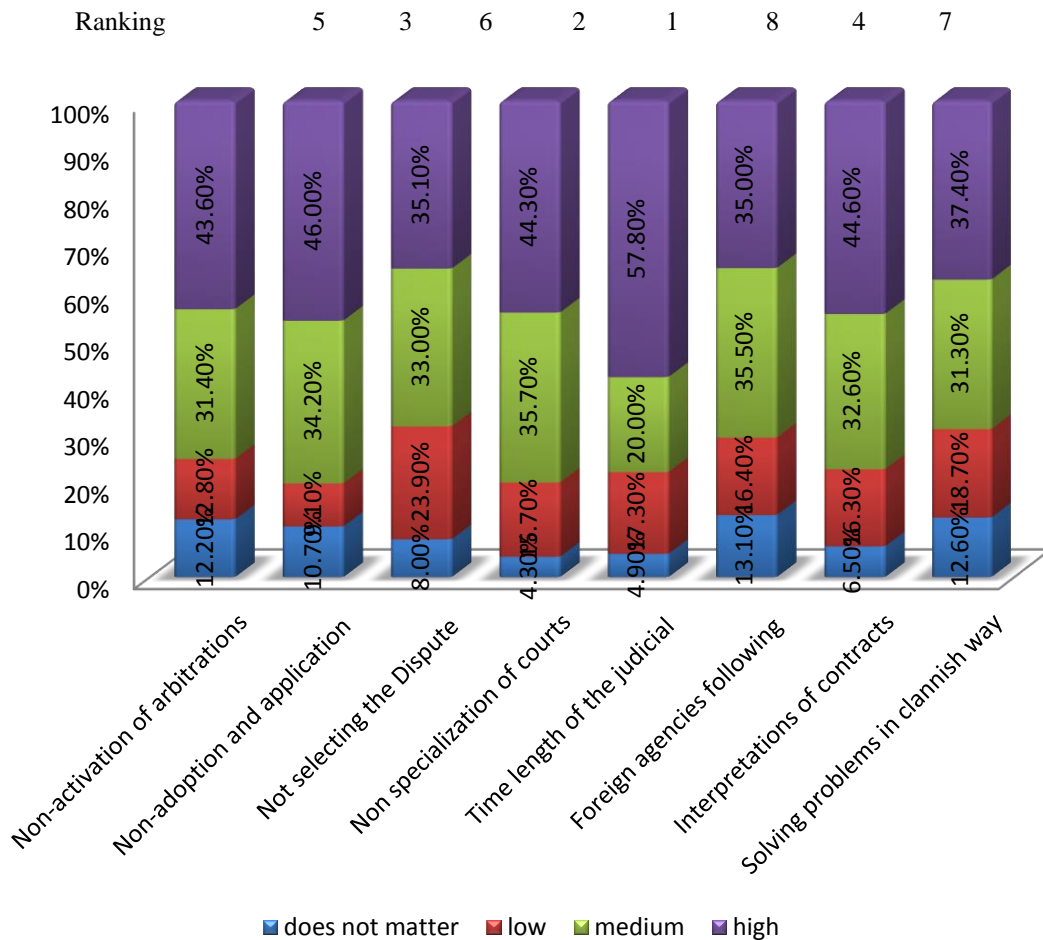


Figure (9): Analysis of problems related to arbitration and dispute solving

Analysis of Problems Related to Arbitration and Dispute Solving

Figure (9) shows the analysis results of all the

problems related to arbitration and dispute solving, represented in a bar diagram allocating the importance distribution of responses, their percentages and rank

numbers. The results show that problem number (5): “time length of judicial court procedures” is the most important problem among the problems related to arbitration and dispute solving.

Analysis of Problems Related to Technology Use

Figure (10) shows the analysis results of all the problems related to technology use, represented in a bar diagram allocating the importance distribution of

responses, their percentages and rank numbers. The results show that problem number (2): “high cost of technology acquisition and staff training on it” is the most important problem among the problems related to technology use. This result is consistent with (Osaily, 2010), who indicates that “technology will be another barrier due to high cost to attain technology for large numbers of employees”.

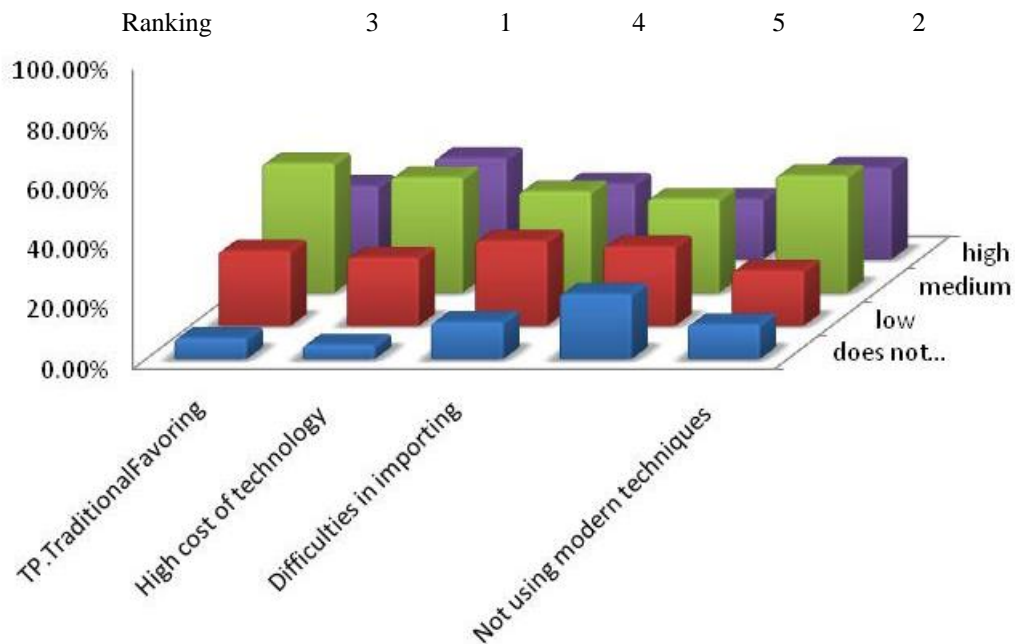


Figure (10): Analysis of problems related to technology use

Analysis of Problems Related To Career Ethics

The problems related to career ethics are represented in a bar diagram as shown in Figure (11), where importance distribution of responses, their percentages and ranking numbers are allocated.

The results show that problem number (1): “rates’ burning due to intense competition between contractors” is the most important problem among the problems related to career ethics.

Interviews with a number of contract parties in the studied sample indicate that this problem occurs due to the low number of tendered projects, so competition

will increase abnormally to stay in the work area. The second highly rated problem is problem number (2): “some contractors’ maneuvers by downloading some prices on other items”. Many reasons drive contractors to do this. They can adopt works and samples lower in specifications than those specified in the tender.

Top Important Problems

The problems that have the highest importance and arithmetic means are listed in Table (1). These problems are considered the main problems that the Palestinian construction contracting sector suffers from.

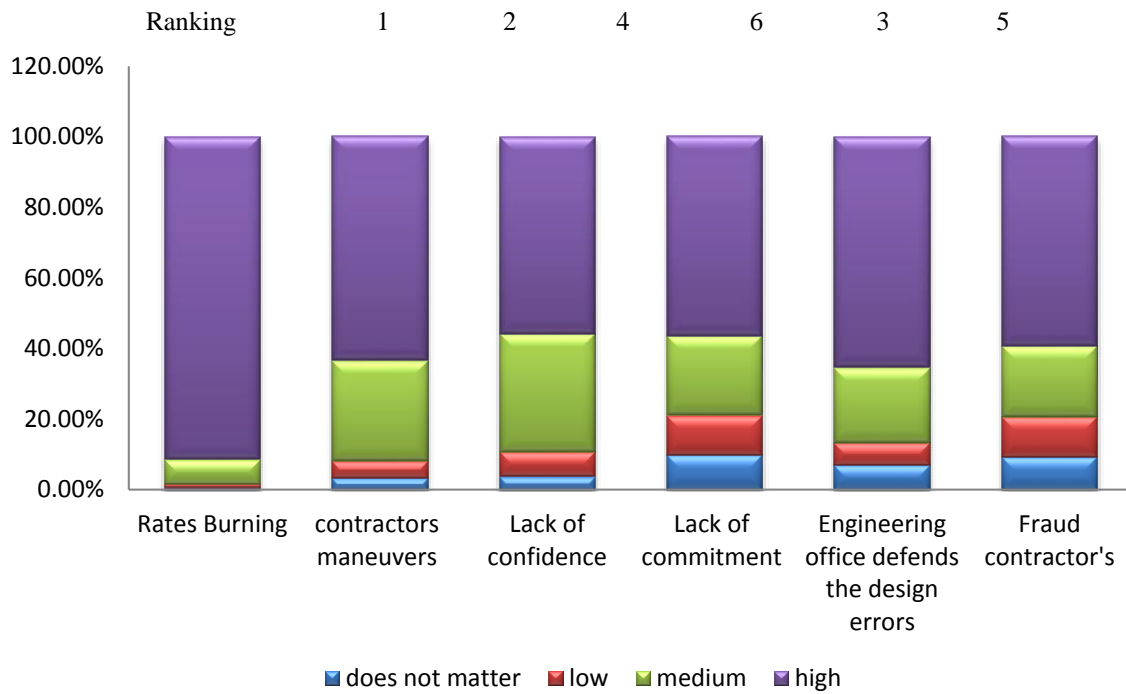


Figure (11): Analysis of problems related to career ethics

Table 1. Top important problems

Rank	Problem	Importance	mean
1	Rates' burning due to intense competition between contractors	High	3.89
2	Policy adoption of awarding the bid to the lowest price and not to the most accurate one	High	3.81
3	Delaying owed payments by the owner	High	3.76
4	Currency exchange changing value	High	3.60
5	Owner deceleration in decision making	High	3.58
6	Little size of projects in relation to the number of contractors	High	3.58
7	Construction materials' changing prices due to inflation	High	3.56
8	Decline in the country's economic situation	High	3.54
9	Some contractors' maneuvers by downloading some prices on other items	High	3.52
10	Presence of conflicts between tender documents	High	3.46

CONCLUSIONS

The Palestinian construction sector is one of the key economic sectors and is the main force motivating the national economy. It did not take its deserved development due to many constraints and obstacles,

which should be well studied to be solved and overcome.

Therefore, this research was conducted with the aim to survey the construction contracting problems in Palestine from the different local contract stakeholders' point of view. 73 problems were collected to be

considered in this research and grouped in eleven main groups; namely: financial, political, administrative problems and problems related to the tender documents (contracts, drawings), specifications and material adaptation (quality), contract parties themselves, sector environment, natural environment, arbitration and dispute solving, technology use and career ethics.

A questionnaire was designed to evaluate the importance of the construction related problems. 310 questionnaires were distributed as follows: (183) contractors, (21) project owners, (92) project consultants and (14) donor countries and institutions. The results show that the highest important problems that the Palestinian construction sector suffers from are as follows:

- Rates' burning due to intense competition between contractors.
- Policy adoption of awarding the bid to the lowest price and not to the most accurate one.
- Delaying owed payments by the owner.
- Currency exchange changing value.
- Owner deceleration in decision making.
- Little size of projects in relation to the number of contractors.
- Construction materials' changing prices due to inflation.
- Decline in the country's economic situation.
- Some contractors' manoeuvres by downloading some prices on other items.
- Presence of conflicts between tender documents.

Based on the research findings, the following recommendations are suggested:

1) Recommendations for project owners and donor countries and institutions

- 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 to the real one.
- Recommending offers' examination commissions to award the tender to the lowest price bid which is at the same time the best that technically

corresponds to the conditions and specifications. In addition, offers inconsistent with conditions and specifications should be excluded. This can be achieved by receiving the tender offers during bidding in two envelopes; technical offer and financial offer.

- Recommending offers' examination commissions to make sure of price moderation for the lowest price offer corresponding to the conditions and specifications.
- Compliance with paying contractors owed payments on time.
- Compliance with paying fines when delaying any of the contractor's owed payments or disturbing his work due to owner slowing down in decision making.
- Fixing and identifying currency conversion rate for each project.
- Distributing the government's and donor countries' projects properly on the West Bank cities and on the largest possible number of contractors.
- Tender documents should be studied and checked carefully before tendering.
- Budget provision before tendering.

2) Recommendations for supervision team

- Improving supervision team qualifications through organized training courses on skills and capabilities required for each project.
- Replying without delay on the contractors' demands and not decelerating in decision making.
- Adopting rigorous supervision on contractors in terms of work specifications' commitment and quality assurance.
- Transparency in dealing with contractors, without favoritism, for assuring ethical work climate.

3) Recommendations for contractors

- Caution against contractors' reliance on the method of downloading some prices on other tender items and rates' burning because of their undesirable consequences.

- Contractors' responsibility of providing the necessary funding for the project.
- Accurate, scientific study of tender documents when bidding and responding to the contract document

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