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## PROBLEMS FACING PROJECT MANAGERS IN THE PALESTINIANS' CONSTRUCTION PROJECTS

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**ABSTRACT:** The past studies revealed that not much researches have been done on the problems that facing the project managers in the Palestinians' construction projects. A clear understanding of such problems helps the Palestinians construction industry of finding the suitable solutions to overcome these problems. Therefore, the aim of this study was to look into these main faced problem. A questionnaire survey was carried out to achieve the main aim of this research. Data were analyzed statistically using the Statistical Package for Social Sciences (SPSS) software (Version 18.0). For Palestine to progress in terms of project success, the main problems facing the project managers must be determined, in order to get the best results with less risk, to achieve success with good quality, and to help in moving in the right direction to establish the future goals. The results revealed serious weaknesses in construction management and a lack of professionalism in Palestine. The study was recommended to the Palestinian National Authority (PNA) to improve the regulations and laws to meet the impact of closure and segmentation of the West Bank. Also it should conduct a continuous training program with the co-operation of the Palestinian Construction Union (PCU) and the Palestinian Engineers Association (PEA) to explain the internal and external factors affecting the construction business. Also training programs could be designed by targeting specific competencies important to the construction project managers in Palestine; this may include contractors, consultants, private, and public sector.

**Keywords:** Construction Industry, Palestine, Project Managers

### 1. INTRODUCTION

The construction industry is a conglomeration of diverse fields and participants that have been loosely lumped together as a sector of the economy. The construction industry plays a central role in national welfare, including the development of residential housing, office buildings and industrial plants, and the restoration of the nation's infrastructure and other public facilities. The importance of this industry lies in the function of its products which provide the foundation for industrial production (Hendrickson, 2008). The construction sector is one of the key economic sectors and is the main force motivating the Palestinian national economy. Upon the establishment of the PNA and the assumption of its powers over the Palestinian territories in 1994, the construction sector has witnessed noticeable expansion and activities. This has resulted in the recovery of the construction contracting profession and subsidiary industries, encouraged the investment of the Palestinian expatriates' capital in the local construction sector, and contributed to the creation of jobs for thousands of Palestinians. Therefore, the construction sector has occupied the foremost position among the rest of sectors, mainly in the attraction of investments and creation of new jobs (Palestinian Contractor's Union (PCU), 2003). The construction sector is one of Palestine's most important industries although it is significantly affected by changes in the political environment. Besides private firms, three major nongovernmental organizations play integral roles in this industry, namely the Palestinian

Contractor's Union, the Syndicate of Engineers and the Palestinian Construction Industries Union. High population growth and a decline in construction activity mean that there is an increasing demand for additional affordable housing. Due to the linkages with other parts of the economy a vibrant housing sector has the potential to stimulate and revive the Palestinian economy (Palestine Investment Conference (PIC), 2008)). In Palestine, the construction industry is considered one of the main sectors that contribute strongly to the Palestinian economy. In 2007 alone, this industry employed 11.6% from the local workforce (Enshassi et al., 2010). The construction sector has played a crucial role in extending job opportunities for the Palestinian labor force; its expansion has generated many jobs for skilled, semiskilled and unskilled workers. Since the establishment of the PNA in 1994, construction projects implemented by both public and private sectors have supported the development of numerous related industries. Its 33 percent share of the total local production is significant, and influences economic, social, educational and other professional sectors (Enshassi et al., 2009).

Based on data from the PCBS, it was found that the average contribution of the construction industry to Palestinian GDP ranged from 2.18 percent to 2.68 percent during the period from 2000 to 2006, and around (2.5%) of GDP and (11.6%) of total workforce in 2007 (PCBS, 2012). Despite the substantial success achieved by the construction industry in the Palestinian territories, in terms of economic growth, its contribution to the local output, employment and meeting partially the local needs of the Palestinian society, this industry suffers from a number of problems that have prevented it from resuming its big role in the Palestinian economy (Enshassi, Al-Hallaq & Mohamed, 2006). This sector is susceptible to the political situation and to the trends of international donations. It is featured by highly intermittent temporary employment rates (PFI, 2009). The construction sector in Palestine was one of the leading sectors that achieved high rates of economic growth in the 1970s and up to the mid-1980s. During that period of time, the contribution of this sector has increased in terms of providing job opportunities for the Palestinian labor force and the generation of local production. Since then, this sector has been subjected to many setbacks which have decreased its role in building up the Palestinian economy in contrast with its counterparts in many developing and neighboring countries. In addition to its social role in providing homes, public facilities and infrastructure for economic enterprises, the construction and housing industry is a driving force and a vital contributor to the Palestinian economy (Enshassi et al., 2006).

The construction sector's share of GDP increased from under (10%) in 1972 to over (17%) in mid-80's. During that period the contribution of sector had fluctuated in an upward long run trend bounded by (9%) and (19%) during 70's and by (15.2%) and (23%) during 80's. Several factors had contributed to the growth of the sector during that period, most important is the high growth of income experienced by Palestinians due to the integration of the Palestinian Economy into the larger and wealthier Israeli economy, and also to the oil boom which enabled Palestinians in the Gulf to increase their capital inflows into Palestine, most of which were invested in construction and housing. Following 1985 and till 1991 the sector was exposed to many external shocks which affected not only construction but also the whole economic and social conditions in Palestine. Economic slowdown in related economies, high inflation rates, devaluation of the Jordanian Dinar and the Intifada had exerted a passive effect on the performance of the sector and the economy as a whole. Despite these facts, it seems that the construction activity was less affected than the total economy; its average share of GDP during the period (87-91) was around (21%) as compared to (17.2%) during the period (80-86). The special particularities of the Palestinian economy had buffered the construction sector and protected it from serious and strong shocks that affected the whole economy. Post 1991 construction share had reached an unprecedented level. The share of construction and housing in 1994 was (25%) of GDP the advent of the peace process had leveled off the adverse impact of the Gulf war and has promoted construction activity in the West Bank as a result of the positive environment prevailed due to the Oslo agreement (Palestinian Economic Council for Development & Reconstruction (PECDAR), 1997)). Unlike developed countries, Palestine does not have a mature construction industry with well-established contracting and consulting companies. Much of the building and construction is done by the informal sector. This consists of individuals building family shelters, water wells and the like. The formal sector consists of public and private domestic contractors (Enshassi et al., 2006). The pressure on contractors bidding decisions has further increased in the last five years due to the current political situation, which causes a sharp decrease in the number of the

available projects (Enshassi et al. 2012). Mahamid (2012) stated that the contractors ranked the following factors as being highly influential with huge potential to cause the failure of contracting businesses: (i) fluctuation in the cost of construction materials; (ii) delay in collecting payments from clients; (iii) lack of experience in contracts; (iv) low margin of profit due to competition; and (v) closure and limitation of movement between West Bank areas.

The top four factors are human-related, and could be controlled and improved by companies to avoid or reduce the causes that lead to business failure. The results show that failure of contracting businesses mostly arises from the financial-related factors, followed by managerial skills and external-related factors, respectively, he suggested many recommendations such as The PNA should conduct a continuous training program with the co-operation of the PCU to improve managerial and financial practices and to explain the internal and external factors affecting the construction business. Estimates based on updated price information should be considered in order to come up with reasonable offers. Continuous updating of the prices of materials and labor rates by government-related agencies is recommended. The cost list should be distributed to construction professionals to come up with best estimates if there is a change in the cost of certain items. The PNA must modify and improve the regulations and laws to meet the impact of closure and segmentation of the West Bank. These regulations are supposed to help companies make profits.

Enshassi et al. (2012) conducted a study to identify and rank problems which exist between contractors and subcontractors. In overall context, assigning part of the works to new subcontractor, without informing the original subcontractor, main contractor's financial problems, non-adherence to the conditions of the contract, delay in contract progress payments, and delay of the works behind the time schedule are the most severe problems that affect the relationship between contractors and subcontractors. The factors caused by subcontractors group was ranked as the most important cause of problems. The findings of their study are important because the factors that cause problems between contractors and subcontractors are identified and ranked according to their relative importance. If these factors are addressed and monitored carefully, the relationship between contractors and subcontractors will be improved which may lead to dispute, delay, and cost overruns reduction. A survey of contractors, consultants, and owners was conducted by Enshassi et al. (2009) to elicit their opinions regarding causes of delays and cost overruns in construction projects in the Gaza Strip. The survey itself was based on delay and cost overrun factors drawn from findings research in other countries, together with special factors identified as potentially affecting the Gaza Strip. The survey showed that all three parties generally agree on the ranking of individual delay factors. Results indicated that the most important factors that cause time overruns as perceived by the three parties are: strikes, external or internal military action and border closures, lack of materials in markets, delay of material delivery to site, cash flow problem during construction, shortage of construction materials at site, poor site management, no adherence to materials standards relating to site storage, poor economic conditions (currency, inflation rate, etc.), major disputes and negotiations and suspension of work by owner or contractor. Mahamid (2011) conducted a study aimed at identifying the risk matrix for factors affecting delays in road construction projects in the West Bank in Palestine from the owners' perspective. The results identified six factors are located in the green zone, 29 factors are located in the yellow zone, and eight factors are located in the red zone of the risk matrix. The most severe factors that are located in the red zone are: (1) poor communication between construction parties; (2) poor resource management; (3) delay in commencement; (4) insufficient inspectors; (5) rework from poor material quality; (6) rework from poor workmanship; (7) payments delay; and (8) segmentation of the West Bank. A total of 78 factors affecting contractors' decisions to bid or not to bid were identified and classified into four groups by Enshassi et al. (2010). Based on their results, it was concluded that the financial capability of the contractor was the most important factor affecting the contractor's decision to bid or not. Moreover, the availability of equipment owned by the contractor, the contractor's competencies, and experience in similar projects and the contractor's category in the PCU were ranked in the highest positions as critical factors affecting the contractor's decisions. The relationship between the contractor and subcontractors and the contractor's ability to make joint ventures were ranked in the lowest two positions by all respondents. These results reflect that the relationships between contractors and subcontractors need to be strengthened and supported. Although a huge of an exhaustive literate studies conducted on Palestinian construction projects,

but none of these studies have revealed so far the main problems that the project managers are facing in the Palestinians' construction projects. Therefore, this study was deeply looked into these main faced problem and proposed solutions to overcome them.

## **2. RESEARCH METHOD**

A questionnaire was designed to measure the constructs of this research. The survey instrument was a person-administrated. The questionnaire was structured to elicit the main problems facing the Palestinian project managers, the general and technical background of these project managers in the Palestinians construction industry, and the general profile of the Palestinian construction firms. One format was used in the questionnaire which is the checklist. The questionnaire contained three sections. The First sections focused on the respondent's firm information, which includes: name of the firm, firm specialty, number of employees in the firm, and the firm nationality and the second section concentrated on respondent's personal information, which include: current position in the firm, academic qualification, education background, age, gender, nationality, years of experience prior to attaining project managers, years of experience spent as project managers, number of current projects responsible for, number of projects responsible for since becoming project managers, achieving any training programs related to project management, willing to take such training programs in future, causes of not achieving training programs while the last section was on the main question of the study which asked about the main problems the respondents faced while managing their projects. The questionnaire was translated into the Arabic language from the English version and this was done to assist the respondents in answering the questionnaire with more clear understanding as some of them are not good in using English language. The data was collected using the postal technique. It took on an average approximately less than 5 minutes for the participants to complete it. The targeted population of this study was the contractors and consultants project managers working in the construction industry in Palestine (west bank). Because of the difficulties of collecting data from all cities of Palestine because of the political situation & the closure of cities and roads, the researchers did select three cities that could represent the Palestinian construction industry, these cities are: Nablus, Tulkarm, and Jenin. The targeted contractors and consultants firms in these cities have a valid registration in the Palestinian Contractors Union (PCU) and in the Palestinian Engineers Association (PEA) in 2011 in all types of construction fields that include: buildings, roads, water and sewage, and public works. The list of their names, addresses, etc. was obtained from these establishments directly by visiting them by the researchers. Based on the data obtained from PCBS (2011) regarding the numbers of Palestinian's contractors and consultants, the total population of this research was 402. A simple random sampling was adapted, which represents the whole practicing project managers working in construction companies in the selected Palestinian cities. 150 questionnaires were sent to the construction companies, sometimes Face-to-face deliveries of the questionnaires are used to promote respondents and raise response rate in addition to the personal contacts of the contractors and consultants. 96 questionnaires were returned which all respondents were project managers, yielding a response rate of 64 percent. The collected data was processed by using Statistical Package for Social Science (SPSS) program Version (18.0). The Descriptive Statistics were used to evaluate the background of the respondents, and the background of the firms and the main study question.

## **3. RESULTS ANALYSIS AND DISCUSSION**

### **3.1. Background of the Respondents**

Out of 109 respondents, 13 of them were deleted due to the outliers and normality distribution, 96 respondents were left to be analyzed. Table (1) indicates the distribution of the respondents according to their demographic background. More than 90 per cent of the respondents obtained an engineering qualification. So this thing makes our job easy as we are dealing with expert and educated people (engineers). 85.4 per cents were bachelor degree holders, masters (10.4%) and 4.2 per cents have no formal education. Majority of the respondents were male (82.3%) and aged between 31 to 40 years old (46.9%), this means a medium period of experience needed in order to attain the status of project management within construction in Palestine. 97.9% were Palestinian and 2.1% were Jordanian, this indicates that construction projects in Palestine managed by Palestinian and no need for other nationalities. This could be explained by the small size of the Palestinians firms, small size of projects, political situation of Palestine, and finally the availability of Palestinian project managers in quality and quantity. The majority of project managers in the Palestinian construction industry (70%) have working experience prior attaining

their position less than 10 years, 19.8% have 11-20 years, and 9.4% more than 21 years. This result on contrast with the finding by Edum et al. (2000). This result could be explained by three reasons which are; the small size of the Palestinian construction firms, small size of projects, and most of newly project managers depend on the senior project managers in the same firm. 26 per cent of them have 1 to 3 years of experience as project manager, 4 to 6 years (21.9%) and 7 to 10 (18.8%). 33.3 per cent of the respondents were also work as project manager for more than 10 years. Approximately half of our project managers (41.3%) currently managing more than 5 projects, and 29.4% of respondents managing 2-3 projects, this might be explained by the same reasons mentioned above. Approximately the same thing is repeated on the number of projects managed by respondent since attaining project manager status, 47.7% have managed more than 21 projects, and 33% have managed 1-5 projects. On the other side, Figure (1) is also showing that 35% of the respondents are project managers and 20% are general managers, this could be explained by the small size of the firms. So the populations of this research are currently running more than 5 projects at the same time, and they have accumulative number of project since becoming project managers more the 21 projects, so we are talking about highly qualified project managers with good practical experience with high position in their firms.

Table 1. Showing the Respondents' Background

Variable	Frequency	Percentage
Academic Qualification		
Engineering	90	93.8%
Diploma	2	2.1%
No Formal	4	4.2%
Education Background		
Bachelor degree	82	85.4%
Master's	10	10.4%
None	4	4.2%
Age		
<30 years old	16	16.7%
31 to 40 years old	45	46.9%
41 to 50 years old	13	13.5%
>50 years old	22	22.9%
Gender		
Male	79	82.3%
Female	17	17.7%
Nationality		
Palestinian	94	97.9%
Jordanian	2	2.1%
Working Experience Prior to Attaining Project Manager		
1-5 years	33	34.4%
6-10 years	35	36.5%
11-20 years	19	19.8%
More than 21 years	9	9.4%
Experience as Project Manager		
1-3 years	25	26%
4-6 years	21	21.9%
7-10 years	18	18.8%
More than 10 years	32	33.3%
Current Number of Projects Managed by the Respondent		
1	19	17.4%
2-3	32	29.4%
4-5	13	11.9%
More than 5	45	41.3%
Number of Projects Managed by Respondent since Attaining Project Manager Status		
1-5	34	33.0%
6-10	6	6.4%
11-20	11	12.8%
More than 21	48	47.7%

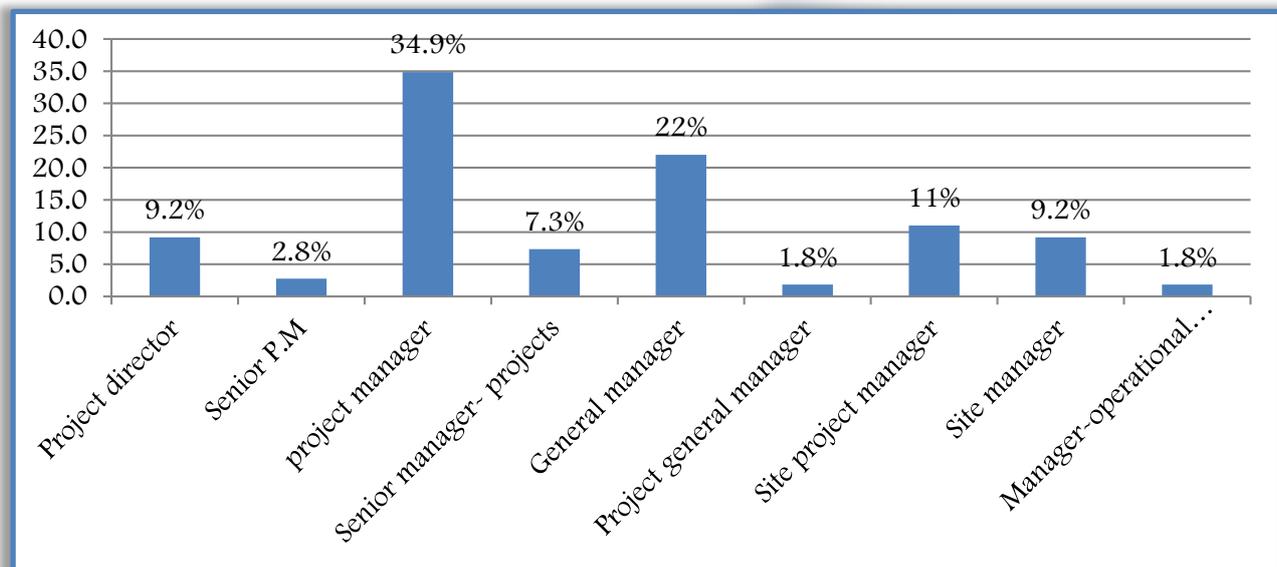


Figure 1. Distribution of Staff Performing Project Management Function by Designation

**3.2. Background of the Firms**

Table (2) indicates the background of the firms where the respondents' attached. It was found that 65.6 percent of the firms were consulting firm, and 34.4 per cent were contracting firms. The reason of this big difference could be because of that contracting firms have less number of project managers staff comparing to consultant firms, another reason could be the difficulty in finding the contracting project managers in available their offices (most of their time on site), another reason noticed by the researchers was the great cooperation of consultant project managers with this study compared with contracting project managers. Most of the firms were small firms with less than 20 employees (79.2%), and more than 60 employees (10.4%), this result could be explained by the small number and the low cost of the projects, and most of firms' general managers are the owners of that firms and they are also working as project managers. In addition it was found that all of the construction firms are Palestinian firms.

Table 2. Background of the Firms

Items	Frequency	Percentage
Type of the Organization		
Consulting	63	65.6%
Contracting	33	34.4%
No. of Employees		
<20	76	79.2%
21 to 40	6	6.3%
41 to 60	4	4.2%
>60	10	10.4%

**3.3 Main Problems Facing the Palestinian Project Managers**

Figure (2) shows the results of the main problems facing Palestinian project managers while managing their construction projects. The results showed that 84.4% of the main problems was the political situation of the country, followed by 78% because lack of project managers competencies. While the other problems took approximately a percentage range from 29.4 to 56%. The political situation of Palestine was considered by many researchers as has negative effects on the construction industry of Palestine, Enshassi et al. (2010) ranked political situation as one of the top five important factors affecting the contractor's strategies, arrangements and decision to participate in tenders or not.

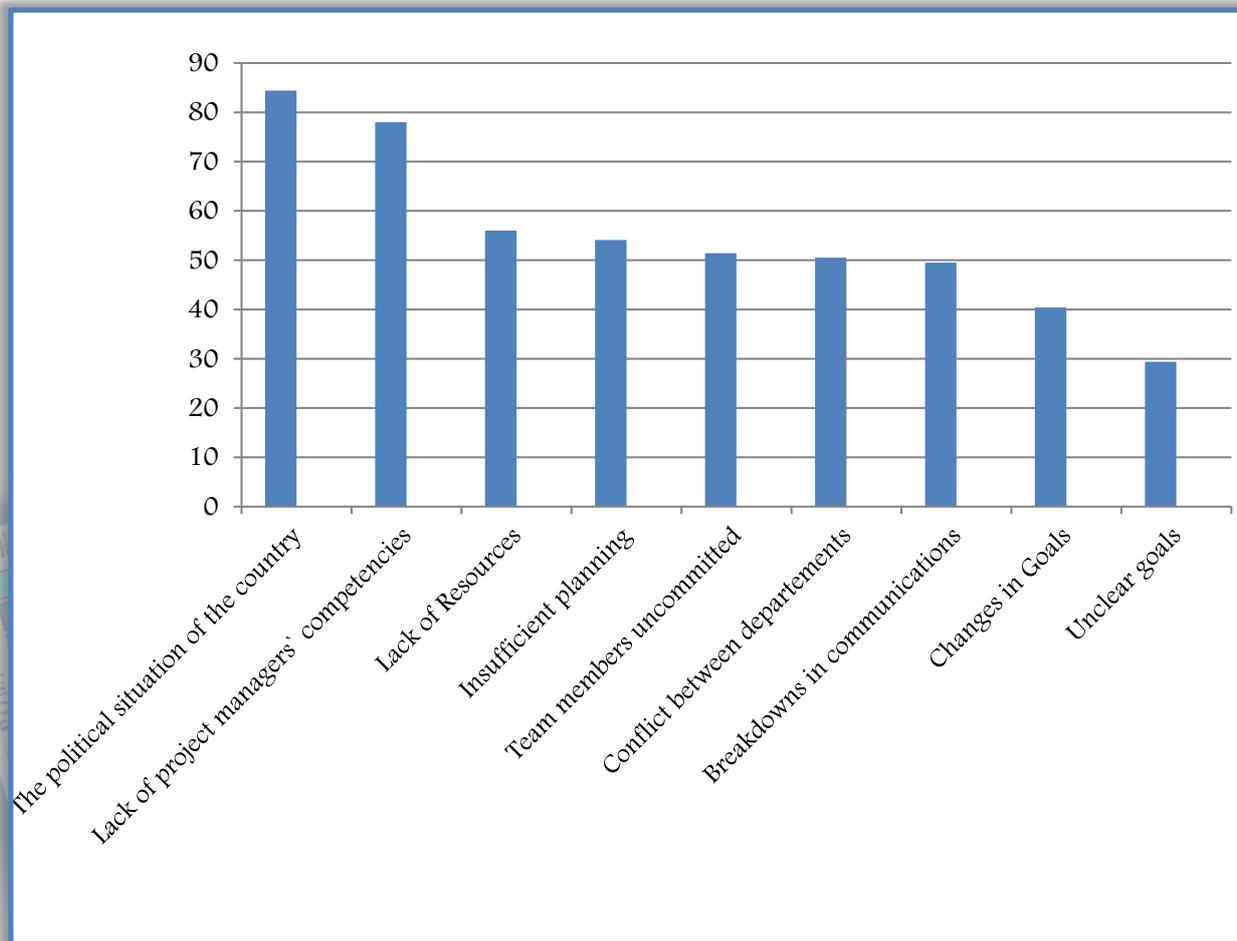


Figure 2. Main Problems Facing Palestinian Project Managers during Managing their Construction Projects

According to Mahamid (2012) one of the top factors has highly influential with huge potential to cause the failure of contracting businesses in Palestine is the closure and limitation of movement between West Bank areas. Also Enshassi (2012) revealed in his last research that borders closure and blockade is the second factor has affect cost estimate accuracy in the Palestinian construction industry. The second problem are facing the Palestinian project managers while managing their construction projects was the lack of project managers' competencies, this result reveals the importance of this research, and it is considered by many researchers as one of the main causes of extensive delays and thereby exceeds initial time and cost estimates. Enshassi et al. (2009) stated that the professional management group of delay factors were ranked high by contractors, relatively high by owners and low by consultants as a main cause of delays and cost overruns in the construction projects in the Gaza Strip of Palestine. According to Mahamid (2012), the top four factors have highly influential with huge potential to cause the failure of contracting businesses in Palestine are human-related.

#### 4. CONCLUSIONS

It could be concluded from the above presented results that the majority of the Palestinian construction project managers have good experience and are highly educated. The contribution of females in the Palestinian construction industry is very small comparing to males. Because of the political situation of Palestine, Palestinian construction managers have learned how to run their projects without involvement from other project managers' nationalities. It is easy to be a project manager in Palestine in less than 5 years, this could be because of the small size of the construction firms, small size of the projects, and most of newly project managers depend on senior project managers in the same firm. Most of Palestinians construction firms (consultant/contractor) have limited number of staff, but this limited number still can run many construction projects at the same time, this is because of the small size of projects, project managers are responsible for daily routine tasks, and in case of any issue appear, the senior project managers in the same firm will ready be involved. Due to of the limited cost and number of projects, most of firms' general managers are sometimes working as project managers. As recommendations, this study was recommended that the PNA must improve the regulations and laws to meet the impact of closure and segmentation of the West Bank. Also, the PNA should conduct a continuous training program with the co-operation of the PCU and the PEA to explain the internal and external factors affecting the construction business. Another interesting recommendation was that owners of the construction projects like Palestinian government and donors are recommended to select and recruit project managers according to their competencies and their managerial abilities, this procedure helps them improve and solve some frequent problems in their projects such as delay and cost overrun. Finally, the study recommended that Palestinian universities and institutes are recommended to establish academic programs related to project management especially project planning. Whereas until now there is no any existed project management programs in Palestine.

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