

THE REALIZATION OF PALESTINIAN CONSTRUCTION PROJECT MANAGERS ON THE IMPORTANCE OF PROJECT MANAGEMENT TRAINING PROGRAMS

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ABSTRACT

Investigating and analyzing the importance of training programs related to project management have been recognized as necessary for the success and development of project managers. This research set out to investigate the awareness of consulting and contracting project managers in the Palestinian construction industry on the importance of training programs related to project management. A survey of consulting and contracting project managers in selected cities of west bank in Palestine was done. A set of 109 questionnaires was administered on consulting and contracting project managers. The collected data was subjected to both descriptive and inferential statistical analyses. The results revealed that most of Palestinian project managers realized the importance of the training programs to the project management. Furthermore, the outcome suggests that the achieved training programs by the consulting project managers were statistically significantly higher than that achieved by contracting project managers. In addition, the results indicated a non-significant difference between consulting and contracting project managers in the willingness to attain training programs in future and in the causes of not attaining training programs, despite the fact that the two groups are from different organizations. The study recommends to construction industry bodies to take the benefit of homogeneity of the research in developing and implementing strategies for improvement and innovation in training programs related to project management.

Keywords: Construction, Palestine, Project Management, Training Programs

INTRODUCTION

The construction industry is usually considered to be the spine in any economy as it absorbs a relatively high percentage of the national workforce. 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).

In Palestine, (see Figure 1) the construction sector is one of the main economic engine sectors supporting the Palestinian national economy. The expansion of this sector has led to the revival of the construction profession, and the promotion and encouragement of new investments. Based on data from PCBS (2012a), it was found that the average contribution of the construction

industry to Palestinian gross domestic product (GDP) ranged from 7.4 percent to 9.7 percent during the period from 2009 to 2011. Also, the construction sector is one of the key economic sectors and is the main force motivating the Palestinian national economy. Therefore, it has occupied the leading position among the rest of sectors, mainly in the attraction of investments and creation of new jobs (Palestinian Contractor’s Union, 2003). Since the establishment of the Palestinian Authority in 1994, construction projects implemented by both public and private sectors have supported the development of numerous related industries. Its share of the total local production is significant, and influences economic, social, educational and other professional sectors (Enshassi et al., 2009). In 2007 alone, this industry employed 11.6 percent from the local workforce (Enshassi et al., 2010). 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). In the last decade, a sharp decrease in the number of the available projects due to the current political situation as there was a failure to reach a permanent peace agreement between Palestinian National Authority (PNA) and Israel. In addition, the PNA did not have, and still does not have, dominion over borders, movement of people and goods, and control over land and water. Currently the situation of Palestine which includes the construction industry could be described as unstable due to continued political uncertainty and restraints imposed by Israel.



Figure 1. Palestine Map.
(Source: PCBS, Statistical Atlas of Palestine, 2009)

Many researches have shown that project managers play a vital role in the success or failure of a project, Crawford (2000) was one of the first to establish a link between project managers and project success. Jiang, Klein, and Chen (2001) also explored the possible connection between project manager performance and project outcome. Additional studies have

concluded that project managers play an important part in project success or failure (Cooke-Davies, 2002; Nicholas & Hidding, 2010). According to Frank (2002) the project manager has direct influence over 34–47% of project success. Based on this, clearly project managers play an important role in determining the success of the construction projects.

Two approaches most companies use for training; the reactive approach and the proactive approach. The reactive approach is used as a vehicle to solve problems, with the focus on the performance of personnel and the results of the organization. The training is often applied in an effort to correct problems. The proactive approach involves training as a continuous improvement process. It is not an intervention to correct a problem, but rather a function to prevent problems and promote organizational improvement (Rouda & Kusy, 1996).

In assessing the value of education and training, Kirkpatrick (1983) classified training outcomes into four categories. The classifications are:

- Reaction - The value of the training program itself.
- Learning - The effect of the training upon the participants.
- Behavior and/or Performance - The transfer of the learning to the job or organization.
- Outcomes and/or Results - The impact of the training on the productivity and profitability of the organization.

The importance of the training programs especially in the construction sector comes from the fact that they are carried out to prepare project managers to effectively perform their job, introduce new technologies, or bring them up to a specific standard. As a result it is recommended to develop abilities and characteristics of project managers and engineers through proper and continuous training programs about effective project manager abilities and characteristics. These effective and efficient training programs can update their knowledge, and can help them to be more familiar with project management techniques and processes. Also, training system should be continually redesigned and augmented in order to meet the changing needs of the organization and the developmental needs of management engineers, site engineers and project managers who support organization structural in achieving organizational and project goals. Training programs are designed to upgrade managerial skills, for this upgrading Liedholm and Mead (1999) suggested two approaches:

- 1 Concentrate on providing experience for those considering setting up a new business, before they start out on their own, by developing internships or on-the-job training programs; and
- 2 To the extent that one does seek to assist new start-ups, build on existing experience, both in terms of any training offered and in terms of the selection of particular enterprises to support.

In construction industry, project managers play a critical role in the success of the business in this sector, one way to develop their managerial competencies and effectiveness as a result is to provide the managers with opportunities to attend management training programs (Pickett, 1998; Willcocks, 1998; Analoui, 2002). According to George (1998) the contractors determined that training was needed to combat labor shortages, higher demands for quality, productivity, and timely completion, complex technology being used on construction projects, and high employee turnover. Also training programs could benefit improving project manager's competencies, which facilitate project manager ability to effectively lead administrative personnel, supervisors, skilled and non-skilled labor, subcontractors, and suppliers by applying learned skills, knowledge, values, ethics, and characteristics (Gharehbaghi & McManus, 2003).

Edum-Fotwe & McCaffer (2000) conducted a survey on project managers in U.K construction industry. The study focused on the development of construction project managers and how they maintain their professional skills in a changing construction business environment. The study sets out the areas of knowledge and skill required for project management certification,

and argues that the traditional engineering orientation of these requirements is insufficient for today's construction project. They found there was a strong emphasis on management and human resources as well as other business training programs. In addition, they found that 76% of respondents had the willingness to undertake training programs.

Despite the importance of training programs on project managers and on construction industry, there are many reasons for a lack of action in implementing training programs in the construction industry. According to George (1998) there is a belief that there is not enough time to train. In addition to a lack of time for training, contractors believe that the cost of training employees is too great, and that the return on investment makes training a non-option. A survey by Hedley (2005) found that of 2000 companies surveyed, 98 percent stated their employees would do a better job if they were provided more training. Hedely found that less than 8 hours of training per year is offered to management personnel by 35 percent of the companies surveyed, and only 20 percent offer 40 hours or more of training to management personnel.

The issue of training programs in the Palestinian construction industry has been shown by many scholars. Enshassi (2010) stated that the contractors are recommended to setup continuous development and training programs for their staff and provide them with supportive practical solutions for any problems encountered during the life cycle of works. Mahamid (2011) suggested that the Palestinian government should conduct continuous training programs in co-operation with Palestinian Contractors Union to improve managerial skills of construction parties as well as labor skills. Also, Mahamid (2012) recommended that the Palestinian National Authority should conduct a continuous training program with the co-operation of the Palestinian Contractors Union to improve managerial and financial practices and to explain the internal and external factors affecting the construction business. Enshassi (2009) found that many reputable engineering companies and construction firms in Palestine do not have a human resources department to handle professionals and staff training.

Despite the strong and direct relationship between the project manager and the success of construction projects worldwide, an exhaustive literature search revealed that no research has been done on the awareness of project managers towards project management training programs in the construction industry in a developing country under occupation with limited resources like Palestine. Therefore, for construction projects and project managers in Palestine to progress, the awareness of project managers towards the importance of training programs must be explored for future development and implementation. Additionally, the current study attempts to accomplish two important objectives which are; main reasons that hinder the Palestinian project managers from achieving project management training programs, and the existence of any significant difference between consulting and contracting project managers.

RESEARCH METHODOLOGY

This research was conducted through the examination of relevant literature followed by field investigation. A questionnaire was designed to measure the constructs of this research. The survey instrument was a person-administrated. According to Veal (2006), questionnaire survey means the collection and the recordation of simple information on the incidence of perceptions, meanings and attitudes among the population as an entire. Therefore, this research utilized a questionnaire survey to collect the primary data from construction project managers in Palestine. Closed-ended questions were implemented in this questionnaire, because they require a short response in the form of Yes or No, they are easy to ask, quickly to answer, require no writing by either respondent or interviewer, and their analysis is straightforward.

The population of the research consisted of consulting and contracting project managers from public and private construction sector from three Palestinian cities. The targeted organizations have a valid registration in the Palestinian Contractors Union and the Palestinian

Engineers Association in all types of construction fields. The list of their names, addresses, etc. was obtained from these establishments. A simple random sampling was adapted, which represents the whole practicing project managers working in construction companies in the selected cities. 109 questionnaires were delivered by direct meeting (interview) with the targeted population. The questionnaire seeks to obtain; organization specialty, training programs related to project management that were achieved by project manager, willingness of project managers to attend training programs in future, and finally reasons prevented project manager from joining training programs. SPSS version 18.0 was used to perform descriptive and inferential analysis; the level of significance for statistical testing was set as 5%.

FINDINGS AND DISCUSSION

Descriptive data

Table 1 shows the response rate to the questionnaire. It is observed from Table 1 that the response rate was 63.3% and 36.7% by the consulting and contracting project managers respectively.

Figures 2 to 4 show the results of training program's questions. According to Figure 2, 80% of consulting project managers had achieved training programs, while 60% of the contracting project managers had achieved training programs. These percentages are high and in consistent with Edum-Fotwe & McCaffer (2000) results, who found that 78% of respondents had achieved full time management and human-resource training programs. This output shows a strong emphasis from the respondents in achieving training programs, because they have realized the degree of importance of the training programs related on their role and on the success of the construction projects. It is clear from the outcomes that there is more interest from the side of consulting project managers in joining training programs more than contracting project managers.

From Figure 3, it is observed that 82% of the consulting project managers have the willingness to undertake training programs related to project management in future, on the other side, approximately 77% of the contracting project managers have this willingness. These results are also high and nearly the same results by Edum-Fotwe & McCaffer (2000), who found that 76% of respondents had the willingness to undertake training programs in future. It is obvious that both groups have approximately the same willingness to join training programs in future, but with a smaller percentage more for the consulting project managers. In addition, it can be concluded from both figures that nearly the same percentage of project managers who achieved training programs have the same percentage to join training programs in future.

Figure 4 highlights the main causes of not achieving project management training programs. The respondents had been asked: why did not you achieve training programs related to project management? They were given four choices, which are: the training programs are unavailable, no time to take, no need for training programs, and finally, the current training programs are inadequate. The outcomes of this question are: 49% of the consulting project managers chose "the training programs are unavailable", while 51% of the contracting project managers selected this option. 10% of the consulting project managers selected "no need for training programs", and 7% of the contracting project managers chosen this reason. 34% of consulting project managers selected the third choice which is "no time for training programs", while 42% of contracting project managers selected it. Finally, 7% of consulting project managers found that the current training programs are inadequate, while none of the contracting project managers selected this reason.

It is clear that half of the respondents from both sides found that the main reason of not achieving training programs is the unavailability of training programs in their cities. This cause could be solved by organizing training programs in each city of Palestine, currently most of the

training programs are held in the main cities like Ramallah and Nablus. By doing this; the second main reason of not achieving training programs (no time) would be coped whereas no need for the project managers to cross a long distance to another city to attend a training program.

Another main cause of not achieving training programs is the unavailability of time. According to research results, it is more difficult for contracting project managers to find a free time to join training programs, in other words; they are busier than consulting project managers. This can be solved by arranging training programs according to preferable times of the project managers; these times could be on non- working times or during weekends. Another suggestion might be started thinking about arranging in-house or on line training programs.

Table 1. Response rate to the questionnaire

Type of the Organization	Frequency	Percentage
Consulting	69	63.3
Contracting	40	36.7
Total	109	100

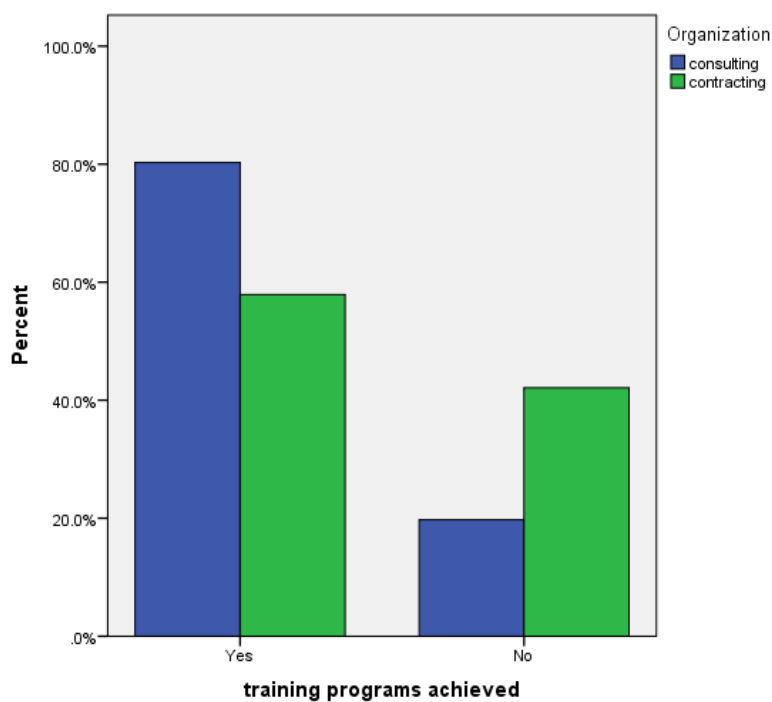


Figure 2. Percentage of achieved training programs.

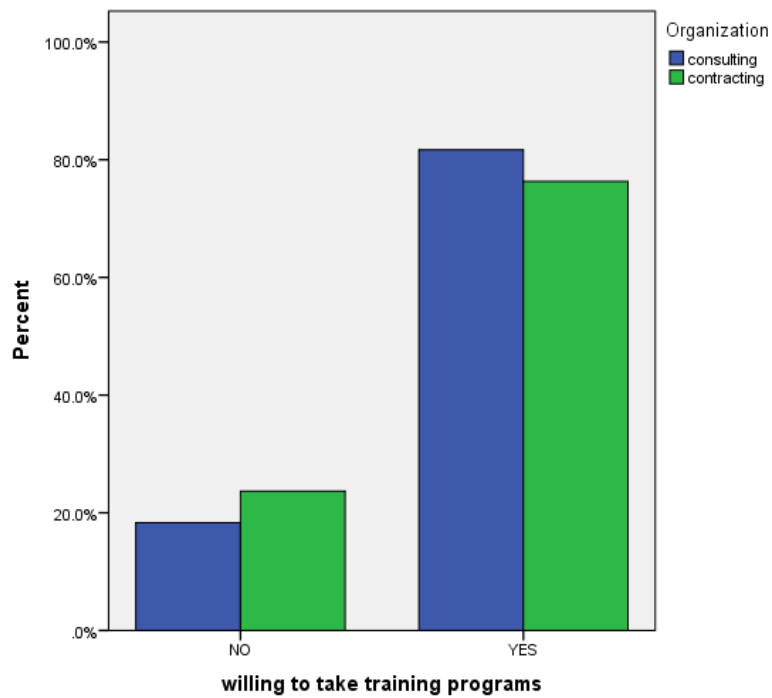


Figure 3. Percentage of respondents with willing to attend training programs.

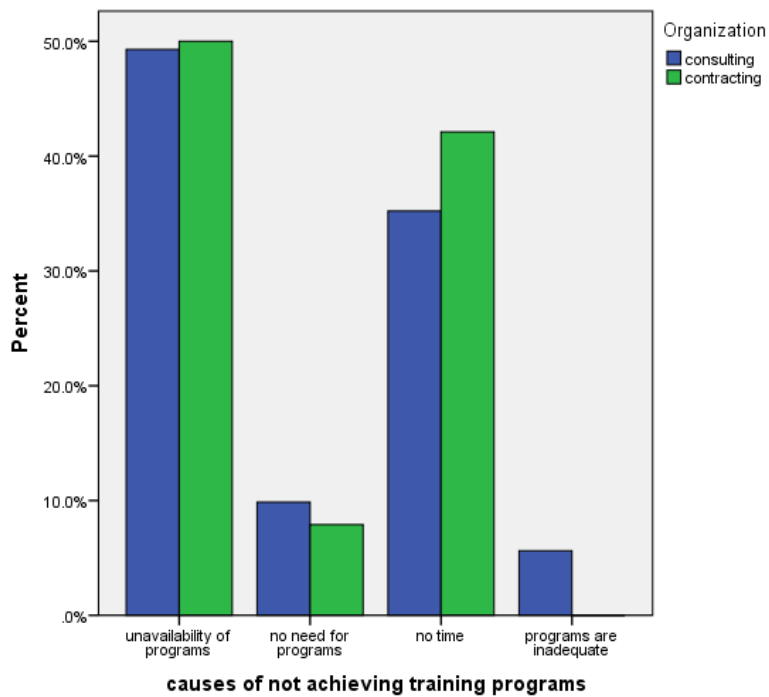


Figure 4. Causes of not achieving training programs.

Inferential Statistics

Before carrying out the inferential statistical test, the normality of the data must be checked. The Shapiro-Wilk test was used to identify the normality. The test results clarify that the calculated p-value is greater than the significance level, which is equal 0.05 (p-value. 0.05). This in turn denotes that data is not normally distributed, and so non-parametric tests must be used.

Inferential statistical investigation was made to examine whether differences exist in the responses of the two groups (consulting and contracting project managers). The following null and alternative hypotheses were postulated:

Null Hypothesis (H_0): There is no significant difference in the responses between consulting and contracting project managers.

Alternative Hypothesis (H_1): There is significant difference between consulting and contracting project managers.

The testing of these hypotheses was done through the use of the Mann Whitney-U analysis. Each of the three questions was subjected to Mann-Whitney-U analysis to arrive at a categorical statement regarding differences or otherwise between the two groups – consulting and contracting project managers. The Mann Whitney-U analysis is a non-parametric equivalent of the students-t test. The analysis is suitable for use in this research (Gupta, 2001). Table 2 shows the mean ranks for the two groups, the U-values, and the probability values for the training programs issues used for Mann Whitney-U analysis. From the descriptive analysis perspective, the lower the mean rank value for any of the respondent groups, the higher is the rank assigned to that issue by that group.

From the results, it can be concluded that the training programs which were achieved by the consulting project managers were statistically significantly higher than the contracting project managers ($U = 1011, p = .042$). Also it can be noted there is no significant difference in the willingness of consulting and contracting project managers to take training programs in future. In addition, there is no significant difference in the causes of not achieving training programs between consulting and contracting project managers.

Table 2. Mann-Whitney results

	Organization Type	Frequency	Mean Rank	Sum of Ranks	Mann-Whitney (U-value)	Sig. 2-tailed p-value)
Training programs achieved	Consulting	69	49.6	3426.0 0	1011	0.042
	Contracting	40	59.4	2139.0 0		
	Total	109				
Willing to attend training programs in future	Consulting	69	54.1	3733.5 0	1165.5	0.464
	Contracting	40	50.8	1831.5 0		
	Total	109				
Causes of not achieving training programs	Consulting	69	52.6	3630.0 0	1215	0.841
	Contracting	40	53.7	1935.0 0		
	Total	109				

CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

The study set out to assess the awareness of Palestinian project managers towards the importance of training programs related to construction project management from the perspectives of both consulting and contracting project managers. The study sought to determine whether differences exist between the two groups on training programs related to project management. The issues used for assessment were: the achieved training programs related to project management by the project managers, the willingness of project managers to attend more training programs in future, and finally causes of not achieving training programs related to project management.

Actually, the results revealed that most of Palestinian project managers realized the importance of training programs to project management, and that is the reason they attend and will attend more when they have the chance in the future. This outcome could be important to the educational institutes to start performing training programs that are targeting the Palestinian

construction project managers. The requirements and needs of project managers must be taken into consideration in the development of training programs as they undertake to compensate for the areas lacking from their academic background.

The results showed that the training programs which were achieved by the consulting project managers were statistically significantly higher than the contracting project managers. In addition, the results indicated that, there are no significant differences between consulting and contracting project managers in the willingness to attend training programs in future or the causes of not achieving training programs. The results showed that although the two groups are from distinctive organizations that are from different commercial entities and occasionally with perhaps different visions, but they did not exhibit differences on training program's issue.

It is recommended that government, donors, Palestinian contractors union, and Palestinian engineers association should take advantage of research result's homogeneity in evolving and implementing strategies for improvement and innovation in training programs related to project management. All sides must co-operate together to achieve this valuable purpose.

It is recommended for future studies to highlight the impact of Israeli occupation on the availability of training programs; especially it has been clear from literatures that the Israeli occupation has a great negative impact on the construction sector and the whole country as a cause of roads closure and movement difficulties between Palestinian cities.

It is recommended to organize training programs in each city of Palestine not only in the main cities. Moreover, it is recommended to organize training programs on non- working times or during weekends, and start thinking about in-house or online training programs. Finally, this study is limited to Palestine, and it is from the perspective of contracting and consulting project managers only.

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