

A Review on Significant Factors Affecting the Quality of Construction Projects in Outskirt Areas of Afghanistan

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Abstract - The quality of the any product or service is achieved when it conforms to the desired specification, achieving quality in construction industry in long run is a tough issue and has been a problem inefficient or no practice of quality management procedure will result in great loss of time, money, materials and resources. Construction industry has complicated in its nature due to it contain from huge numbers of participation as clients, stakeholders, shareholders, contractors, consultants, regulators and others. Construction projects in the outskirts areas of Afghanistan suffer from many problems and complex issues in performances such as safety, time and cost, On the other hand, Construction industry is important part of economy and social development of developed and developing countries. Construction industries try to grow in size and fulfill more significant project in Afghanistan whiten planed budget and quality, but unfortunately most construction projects still are not able to meet the targeted quality, the high cost of buildings made it necessary to ensure quality of the finished product. Some factors affecting construction project quality like, project requirement, construction Organization, quality teams and participation of team members, beside, poor management, miss corporation between client and contractors, lack of monitoring during implementation of projects and etc. Affecting the quality of construction projects in outskirts areas of Afghanistan.

Key Words: Construction Project, Performance Improvement, Project Performance, Construction Project Quality.

1. Introduction

The aim of this study is to identify factors affecting construction quality in Afghanistan. Construction experts in the industry containing architects, engineers, quantity surveyors and builders were interviewed by a structured questionnaire survey of factors identified from the literature as affecting construction quality. The perceived validity of each factor was calculated and compared for all the professionals via severity and frequency responses of the factors. Putting the percentage rank compromise factor (PRAF) for the composition of all the professionals and one model t-test, the factors affecting construction quality were identified. The results of this study provide feedback for construction industry participants and serve as a basis for

researchers in developing appropriate quality management strategies, not only for Afghanistan, but also in other developing countries with a similar construction culture and values. Quality has become a very popular subject in current years because imaginary manipulates in the industry. Quality and quality systems are topics which have been receiving increasing attention worldwide (Chan and Tam, 2000). The elapsed product in any industry must be manufactured to a required yardstick, one that provides customer satisfaction and value for money. The need for achieving quality of the elapsed product in the building construction industry is no less than in any other industry. Various attempts have been made by different researchers to determine the critical quality factors in building construction projects. Chan and Tam (2000) stated that the generally perceived factors that influx quality performance can be grouped under the headings of client, project environment, project team leaders, project procedures and project management actions.

1.1 Scope of Paper

In today's time Afghanistan construction industry is sprouting with developing of political and social infrastructure, however, some projects can be implemented to quality with quality design but for the great efficiency of project implementation within quality it is better to scan those factors that mostly have impact on the project implementing quality. Over the last fifteen years, construction projects were constructed with low quality due to factors (insecurity, corruption, poor management, poor communication between owner and contractors, changing of project design, inexpert workers etc.) As these factors affecting the quality of construction projects implementation, beside this, these directly affect the economy of country Afghanistan. In order to perform the projects according to quality design, it is required to analysis and valuate factors that hinder projects. To investigate the factors affecting the quality of construction projects over the implementation of construction projects in outskirts areas of Afghanistan.

2. Literature Review

Refaat H .Abdel-Razak. 1998 the study involved the involvement of 159 construction occupational demonstrating traditional sectors of the construction

industry and the Delphi technique was employed to acquire a consensus conclusion on the factors demanded to ameliorate construction quality in Egypt, together with their relevant importance. The analysis of the results represented that only five factors represented more than 50% of the total weight of all the factors. [1]

Albert P.C. Chan and Tam C.M. 2000 have shown final goal is to provide clients, project managers, designers and contractors with information that can help them become more efficient with their finite resources and, as a result, achieve better quality outcomes. It was shown that project management action by the project team was the most powerful preacher of client's satisfaction with quality. Other factors contained effectiveness of the construction team leader, the client's accent on quality, and the client's accent on time. [2]

Jha K.N and Iyer K.C. 2006 have shown preliminary survey identified 55 attributes responsible to impact on quality performance of the projects. Statistical analysis of questionnaire responds on the attributes resulted into two different sets of success and failure attributes. The critical success factors taken were: project manager's competence, top management's support; monitoring and feedback by project participants, interplay among project participants and owners' competence. The factors that unfavorably affected the quality performances of the projects were combat among the project participants, hostile socio-economic environment, tough climatic condition, PM's ineptitude & shortage of knowledge, defective project conceptualization, and offensive competition during tendering. [3]

R.Rifat N. & A.Mohammed I. 2006 in the result of 65 contracting companies and 24 consulting offices participated in responding to the questionnaire. Using factor analysis and stepwise multiple regression analysis, the most important factors affecting the quality of the building construction projects were recognized and modeled. Among the most important factors recognized are: characteristics of site layout, experiment of site staff, consistency of design documents, the financial power of the contractor, availability of construction materials, subcontractors, political environment, and the control systems used. [4]

Enshassi,A et al. 2009 shown total of 120 questionnaires were distributed to 3 key groups of project participants, namely owners, consultants and contractors. The survey discovery show that all 3 groups comply that the most important factors affecting project performance are delays because of borders/roads closure leading to materials deficit, unavailability of resources, low level of project leadership skills, escalation of material prices, unavailability of extremely experienced and eligible personnel, and insignificant quality of existing equipment and raw materials. [5]

Hameed Memon Aftab et al. 2014 have done survey using the questionnaire with client, consultant and contractors. Statistical analysis of all 101 completed the questionnaire received against 200 distributed forms was performed with SPSS software package and average index method. Finding of the study highlighted that the top 5 factors which are most commonly happened in construction projects are unavailability of equipment's, insignificant workmanship, design complication, change of schedule and impediment to swift decision making process. [6]

Lukumon O. Oyedele et al. 2015 the results have affirmed that the five most important factors are poor quality of materials submitted to site low level of skill and labor experience, insignificant inspection and testing insignificant site installation procedure and lack of quality assurance, The one sample t-test shows that 79% of the factors are important in affecting construction quality in Nigeria. There was strong agreement between the architects and the engineers (0.71), the architects and the builders (0.73), and the engineers and the builders (0.75), while the level of agreement between the architects and the quantity surveyors (0.43) the engineers and the quantity surveyors (0.36), and the builders and the quantity surveyors (0.38) is low. [7]

Abas M et al. 2015 researchers have clarified to scrutinize the factors, that have vanquished and harmful effect on the construction projects. A questionnaire was developed based on the identified factors to take opinion of construction specialists. After their feedback a statistical analysis tool such as chi-square and weighted mean method (WMM) were used to grade the importance level of these factors. [8]

V.T.Senthil et al. 2016 this research is carried out to inspect the factors that have to harmful affect on construction projects. A questionnaire was developed based on the identified factors that are taken based on literatures to take the opinion from construction specialists. The construction specialists who have given their responds are engineers and the site supervisors. After their feedback a statistical analysis tool has been should analyses the responds collected from the construction specialists. The analyses used here are mean, variance, reliability and rotated ingredient matrix which has done using SPSS (Statistical Package for Social Science). Using these analyses the most important factors that affect quality in construction can be categorized. These categorize factors can be improved to attained good quality in construction. [9]

Oke A et al.2017 have illustrated various factors affecting quality of construction projects were examined with a view to suggesting improvement measures. Using various variables from relevant literature as the basis, data were acquired through the use of questionnaires administered on contractors, architects, engineers, quantity surveyors as well as project and construction managers. Other issues are

relevant to poor planning and scheduling also insufficient knowledge, training and skills of construction workmen. [10]

Azman N.S et al. 2018 have shown that 87 factors from review papers and two most significant factors affecting quality management in IBS are high ranked which is appointment of high expert technical team, putting high quality ingredients and materials with overall percentage 2.48% and 1.86%. In addition, some of the factors are frequently listed due to wide affecting to performance [11].

3. Conclusion

According to prior studies, it could be said that the quality measurement is a process that include factors as time, cost, quality, management, corporation, client satisfaction, leadership style and safety in order to enable measurement of current construction projects quality and to achieve significant performance improvements of future projects. Improvements in the facet of work related to some factors should make it possible progressively to improve quality in outskirts areas of Afghanistan. There is an obvious need for extensive studies on how to improve quality on outskirts areas. The present study is an essential first step into highlighting the major issues that need attention to improve the quality of building construction projects in outskirts areas of Afghanistan. Broadly efforts is still needed to peruse ways to formulate management systems to manage each factor individually.

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