

A study on Factors Affecting Quality Performance in Construction Projects in Afghanistan

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Abstract: The paper reviews the factors affecting quality performance in construction projects in Afghanistan. The general target of this research is to study and know about the causes of avoiding quality performance in construction projects in Afghanistan. To achieve this objective, different factors are identified and studied in all three phases: Design phase, Construction phase, and inspection phase. By the results of the study, a conclusion is drawn about factors of great quality performance in construction projects in Afghanistan. It must be analyzed within the dimensions of quantitative factors associated with its implementation, duration, cost, and expected benefits. I have distributed questionnaires in both English and Pushto (Afghanistan) language to the consultant companies, contractors, and owners of different organizations in different districts, province and all regions of Afghanistan. I use SPSS 25 version to obtain the results. Thereafter, it is subjected to evaluation measures that result in the achievement of milestones.

The following are the key aspects that determine the quality of construction projects: The quality of construction materials and the environment have been subjected to government regulations or prohibitions. Energy and resource limitations, poor transportation networks for timely delivery of materials or commodities, a lack of personnel to do professional activities, and so on are all examples of poverty in society. Early identification of constraints on a project's quality performance can prevent subsequent delays in project completion and cost overruns. Thus audits could serve as an effective tool for managing construction projects with optimum quality performance. This paper brings out specific relationships between outside factors and particular collaborative behaviors to help assist auditors in evaluating quality performance on construction projects in Afghanistan.

Keywords: Quality performance, construction projects, project manager's competence, top management support, conflicts, questionnaire survey.

INTRODUCTION

The construction sector is centered on numerous types of projects. When compared to other industries, the construction industry has a very high level of unconsciousness and danger. Because of the numerous duties from many sectors, manufacturing businesses are an example. Construction quality performance is a major issue and source of worry in practically every country throughout the world, particularly in war-torn and disaster-affected areas. A collection of definitions is used by quality experts to define project quality. (Fulfilling customer wants and expectations) or pleasing the consumer are two ways to describe quality. It is not a straightforward task to achieve quality standards; it is

complicated for consumers and customers. Quality does not have to be the greatest, but it should please the consumer, who is looking for reliability, pricing, and performance in quality (Moshood, 2020).

All of these project objectives should be met using the project's available resources within the time frame set without causing harm to the environment or society. Quality is one of the most important qualities in today's construction business; poor quality at any stage of construction causes more than half of all building difficulties. The goal of this article is to identify and examine characteristics that contribute to high-quality building projects in Afghanistan's Kabul central region. The building sector might be seen as a high-risk venture. This is primarily due to the

sheer volume of projects that the sector encounters when compared to other companies, as well as its proclivity to work in high-risk and poorly developed areas where many challenges exist, such as political instability and war, poverty, and health issues, and inadequate infrastructure. The basic purpose of quality performance is to guarantee that any construction project meets or exceeds the customer's demands and expectations constantly (Ershadi, 2019).

Stakeholders were asked to share their experiences and comments about how to improve the quality of building projects. Even if the quality of building projects has improved significantly, the construction sector must continue to address project quality. The key issue is that the customer or stakeholders are dissatisfied with the project's quantity or quality. Understanding how to avoid this can aid in improving the overall performance of Afghan initiatives and making them more competitive in the global market.

The major goal of this research is to identify and prioritize the many elements that contribute to good quality performance in construction projects so that management may have a better knowledge of these aspects and make appropriate decisions to attain a high degree of project quality (Namian, 2021). This claim was made after Afghan construction experts were polled about their experiences, perspectives, and thoughts on elements that contribute to high-quality performance. To look into this, a questionnaire survey was undertaken, with data collected from 102 respondents, including engineers, architects, quantity surveyors, and other professionals. Using the SPSS software package, the paired comparisons approach was utilized to determine the relative relevance of variables that lead to quality failure. The results demonstrate that respondents had a favourable attitude about each element, however, there are differences between them.

The study's goal was to look at the characteristics that contribute to high-quality building projects in Afghanistan. A survey was used as the study design, and data were obtained from 40 respondents using a questionnaire-based survey approach (Mirzakhani, 2021). It took place in two rounds in Afghanistan's Kabul province. Using the software packages IBM SPSS 20 and Microsoft Excel 2013 (Samadi, 2019). Descriptive statistics, frequency distribution, and descriptive statistical analysis were used to assess qualitative data. The relationship between variables was significant at the 0.01 level of critical probability $p = 0.01$, but there was no relationship between QPIs and construction cost per unit area, according to the correlation coefficient (r) between quality performance indices, factors that affect quality performance (QPI) (CCIA).

The overall goal of this study is to investigate and learn more about the factors that contribute to poor quality performance in Afghan building projects. Different components are discovered and investigated in all three phases to reach this goal: the design phase, the construction phase, and the inspection phase. The study's findings lead to a conclusion on characteristics that contribute to high-quality performance in building projects in Afghanistan (Bajjou, 2021). Mr. Joshua T. Jones did a detailed analysis as part of his master thesis at IBA (International Business Academy) in the fourth quarter of 2011 to determine the elements that impact quality performance in building projects in Afghanistan.

In building projects, high-quality performance is a critical success component. The purpose of this research is to examine construction projects to uncover characteristics that impact project quality performance and to determine what parts are necessary for a project's effective implementation. The study was conducted in Afghanistan, the world's second poorest country (out of 179 countries). Afghanistan's Gross National Income per capita is around US\$561, according to the United Nations Development Program (UNDP) 2014 statistics. On the list of the world's 25 poorest countries, it is rated first. Previous research and literature have highlighted management and business system elements that influence quality performance in building projects (Babury, 2019).

The researcher attempted to determine the causes of poor quality performance in building projects in Afghanistan in this study. It also sought to investigate the factors that influence the implementation of a contemporary quality management system in building projects. It also aspires to offer practical suggestions for improving quality performance in building projects. The research aims to provide answers to the following questions: What are the causes behind Afghanistan's failure to achieve quality performance in building projects? Obtaining data and reviewing related literature were used to assess the present state of quality performance.

Objectives and Methodology

The goal of this article is to identify and assess the many elements that influence the quality of building projects in Afghanistan. Kabul, Afghanistan, is one of the world's fastest-growing cities, and it has become a focal point for several development initiatives that are critical to the country's economic development. These construction projects have direct linkages to other industries and contribute to the country's job chances. In terms of quality of life, citizen happiness, and cost and time management, quality improvement and effective performance are regarded as critical for the success of any development project.

Afghanistan's construction projects confront several obstacles. Lack of skilled labor, limited building supplies and replacement components, economic uncertainty, and security concerns are just a few examples. This study examines the most prevalent elements that influence the quality of building projects. It investigates the causes of issues and the locations where they occur to provide strategies to enhance quality performance.

Literature Review

According to Bernstein (2020), the US has mostly funded the war in Afghanistan, which began immediately after the September 11 attacks (Lamb, 2019). Initially, the military forces demolished Taliban buildings, dropped bombs on Al-Qaeda hideouts, and fought with Afghan troops against the Taliban. The US is quietly evacuating its soldiers from Afghanistan after Osama Bin Laden fled from his stronghold in Abbottabad, Pakistan, with Osama dead. The working environment at construction, repair, and restoration sites is hard, and the weather isn't always cooperative. In addition to dealing with inclement weather, As part of their on-the-ground quality control teams, construction project managers must collaborate with local contractors and third-party organizations to ensure that high-performance standards and working practices are maintained at all times (Bernstein, 2022).

Quality Factors, Their Identification, and Management

Despite the presence of norms for good quality control in building projects, Afghanistan's construction sector continues to struggle with low quality. This research investigates characteristics of high-quality performance in USAID/Afghanistan Construction Contracts using a case study technique. The new administration has been following international financing and organizations from rich nations that require a particular degree of quality from initiatives in developing countries like Afghanistan. The Afghan government has developed authorities to deal with this problem to handle this challenge. The government has also made attempts to raise quality management knowledge among government construction department staff. Engineer training will be critical in improving quality performance in the country's building projects (Othman, 2020).

Afghanistan is one of the most impacted nations, losing a significant amount of money daily as a result of terrorist operations, criminal acts, and conflict. As a result, the Afghan government resolved to rehabilitate and rebuild the entire nation with accurate and acceptable quality and standards, with the support of foreign communities, to restore the economy, infrastructure, and public trust.

Significant Factors That Affect the Quality Performance

According to the author Badraddin (2022), this study focuses on characteristics that contribute to good performance in high-grade construction projects in Afghanistan. The study's goal is to figure out what elements have a big impact on performance quality (Badraddin, 2022). Because the construction sector is a complex industry that has evolved into a competitive business world, as well as a variety of construction projects being implemented in this country, this study will be beneficial to all those who want to apply these factors to enhance the quality and performance of their construction industry in this.

Construction projects in Afghanistan are projected to grow in size, scope, and quantity as the government commits to fostering private sector growth. Because of the industry's lack of expertise, managing these advances poses new issues, necessitating quality management. The Department of Power and Water Development has made it a policy to use this book as a reference for all projects. Owners and builders are expected to place higher importance on building quality in today's competitive business climate. As a result, the contractor's effectiveness in implementing quality control methods is becoming increasingly important for establishing trust and regaining client faith. The goal of this research is to uncover the essential characteristics that contribute to excellent performance in high-end construction projects so that these factors may be minimized or managed.

Importance of Quality Management

In his paper, Li (2020) shows that quality management is a vital requirement for project success. In recent years, the construction industry has been increasingly concerned about the quality and the need for tighter quality control in building projects. As a result, quality control has become one of those essential issues that many academics are discussing, and many new methods are being developed. However, not every system meets its objectives on time, on budget, and with the quality that customers demand (Li, 2020)). Using a methodology of multiple linear regression analysis, this study tries to uncover and assess all known

characteristics of high-quality performance. Qualitative interviews with construction professionals and firms yielded 28 criteria of high-quality performance in the current study. After that, data was collected from project managers, site engineers, and industry experts in the case-study organizations using a questionnaire survey.

Importance of Quality Performance

According to Hoang (2019), quality performance is the cornerstone of project success. The majority of the time, building projects draw their goals from a complex web of continuously shifting requirements and restrictions. Customer satisfaction with the product and project quality performance are the most important aspects of project management to achieve this aim. Because of the buyer-seller connection in the construction sector, both sides of a project want to make the most money possible. Customer satisfaction is significantly connected with project quality, according to statistical research. The construction business is the largest and most significant sector in the global economy, with a \$5 trillion annual turnover. Unfortunately, studies have shown that, in terms of productivity, the industry has lagged other industries over the last 20 years. The high expenses of enhancing performance in high-end construction projects are at the root of the issue. As a result, by minimizing the costs of poor quality and boosting customer satisfaction, quality management approaches may enhance construction project results (Hoang Viet Bach, 2019).

The construction industry is flourishing. All around Afghanistan, factories are opening and homes are being erected. While the number of projects sponsored in recent years has grown, the number of projects that result in litigation or bankruptcy has also increased. With the present construction boom, skilled subcontractors are in high demand. The increase in projects has resulted in an increase in litigation and bankruptcies due to the influx of subcontractors; however, the increase in projects has also increased litigation and bankruptcies. The number of lawsuits filed in the construction industry has been constantly growing. The construction business, according to data, has a greater rate of lawsuits than any other industry. Not just when funding projects, but also when working with suppliers, contractors, and subcontractors, more thought should be given to the likelihood of lawsuits (Chiarini, 2020).

Key Success Elements in Construction Projects

The extent to which key success aspects contribute varies based on the organization's overall performance ratings, according to studies. The skill of the construction manager and the dedication of senior management have been shown to have a substantial impact on the quality of a construction project's performance. According to the report, management is crucial to achieving quality in construction projects, just as it is in the manufacturing industry. According to the author, the causes of low-quality Indian building projects were researched to provide realistic remedies. According to Gunduz (2020), in a preliminary study, 55 factors impact project quality performance. The statistical analysis of questionnaire responses on the qualities revealed two distinct groupings of success and failure features. Individual sets of success and failure characteristics were investigated further and consolidated into a smaller number of essential success and failure criteria. Significant success aspects were recognized as the project manager's competence, senior management's support, involved parties'

monitoring and feedback, communication among construction practitioners, and owners' expertise (Gunduz, 2020).

Methodology

A process for describing, understanding, forecasting, and regulating phenomena is called research. Research may be defined as the pursuit of knowledge. Research is described as the creation of new knowledge and/or the inventive use of existing data to generate novel concepts, approaches, and insights (Bibri, 2021). This chapter's main themes include the research approach, study design, research group, and location. A research strategy is a thorough plan for conducting a research study that also acts as a guide for the researcher as they organize, carry out, and monitor their study. There are two types of research methodologies in studies: quantitative and qualitative. Quantitative approaches deal with objective measurement and statistical analysis, the processing of existing statistical data using computational technologies, as well as the mathematical or numerical analysis of data obtained through polls, questionnaires, and surveys. The phrase "research design" refers to an overarching approach for integrating the many elements of a study and guaranteeing a satisfactory response to the

research question. It encompasses methods for data collection, measurement, and analysis. Identifying the research situation and developing the study's objective; conducting a literature review in the study's field to determine significant factors that affect quality productivity in construction projects; and conducting a literature search in the study's field to determine significant factors that affect quality performance in the construction industry are the five phases of the research.

This study's participants include consultants, contractors, and owners from a variety of firms around the country. Contractors must be registered with the MRRD, MOPW, MUDL, KM, MAIL, MOHIA, NWARA, and other foreign agencies such as USAID, GIZ, FAO, the World Bank, and the Asian Development Bank to be considered. Contractors in their respective disciplines must have completed projects worth more than 10 million AFN. Ministries, government organizations, and foreign firms will be the project's proprietors. Consultants who have been chosen to participate in this study must have legitimate government licenses to conduct their profession and actively participate in building projects.

Table: Top Ten Ranked Factors affecting quality performance in Construction Projects in Afghanistan

No	Factors affecting quality performance	RII	Ran k
1	PM ignorance and Lack of knowledge PM	0.821505	3
2	Giving project to 2nd or 3 rd hand subcontractor at a lower price	0.83871	1
3	Delays in contract award	0.802151	6
4	Poor contract condition and management	0.762857	2
5	Purchasing less material for the project due to less money	0.806452	4
6	Taking bribes from a contractor in all processes by govt. staff	0.791398	9
7	Delay in invoice process	0.797849	7
8	Poor mgmt. and controlling	0.793548	8
9	Lack of support from local communities	0.725714	10
10	Technical person availability	0.804301	5

Discussion

A thorough examination of the influence of many factors on the quality of building projects in Afghanistan was conducted. Journal articles, papers, books, and reports were used as reference sources. The following are some of the primary factors that influence the quality of building projects: Governmental power has imposed restrictions or prohibitions on the quality of construction

materials or the environment. Poverty in society—energy and resource shortages, inefficient transportation systems for timely delivery of materials or goods, a lack of people to carry out professional tasks, and so on. Lack of adequate skilled employees, no accessible resources such as managers, project managers, etc. Economic development rate-capacity society to pay for specific building activities is insufficient. Due to a lack of resources, poor supply chain management systems, market information gaps, and

other factors, the availability of quality suppliers-sourcing problems is common inside a business. Human Resource Availability—while some may believe that this category simply refers to the number of individuals available, it also covers the quality of those who are accessible (Baarimah, 2021).

Giving a project to a 2nd or 3rd hand subcontractor at a lesser price has been ranked first based on the data collected and evaluated, with an RII of 0.83871. Even if you spend less, you may not necessarily obtain better quality at a reduced price. Quality in construction projects may be influenced by a variety of elements, including the load and workplace environment, subcontractor and sub-subcontractor training and expertise, work start to finish time, and pricing. The influence of labour cost on quality ratings for job sites when project leads utilize 2nd or 3rd hand subcontractors is the topic of this paper.

Based on the data gathered and evaluated, delays in contract awards were placed 6th with an RII of 0.802151. The construction sector is recognizing and reacting to state-led initiatives to enhance quality performance. Many compliance officers are taking it upon themselves to provide advice on fixing quality concerns to sway their projects away from the clutches of sub-qualified contractors. The contractors, on the other hand, are resisting these officials' efforts. This paper will look at the solutions that have been developed for these and other areas that have had an impact on quality performance in recent years.

Costs in construction, like many other industries, are only as good as the estimations. If a contractor's estimate of a construction project's overall cost is too low, the project will not be finished on time or within budget. Estimating and projecting are more difficult problems than those found in accounting. Each project in the construction sector is subject to some pricing risk. If a contractor's budget is too high, difficulties may arise due to a lack of necessary equipment or supplies (El-Sayegh, 2021). However, if the projections are too low, you may have difficulty reaching other project objectives. For example, you can't finish a roof without roofing materials, therefore an excessively optimistic estimate will result in roof delays since components (in this case, roofing) were left out."

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