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An Exploration on The Construction Management Failures in Ongoing Projects of The Kabul City

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Abstract

The construction industry is known for its chronic problems of fragmentation, low productivity, time and cost over-runs, poor safety, inferior working conditions, and insufficient quality which ultimately lead to project failure and poor construction images. A project becomes a failure when it does not deliver what was required within the agreed-upon budget and time. Majority of projects are temporary efforts to create value through a unique product, service or result. Almost all projects have a beginning and an end. They have a team, a budget, a schedule and a set of expectations the team needs to meet. Each project is unique and differs from routine operations and the ongoing activities of the organization. The project of an organization reaches a conclusion once the goal is achieved. The purpose of construction project management is to control a project's time delivery, cost and quality, and it requires a professional management to decrease failure factors. This study covers the construction project management failures and their causes during and after the construction and focuses most on the critical factors that cause the failure of construction projects in Kabul city. Two types of methodologies have been used which will allow the researchers to dive deep and get more information regarding flaws and failure causes, especially by the help of root cause analysis that has made the research more effective. Cost control, scheduling, procurement, and risk assessment have been reported as the significant issues that must be addressed in the complicated discipline of construction project management.

Keywords: Construction management failure, Budget, Fragmentation, Project delivery.

Introduction

The construction industry has played a significant role in the development of countries. Over 350 million people around the world are directly involved in this sector, and the number is growing rapidly in the cities. The importance of identifying and understanding the causes of construction failures is not an option but a key factor for developing appropriate safety and implementation plan. To achieve these objectives many researchers conducted different studies with different methodologies in different parts of the world and concluded different factors as the causes of failure of construction projects. Many construction projects suffer from poor design and from inconsistent time and cost management. This situation has led to the rethinking of the industry's performance and how it could be improved. Various reasons for construction cost and schedule overruns in any project include design error, inadequate scope, weather, project changes, and underestimating the time needed to complete the project. The Kabul construction sector

faces several obstacles and problems which prevent the application of project management methodologies in the construction projects. Most of the construction projects failure occur as a result of the overtaking of planned implementation duration, the poor estimation of the budget, and the poor implementation quality of the project. This study identifies and diagnoses the causes that contribute to the construction projects failure, in construction companies of Kabul city, via the perspective of contractors, project managers, and their relationship with some variables. The authors have tried to use several innovative tools for problems and obstacles diagnosing in the construction projects and then put suggestions to make a simple application for one of the project management methodologies. Another attempt is done to bridge the gap and showcase how the problem management can be done in more effective way by using innovative tools and techniques [1].

In this study a specific number of construction companies have been reviewed extensively with full coverage audit as external and internal to find the flaws and gaps which exceed the project closer to failure. For more information, in this study two types of methodologies have been used which allowed the researchers to dive deep and get more information regarding flaws and failure causes, especially by the help of root cause analysis that has made the research more effective.

1.1. Research Problem

There are many potential pitfalls in the life of constructions that the project managers are tasked with keeping a site running smoothly, safely, within schedule and on budget. Sometimes, this is a very difficult task. By the complexity of the construction projects, its failure differs too and there are various kinds of failure in construction projects like inadequate risk management, poor planning and scheduling, lack of leadership skills, time management, budget management, corruption, poor management and inaccurate cost estimation. All these failures need to be controlled proficiently and professionally because controlling helps to monitor the effectiveness of their flaws and their leading activities. If the mentioned problems are not controlled, engineers will be facing to a major amount of loss which can be counted on time and assets.

1.2. Study Objectives

- Identifying and diagnosing the cause of construction project failures of Kabul city using different project management processes (initiation process, planning processes, design processes, contract processes, executing and monitoring processes, and close processes).
- Understanding the flaws of the companies that have faced during the project implementation.
- Supplying logical solutions that have helpful roles in implementation of an international project management methodology in the construction sector of Kabul city.

2. Literature Review

This section presents a thorough literature assessment on the causes of and mechanisms behind construction management failures. The primary goal of this study is to assess and describe the reasons why building project management has failed, the literatures used are a collection of up-to-date information on the subject matter drawn from critical analysis of many academic sources, including books, papers, and publications, and are then grouped to connect to the study topic. This review also illustrates how the subject

under investigation and other subjects being thought about are related. Lastly, it identifies the gaps in earlier studies by other researchers that suggest new avenues for investigation. Also, these literature reviews offer a fresh interpretation of earlier academic works and work to reconcile previously contradictory results.

2.1 In Experienced Project Managers

Project managers have a great responsibility. These professionals bring a certain level of education and experience to the project. It is inevitable that a new and inexperienced project manager will come on board to handle projects. They may be capable of managing projects, but they need to be the right fit for the project and gain support from management, so they can succeed. Anything less is a recipe for failure. Challenges are good and push boundaries to instigate growth as long as the stretch is not too far out of reach. Inexperienced project managers are, at times, a primary cause of project failure [2].

2.2 Project Management

Project management principles and techniques help to complete projects on time, within budget, and to project specifications. At the same time, they help achieve the other goals of the organization, such as productivity, quality, and cost-effectiveness. The objective of project management is to ensure the completion of projects and to meet agreed goals of time, cost, and scope [3].

2.3 Key Players

The project participants as the key players, including project manager, client, contractor, consultant, subcontractor, supplier, and manufacturers. However, there are many different sets of project success criteria, but none of them will be suitable for all the different stakeholders involved in the construction industry. Therefore, attention should be given to the main project participants. Often, a client is represented by a consultant(s). Frödell et al (2013) categorized clients concerning whether the client is a private or a public company. The contracting company (contractor) is the next very important participant who is fully responsible for the successful project delivery/execution. Employees/staff are important for the achievement of long-term and short-term objectives. Therefore, 13 construction project success could be defined as: "The perceived degree of achievement of predetermined performance objectives and participants' expectations of the execution of a construction facility or a service" [4].

2.4 Cost Criteria

Time and Cost Criteria are two conventional criteria that are virtually always included in papers on success criteria and are frequently bundled under the project efficiency dimension. Also, it should be highlighted that the study on the use of those two phrases does not show any ambiguity. The agreed/approved period of time for the compilation of a project is often referred to as time or timetable. Construction time, construction speed, and time overrun may all be measured in terms of time. A project's timeline efficiency can be measured using the Heravi (2009) suggested schedule performance index. Cost often refers to the extent to which building work has been completed within the projected budget. According to Chan (2009), the term "cost" should not be limited to the amount specified in the offer; rather, it should also include any expenses resulting from modifications made throughout the building process and from legal claims, such as those associated with litigation and arbitration. Unit cost and the percentage of net variation over final cost are two different ways that cost may be measured (cost overrun).

The cost performance index (CPI), developed by Heravi and Ilbeigi in 2012 as a way to gauge a project's cost-effectiveness, was first used in their work [5].

a. What is the purpose of CPI

The Cost Performance Index is a useful way of combining progress with a budget to give a straightforward numerical assessment of project performance. The end result of the calculation is a single number, and it's easy to interpret too (more on that later). That makes CPI a helpful way to communicate status and to take emotion and subjectivity out of conversations about progress [5].

b. How is cpi calculated?

CPI is presented as a ratio. It's calculated by taking the budgeted cost of work completed (also known as the earned value or EV) and dividing it by the actual cost of work performed, The CPI formula is:

$$\text{CPI} = \text{EV} / \text{AC}$$

That gives you a number, which in turn tells you how the project is performing financially. The number you get is only as accurate as the data you used for the calculation. If your project team isn't accurately reporting progress in time for your analysis, for example, your CPI numbers will be out of date before you've even calculated them. Assuming you've got good data and have completed the calculation, let's look next at how to interpret the result [5].

2.5 Safety

It is expected that safety management would account for all potential hazards and mishaps that might endanger project workers. Legally and morally, every workplace's health and safety (H&S) is crucial to reducing such hazards, but in particularly risky settings like the construction sector, where daily operations are notoriously dangerous, HS assumes a dangerously vital role. safety management is the process used to identify H&S risks, put procedures in place to lessen the likelihood of a risk materializing and lessen or eliminate the possible repercussions of an H&S risk identified in a project. [6].

2.6 Lack of Skills

Poor supervisory instruction, lack of training, lack of worker awareness, lack of equipment maintenance, workers underestimating dangers, lack of contractor awareness regarding health and safety, poor scaffolding, lack of health and safety warning signs on the construction site, and lack of safety considerations by site supervisors all will lead the construction projects to failures, even though The findings imply that future safety climate interventions will be more effective if supervisors demonstrate transformational leadership, empower construction workers to raise safety concerns without fear of reprisal and remind them about workplace safety on a regular basis. Implementing a health and safety policy raises project costs. Inadequate safety orientation and training increase injuries [7].

2.7 Profanity

Nowadays, profanity has gained popularity, especially in the public sector. Notwithstanding the fact that fraud is not explicitly defined in any criminal laws. The nation is plagued with corrupt practices, which include bribery of domestic and international public officials as well as private businesses, "facilitation of payments," fraud, embezzlement, theft, collusion, and rent-seeking. Studies conducted by

Transparency International (TI) have repeatedly classified Afghanistan as one of the most corrupt nations in the world (Transparency International, 2017). According to the research, corruption is defined as the abuse of public office for personal gain, which is congruent with the definition provided by the World Bank in 2017. The Tax Justice Network (TJN) has objected to this word since it suggests that only individuals in positions of authority may misuse their positions. Instead, TJN suggests that actions including market manipulation, insider trading, tax fraud, failing to disclose conflicts of interest, and unauthorized campaign financing be included. If TJN's critique and definition are considered, the situation may be considerably worse if TI's conclusions give a picture of the amount of corruption in the nation [8].

3. Methodology

In order to achieve the objectives presented in this study, a random study methodology was adopted as follows:

3.1. Primary Data

A Physical individual survey of companies was done to investigate the reason for failure in projects. A Physical individual survey of companies was done to investigate the reason for failure in projects. The Primary data collection involved gathering data from first-hand experiences and sources, which haven't been available in the past. This was done through the implementation of research questionnaires and more than 60 companies have been reviewed individually and categorized based on their impact and level of failures. For reviewing these companies 3 steps have been adopted. The first step was identifying possible causal factors which have failed these companies and ruined the management. In the second step, the root analysis cause has been used. Likewise, the 3rd step is the inspection of companies by external and internal audits.

3.2. Secondary Data

A literature review was carried out to achieve objectives one and two through an in-depth review of textbooks, academic journals, conference proceedings, organizational publications, and related websites.

3.3. Data Arrangement

The surveyed data is drafted from companies based on facts, evidence, and experience of failed projects. Then all documents and observations are interpreted into software and data arrangement is done using Excel and Primavera.

3.4. New Approach

The study issue is carefully described in the approach by going through the idea of project failure, its causes, and its effects on the construction sector. This strategy is accomplished by a survey of the literature and the application of qualitative and quantitative approaches, which enables the reader to comprehend the subject in detail. The applied survey technique tried to respond to the study question by outlining reasonable solutions to deal with the causes and effects of project failure. For examining the complete survey, the study adopts the same process as Al-Zwainy et al. (2018) utilized. In this study, the primary causes of construction project failure were identified and analyzed using a survey research methodology. The challenges that hinder the adoption of project management techniques in the construction projects carried out by the public institutions (Ministry of Construction and Housing) in Kabul city were also explored using this

methodology. In this study, 10 specialists who were mostly chosen based on their expertise and qualifications were included in the brainstorming method. Via the brainstorming method, stakeholders were personally contacted via the website (project managers, contractors, suppliers, and owners). The author employed the statistical method outlined by Al-Zwainy et al. to quantify, analyze, and determine the Arithmetic Mean (AM) for the data (2018). Additionally incorporated into the PMM domain's problem-solving management were six sigma tools.

4. Data Analysis

For this research, the root cause analysis technique has been used. In science and engineering, root cause analysis is a method of problem-solving used for identifying the root cause of faults or problems. It is widely used in engineering and industrial process control. The first goal was to discover the root cause of companies' failure problems or events, the second goal was to fully understand how to fix, compensate or learn any underlying issues within the root cause. The root analysis is one of the most widely used approaches to improving productivity. And it had a lot of great impacts. The RCA is the basic idea that effective management requires more than merely "putting on fires" for problems that develop but finding a way to prevent them.



Figure 1: Failure Causes of Projects (A, B, C) Personal Enterprises

In the above-selected companies, it is observed that due to 7 critical issues most failed, and the major reason is corruption which erodes trust, weakens democracy, hampers economic development, and further exacerbates inequality, poverty, social division, and the environment crisis which is up to 50% or more, while the second major factor is lack time management, which is very critical and leads to more hectic and anxiety – triggering situations for the projects and will lead to missing the deadlines with a lot of pending work that eventually turns into piles of files, and most companies couldn't do the project within the time frame. The 3rd most is a lack of management which will demotivate the project team and the schedule will be delayed, and the cost will overrun the other most cause of construction failure is lead to lack of machinery.



Figure 2: Failure Causes of Projects (D, E, F) Personal Enterprises

Most of the aforementioned enterprises failed as a consequence of seven primary issues, including corruption, which erodes confidence, diminishes government, impedes economic progress, and exacerbates inequality, poverty, social division, and environmental disaster by up to 90%. Lack of time management, which is crucial, will lead to more chaotic and nervousness scenarios for projects, as well as missed deadlines with a lot of ongoing projects that ultimately transform into mounds of paperwork, and most firms will be unable to complete the project within the time period and Project schedule delays are a result of inadequate project management. Task ambiguity, disagreements, scope creep, and other factors will all create project schedule delays.



Figure 3: Failure Causes of Projects (G, H, I) Personal Enterprises

Seven key issues contributed to the overwhelming of the mentioned industries failing, with corruption being the cause of up to 90% of failures. Due to their inability to finish their work on time, most companies fail for a variety of reasons, including time management. The most important factors that contribute to projects failing are poor management, outdated technology, and untrained personnel.

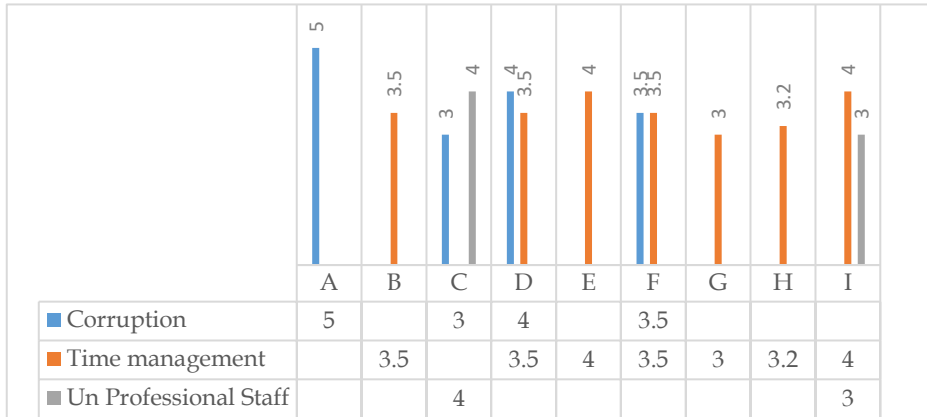


Figure 4: Failure Causes of Projects (A, B, C, D, E, F, G, H, I) Personal Enterprises

As a result of examining different firms and construction companies, three key issues contributed to the majority of the aforesaid companies' failures, with corruption being the cause of up to 90% of those failures. Time management is the second most reason for failure and unprofessional labor is the 3rd factor that led to the failure of the project.

5. Conclusion

The construction industry is the industrial division of production and trade that is concerned with the construction, repair, renovation, and maintenance of infrastructures. It is a determinant of the country's technological and technological improvement, frequently controlling the growth of the country's infrastructure development, which frequently leads to the country's advancement in terms of sustainability guarantee. Unfortunately, the building sector is presently one of the greatest waste generators. This research examined construction project management failures and their causes during and after construction, with a particular emphasis on the crucial elements that contribute to the failure of building projects in Kabul, and Two approaches have been utilized, allowing the researchers to go deeper and get more information on defects and failure causes, particularly through the use of root cause analysis, which has made the research more successful. And for this study, this root cause analysis technique has been used which is a method of problem solving used for identifying the root causes of faults or problems, and as per examining companies and construction firms we have found that Most projects fail due to seven critical issues, which are the corruption that often contains hidden prices, competition is not what it seems, and partnerships are chosen for the sake of expediency rather than quality. And, ultimately, if corruption is rampant there is no sure way to get a fair trial or other legal redress for abuse or cheating. That's why it's important to have a strong, independent judicial system that roots out corruption, respects the rule of law, and holds all parties equally accountable. lack of time management can have a detrimental impact on a business. And, leaving for too long can get very serious and has a great impact on project management. For instance, it can Lower levels of energy and motivation, Increase the costs of the project, and Strained working

relationships. unprofessional labors Employees not following discipline during working hours is one of the common signs of unprofessionalism. This includes spending hours talking on a cell phone or near the water cooler with colleagues and gossiping about others in the workplace and not working hard to achieve the set targets is also an example of unprofessional conduct. This is frequently a result of the preceding indication. Rude conduct with customers or coworkers, losing one's temper easily, and a lack of teamwork are additional signs of a lack of professionalism at work, as are a lack of machinery, a poor site inspection, and poor management. which corruption is the most serious?

Recommendation

- Establish a code of conduct.
 - Establish and create a code of ethics for the supply chain management role. Provide guidelines on acceptable conduct for anybody working in operations, logistics, or finance who has direct or indirect supplier contact.
- A great suggestion is to hire more project managers and use an online-based progress tracking system for all tasks
- Manage and supervise the work plan and monitor the schedule and budget
 - To monitor your progress in both financial and time terms, review the implementation plan often. If your project is short, you might need to do this once a week. The frequency maybe every two weeks for larger projects.
 - Monitor the budget. Analyze the actual expenditure on your project to see if it surpasses the budget, you had initially projected given the work that's been previously done. If so, take the initiative. collaborate with the group to decide how the remaining tasks will be accomplished to stay within your assigned budget, or else take the risk of going over it.
 - Ascertain the tasks that have been done within the previous time frame and update the work plan to reflect their completion. Check to see if there are any more tasks that need to be finished but haven't. Determine if the project can be finished within the initial effort, expense, and timeframe after the work plan has been changed. If not, identify the crucial path and seek opportunities to speed up these tasks in order to get back on track.
- Plan the work by utilizing a project planning process
 - Project Overview
 - Objectives
 - Scope
 - Assumptions and risks
- To improve and upgrade the capacity building of the project members (Engineers and Labors) its highly suggested that the company train the laborers and engineers with, the site, mechanism of the job, project, TOR (term of reference, project life cycle, importance of projects and so on for the better of implementation, safety of project from every aspect.

Scope of Future Study

Several gaps are not considered in the literature that demand attention and need to be filled. For instance, corruption exists in practically every agency and business in Kabul,

Afghanistan, and it has to be filtered. A significant research gap has been identified for future work based on the review of all the documents, literature, and other materials. This gap relates to ingenious methods and techniques for identifying corruption, eliminating of it in enterprises with partners, and controlling poor management.

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