

RISK MANAGEMENT IN SMALL CONSTRUCTION PROJECTS

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Abstract – The Mega Projects use different construction management techniques to enhance the pace of the work and to keep quality upto the mark but small construction projects lack this due to insufficient funds. Although stakeholders are trying hard to reduce risks in the construction projects but still there are lack of improvements. Risk Management is an effective process to minimize the potential problems that may negatively impact the projects timetable. Unlike Mega projects small construction projects usually depend upon few individuals but despite that around ₹ 60,000 Crore has been kept for MGNREGA, ₹ 103 Lakh Crore for Other small projects in the Union Budget (FY 20-21). The research focuses on how risk management is done in small construction projects. Around 30 Interviews were conducted at about 15 Project sites of the Kashmir that were under the J&K Public Works Department. Main stakeholders in small construction projects usually include Contractor and the Client and thus these two were the main respondents. Literally speaking the result showed that there the stakeholders had poor level of information regarding the risk management. The lack of risk management was evident by the fact that the contractor used his personal experience and traditional ways of risk management which are vague and not acceptable.

Key Words: Risk Management, Techniques, Contractor, Client, Construction.

1. INTRODUCTION

Due to the COVID-19 pandemic there has been a great impact on the economy of the world. Driven by the unprecedented contraction of 50.3% in real terms in Q2, the Indian construction industry is expected to shrink by 14.9% in 2020. However, despite the prevailing gloomy situation, the industry is expected to post a sharp rebound and grow by 11.6% in 2021, owing to lower base and pent up demand, says Global Data, a leading data and analytics company. This means risks and uncertainties can affect the project in many ways like Unwanted Delays, Poor Quality and Increased Project Cost and so on. Currently around 20000 on-going construction projects are at the PAN India level.

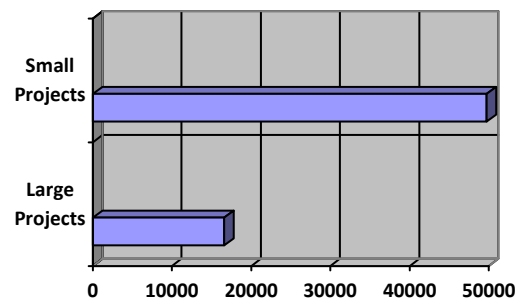
Now coming to the UT of J&K, as reported by India Today Magazine (Jan 04 2019) last year Government approved many projects worth ₹ 66,300 Crore to be spent on developmental works. Jammu-Akhnoor-Poonch road at an estimated cost of Rs 5,100 crore, construction of tunnels at Lachulunga Pass and Tanglang Pass at Rs 5,000 crore, ring roads in Jammu and Srinagar at Rs 3,750 crore, Kargil-Zanskar road at Rs 4,200 crore, Udhampur-Ramban-Banihal

road at Rs 4,306 crore and Qazigund-Banihal road at ₹ 2,410 Crore are some of the big projects to be covered.

Out of the 63 projects to be covered under this package only 13 projects are big projects while as the rest 50 come under small projects which means around 60-70% money has to be spent on small projects.

Chart-1

Depicting the amount to be spent on various Construction Projects



2. RESEARCH BACKGROUND

Risk identification is the very first thing in the whole process. Different studies have been carried out in the different parts of the world to mitigate the risks that are being experienced in the Construction Industry. Different projects were studied during the course of research. Many methods have been suggested for effective management of the work. *Tahh and Carr* has categorized risks as External and Internal Risks. And then sub categorized the two into further six categories as local, global, economical, physical, political and technological. As per *PMBOK Guide*, risks have been divided into technical, external, organizational, environmental and project management. According to many authors risks have been divided into technical, logistical, Environmental, Financial, Socio-Political and Management risks.

Many authors have reviewed Time, Quality and Cost analysis of the various projects which occur due to various delays. *Lynos and Skitmore* have conducted a number of surveys to identify risk management in various projects. Yin (1994) has used various interview surveys to analyse the risk management in the various projects. In short there is no common definition of the risk analysis.

3. METHODOLOGY

The various parameters of the projects were studied. The information was mainly collected by conducting Interviews with the stakeholders. Owner, Contractor and other groups were consulted during the course of research. Personal Interviews as well as Questionnaire was distributed among the groups to track and trace the record of the risk assessment. The persons were allowed to add their questions also which according to them were missing,

Around 30 Interviews were conducted at different 15 site locations of the Valley.

4. DATA COLLECTION

The data was collected as already stated a number of cases have been studied. Questionnaire was distributed and the data was analyzed using different strategies. The groups were told to provide answer and based on their answers the data was collected.

TYPE	FORM OF QUESTIONS
Case Study	How, Why and Ranking

5. RESULTS

The results obtained were really surprising as the whole controlling and management of the project depended upon the inner feelings of the groups. No project management tools were adopted to tackle the problems of various risks.

A. CONTRACTOR'S VIEW:

Majority of the contractors were of the view that all depends upon the experience and no managerial skills are needed to decrease the risks that occur during the construction. Only traditional methods and what comes into the mind of contractor is adopted in the name of risk management.

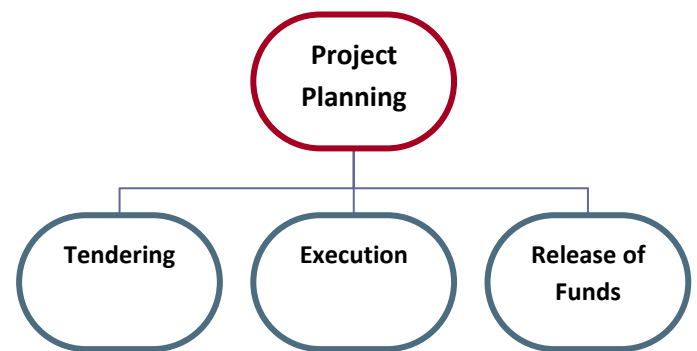
Chart 2

Recommended Process for Construction Projects



Chart 3

What actually they are doing?



B. OWNER'S VIEW

This group also confessed that during the preparation of the tender document no special care is taken towards the risk management. Only 5-10% of the total estimation is kept as a contingency amount which is no doubt meager. Detailed planning of construction and Quality analysis is also not done properly that also adds fuel to the fire.

C. OTHER STAKEHOLDER'S VIEW

Apart from the above mentioned labours are also key persons in the small construction projects. They also have a vital role in the whole process. According to them bribe was the main cause that leads to the whole mess.

From the above discussion it is clear that the owner wants the contractor to adopt risk management but the owner doesn't want to contribute towards it

6. CONCLUSIONS

The main conclusion is that small construction projects lack risk management system. The way they are controlling it is inadequate and depends upon the experience and not by the proper way. The individual's risk perspective and risk perception are rather more necessary than the obtainable system, as equipped by the company. Weather risks, Lack of safety, poor material management, inefficient supervising and Lack of coordination are some of the main issues that need to be dealt with.

The study concluded with the following points:

1. Like Large projects, small projects also need to be planned properly with special attention towards risk management.
2. Special Training sessions must be organised to improve the management skills of the working groups.
3. Proper supervision must be done on time to avoid any future problems.
4. Projects must be planned properly.
5. Use of construction Management techniques must be used in order to bring the efficiency.

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BIOGRAPHIES



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