

STUDY AND NEED OF RISK MANAGEMENT FOR CONSTRUCTION PROJECTS

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Abstract - India has seen a very large growth in the infrastructure and construction sector in the recent times. With the increasing size of the construction projects and the finances related to it we also need to consider the risks related. Hence the risk management module of project management comes into the scenario. These risks can cause losses that lead to increase in costs, time delays and lack of quality of projects. Risk management deals with identification and mitigation of risks in construction projects and helps in timely and in budget completion of projects.

Key Words: Risk Management, Construction Management, Project Management, Risk, Need for Risk Management

1. INTRODUCTION

The pace of change in the construction industry has imposed additional demands on construction project management. Risk management is a vital project management planning and control tool for reducing uncertainty and improving decision-making. Risk cannot be avoided but must be recognized, assessed and managed.

Cities being major place for jobs and education it has seen a lot of population growth in recent times. People are migrating in huge quantities from small cities and villages for work and education. This has led to huge need for housing and commercial spaces in the cities. Large size of projects in terms of coverage as well as the finances involved in the same led to a stress on risk management in construction projects.

It has also been stressed that construction is a risk-prone industry, with a poor track record of coping with risks, as a result of which clients have been enduring the agonizing outcomes of failure in the form of unnecessary delays in project completion, cost overrun and sometimes failing to meet quality standards and operational requirements (Wakjira, 2011).

Traditionally, during the pre- contract stage of project, most of these risks are not properly identified, assess the likelihood of its occurrence, assess its impact on project performance. Rather a 10% contingency is added to the total project cost in order to accommodate the effect of unforeseen circumstances. In most cases the 10% contingency is based on intuitive guesswork and this explains the attendant high cost overrun (Odenyinka 2000). Thus, a need to assess the risk impact on construction project is still desirable. Proper risk analysis and cost control will ensure certainty of project price i.e project will achieve its cost and will be within budgets, timely delivery of project, project will also receive the best quality and the expenditure must give value for the money spent (Awodele 2012).

The research study is attempted to understand the concept of risk management. Secondly we have tried to state the need for risk management in the present construction industry. Also we bring to notice the current risk management practices carried out in the country.

2. RISK MANAGEMENT

Risk management in a project encompasses identifying influencing factors that could potentially negatively impact a project's cost schedule or quality baselines; quantifying the associated potential impact of the identified risk; and implementing measures to manage and mitigate the potential impact. Risk management provides a structured way of assessing and dealing with future uncertainty. Project risk management includes the processes concerned with identifying, analyzing, and responding to project risk. It includes maximizing the results of positive events and minimizing the consequences of adverse events.

There are mainly two methods to determine risk, namely the quantitative and the qualitative approach. The quantitative approach relies on statistical calculation to determine risk, its probability of occurrence, and its impact on a project. A common example of the quantitative approach is decision tree analysis, applying probabilities to two or more outcomes. Another approach is the Monte

Carlo simulation, which generates a value from a probability distribution and other factors.

The qualitative approach relies on judgments, using criteria to determine outcome. A common qualitative approach is a precedence diagramming method, which uses ordinal numbers to determine priorities and outcomes. An example of a qualitative approach is to list in descending order specific processes of a project, the risk or risks associated with each process, and the control or controls that may or should exist for each risk.

3. NEED FOR RISK MANAGEMENT

Construction projects can be extremely complex and fraught with uncertainty. Risk and uncertainty can potentially have damaging consequences for the construction projects. Therefore nowadays, the risk analysis and management continue to be a major feature of the project management of construction projects in an attempt to deal effectively with uncertainty and unexpected events and to achieve project success. Considering the complexity and the size and budget of the construction projects small risks can have a greater impact on the project. Risks most of the times cause delay which can cause delayed project delivery and also monetary losses are incurred.

Most of the times it is found that there is no systematic protocol for risk management in a project. Many a times the risk management is carried out by brain storming sessions of the senior engineers and management. This mostly depends on the experience of the said person and the judgment can differ from person to person. At the time of risk event this is not very useful as the event has already occurred and the damage is done. Hence it should be taken into consideration by the companies that there should be a dedicated risk management team to identify, analyze and mitigate the risks. There should be a risk response plan ready before the risk event occurs. This not only reduces the monetary impact but also reduces the delay in project and avoids quality degradation.

4. CONCLUSIONS

As far as India is concerned risk management is still a new concept in the construction sector and this should be changed as soon as possible. Risk management should be considered a primary tool to assess the project. From the study we can conclude that risk management is not followed in most of the companies systematically or not at all followed. Risk mitigation plan should be proposed as and when then the project is in planning stage taking into account the possible risks in the future.

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