

# International Journal of Innovative Research in Science, Engineering and Technology

(A High Impact Factor & UGC Approved Journal)

Website: [www.ijirset.com](http://www.ijirset.com)

Vol. 6, Issue 9, September 2017

## A Review on Risk Management in Building Construction Project

Ankur Gupta<sup>1</sup>, Dr. Mukesh Pandey<sup>2</sup>

PG Scholar, Department of Civil Engineering, ITM University Gwalior, Madhya Pradesh, India<sup>1</sup>

Professor & Head, Department of Civil Engineering, ITM University Gwalior, Madhya Pradesh, India<sup>2</sup>

**ABSTRACT:** The construction industry itself includes a complex environment and in this environment a small error or not proper allocation of the resources results in risk. RISK MANAGEMENT by and large discovers the most basic variables, whose immediate effect on development work, and help in creating suitable administration reaction. A methodical process of risk management has been divided into risk assortment, risk identification, risk analysis & risk response. "RISK" The word when it came in our mind it means a situation involving exposure to danger. Risk is that the potential of gaining or losing one thing useful (such as physical health, status or monetary wealth) are often gained or lost once taking risk ensuing from a given action or inaction, predicted or unforeseen. "RISK ANALYSIS" ought to be performed as a part of the risk management method for every project. the info of which might be supported risk discussion workshops to spot potential problems and risk prior time before these were to create value and schedule negative impact. "PROJECT MANAGEMENT" is that the discipline of initiating, planning, executing, dominant and shutting the work of a team to realize specific goals and meet specific success criteria.

**KEYWORDS:** Risk, Risk management, Construction project.

### I. INTRODUCTION

In every part of the world construction has a rapid growth daily. Therefore nowadays, the risk analysis and management still be a serious feature of the project management of construction project in a shot to deal effectively with uncertainty and surprising events to attain project success.

Construction project square measure continually distinctive and risks raise from variety of the various sources. Construction comes square measure inherently advanced and dynamic, and involving multiple feedback processes. In recent years, poor performance of construction comes has angry associate increased and interest into the character and mechanism of risk analysis and management (Smith 2006). Risks are largely found to exhibit dynamism and continuity across a project's life cycle. (Chan et al. 2009; Nieto-moroto and Ruz-vila 2010)

In there, risk management mostly focused on most critical factor such as plant suitability or/and material etc.

"Risk" is outlined because the potential for complications and issues with relevance the completion of a project and also the action of project goal. (Mark, et al 2004)).

The impact or consequence of this future event should be surprising or unplanned (Chia, 2006). Therefore, managing risk is concerned in distinguishing, assessing and prioritizing risk by observance; dominant and applying social control resources with a coordinated and economical effort thus on minimize the chance and/or impact of unfortunate events then on maximize the conclusion of project objectives. (Douglas, 2009)

### II. LITRATURE REVIEW

**Akintola S Akintoye and Malcolm J Macleod**, This study target risk management is crucial to construction activities in minimizing losses and enhancing profit. Risk analysis and management in construction rely chiefly on intuition, judgment and knowledge. The contractor transfer risks to their domestic and specialist sub-contractor and

# International Journal of Innovative Research in Science, Engineering and Technology

(A High Impact Factor & UGC Approved Journal)

Website: [www.ijirset.com](http://www.ijirset.com)

Vol. 6, Issue 9, September 2017

through insurance premiums. It's typically recognized that risk ought to be transferred to the party that's within the best position to wear down it.

**Odimabo Ootob, Onengiyefori**, Project risk assessment is a good tool for dominant price, time and achieving the technical performance of a building construction project. Construction project typically face plenty of uncertainties, that places building construction project at the chance of your time, price overruns further as poor quality delivery. The analysis aims to determine a system to enhance time. Price and quality performance of building construction comes in developing countries.

**Mr. Satish K. Kamane, Mr. Sandip A. Mahadik**, Construction comes gather along many stakeholders, that makes it troublesome to check a network as a full. However at a similar time, these come provide perfect surroundings for network and risk management analysis. This paper deals with the identification of risk by totally different ways risk management won't take away all risks from the comes. Its main objectives are to make sure that risks are managed most effectively. The management and risks transfer is most helpful methodology in industry be a part of venture wide used as tool for risk transfer.

**Agnieszk Dziadosz and Mariusz Rejment**, the risk could be a measurable a part of uncertainty, that we tend to are able to estimate the prevalence likelihood and therefore the size of harm. The danger analysis is thus necessary that project choice and coordination of construct work.

The character and specifics of the development trade create that the analysis of the impact of risk issue on a construction project is a lot of usually taken, despite the main difficulties of their quantification. the matter of risk management isn't solely current however it's essential designing and realization of a construction project.

**Ibrahim Alrashed, Abdulmohsen Alrashed, Saud A Taj, Micheal Pillips and Komal Kantamaneni**, Construction project within the residential sector are a lot of positive then industrial sector, however, information on the particular percent of success rate and important risk factors in aforesaid comes are still restricted.

**Zulqanain Iqbal**, Risk management may be a proactive management tool project wont to reduce the sensitivity to losses on a course of action, that leaves Associate in Nursing audit trial of changes. the danger management probabilistic modeling will be wont to reduce the contingency of the project from a rough estimate of 10-20% of Associate in Nursing quantity determined quantitatively usually within the vary of 3-8%.

**Laila Mohamed Khodeir, Ahmed Hamdy Mohamed Mohamed**, The aim of this paper is to spot the newest high major risk possibilities in construction project. Risks were prioritized consistent with this significance of influence and their sources, whether or not internal or external. This paper gift total seven key risk were detected. The paper additionally recommend a gaggle of risk response methods that suit every of the known key risk.

### III. CONCLUSION

The proposed work will help us to know the probable risk factors which are probably associated with construction projects as well as how the risk attitude can change the scenario which can help and minimize and also effect of these factors, some of such factors have been investigated while studying different research papers. – Plant suitability, Weather or natural hazardous, Material availability etc.

### REFERENCES

1. CONSTRUCTION RISK ANALYSIS, Smith, S.D (Ed) Procs 28<sup>th</sup> Annual ARCOM Conference, Edinburgh, UK, Association of Researchers in Construction Management, pp. 1197-1207, 3-5 September 2012.
2. Akintola S Akintoye and Malcolm J MacLeod, "RISK ANALYSIS AND MANAGEMENT IN CONSTRUCTION", International Journal of Project Management, Vol. 15, No. 1, pp. 31-38, 2013.
3. Odimabo Ootob and Onengiyefori, "RISK MANAGEMENT SYSTEM TO GUIDE BUILDING CONSTRUCTION PROJECTS' IN DEVELOPING COUNTRIES: A CASE STUDY OF NIGERIA", pp. 1-297, 2016.

## International Journal of Innovative Research in Science, Engineering and Technology

(A High Impact Factor & UGC Approved Journal)

Website: [www.ijirset.com](http://www.ijirset.com)

Vol. 6, Issue 9, September 2017

4. Mr. Satish K. Kamane and Mr. Sandip, "A. Mahadik, RISK MANAGEMENT IN CONSTRUCTION INDUSTRY", IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE) ISSN: 2278-1684, PP: 59-65.
5. Ibrahim Alrashed, Abdulmohsen Alrashed, Saud A. Taj, Michael Phillips and Komali Kantamaneni, "RISK ASSESSMENTS FOR CONSTRUCTION PROJECTS IN SAUDIARABIA", Research Journal of Management Sciences ISSN 2319-1171 Vol. 3(7), 1-6, 2014.
6. Agnieszka Dziadosz and Mariusz Rejment, "RISK ANALYSIS IN CONSTRUCTION PROJECT- CHOSEN METHOD", Elsevier, pp. 258-265, 2015.
7. Zulqarnain Iqbal, "RISK MANAGEMENT IN CIVIL ENGINEERING PROJECT", pp. 2-18, 2014.
8. Laila Mohamed Khodeir, Ahmed Hamdy Mohamed Mohamed, "IDENTIFYING THE LATEST RISK PROBABILITIES AFFECTING CONSTRUCTION PROJECTS IN EGYPT ACCORDING TO POLITICAL AND ECONOMIC VARIABLES", HBRC journal, pp. 1-7, 2014.
9. Yanjun Zhao, Xiaojun Liu, Yan Zhao, "FORECAST FOR CONSTRUCTION ENGINEERING RISK BASED ON FUZZY SETS AND SYSTEMS THEORY", Elsevier, pp. 156-161, 2011.
10. <https://en.wikipedia.org/wiki/Risk>.
11. [https://en.wikipedia.org/wiki/Risk\\_analysis\\_\(engineering\)](https://en.wikipedia.org/wiki/Risk_analysis_(engineering)).
12. [https://en.wikipedia.org/wiki/Project\\_management](https://en.wikipedia.org/wiki/Project_management).