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Review of Risk Analysis and Factors Affecting the Construction Projects in India

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Abstract: *This study investigated the most important risk factors influencing the Indian construction corporations endeavor the bulk of the comes. body, financial, resources, manpower, and technical issues were investigated.. The study treated every company category severally, analysing the individual and general comments that were prompt for every risk class. A score for every risk was derived. acceptable solutions for the best hierarchic major risks were prompt.. Analysis unconcealed that a number of the negligible problems can be key project success factors. The aim of this analysis is to spot and calculate current risks and uncertainties within the housing industry throughout intensive literature survey. It additionally intends to form a basis for future studies for improvement of a risk management structure to be adopted by prospective investors, developers and contractors in developing countries.*

Keywords: *Risk, Types of risk, Risk Analysis, Risk Assessment, Risk Management.*

I. INTRODUCTION

Risk in a very construction project signifies things whereby a project is probably going to deviate from or fail to satisfy the dead line and price targets. In terms of project management, the foremost serious effects of risk will be: failure to stay the project among the calculable price, failure to complete the project among the stipulated time and failure to attain the specified quality and operational needs. several risks area unit related to construction. The impact of any of those risks is expressed in terms for financial loss, property injury, personal injury or a mix. it's vital to spot every risk, and notice its acceptable resolution. Some risks can't be controlled, like those thanks to political factors or the unsteady exchange rates. In terribly giant comes new risks emerge, adding a lot of thought to the project size. The liabilities got to be shared so as to encourage the right implementation, associate degreed prompt an economic completion of construction comes. Some risks can't be expected as they possess some characteristic unobvious to the development trade. Risk is outlined because the chance of loss, injury, disadvantage, or destruction. This definition might cowl all sorts of risks like technical, cost, and schedule risks. There's additionally the thought that acquisition risks like health, safety, weather, insurance, finance, setting, and policies, area unit a part of and infrequently mingled with different venues of risks. In general, risk management may be a follow with processes and ways for managing risks in a very project. one in all the lot of helpful constructs of risk management is that a risk as an opportunity consists of a probability and of consequences. This definition springs from the elementary mathematical thought of expectation of an incident. Expectation for a few event is outlined because the product of its likelihood of incidence and its price if it happens. The likelihood of incidence depends on the managers' angle towards risk, thus managers will take risk into consideration once choosing comes. Risk assessment is a crucial task if decision-manufacturers area unit given an affordable methodology of assessing the potential gains and losses related to any explicit course of action. The risks could also be unacceptable, that during which within which case the course of action will either be rejected or a technique is found by which the risks area unit improved. On the opposite hand, the risks could also be acceptable and therefore the course of action is pursued with or with none additional improvement within the risks. once a technique is devised to assess the likelihood and potential severity of perceived risks.

II. OBJECTIVES AND NEED OF STUDY

The risk management technique is employed terribly less as a result of less information and awareness among the individuals. The journal is additionally terribly poor in terms of brick up with risks in comes, leading to the love of project objectives. Risk management is adopted to contain the potential future risks proactively instead of being reactive. It applies to any project to judge the foremost, major, and customary risks that cause dangerous impact on the development project to realize its objectives. the chance management thought is incredibly less standard technique within the housing industry, then it's necessary to unfold awareness of constant.

III. METHODOLOGY

In this paper, general focus has been created on the final ideas of risk management. Risk identification has been through with the study of literature. A form was developed when the known factors moving risk. A risk assessment will be through with the help of qualitative and chemical analysis. Risk response might be planned on the idea of the result of the study. Risk management is that the last step within the method of risk management. The knowledge gotten within the survey was poor down by Relative Importance Index (RII) technique

IV. CONCEPT OF RISK ANALYSIS AND MANAGEMENT

The risk analysis helps in estimating potential impacts of risk and in creating choices concerning that risks to retain and that risks to transfer to different parties. the chance analysis within the context of construction comes consists of the method of coping with risks and uncertainties in a very structured manner by:

- A. Identifying risks
- B. Quantifying risks
- C. Categorizing risks
- D. Controlling risks.

Risk management is a process which identifies the project risks, analyse them, and determine the actions to avert the threats on any project. All steps in the risk management process should be included to deal with risks, in order to implement the process of the project. Due to the nature of construction projects, risk management is a very important process. Risk associated with construction industry can be broadly categorized into:

S.NO	Type of Risks
1	Technical Risks
2	Construction Risks
3	Physical Risks
4	Organisational Risks
5	Financial Risks
6	Socio-political Risks
7	Environmental Risks

V. FACTORS AFFECTING RISKS.

- 1) *Past Events*: New comes ar a lot of at risk of risks as they're completely different from the opposite comes. Older comes are probability of success against risks as a result of there are similar comes has been done before.
- 2) *Management Stability*: Therefore, it'll be helpful to attain the project objectives with abundant ease. If the management is unstable Management stability means that the complete management shares an equivalent goal or objective for any project then it will result in have an effect on the project objectives.
- 3) *Staff Experience and Experience*: If the worker for any project is sufficiently toughened and with completely different experience the probability of quality, price and different objectives is achieved.
- 4) *Team Size*: For larger groups of any project there are a lot of probabilities of prevalence of drawback attributable to miscommunication.
- 5) *Resource Availability*: If the project is accessible with smart an honest decent quantity of resources then the response to the matter are going to be good. As a result of if the project is accessible with bigger quantity of resources than it will wear down completely different risks with ease.
- 6) *Time Compression*: If the project schedule is very compressed there are a lot of probabilities of prevalence of risks in come. once longer is accessible for the project, then it is coped up by reducing risk impact on the project.
- 7) *Complexity Analysis*: If the project is very advanced there are a lot of probabilities for the prevalence of drawback within the project.

VI. CONCLUSION

Risk management technique seldom employed by the participants in construction projects. The participants accustomed handle the risks with a casual approach. This method isn't utilized owing to less information and awareness among the development business. risk management technique ought to be applied into any construction project at the initial stage of the project to urge most advantage of the technique. Hence, there's thriving have to be compelled to have a well-documented procedure that ought to be a one stop answer to all or any hazards that square measure probably to occur throughout project life cycle. There ought to be additional wholesome approach towards risk management rather than the current intermittent approach towards the risks.

REFERENCES

- [1] Akintoye, A.S. and MacLeod, M.J.; "Risk analysis and management in construction"; International Journal of Project Management (1997).
- [2] Baker, S., Ponniah, D., and Smith, S.; Risk response techniques employed currently for major projects, Construction Management & Economics (1999)
- [3] Dariusz Skorupka.; "Risk management in building projects"; AACE International Transactions (2003)
- [4] Dr. M. J. Kolhatkar, Er. Amit Bijon Dutta.; "Study of Risk in Construction Projects"; GRA (2013)
- [5] F. Y. Y. Ling and L. Hoi.; "Risks faced by Singapore firms when taking construction projects in India," (2006)
- [6] Kinnaresh Patel M.E. (C.E.M.)*; A study on risk assessment and its management in India.; AJCE (2013)
- [7] A Study of Risk Management Techniques for Construction Projects in Developing Countries 142
- [8] Prof. Shakil S. Malek, Nazneen I. Pathan, Haaris Mal.; "Risk Management in Construction Industry"; IJAR (2013)
- [9] S. Q. Wang and M. F. Dulami.; "Risk management frame work for construction projects in developing countries," (2004)
- [10] Tsung-ChiehTsai, Min-LanYang.; "Risk assessment of Design-Bid-Build and Design-Build Building projects"; Journal of the Operations Research Society of Japan (2010)
- [11] Uher, T. E. & Toakley, A. R.; Risk management in the conceptual phase of a project. International Journal of Project Management (1999).
- [12] Zenghua Kuang.; "Risk Management in Construction Projects"; (2011)



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