



Review on Predicting Critical factors affecting success of construction projects in Gwalior division

¹Harsh Singh Ranawat, ²G. Bhadoriya

^{1,2}Madhav Institute of Technology & Science, Gwalior

Abstract: *The success of construction projects depends upon the growth of the work and the growth of any construction project is depend on its performance. The construction projects are facing many problems while performing because of some factors or can say complex/ critical factors. From previous literature we have found different critical factors which has been proposed in the papers. And also there have been some common factors recorded from various literatures. There are some factors listened as most critical factors and some different methodologies and tactics has been adopted in every different paper to minimize those critical factors. In various literature they have been proposed different ideologies for the success. The literature review has been initiated to gather all the knowledge about the study and factors which are the cause of poor performance of construction projects.*

The main purpose of the review study is to collect most of the critical/complex factors during the construction completion. The investigation may helpful for the organizations in assessing the performance of construction project management.

Keywords: *critical factor, complex, project success, factor affecting, performance.*

Introduction:

Construction industry is very wide in itself and it is a very much time taking process. So the success of the construction work depends upon many aspects. Construction work is divided in many phases and for the success it is mandatory every phase should have done properly. Flow of the construction work should be very smooth for the success of the project. And if its facing any complexity it must be investigate as soon as possible. Such factors should recognize and minimize as soon as possible for the successful project. For reducing the large number of complexity first it is needed to investigate properly. And work on those complex factors, requirements should be fulfill on time. A success project may define as that project which has been completed as per the decided or planned time and also completed in the lumsum budget which was decided for the project. And it can only be possible if the project has been managed and controlled properly. So for the success of the construction project this is mandatory to keep an eye on every small aspect and every requirements and try to reduce the errors from the work. Manage and control the work greatly for the success for the construction project.

Object and motive:

As I have mentioned about critical factors and their effect on construction industry, so here the object of the study is to investigate the critical factors of the construction industry which are the root of failure of any construction work. The investigated factors will be ranked accordingly as their role of responsibility of failure. This work will be done by creating framework of questionnaire survey.

Literature Review:

While studying the case, different literature have been analyzed and in every paper different ideologies has been adopted and different causes has been proposed which are the major reason of affecting the success of construction work. And also we have studied some solutions to minimizing critical factors. All of paper have given different factors and different method some of them are mentioned below –

According to M. Nemathullah, B. Harish Naik in September 2016 volume 5, issue 9

Project management is one aspect which includes all factors in it for the successful construction project. The management team should be aware of every task performed during the construction work to reduce the numbers of error. The requirements for the construction work should be done as soon as possible for the smooth flow of the work. They have had investigate some factors in their study apart from the project management and those are respectively time, cost, quality, and budget.

According to Zakari Tsiga, Mishen Emes, Alan Smith in 2016 vol.4 no.1

Risk management and requirement management are one of the factors influencing construction projects. These two factors must have included as those factors which are affecting management of construction projects. The data for this study had been collected using online survey method. Likert scale method is used to analyze the data for this study.

According to A. Omran, Salma Abdalrahman, and Abdul Hamid kadir pakir in January – June 2012, volume 1

Performance is the main aspect for the successful construction projects, the performance may defined through the completion of the project as per the decided time and cost and also quality standards and customers satisfaction. They have had proposed five factors as the most responsible factors which are influencing the project performance in their study. The five factors are given below-

Cost progress monitoring, leadership skill of leader, project team leader experience, adequacy of design and specification, planning efforts. These are the most influence factors according to their literature. To get the exact data they have prepared a questionnaire survey and data had been analyzed by RII method.

According to Saraf D. D. in May 2015, volume 4, issue 5

Performance is the main key of success for any construction project. It is very much needed to complete the work as per the planning so that it may lead to success. They have investigate some factors and prepare one questionnaire form. The forms were distributed in three groups of expertise respectively Consultant's, Contractor's, and Engineer's group. The questions were same for all of the groups. And factors for every group has been ranked according to the data has been received. Some factors from this paper are respectively – improper planning, contract management, site management, decision making. They had applied RII method for the data analysis.

According to Alis Kahwajian, Shukri Baba, Omar Amudi and Mohammed Wanos in 2014, vol. 8, issue 4

They have discussed about collaboration between public sectors and private sectors. This is an important issue to talk about for government as well. Some key factors has been investigate through survey and some were added by the expertise during the survey. To analyze the received data from the questionnaire survey RII method has been adopted and ranking has done accordingly for the most critical factors. This study is very much needed for the construction industries of Syria for the betterment and development. Some factors from this paper are respectively political support, sound economy policy, project technical feasibility, and favorable framework.

According to Enhassi in 2009 volume 15, issue 8

Construction industry is a wide industry and it is very common to have complexion while working. It is also very much time taking process to completion and success depends on that only. The flow of work is according to the planning or not and if not what are the causes for the obstruct performance. Some factors has been investigate in this paper as the most responsible factors for delay or failure in the construction projects. There are some of the factors mentioned from the paper – material shortage, low level of project leadership skills, escalation of prices and unavailability of highly experienced and qualified personnel. RII method has been used to analyze the data collected through the questionnaire survey.

References:

- Critical factors influencing the Performance of Construcion Industries by M. Nemathullah, B. Harish Naik International Journal of Innovation Research in Science, Engineering and Technology vol. 5, issue 9, September 2016.
- Attitude to risk management in space projects by Zakari Danlami Tasiga, Michel Emes, and Alan Smith, The journal of modern project management vol.4 no.1, 2016.
- Project performance in Sudan construction industry: A case study by A. omran, Salma Abdalrahman and Abdul Kadir Pakir, GJEAR, vol. 1 number 1, jan-june 2012.
- Study of factors affecting performance of construction project by Saraf D. D., IJSR, vol. 4, issue 5, May 2015.
- Identification of critical success factors for public private partnership construction projects in Syria by Alis Kahwajian, shukri Baba, Omar Amudi, and Mohammed Wanos, Jordan Journal of civil Engineering, vol. 8 no.4 2014.
- Factors affecting the performance of construction projects in the Gaza Strip, journal of civil engineering and management, vol. 15, 2009.