

# Critical Success Factor for Construction Projects

Pooja N. Kirange<sup>1</sup>, Prof. P. P. Bhangale<sup>2</sup>

<sup>1,2</sup> Department of Civil Engineering

<sup>1,2</sup> SSGB's college of Engg. & Tech., Bhusawal.

**Abstract-** *Nowadays, building projects are becoming much more complex and difficult; yet, demanding. The project team is facing pioneering changes. Many great buildings have been built successfully while others are not due to improper planning. Actors i.e. Engineers, Designers, Architects, Contractors and Clients” strive for finding very useful, cost efficient and sustainable ways of moving people across cities. Nowadays to strive their survival in this competitive business environment, achieving success is an important issue for the companies. Thus study of critical success factors (CSFs) and project success are considered to be a means for improving the potency of project. The construction industry is facing strong competition due to increase in number of contractors. Thus, building on an extensive knowledge to design, plan, construct and manage efficient construction will contribute to mobility that is safe and reliable with a least influence on the environment.*

**Keywords-** - company success, construction, critical success factors, project success,

## I. INTRODUCTION

As construction is vital in nature due to the increasing uncertainties in technology, budgets, and development processes, hence it has become a risky business and the business failure possibilities always exists; construction companies have to consider the parameters that can have a direct effect to their success in business. Nowadays, construction projects are becoming much more complex and difficult. The project team is facing unparalleled changes. The study of the critical success factors (CSFs) and project success are considered to be a means to improve the success of project.

A construction project is completed as a result of a combination of many events and interactions, planned or unplanned, over the life of a facility, with changing participants and processes in a constantly changing environment. Certain factors more critical to project success than other factors are called critical success factors (CSFs). The term "critical success factors," in term of projects and its management is defined as those factors predicting success on projects.

It is a matter of issue for the companies to survive in a competitive business environment along with achieving success. The construction industry is an area where there is powerful competition due to a large number of construction contractors. There have been many factors such as quality workmanship, qualified employees, and financial management that can lead to company success in the construction industry. The aim of this study is to investigate the critical factors leading to success of Construction Company.

## II. LITERATURE REVIEW

G. Arslan et. al, (2008), described that nowadays success is highly critical factor for the construction companies to survive in the competitive environment. He studied the critical success factors that will lead to company's success. With reference to this study, he also carried a survey among top-level managers and owners of 40 Turkish construction companies for a period of about 5 months. Finally, he determined the ranking of the critical success factors by using the Simple Multi Attribute Rating Technique (SMART). From his study he suggested that organizing and planning was assessed to be the most important factor contributing to company success. [1]

K. C. Iyer et. al, (2006), identified 55 attributes which are responsible for influencing performance of the projects and then these attributes were presented to Indian construction professionals in the form of a questionnaire. On the results of their analysis, the attributes were divided into separate groups of success attributes and failure attributes. On further analysis of the factors of sets of success attributes and failure attributes separately grouped them into six critical success factors and seven critical failure factors. From his analyses, project professional's will get help to focus only on few factors which are responsible for the success of the project, rather than giving attention to all the factors and not get the satisfied results. [2]

Terry Cooke-Davies (2002), laid emphasis on whether which factors are the "real" factors responsible for the success in construction companies. He defined the factors critical to project success on answering three separate questions: "what factors lead to project management success?", "what factors lead to a successful project?" and "what factors lead to consistently successful projects?". As a

result he identified 12 factors that are critical to project success by carrying a research from more than 70 large multi-national or national organizations to answer each of these three questions. [3]

Jeffrey K. Pinto et. al, (2015), presented a process to determine critical success factors that are felt to be predictive of successful project management with the help of full time managers who have had work experience with construction projects. On the basis of literature, he discovered 10 crucial factors and also linked them in quasi – sequential framework. Also further interest from his study was the development of a mechanism for measuring project success. Each factor out of 10 critical success factors was experimentally defined by 6-12 items that initiated it. [4]

Albert PC Chan (2001) explained that construction industry is constantly changing in nature due to increase in technologies, budgets, and development process and new inventions. He listed a range of Key Performance Indicators (KPI’s) to evaluate the project performance. He studied the dimensions of project success by Shenhar, Atkinson and Lim and Mohamed and then consolidated a framework for measuring project success. [5]

**III. STUDY OF CRITICAL SUCCESS FACTORS FOR A CONSTRUCTION PROJECT**

CSFs are different for different organization. It cannot be specially determined for the groups since success can be defined quite differently by each individual, and for the goal at hand and hence it cannot predefine.

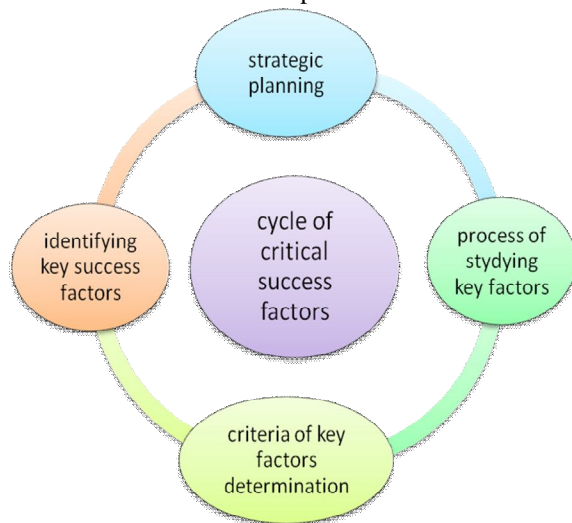


Figure 1. Showing Cycle of Critical Success Factors for construction projects.

Critical success factor is a business term for an element which is necessary for an organization or project to

achieve its mission Business definition for critical success factor is that it is an element of organizational activity which is central to its future success and it may change over time, and may include items such as product quality, employee attitudes, manufacturing flexibility, and brand awareness. Critical success factors are normally identified in such areas as production processes, employee and organization skills, functions, techniques, and technologies. The identification and strengthening of such factors may be similar to identifying core competences, and is considered an essential element in achieving and maintaining competitive advantage.

A critical success factor is not a key performance indicator. To clarify this statement relation between CSF and KPI is discussed. Critical Success Factors are elements that are vital for a strategy to be successful while KPI measures the achievements which directly or indirectly measure quantify objectives that enable the measurement of strategic performance and the results of implementation of Critical Success Factors.

Table 1. List Of Critical Success Factors

Category	Sub Category	Factors
Project related factors	Project	1.Clear goals and objectives 2.Realistic budget and program
Human related factors	Client	3. Experience of the client 4. Clear intention and objectives 5. Clear management structure
	Brief Writer	6. Experience of the brief writer 7. Knowledge of client’s business
	Designer	8. Skillful guidance and advice from architect
	End user	9. Clear end user requirements
Process-related	Process	10. Development of a framework agreed by Factors the key parties 11. Control of process 12. Adequate time for briefing 13. Holding workshops for stakeholders 14. Good facilitation
Input related factors	Stakeholders management	15. Selection of briefing team 16. Clarity of roles of stakeholders 17. Sufficient consultation with stakeholders

		18. Experience of stakeholder group 19. Balance of the needs/requirements of different stakeholders
	Conflict management	20. Consensus building
	Knowledge management	21. Knowledge of client's business Management 22. Knowledge of consultants 23. Knowledge of statutory and lease control of the project 24. Excellent technical capability change.
	Change management	25. Time for freezing of brief documents 26. Flexibility of briefs to cater for changes
	Team and team dynamics	27. Team commitment 28. Honesty 29. Openness and trust
	Decision making	30. Proper priority setting 31. Good record of decisions made
	Communication	32. Identification of client's requirements 33. Open and effective communication 34. Thorough understanding of client's requirements
	Post-Occupation Evaluation	35. Feedback from completed projects
Output-related Factors	Brief	36. Clear and precise briefing documents 37. Agreement of brief by all relevant parties

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## V. CONCLUSION

All over the world and most especially in the developing countries, the construction industry is characterized by repeated delays and cost overruns. The main objective of this study to define all the success factors and list the critical ones that are responsible for the success of the project during its construction stage. The factors are categorized in 5 main categories and then further they are grouped in their respective categories

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