



Review of Critical Success Factors in Construction Industry

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Abstract: Critical success factors (CSFs) are project management inputs that can lead to project success either directly or indirectly. It entails a number of components that must be coordinated in order for the project to be completed on time. The goal of this research is to determine the magnitude of the link between CSFs and project success. The research findings are supposed to aid the company in evaluating project management performance. Finally, the conceptual framework was created by identifying five factors that contribute to project success: Project Management Action, Project Procedures, Human Factors, External Issues, and Project Related Factors.

Keywords — Critical Success Factors (CSFs), Project, Project management, Organization, Project implementation, Project managers.

I. INTRODUCTION

Over the life of a facility, a construction project is effectively completed as a result of many jobs and interactions, both planned and unexpected, with changing participants and procedures in a continually changing environment. Certain aspects are more important than others in project success. Critical success factors (CSFs) are a term used to describe these factors. Rockarts (1982) coined the term "critical success factors" in the context of project management, and it is defined as these characteristics that contribute to project success (Sanvido et al. 1992). Any growing country's development and expansion is contingent on the successful implementation of new initiatives. After agriculture, the construction industry is India's second major source of employment. Because of the shifting uncertainties in technology, government funding, and development procedures, the building sector is progressive. Project performance is also used as an objective measure of project goals, such as completing the project on time, on budget, with good quality, and with complete client satisfaction. Project performance is based on time, cost, and quality, but these factors alone do not provide a whole picture of project success. There are also a lot of issues to consider, such as finishing the project on time and on budget, quality of workmanship, client and project management satisfaction, technological advancements, environmental friendliness, and safety. Identifying critical success elements, building conceptual frameworks, and analysing the linkages among critical success factors and the link between critical success factors and performance are some of the other aims. Purchasing a piece of land, determining the project's marketing, developing the building programme and design, acquiring the appropriate public approvals and finance, building the structure, then leasing, managing, and eventually selling it are all part of the construction project development process.

II LITERATURE REVIEW

1. Critical success factors influencing performance of construction projects

Sumesh Sudheer Babu et al state that the study of project success and the critical success factors (CSFs) is considered to be a mean for improving the effectiveness of project. Performance can be assured by identifying and eliminating the factors that cause poor project outcomes. Thus, project managers need better understanding of critical success/failure factors and how to measure them. Also he recommends that this study is to systematically investigate the causes of project failure and how these can be prevented, managed, or controlled. Construction projects are frequently influenced by success factors which can help project parties reach their intended goals with greater efficiency. Their aim is to investigate the critical factors leading to construction company success. Many critical success factors such as factors related to project manager's performance, factors related to organization, factors related to project, factors related to external environment became apparent from this study. This study will be helpful to identify factors that influence project success. (Sumesh Sudheer Babu, Dr. Sudhakar)

2. Ranking the factors that influence the construction project management success

Jolowo Micheal explore the extent of knowledge which the construction companies have on the use of project management principles in the Malaysian construction industry as a whole and rank these project management principles with the aim of finding out the most commonly used in the construction industry. It is also aimed at finding the importance of construction project management and the factors responsible for the success of construction project in general. The data collected were based on the premise of the implementation and the usefulness of project management methods in the various construction companies. The findings from this study revealed that majority of the construction companies in Malaysia have the knowledge of construction project management and its importance in successful project execution.(Jolowo Micheal1)

3. Critical success factors: en route for success of construction projects

This paper aimed at presenting literature relevant to project critical success factors with special reference to construction industry. This paper aimed at presenting literature relevant to project critical success factors with special reference to construction industry.also explain external factors basically couldbe viewed as issues related to government policies, client & consultant's characteristics and industry issues/challenges. Industry-wide issues should be addressed at the industry level forums/institutions.(Susil Kumara Silva)

4. Factors affecting the success of a construction project

The aim of their paper is to develop a conceptual framework on critical success factors CSF'S. Seven major journals in the construction field are chosen to review the previous works on project success.Five major groups of independent variables, namely project-related factors, project procedures, project

management actions, human related factors, and external environment are identified as crucial to project success. Further study on the key performance indicators ~KPIs! is needed to identify the causal relationships between CSF'S and KPIs. The causal relationships, once identified, will be a useful piece of information to implement a project successfully. New conceptual framework that includes and regroups the identified variables affecting project success is developed. Hypotheses on implementing a project successfully have been developed. It can be used as a base for further detailed investigation on general construction projects, as well as a specific project, such as hospital or hotel. A more systematic way of determining project success is established. This paper focuses on the CSF'S and not on the measurement of project success, i.e., the key performance indicators KPIs. Further study should be directed to identify the KPIs, so that the causal relationships between CSF'S and KPIs can be identified. The causal relationships, once identified, will be a useful piece of information to implement a project successfully. It can help in selecting project team members, identifying the development needs of the project team members, and most important for forecasting the performance level of a construction project before it commences.(Albert P. C. Chan; David Scott; and Ada P. L. Chan)

5. Study of success factors for real estate construction projects

The authors has mentioned the factors contributing to the success of real estate construction projects and find out the weightage of each factor using a questionnaire developed by software named SUPER DECISIONS. The data was collected from various construction firms around Pune city to classify the causes of delay and data taken from various literatures, books, conference proceedings, internet and international journals. The architects, contractors, and developers of various firms of Pune were targeted for survey. This paper analysed most critical success factors by analytical network process method. If any construction companies try to implement these success factors then performance of project may increase.(Prathamesh. P. Satankar , Asst. Prof. S. S. Jain)

6. Factors leading to success of indian construction companies.

In this paper likert point scale method is used to rank CSF. This paper mention the CSF's for Indian construction companies. The construction industry is one of the major industries in India. The Construction industry of India is an important indicator of the development as it creates investment opportunities across various related sectors. The construction industry has contributed an estimated 670,778 crore to the national GDP in 2011-12 (a share of around 8%). The industry is fragmented, with a handful of major companies involved in the construction activities across all segments; medium sized companies specializing in niche activities; and small and medium contractors who work on the subcontractor basis and carry out the work in the field. This study presented the survey carried out among Indian construction companies. The critical factors leading to construction company success have been investigated through interviews among top-level managers and owners of the companies. According to the results cash flow management characteristic was identified as the most important main factors to success (Mr. AbhijeetGadekar, Dr.S.S.Pimplikar)

7. Identification and assessment of risk factors affecting construction

They states that Cost saving and time performance are usually essential to all parties who are involved in a construction project that is owner, contractor, and subcontractor. The main causes of disputes in construction projects involve delay and failure to complete the work in the specified cost and time frame The delivery time of a project is a key factor to the owner in terms of cost as much as it is for the contractor. Unexpected increase in cost and delays in construction projects are caused by owner, contractor, environments, etc. in which several types of risk factors may occur concurrently. The effect of cost overrun and schedule overrun do not only influence the construction industry but the overall economy as well. Even though construction project increasing in cost and schedule has received extensive attention of researchers, but because of continuous changes and development in the field, the study considered of added value to the construction industry in Egypt, in addition to risk strategy and plan analysis. They also conclude Estimating cost and scheduling contingencies are major factors in achieving a successful and realistic budget and schedule for construction projects. In the present research, a survey is sent to many construction companies to identify, qualify study, assess, and quantify the factors that affect budget and time contingency.(Mohamed Sayed Bassiony)

8. Factors affecting the performance of construction projects

Construction projects located in the Gaza Strip, Palestine suffer from many problems and complex issues. Consequently, the objective of this paper is to identify the factors affecting the performance of local construction projects; and to elicit perceptions of their relative importance. A comprehensive literature review was deployed to generate a set of factors believed to affect project performance. A total of 120 questionnaires were distributed to 3 key groups of project participants; namely owners, consultants and contractors. The survey findings indicate that all 3 groups agree that the most important factors affecting project performance are: delays because of borders/roads closure leading to materials shortage; unavailability of resources; low level of project leadership skills; escalation of material prices; unavailability of highly experienced and qualified personnel; and poor quality of available equipment and raw materials. Based on these findings, the paper recommends that: 1) project owners must work collaboratively with contractors and facilitate regular payments in order to overcome delays, disputes and claims; 2) project participants should actively have their input in the process of decision-making; and 3) continuous coordination and relationship between project participants are required through the project life cycle in order to solve problems and develop project performance.(Sherif Mohamed, Saleh Abushaba)

III.METHODOLOGY

The primary strategy employed in this study is a careful examination of secondary data. These data can be used to get insight into project management. The assessment of available literatures was strongly linked to work that is directly relevant to project management crucial success elements. The linked publications on project management, which totaled roughly 150 published journals, were gathered in the first search, and then critical selections of the published papers were made. The goal of the selection process was to include articles in the study that directly contributed to essential success elements in project management. Other data collection methods, such as interviews and survey questionnaires, may have been more valuable to include in the study. Future research could improve on this by incorporating a primary data collection method into the study. Despite the research's limitations, it contributes to the project management literature by making practitioners and academics aware of the probable aspects that are critical to successful project management implementation.

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V.DISCUSSION

The bottom line of success in performing the role of a project management business is determining crucial success elements, which will offer the organization/company a competitive advantage. As a result, will result in happy investors and professional bodies, as well as the success of the project management firm. The objectives are based on project management literature and project management practises. This study has identified five determinants of project performance in terms of project management, critical success factors, and project performance.

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