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# Identification of Success Factors in Construction Projects- A systematic literature review

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**Abstract:** *The study was conducted to write a review paper on the identification of most important factors in order of importance after reviewing various studies on the subject. These factors can serve as a guideline while undertaking any project related to the construction industry.*

*Moreover, various aspects of the project have also been explored regarding key traits of Project Team, Project stakeholders, and Project management practices. These highlighted areas can play an important role in the successful project management of any project related to the construction industry. There are many factors that need to be considered during the course project planning, Project execution/implementation, and finishing of the projects. These factors play vital role for on-time completion of the construction Project. Out of the numerous factors involved, there are some critical factors which are compulsory to be considered for the success of the construction project.*

**Index Terms:** *Construction project success, Project success factor, Project success criteria, Literature review*

## I. INTRODUCTION

Project success analyses and critical factors for performance are widely used to enhance project quality and effectiveness. According to, the idea of project success was often elusive to the minds of industry professionals. Success factors were defined by Rockart et al. (2018) as "those few areas of activity in which favorable results are necessary for a manager to reach his/her goals." The methodology of CSFs is a process that tried to determine the important areas that management requires to improve their efforts to achieve pre-determined objectives. There are many factors that need to be considered during the course project planning, project execution/implementation, and finishing of the projects. These factors play vital role for on time completion of the construction Project. Out of the numerous factors involved, there are some critical factors which are compulsory to be considered for the success of the construction project.

## II. LITERATURE REVIEW

In a construction project context, research into project success generally falls into either one of the avenues that examine project success factors or deal with success criteria. Additionally, the emergence of project success factors and success criteria as a prerequisite to the study of project success is agreed upon across literature world. This forms the basis of literature review that is discussed in the following subsections.

### A. Project Success Factors

Project management covers several factors that are critical to project success, as success factors are factors that influence, constitute as well as determine the success of a project. This definition is adapted in this paper. critical success factors (CSFs) are "elements in a project that are critical to the project achieving its mission or goal."

### B. Project Success Criteria

As the success factor alone would not be perfect without the success criteria as it plays very important role in project management as there is no point in determining success factors until one has identified the success criteria at the first place. In addition, the project success seems to be more complete with both project success factors and success criteria are taken into consideration as a whole. The sum of success criteria for a project are cost, scope and time.

While the details might be different depending on the industry, company or objective of the project but project success criteria play very important role in project success factor.

C. Critical Success Factors

The undertaking execution still up in the air by the venture attributes, project quality, partners, project cost, and the correspondence interaction of the undertakings. Hussain, Xuotong propose that the undertaking time, quality, and cost are the key presentation markers that improve development task; prosperity. In addition, formal preparation and booking of the undertaking exercises, legitimate financial plan arranging, and utilizing excellent norms increment the tasks exhibition. Also, the task contract is significant as it unbiasedly characterizes the gamble dispersion. On the other, the qualities of the task partners checked as between hierarchical discords adversely influence the progress of the activities. Intelligent cycles like arranging, correspondence, checking, and control empower the synchronization of undertaking exercises from the beginning till project fulfilment. Ceaseless hierarchical help plays a huge job in project achievement. Past examination features variation factors which add to project achievement. They incorporate the project chief, project group, association, and outside climate. Also, client cooperation, group abilities, leader support, objective lucidity, mechanical assets, project purposes, assets, and hierarchical help are additionally featured as CSF of project success. Hence, after cautiously exploring the past concentrates on the accompanying CSFs are famous (1) correspondence factors, (2) group factors, (3) specialized elements, and (4) natural variables. Four critical success factor that effect the construction projects. Communication factors are the means of sending or receiving information, such as phone lines or computers. Effective and concise communication is of utmost necessity in forming an environment that delivers project success. A team is a group of individuals working together to achieve a common goal. Team plays an important role in project success or failure. It is widely accepted that flexible management descends the project success on a minor level; whereas the team behavior diminishes the set objectives of an overall project. However, the documented discussions and previous projects reports were helpful for the project team to recognize the client requirements. Technical Factors Technical factors are the sets of abilities or knowledge used to perform practical tasks in the areas of project management. Environmental factors mean the factors that were not under the control of the project team. They, generally, are the external factors, i.e., Government policies, political instability, national disaster, pandemic etc.

III. ACTION PLAN

The progress of the undertaking can't be accomplished without recognizing the basic achievement factors, the basic disappointment factors notwithstanding the achievement models, Determine the standards for progress is the primary component in boosting the extent of the task prosperity, these measures are the fundamental objectives that the administration of association and venture need to guarantee its accomplishment, After that, the distinguishing of the elements that lead to of gain such rules and utilize them in raising the extent of the venture prosperity and the variables that would forestall the accomplishment of these measures

to forestall their event or limit the adverse consequences on the outcome of the venture. In request to get these models and factors and in the wake of concentrating on the connected writing, it has been removed various elements and models and isolated into seven gatherings. Meetings play an important role with various task administrators, architects, and specialists in the field of examination who have the specialized and logical skill to figure out the reasons, issues, deterrents, and different things that lead to the disappointment of undertakings as well as recognizing whatever could lessen or eliminate their antagonistic impacts, and to decide the rules for progress and the elements that lead to getting these standards. After the finishing of this open survey, a shut structure poll has been arranged and introduced to various specialists to assess.

Table I. Critical Success Factors from previous researches

Author	Finance	Schedule	Quality	Content	Administration	Safety	Resources	Environment
Twang (2022)	*	*	*		*			
M Maiwald (2022)	*	*	*	*			*	
J Goedert (2021)	*	*	*		*			
W Hao (2020)	*	*	*		*		*	*
V Rogo (2020)	*	*	*	*		*		*
GU Ojiako (2019)	*	*	*	*				
WA SHAWISH (2018)	*	*	*		*		*	*

Note: "\*" is refer to the conclusion of CSFs from previous researchers/studies

## REFERENCES

- [1] Shahu, R., Pundir, A. K., & Ganapathy, L. (2012). An empirical study on flexibility: A critical success factor of construction projects. *Global Journal of Flexible Systems Management*, 13(3), 123-128
- [2] Mashwama, N., Aigbavboa, C., & Thwala, D. (2017). An assessment of the critical success factor for the reduction of cost of poor quality in construction projects in Swaziland. *Procedia Engineering*, 196, 447-453.
- [3] Lee, C. J., Kim, S. K., & Kim, J. J. (2007). The Deduction of the Success Factor in Construction Projects by Design Build Methods. *Korean Journal of Construction Engineering and Management*, 8(5), 182-190.
- [4] Wang, T., Xu, J., He, Q., Chan, A. P., & Owusu, E. K. (2022). Studies on the success criteria and critical success factors for mega infrastructure construction projects: a literature review. *Engineering, Construction and Architectural Management*.
- [5] Wuni, I. Y., & Shen, G. Q. (2022). Developing critical success factors for integrating circular economy into modular construction projects in Hong Kong. *Sustainable Production and Consumption*, 29, 574-587.
- [6] Ktaish, B., & Hajdu, M. (2022). Success Factors in Projects. In *IOP Conference Series: Materials Science and Engineering* (Vol. 1218, No. 1, p. 012034). IOP Publishing.
- [7] Aziz, M. A., Wong, C. F., Haron, N. A., Ales, A. H., Effendi, R. A. A. R. A., & Tan, O. K. (2022). CRITICAL SUCCESS FACTORS FOR BUILDING INFORMATION MODELLING (BIM) IMPLEMENTATION FOR POWER PLANT PROJECTS IN MALAYSIA. *IJUM Engineering Journal*, 23(1), 34-45.
- [8] Kumar, V., Pandey, A., & Singh, R. (2021). Can Artificial Intelligence be a Critical Success Factor of Construction Projects? Practitioner perspectives. *Technology Innovation Management Review*, 11(11-12).
- [9] Moghayedi, A., Awuzie, B., Omotayo, T., Le Jeune, K., Massyn, M., Ekpo, C. O., ... & Byron, P. (2021). A Critical Success Factor Framework for Implementing Sustainable Innovative and Affordable Housing: A Systematic Review and Bibliometric Analysis. *Buildings*, 11(8), 317.
- [10] Moczyłowska, J., & Sadkowska, J. (2021). Project culture as a key project success factor: the perspective of Polish project managers. *WSEAS Transactions on Business and Economics*, 18.
- [11] Thneibat, M. M., & Al-Shattarat, B. (2021). Critical success factors for value management techniques in construction projects: case in Jordan. *International Journal of Construction Management*, 1-22.
- [12] Neringa, G., & Audrius, B. (2018). Prioritizing critical success factors influencing construction projects performance in Lithuania. *International Journal of Advances in Agriculture Sciences*.
- [13] Charles, S. H., & Chang-Richards, A. (2021). New success factors for construction projects: a systematic review of post-2004 literature. *Construction Innovation*.
- [14] Tshelha, M. F. (2019). Determining critical success factors of construction projects in the hospitality industry: A conceptual framework. *African Journal of Hospitality, Tourism and Leisure*, 8(5), 1-9.
- [15] DOBARIYA, H. (2020). Exploring critical success factors for cost management process in construction projects (Doctoral dissertation, Parul University).
- [16] Khosravi, S., & Afshari, H. (2011, July). A success measurement model for construction projects. In *International Conference on Financial Management and Economics IPEDR* (Vol. 11, pp. 186-190). IACSIT Press Singapore.
- [17] Chan, A. P., Chan, D. W., Chiang, Y. H., Tang, B. S., Chan, E. H., & Ho, K. S. (2004). Exploring critical success factors for partnering in construction projects. *Journal of construction engineering and management*, 130(2), 188-198.
- [18] Barakat, T. A. H. (2009). A hybrid model of communication and information management in mega construction projects in Dubai using a new critical success factor approach (Doctoral dissertation, Loughborough University).
- [19] Daboun, O., Md Yusof, A., & Khoso, A. R. (2022). Relationship Management in Construction Projects: Systematic Literature Review. *Engineering Management Journal*, 1-24.
- [20] Ktaish, B., & Hajdu, M. (2022). Success Factors in Projects. In *IOP Conference Series: Materials Science and Engineering* (Vol. 1218, No. 1, p. 012034). IOP Publishing.
- [21] Salomäki, M., Reiman, A., & Haapasalo, H. (2022). On occupational safety management in construction alliance projects. *International Journal of Occupational and Environmental Safety*, 6(1), 41-57.
- [22] Deep, S., Bhoola, V., Vidhani, J., & Hampannaver, P. R. (2022). Evaluating the impact of constraints on project success: empirical study of highway projects. *Built Environment Project and Asset Management*.
- [23] Tsiga, Z., & Emes, M. (2022). Decision making in Engineering Projects. *Procedia Computer Science*, 196, 927-937.
- [24] Rahmati, M., Rojhani, M., & Raoof, M. A. (2022). Causes of Delay in Iranian Building Construction Projects. *AUT Journal of Civil Engineering*.
- [25] Namous, E. A., & Al Battah, M. Evaluating the Factors That Cause Cost and Time Overrun in the Residential Construction Projects in the UAE: Project Manager Perspective.





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