



CONCEPTUAL FRAMEWORK BETWEEN CRITICAL FACTORS OF PROJECTS AND PROJECT MANAGEMENT: THE MEDIATING EFFECT OF PROJECT MANAGER

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Abstract

Effective project management is pivotal to the successful completion of projects across various industries. The effectiveness of project management is influenced by various critical factors that significantly affect the efficiency project management process. Although, there are studies in the field of project management, studies in the developing context are rare. This paper presents a conceptual framework that elucidates the relationship between critical project factors and effective project management, focusing on the mediating role of the project manager. The study discusses how project managers influence the alignment of critical factors with project outcomes, thereby offering insights into enhancing project success. Future studies could carry further research to test the relationships presented in this paper through a mixed-method research approach in order to quantify the relationship between the identified critical factors, the project manager's role, and project management effectiveness. Interviews will provide deeper insights into the nuances of these relationships. This paper provides implications to stakeholder regarding the role of project manager in facilitating the process of the project depending on how the competencies of the project manager in align the critical success factors towards effectiveness of project management.

Keywords: Project management, project manager, critical success factors; Mediation, Conceptual Framework, Libya

INTRODUCTION

In an epoch branded by fast technological advancements and multifaceted organizational structures, effective and operative project management (PM) has developed as a critical competency for delivering successful outcomes. The management of projects are a fundamental mechanism and process for achieving strategic goals. The extant literature review highlights that critical success factors (CSFs) could significantly influence the project management in terms of cost, time, process, and quality (Almeida, Figueiredo, Estevão-Beal & Uchoa-Passos, 2020; Wuni & Shen, 2020). Good project management leads to a successful completion and delivery. Lamprou & Vagiona, (2018) show that different critical factors can significantly affect the success of the projects and almost one out of three projects fail to deliver as expected due to diverse causes, and the practices and decisions implemented in the initial phases of a project can significantly impact its subsequent success or failure (Almeida et al., 2020). The complexity of projects can significantly increase the challenges faced by project managers (Mamédio & Meyer, 2020). Therefore, project managers must be aware of the critical factors that can influence their objectives in the initial phase, as this will determine whether the project is likely to succeed (Almeida et al., 2020).

The previous literature seems to focus on discussing the critical factors for project management, the role of a project manager in the process of project management. Most of the studies are in the developed contexts while limited studies are in developing countries. However, limited studies tend to discuss the role of a project manager as a facilitator in the relationship between project management and factors effecting the process. Therefore, this study aims at discussing the previous studies in order to suggest a conceptual frame work the vital factors that affect the management of the projects as these factors are critically associated with the success of project managers in various contexts. The conceptual framework of this study delineates the interplay between critical factors and project manager competencies, ultimately supporting project success and several critical factors, including scope definition, stakeholder engagement, risk management, team dynamics, and resource allocation, play integral roles in determining successful project management.

This paper is divided into four sections. The first section of the paper introduces project management and afterward research methodology. Then, the subsequent part discusses the literature review and underpinning theory. The fourth section discusses the conceptual framework. The fifth section provides a short discussion and it ends with a conclusion.

RESEARCH METHODOLOGY

This work adopts a qualitative research design based on literature review, specifically academic journals for the purpose of drawing the interaction among organizational factors in the direction of successful PM. Both the design of research and methodology are grounded on the existing literature. Accordingly, this paper follows an expressive or descriptive method in understanding the associations between PM, CSFs, and project managers.

LITERATURE REVIEW AND THEORETICAL FOUNDATION

Project management effectiveness

Project management encompasses a range of practices, methodologies, and tools designed to facilitate project execution (Hindarto, 2023). Effective project management involves not only the application of these tools but also personal skills such as leadership, negotiation, and communication. Whilst projects always bring about new products or services that have not existed before, the methods, processes and activities involved are never the same. Professional handling of time and effective management, along with maintaining cost control and adherence to the rules and plans. In this context, understanding and recognizing the impact of these elements becomes crucial, as the project manager accepts the role of being a captain that guides the project ship safely while overcoming challenges and obstacles to ensure the achievement of the desired goals efficiently and effectively.

Critical Success Factors

The previous research identifies several critical factors that influence project outcomes, including clear and precise scope outlines help manage stakeholder expectations and resource allocation (Shivambu, 2024). The scope definition is important for project management as it provides guidelines to the project process and it helps in dealing with uncertainties (Atkinson, Crawford & Ward, 2006; Turner, 2009). Additionally, active involvement of stakeholders leads to better decision-making and project acceptance. Stakeholder engagement plays a crucial role (Wuni & Shen, 2020). in project success. Freeman's stakeholder theory posits that identifying and addressing the interests of all stakeholders leads to better project outcomes (Freeman, 1984). Research by Bourne and Weaver (2010) highlighted that active involvement of stakeholders throughout the project lifecycle enhances commitment, fosters collaboration, and mitigates resistance to change (Sumera, 2023). The role of stakeholder's intervention in terms of communication can prevent scope creep and maintain project alignment with organizational goals (Shaukat, Latif, Sajjad & Eweje, 2022).

Identifying, analysing, and mitigating risks ensures smooth project (Cervone, 2006). Hence, proactive risk management strategies significantly enhance project performance. Furthermore, implementing risk assessment tools, such as SWOT analysis empowers project managers (Taherdoost, 2024).to foresee potential challenges and develop contingency plans. The Project Management Institute (PMI) also advocates integrating risk management into the project planning and execution phases as a standard practice. To ensure the effectiveness of project management process there must be a cohesive team collaboration in order to foster innovation and problem-solving. Leadership is, besides, an essential determinant of project success, influencing team dynamics, motivation, and coordination. Various studies underscore the importance of transformational leadership styles, which inspire and empower team members (Siddiqui & Shaukat, 2024; Wang, Oh, Courtright & Colbert, 2011). Furthermore, Wang et al., (2011) found through their meta-analysis a positive correlation between transformational leadership and project success (Siddiqui & Shaukat, 2024). Moreover, effective team dynamics, characterized by trust and communication, are critical for problem-solving and innovation during project execution (Siddiqui& Shaukat, 2024).

The previous studies show that communication is integral to project management success (Wuni & Shen, 2020), as it facilitates information flow among project teams, stakeholders, and decision-makers. The previous literature proposes that effective communication contributes to project clarity, stakeholder satisfaction, and the alignment of expectations. Kahn et al., (2017) further asserted that a robust communication plan is essential for addressing conflicts promptly and ensuring project progress. Communication: Effective communication within the project team and with stakeholders (Siddiqui & Shaukat, 2024; Shaukat et al., 2022).

Optimal allocation of financial, human, and technological resources is vital for project management (Taherdoost, 2024) and sustainability. Pryke and Smyth (2006) found that allocation of human resources to projects, monitoring performance and motivation are important dimensions of project management (Shivambu, 2024). A comprehensive project planning process lays the foundation for successful project execution. Turner (2009) pointed out that effective planning encompasses defining project scope, objectives, timelines, budgets, and resources. Furthermore, adaptive project management methodologies, such as Agile and Lean, provide frameworks for flexible and iterative planning, allowing teams to respond to changing circumstances effectively (Highsmith, 2010).

Organizational culture can profoundly impact project management success (Muneer, Khan, Awais Hussain, Shuai, Khan, Farooq & Tariq, 2022). A culture conducive to collaboration, innovation, and continuous improvement fosters an environment where projects can thrive as

innovation increase in such projects (Ali, Davis, Martinez & Brown, 2024). Research by Lloyd-Walker, French & Crawford, (2016) study mentions the significance of organizational culture as organizations with strong project management supports frameworks and an entrenched project-oriented culture tend to achieve higher project success rates. Based on the previous studies and discussion, this study proposes a relationship between the CSFs and project management effectiveness and the hypothesis is as the following;

Hypothesis 1: *There is a positive relationship between the critical project factors and project management effectiveness*

Hypothesis 2: *There is a positive relationship between the critical project factors and project managers role*

Role of the Project Manager

The project manager serves as a pivotal figure, linking various project stakeholders, maintaining effective communication channels, and ensuring that the critical factors are aligned with strategic goals and plan. Hence, the project manager's competencies can significantly influence both the operational aspects and the outcome of the project. Top leaders of construction organisations also play an important role to ensure that organisational members have the requisite skills (Yudhistyra et al., 2020). Manager plays a significant role in organizations pertaining to resource allocations and budgets (Alazzabi, Mustafa & Karage, 2023). An effective human resource function could help to identify and compile such organisational abilities, as well as audit and keep track of skills development (Mayfield, Mayfield & Wheeler, 2016). Based on the previous studies and discussion, this study postulates that the project manager influences the effectiveness of management process and the hypothesis is as the following;

Hypothesis 3: *The project manager role positively influences the effectiveness of project management process.*

Furthermore, the project managers are assumed to have an impact on both the critical factors and project management practices. The success of any project depends on the competencies and the style of project manager (Turner & Müller, 2005). This role can be delineated into several functions such as;

Facilitator: The project manager helps to identify critical factors and translates them into actionable project management strategies.

Communicator: Effective communication skills enable the project manager to convey the importance of critical factors to the project team and stakeholders, ensuring alignment across all level.

Problem Solver: The project manager addresses challenges arising from critical factors, thereby ensuring that project management practices remain responsive to such challenges. Hence, based on the previous studies and discussion, this study postulates that the project manager influences the effectiveness of management process and the hypothesis is as the following;

Hypothesis 4: *The project manager positively influences the relationship between critical project factors and project management effectiveness.*

CONCEPTUAL FRAMEWORK

Figure 1 presents the conceptual framework. This framework postulates that critical factors directly influence project management effectiveness and efficiency. For instance, effective stakeholder engagement can lead to better project management practices, while robust risk management, and active role of a project manager can enhance decision-making abilities and project process.

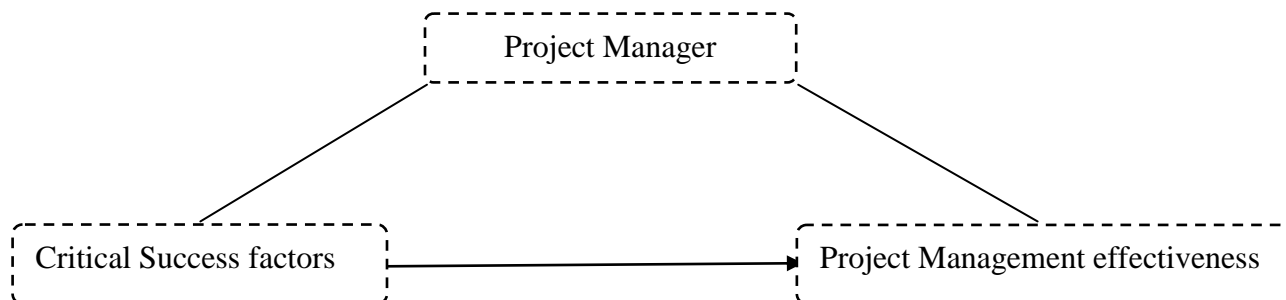


Figure 1: Conceptual Framework

DISCUSSION

Project management is a process that can be affected by different factors. The previous literature widely discussed different factors that lead to the effectiveness of project management. Role of project manager is among the discussed factors in the extant literature. However, the previous studies only discuss the direct influence of project manager on project management. Understanding the mediating role of the project manager is vital for organizations aiming to enhance project outcomes. By fostering skills and competencies in project management, organizations can better align critical factors with efficient project execution. This framework can also inform training programs for project managers, focusing on effective communication, stakeholder engagement, and risk management.

CONCLUSION

This paper presents a conceptual framework that interlinks critical project factors with project management effectiveness, stressing the vital mediating role of the project manager. This paper discusses how these critical factors interact with project management practices and emphasizes the project manager's role in mediating these relationships. By recognizing and this relationship, organizations can enhance or improve project process and outcomes, leading to greater success in achieving strategic objectives. Future research should explore the dynamic nature of these relationships across different contexts to validate and refine the proposed framework. To test this conceptual framework, a mixed-method research approach is suggested to be employed, involving quantitative surveys and qualitative interviews with project managers across different industries. Questionnaire surveys will quantify the relationship between the identified critical factors, the project manager's role, and project management effectiveness. Qualitative interviews will provide deeper insights into the shades of these relationships.

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