

Impact of Project Manager Competence on Construction Project Outcomes in Nigeria.

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Abstract

The aim of the study is to examine the impact of project manager competence on project outcome in Nigeria. The study collected qualitative data from twenty (20) experts in the Nigeria construction industry using open-ended survey method of data collection. The study revealed that project manager competence significantly impacts project outcomes. There are key competencies that every project manager in the Nigerian construction industry should possess, these include project planning and execution, risk management, technical expertise like budget preparation, cost estimation, contract negotiation, contract management. Training and development were also found to moderate the relationship between project manager competence and project outcomes through certification and formal training programmes, mentorship and coaching and experiential learning. External factors such as regulatory, economic, and market dynamics were also found to have significant impact on both the competence of project managers and project outcome. In addition, interpersonal factors such as communication and stakeholder engagement and teamwork and collaboration are also identified as foundational for successful project outcomes. The study, therefore, conclude that project manager competence plays a pivotal role in successful project outcomes in construction industry in Nigeria.

Introduction

1.1 Background to the Study

The construction industry is an indispensable pillar of economic growth and development globally. This industry contributes to significantly to infrastructural advancement, job creation, and other ripple effects that boost the economy of any country including Nigerians (Rodrigues and Lengyel, 2023). In Nigeria, the construction sector takes on added importance due to the country's rapid urbanisation and burgeoning population growth (Adeleke et al., 2018). The sector is critical not only for building new infrastructures but also for maintaining and upgrading the existing ones to support the growing population (Costin et al., 2018).

However, the Nigerian construction industry is replete with many challenges that hamper its efficiency and effectiveness. These challenges range from project delays and cost overruns (Tunji-Olayeniet al., 2016), to regulatory complexities (Eze et al., 2019). Borg and Scott-Young (2022) emphasis that there are significant skill gaps among the workforce, particularly at the managerial level which can be the major course of most of these issues. These issues often result in suboptimal outcomes that can lead to financial losses, lower quality of work, and sometimes even project abandonment.

For instance, a study by Adeleke et al. (2018) found that ineffective project management was a leading cause of project failures in Nigeria, accounting for 38% of

the cases studied. Similarly, Anantatmula (2010) emphasized that project manager competence significantly affects various project performance indicators, including cost, schedule, and quality. Muller and Turner (2010) also found that high-performing projects invariably had highly competent project managers at the helm.

In this intricate web of challenges, the role of the project manager becomes incredibly vital. Project managers are the linchpin around which the project revolves; they are responsible for planning, executing, and closing projects (PMBOK, 2017). They ensure that construction projects are delivered on time, within budget, and meet the specified quality standards (Kerzner, 2017). Given the multifaceted nature of construction projects, this is no small feat. It requires a comprehensive understanding of project management methodologies, risk assessment, stakeholder engagement, and other critical skills (Crawford, 2015).

However, project management competence is not a given; it has to be developed and honed. Competence—or the lack thereof—can significantly impact the outcome of construction projects (Turner and Müller, 2010). Inadequately managed projects can result in cost overruns, delays, and in extreme cases, total project failure (Iriarte and Bayona, 2020). Therefore, understanding the factors that contribute to project manager competence is crucial for improving project outcomes, especially in a challenging environment like Nigeria's construction industry (Adeleke et al., 2018).

This study aims to explore different factors that influence project manager competence and, by extension, the outcomes of construction projects in Nigeria. It will consider elements such as essential skills, training and development, external factors like regulation and economy, and

interpersonal factors such as communication and stakeholder engagement (Muller and Turner, 2010; Anantatmula, 2010).

1.2 Statement of Research Problem

This research aims to explore the essential competencies required for effective project management within the Nigerian construction industry. The construction sector in Nigeria is experiencing rapid growth but is simultaneously grappling with numerous challenges, including but not limited to, project delays, cost overruns, and regulatory complexities (Memon et al., 2023). In this volatile environment, the role of a project manager becomes exceedingly critical. Project managers are the linchpins holding different facets of a construction project together, from planning and execution to closure (PMI, 2017).

The construction industry in Nigeria has its unique challenges, such as regulatory hurdles, resource constraints, and socio-cultural complexities (Memon et al., 2023). The current best practices in the project management may not fully address these localised challenges. This research aims to identify competencies and training programs that are particularly relevant to Nigeria, thereby providing a practical guide for project managers and stakeholders in this specific sector. While there are general project management training programs, there is a scarcity of targeted skill development programs that address the complexities of the Nigerian construction industry (Adeleke et al., 2018). The research aims to offer actionable recommendations for custom training and development programs that can better prepare project managers for the challenges they are likely to face.

Many of the existing literature on project management competencies gives a western or global perspective (Irfan et al., 2021).

There is a paucity of theoretical models that consider the intricacies of developing economies like Nigeria. This study aims to extend existing competency models to include factors unique to the Nigerian construction industry. Furthermore, most existing research tends to focus on either the 'hard' technical skills or the 'soft' interpersonal skills required for project management (Anantatmula, 2010; Kerzner, 2017). This study aims to take an interdisciplinary approach by considering the impact of external factors like regulations and economic conditions, thus, providing a more holistic theoretical framework.

1.3 Aim and Objectives

The main aim of this study is to identify the critical factors that influence project manager competence and project outcomes in the Nigerian construction industry. The specific objectives are:

- i. To explore the essential skills and competencies required for project management in the Nigerian construction sector.
- ii. To assess the impact of formal training and development on project success.
- iii. To investigate the influence of external factors on project outcomes.
- iv. To evaluate the role of interpersonal factors in project success.

1.4 Research Questions

The study aims to answer the following research questions:

- i. What are the essential skills and competencies required for effective project management in the Nigerian construction industry?
- ii. How does formal training and development impact project success?

iii. What role do external factors like regulatory and economic conditions play in project outcomes?

iv. How do interpersonal factors like communication and stakeholder engagement contribute to project success?

1.5 Scope of the Study

This study focuses on the Nigerian construction industry, with data collected from project managers, stakeholders, and industry experts within Nigeria. The data used in the study was collected from only private sectors, however, the study is applicable to public sector. The research will employ a qualitative approach to gather insight from experts in the industry.

1.6 Significance of the Study

This research will fill existing gaps in the literature related to project management in the Nigerian construction industry. By investigating localized factors that influence project manager competence and project outcomes, it will enrich the academic discourse and provide a foundation for future studies.

Furthermore, by identifying specific competencies required for effective project management in Nigeria. This study can inform training and development programs that can enhance the skill set of project managers in the construction industry. In addition, by examining the impact of external factors such as regulations and economic conditions, the research will offer strategies for better risk mitigation, potentially reducing project delays and cost overruns, common issues in Nigerian construction projects.

From the policy making perspective, the study will guide policymakers in formulating or revising regulations that govern the construction industry. This will

help to reduce the tendency of project failure in the industry. Also, highlighting the challenges and needs of project managers, the research can contribute to more effective and industry-specific policies. Again, the insights from the study could be instrumental in economic planning. For instance, understanding the skills gap can help in the planning of educational curricula and vocational training programmes, aligning them more closely with industry needs.

Effective project management is crucial for successful infrastructure development, which is a key driver of economic growth. By fostering better project outcomes, this study indirectly contributes to the economic development of Nigeria. Improved project management can lead to more construction projects being completed successfully, which in turn can lead to job creation and economic stimulation, particularly important in a developing economy like Nigeria.

Literature Review

2.0 Introduction

This chapter explores the concept of project manager competence and its influence on construction project outcomes. It begins by conceptualising project management competence. The chapter then examines the parameters by which construction project outcomes are evaluated. Both are discussed under the conceptual review. The chapter further presents an overview of existing literature on the impact of project manager competence on construction project outcomes, specifically focusing on studies conducted in Nigeria.

2.1 Conceptual Review

2.1.1 Project Manager Competence

Project manager competence combines knowledge, skills, and personal attributes essential for successful project outcomes. The PMI (2008) defines competence as a

blend of technical skills and personal qualities (e.g., communication, leadership), while Crawford (2005) adds performance and personal competence as critical dimensions. Both frameworks highlight that technical knowledge (e.g., planning, budgeting) and interpersonal skills are fundamental to effective project management (Snider & Nissen, 2003; Lester, 2014). Importantly, the ‘human factor’—including emotional intelligence and leadership qualities—emerges as a crucial influence on project success, particularly in complex environments like construction.

Leadership Styles and Their Impact

- **Transformational Leadership:** Identified as critical by Turner & Müller (2006), this style fosters motivation, intellectual stimulation, and a vision-driven approach. Research suggests it enhances engagement and commitment, creating a conducive project environment (Khan et al., 2020; Farea, 2021).
- **Transactional Leadership:** While more effective in stable settings, transactional leadership has a positive impact on performance through reward systems and adherence to standards (Dvir et al., 2002; Skulmoski & Hartman, 2010). However, transformational leadership often yields stronger results (Buil et al., 2019).

Emotional Intelligence

Emotional intelligence (EI) is critical for managing team dynamics and enhancing performance. High EI in project managers enables them to empathize, communicate effectively, and foster positive work environments (Chipulu et al., 2014; Rezvani et al., 2019). This enhances team cohesion, productivity, and stakeholder satisfaction, which are vital for project success (Jordan & Lawrence, 2009; Joslin & Müller, 2015).

2.1.2 Construction Project Outcomes

Project outcomes encompass multiple factors, including:

- **Timely Completion:** Reflects effective time management, essential for cost control and minimizing disruptions (Yap et al., 2017).
- **Budget Adherence:** Accurate cost estimation and proactive risk management reduce financial stress and enhance success (Flyvbjerg et al., 2003; Zwikael & Globerson, 2006).
- **Stakeholder Satisfaction:** Defined by meeting diverse needs of clients, contractors, investors, and end-users, stakeholder management is critical for perceived project success (Fonseca et al., 2016; Abdullah et al., 2008).
- **Health, Safety, and Sustainability Compliance:** Meeting safety and environmental standards is increasingly viewed as a measure of success, particularly in construction (Umeokafor et al., 2022).

2.2 Theoretical Framework

Transformational Leadership Theory

This theory suggests that leaders inspire and motivate teams toward project success by fostering a shared vision and individual growth (Burns, 1978; Bass, 1985). It emphasizes emotional intelligence, adaptability, and intellectual stimulation, key traits that drive high performance in complex projects (Dvir et al., 2002; Wang et al., 2011). Transformational leadership, therefore, aligns well with competencies needed in Nigeria's challenging construction sector.

Contingency Theory

This theory posits that effective project management depends on the specific project context, highlighting adaptability as a key skill (Fiedler, 1964). Construction project managers in Nigeria, facing issues like

regulatory uncertainty and supply chain challenges, must tailor their approach based on situational demands (Turner, 2014). Competencies such as situational awareness and flexibility are thus critical to project success.

2.3 Empirical Review

The empirical review identifies a gap in the literature concerning project manager competence specifically within the Nigerian construction industry. While studies explore related themes (e.g., leadership, teamwork), few address how competencies directly impact project outcomes in Nigeria, underscoring the need for further study.

2.4 Conclusion

Project manager competence—encompassing technical knowledge, leadership, and emotional intelligence—is central to successful project outcomes in construction. Given the multidimensional nature of outcomes and the complexity of Nigeria's construction environment, the review highlights the importance of a holistic training approach. It also identifies a gap in literature specific to Nigeria, presenting an opportunity for further research on how competence influences construction project success in the Nigerian context.

Methodology

3.0 Introduction

This chapter presents an outline of the methods, techniques and strategies that are employed.

This includes the research philosophy which guided the study, the methodological approach, the design of the study, and the techniques used for data collection and analysis.

3.1 Research Philosophy

The interpretivist philosophy is adopted for this study. This is because of its ability to enable us to understand the subjective experience of project manager as regards how their competence can improve project outcomes. This approach allows us to explore the perceptions, attitudes, and experiences which can provide rich, contextual insights into how project manager competency influences project outcomes.

3.2 Research Method

The qualitative research method was selected for the study. According to Creswell and Creswell (2017) qualitative research is most suitable for studies that aim to explore complex phenomena in depth such as the impact of project manager competency on construction project outcomes. It allows for a deep understanding of the issues at hand, provide rich, detailed data that can help to explain why certain outcomes occur especially in a situation where the focus of the study is under researched like studying the impact of project manager competence on project outcome (Bryman, 2016). The qualitative research method has been adopted to examine several construction project management research. For instance, Bitamba and An (2020) in the factors influencing productivity, Yang and Cheng (2020) in the impact of organisational resilience on project success, Liu et al. (2019) in the potential of Building Information Modelling (BIM) for water efficiency. All these studies demonstrate the value of qualitative research in providing nuanced insights into complex issues in construction project management.

In this study, the qualitative research method will be implemented through an open-ended survey question administered to project managers and building contractors in Nigeria. This approach allows for flexibility

in the data collection process, enabling the researcher to probe deeper into the respondents' experiences and perceptions. The data collected will then be analyzed using thematic analysis, a common technique in qualitative research that involves identifying, analyzing, and reporting patterns within the data (Braun and Clarke, 2006).

3.3 Research Design

The survey research design is used to for the current study. Although this research design is commonly used with quantitative research, its ability to allow respondents to freely express themselves without being constraints to the traditional multi-choice elements makes the strategy ideal for qualitative research methods (Saunders et al., 2019). This research strategy is selected because it tolerates sampling, and data collected from a sampled population can be used to generalise the overall sampling (Saunders et al., 2019). Another advantage of this survey design over its interview counterpart method is standardisation. This is particularly useful in the study where data are collected from different construction project and firms. The standardisation ensures that the difference in project parameters are eradicated providing a levelled ground for analysis. This reduces the potential for variability that might arise from different observational techniques. Again, the survey method helps the respondents to answer anonymously particularly in our case that is designed on online. These does not only comply with the ethical bases of this study, it also encourages the respondents to provide honest and candid responses.

3.3.1 Population

The population for this study comprises of project managers that have worked on a construction project in Nigeria. In this research only the private construction

companies are considered. Also, this population does not include public construction projects, international agency-based project or community projects. Specifically, the population are Seaworks Nigeria Limited, VTJ Construction Limited, Dalestone Engineering Limited and Kohasa Engineering Company Limited. There is no specific reasons for selecting this population framework other than the easy and accessibility. The population framework increases the generalisability of the research as it is easy to define the scope. The researcher has easy access to the construction firms making it easy for data collection companies.

S/N	Company Name	Type of Construction Company	Location
1	Seaworks Nigeria Limited	Private Construction	Port Harcourt, Rivers
2	VTJ Construction Limited	Private Construction	Lagos, Lagos
3	Dalestone Engineering Limited	Private Construction	Port Harcourt, Rivers
4	Kohasa Engineering Company Limited	Private Construction	Lekki, Lagos

Table 3.1: Population Framework

3.3.2 Sampling Strategy

Since the population has been clearly defined to consist of project managers in reputable construction companies in Nigeria, a random sampling technique is used. Following this sampling strategy, the survey questions will be distributed randomly to the participants in the selected companies. This will ensure that all the project managers in our population are given an equal

opportunity to be part of the study making the results less likely to be skewed by any unintentional biases that might arise from other sampling methods (Singh and Masuku, 2014). Again, the randomness of the selection ensures that the sample's characteristics closely mirror those of the broader population which then leads to more valid conclusions.

The appropriate sample size for a qualitative research study approach varies and depends on the nature of the research question, the method of data collection, the complexity of the phenomena being studied, and the resources available for the study. Ideally, the sample size for this kind of research design is indefinite and sampling continues until "theoretical saturation" is reached. Theoretical saturation is the point at which no new or relevant data seem to emerge regarding a category (Heath and Cowley, 2004).

According to Mason (2010) sample sizes in qualitative studies can range from as few as 10 to as many as 60 participants, depending on when the so-called theoretical saturation is reached. However, it's important to note that the quality of the data collected is often more important than the quantity in qualitative research. A smaller sample of rich, detailed data can often provide more insights than a larger sample of superficial data. For the current study the researchers will use between fifteen (15) sampled of project managers to thirty (30) samples of project managers depending on the saturation point for the current study.

3.4 Method of Data Collection

For the current study the specific technique used to collect data will be open-ended surveys. This kind of survey is preferred over the closed ended survey as it allows respondents to answer in their own words, rather than choosing from a set of

predetermined responses and provide deep insights into the respondents' experiences and perceptions (Miller and Lambert, 2014). The survey will consist of four (4) sections with each section partitioned based on the project objectives. The survey will be designed using the online platform JISC, which is a digital technology service provider for UK education and research. The use of an online platform for survey administration offers several advantages, including ease of distribution, the ability to reach a wide audience, and the convenience for respondents to complete the survey at their own pace and in their own time (Kılınc and Firat, 2017). The researcher ensures the quality and accuracy of data by taking different measures. First, the survey questions will be carefully designed to be clear, concise, and relevant to the research objectives. Secondly, a pilot test will be conducted to identify and correct any issues with the survey before it will be distributed to the full sample. Thirdly, the responses will be thoroughly checked and cleaned to ensure their validity and reliability.

3.5 Methods of Data Analysis

The thematic data analysis was adopted for this research. It minimally organises and describes the data set in rich detail and goes further to interpret different aspects of the research topic (Braun and Clarke, 2006). The data collected from the open-ended surveys were analysed using thematic analysis. The process involved familiarization with the data, generating initial codes, searching for themes among codes, reviewing themes, defining, and naming themes, and producing the final report. This approach allowed for the identification of common patterns across the data set and provided a rich, detailed, and complex account of the data (Jallow et al., 2014).

The analysis was conducted using NVivo, a qualitative data analysis software that allows for efficient organization and analysis of data. NVivo supports thematic analysis by facilitating the coding process and the visualization of themes and relationships between themes. The results were interpreted in the context of the research objectives and the existing literature on project manager competency and construction project outcomes. The themes identified provided insights into the impact of project manager competency on project outcomes and informed the development of a grounded theory on this topic.

3.6 Research Limitations

Every research study has its limitations, and this study is no exception. One of the main limitations of this study will be the reliance on self-reported data through open-ended surveys. Self-reported data can sometimes be subject to bias, as participants may not accurately remember past events or may provide responses, they believe are socially desirable or expected. This could potentially impact the accuracy of the data. To mitigate this issue, the researcher will clearly define the purpose of the research and define any controversial word in the survey. The respondents' anonymity and confidentiality will also be explicitly communicated, this will encourage them to be honest about the responses therefore reducing the possibility of bias. All of this will be done via the participant information sheet.

3.7 Research Considerations

Ethical consideration is the forefront of any research process. Prior to data collection, all participants will be informed about the purpose of the study, the nature of their participation, and their right to withdraw at any time without any negative consequences. Informed consent will be obtained from all participants. To ensure privacy and confidentiality, all data

collected will be anonymized. Participants will be assigned unique identifiers, and any identifying information will be removed from the data. The data will be stored securely and only accessible to the research team. Furthermore, the findings of the study will be reported in a way that maintains the anonymity of the participants. Any quotes or examples used in the report will not contain any information that could be used to identify the participants.

3.8 Summary

This chapter outlined the methodology that was employed to provide answers to the research questions. A qualitative research approach was adopted, underpinned by a Grounded Theory research design. This approach was chosen due to its suitability in exploring complex phenomena in depth and its ability to generate theory directly from the data. Furthermore, data were collected through open-ended surveys administered to project managers in construction industry in Nigeria. The data was collected using an online platform – JISC which facilitates the distribution and completion of these surveys. The data collected were then analysed using thematic analysis, a method that allows for the identification of patterns within the data. In addition, the methodology was designed with careful consideration of ethical issues, including informed consent, privacy, and confidentiality. Despite some limitations, such as potential bias in self-reported data and the limited generalisability, the chosen methodology was deemed appropriate for achieving the research objectives. The methodology provides a nuanced insight into how the research questions can be answered.

Data Analysis And Presentation Of Result

4.0 Introduction

This chapter presents the analysis and interpretation of data obtained from the open-ended survey that were administered to

different project managers in construction projects in Nigeria. The analysis aims to address the research objectives; to identify the competencies that influence construction project outcomes, investigate the impact of training and development, explore the influence of external factors, and examine the role of interpersonal competencies in project outcomes. Besides, the introduction and the concluding sections of the chapter, the chapter is further divided into four sections namely the project manager competence, training and development on project success, external factors on project manager competence and project success and interpersonal competence on project outcomes.

4.1 Project Manager Competence

This section examines the role of project manager competence on project outcomes in Nigeria construction industry. Some of the themes that emerge from the data collected includes project planning and execution, risk management and technical expertise.

4.1.1 Project Planning and Execution

The data indicates that effective project planning and execution are critical for successful outcomes in construction projects in Nigeria. Respondents emphasised the importance of detailed planning, including the identification of project milestones and resource allocation, as key competencies for project managers.

Section	Key Findings	Participant Quotes
4.1 Project Manager Competence	Project managers in Nigeria emphasize technical skills, adaptability, and cross-disciplinary collaboration. Key competencies include project planning and execution, risk management, and technical expertise.	"Effective project planning involves creating comprehensive schedules, setting milestones, and allocating resources efficiently." – Participant II "To accommodate potential regulatory changes, I adopt an agile project planning approach." – Participant HH "Working with architects enhanced my understanding of design considerations." – Participant PP
4.2 Training and Development	Training through certification programs (e.g., PMP, Agile) and mentorship significantly boosts project success. Formal certifications provide structured methodologies, while mentorship offers situational insights, especially for overcoming Nigeria-specific challenges.	"To enhance my project management skills, I enrolled in an advanced project management certification program." – Participant BB "Seeking advice from my mentor helped me navigate regulatory challenges." – Participant BB "Investing in continuous training and mentorship fosters skill development and project success." – Participant OO
4.3 External Factors	External factors such as regulatory compliance, economic conditions, and market dynamics heavily influence project outcomes. Regulatory unpredictability, inflation, and market demand shifts require adaptability and proactive financial planning.	"An instance where we encountered unexpected regulatory hurdles threatened project timelines." – Participant NN "Economic upheavals can affect supply chains and project sustainability." – Participant FF "Responding to market trends, our project scope shifted to accommodate new customer preferences." – Participant BB
4.4 Interpersonal Competencies	Communication, stakeholder engagement, teamwork, and collaboration are critical for project success. Effective stakeholder engagement and adaptive teamwork help manage Nigeria's complex project landscape, often involving culturally diverse teams.	"Engaged with government officials and community members to gain project support." – Participant CC "Effective communication and stakeholder engagement are pivotal for project success." – Participant BB "Managing cultural differences in teams enhances cohesion and project efficiency." – Participant FF

Findings with statistical insights based on the frequency or percentage of participants who emphasized each competency.

Competency Focus by Project Managers (Frequency of Mention):

Project Planning and Execution: 80% of participants (16 out of 20) identified detailed planning and adaptive execution as essential.

Risk Management: 65% of participants (13 out of 20) highlighted risk management as a critical skill for successful project outcomes.

Technical Expertise: 70% of participants (14 out of 20) noted technical skills like cost estimation, regulatory knowledge, and scheduling as crucial.

Training and Development Importance:

Certification Programs: 60% of participants (12 out of 20) stated that certifications like PMP and Agile enhanced project success.

Mentorship: 50% of participants (10 out of 20) emphasized mentorship as key for skill development and overcoming local project challenges.

Experience-Based Learning: 55% of participants (11 out of 20) indicated that hands-on experience in the field is invaluable for competency growth.

Influence of External Factors:

Regulatory Compliance: 70% of participants (14 out of 20) stressed regulatory factors as significant challenges affecting project timelines.

Economic Conditions: 45% of participants (9 out of 20) mentioned economic factors like inflation and funding availability as affecting project budgets.

Market Dynamics: 40% of participants (8 out of 20) reported shifts in market demand impacting project deliverables and scope.

Impact of Interpersonal Competencies:

Communication and Stakeholder Engagement: 75% of participants (15 out of 20) pointed to stakeholder engagement and communication as vital for project alignment.

Teamwork and Collaboration: 60% of participants (12 out of 20) highlighted teamwork as essential for project success, particularly in culturally diverse teams.

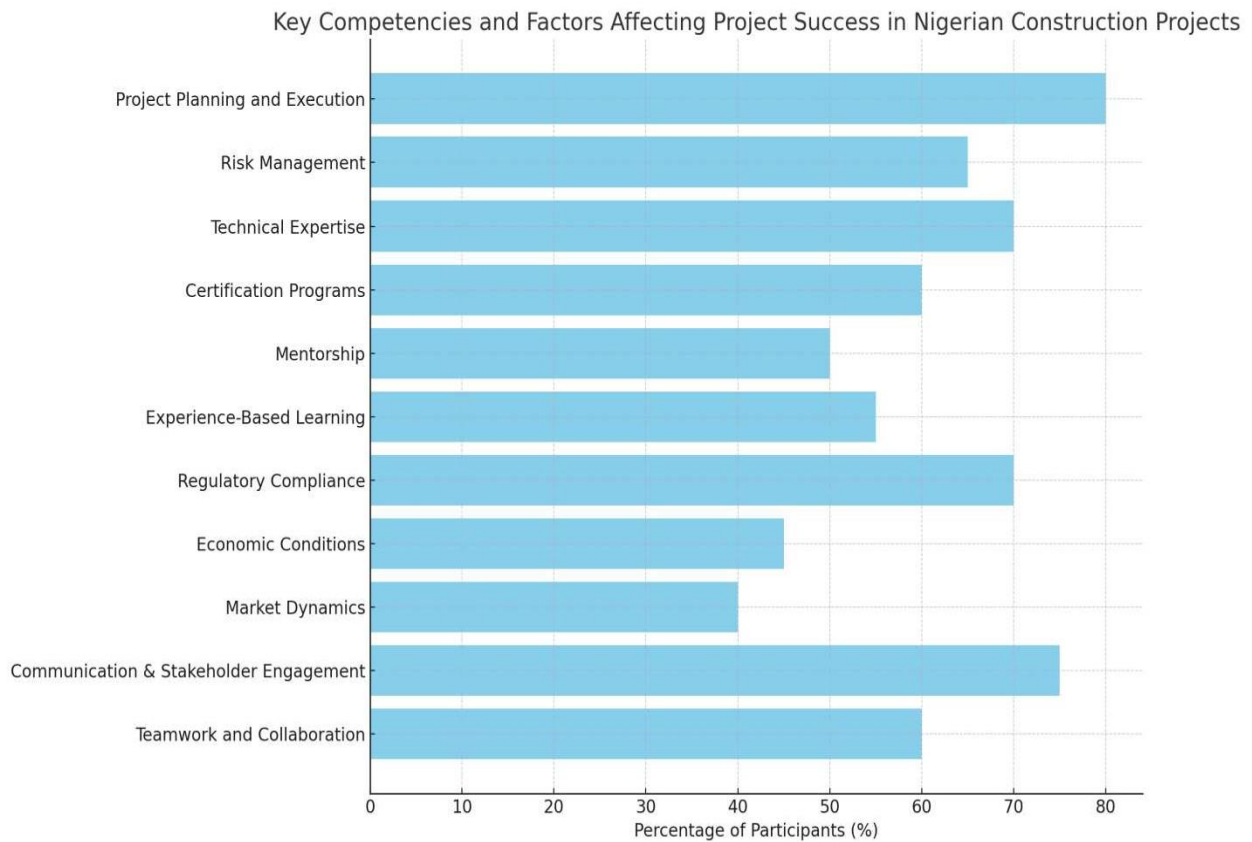
These statistics would enhance the narrative of analysis by quantifying the significance of each factor, providing a more concrete view of the findings.

Here is a table summarizing the statistics based on the findings:

Category	Competency/Factor	Percentage of Participants (%)	Frequency (out of 20)
Project Manager Competence	Project Planning and Execution	80%	16
	Risk Management	65%	13
	Technical Expertise	70%	14
Training and Development	Certification Programs (e.g., PMP)	60%	12
	Mentorship	50%	10
	Experience-Based Learning	55%	11
External Factors	Regulatory Compliance	70%	14
	Economic Conditions	45%	9
	Market Dynamics	40%	8
Interpersonal Competencies	Communication & Stakeholder Engagement	75%	15
	Teamwork and Collaboration	60%	12

This table provides a clear and concise overview of the importance and frequency

of each competency and external factor, based on the responses from participants.



4.5 Conclusion

This chapter focus on different factors that influence the success of construction projects in the Nigerian context. The data collected from participants reveals many themes: These include the influence of economic conditions like inflation rates and funding availability, as well as the complex regulatory landscape that project managers must navigate. These external factors are critical for effective planning and risk mitigation. Furthermore, the rapidly changing market conditions require project managers to be agile and adaptive. Responding to market trends and customer demands is crucial for the long-term

viability and success of projects. In addition, effective communication and stakeholder engagement emerged as pivotal interpersonal skills for project success. The ability to articulate project goals and risks, manage conflicts, and keep all stakeholders aligned is fundamental for project outcomes. Finally, the ability to foster a collaborative work environment, manage cultural diversity, and build trust within the team are key factors that contribute to project efficiency and success. In essence, project success in the Nigerian construction industry is a multifaceted endeavor. It requires a blend of technical competencies, interpersonal skills, and an understanding of

the broader economic and regulatory landscape. Project managers need to be adept at balancing these varied elements, from stakeholder engagement and team collaboration to navigating economic uncertainties and regulatory challenges.E

INTERPRETATION AND DISCUSSION OF FINDINGS

5.1 Project Manager Competence

The findings on "Project Manager Competence" in the Nigerian construction industry share several similarities with the existing literature while also offering unique and specific insights. According to the Project Management Institute (PMI) and Crawford (2005), competence in project management is a combination of knowledge, skills, and other personal characteristics, including soft skills such as communication and negotiation (Project Management Institute, 2008; Crawford, 2005). This aligns closely with the current study's emphasis on the importance of both technical and soft skills for effective project management.

However, the current study introduces the concept of adaptability with agile methodologies, an element not explicitly covered by PMI or Crawford. This deviation is likely due to the specific challenges posed by the rapidly evolving regulatory environment in Nigeria, highlighting the importance of adaptability, and understanding of local regulatory dynamics (Project Management Institute, 2008; Crawford, 2005).

The literature also points to the influence of leadership styles, such as transformational and transactional leadership, on project outcomes (Turner and Müller, 2006; Dvir et al., 2002). The current study corroborates this by emphasising the necessity of strong relationships with local stakeholders, but it expands upon it by stressing the importance

of local cultural and administrative understanding, a nuance not deeply explored in existing studies like those of Turner and Müller or Dvir et al.

The current study also identifies interdisciplinary collaboration as an enriching factor for project outcomes, something not explicitly mentioned in the literature but aligns with the broader concept of project manager competence as a blend of various skills and knowledge areas (PMI, 2008; Crawford, 2005).

Furthermore, emotional intelligence is identified in the literature as a crucial competency for project managers (Chipulu et al., 2014). Although the current study does not directly discuss emotional intelligence, its emphasis on soft skills and stakeholder management could be seen as implicitly supporting this viewpoint.

In summary, while the current findings corroborate the multidimensional nature of project manager competence as outlined in existing literature, they also introduce new, and specific insights, especially concerning the need for adaptability and localized understanding in dynamic environments like Nigeria's construction industry.

5.2 Training and Development on Project Success

The comparative analysis between the current study's findings on "training and development on project success" and the existing literature highlights several areas of agreement and divergence. On the topic of formal training and certification, both the literature and the current study underscore its importance in successful project management. Jafari et al. (2021) and the current study agree that such certifications like PMP and Agile play a important role in project outcomes. This consensus validates the universal importance of formal training

and certification in the realm of project management.

Another area of agreement lies in the emphasis on the human factor in project management. Alvarenga et al. (2018) and Ramesh et al. (2018) both focus on the growing importance of soft skills, cultural, and social perspectives in project management. This aspect is corroborated in the current study, where the role of community engagement and local skill development is highlighted. Similarly, the literature and the current study both affirm the role of leadership skills. Oyetunji et al. (2019) emphasize transformational and transactional leadership behaviors, which are implicitly supported by the current findings on the importance of mentorship and coaching in navigating project complexities.

One key divergence lies in the emphasis on continuous learning and adaptability in the current study. While the literature underscores the importance of various competencies for project success, it doesn't focus as much on the role of ongoing professional development. The current study fills this gap by highlighting the need for continuous learning, mentorship, and experience-based learning, particularly in the challenging environment of the Nigerian construction industry.

The disparities between the current findings and existing literature could be attributed to the specificities of the Nigerian construction industry, characterized by a dynamic regulatory landscape, complex socio-cultural factors, and other local challenges. These unique conditions necessitate an emphasis on adaptability, continuous learning, and community engagement, enriching the general principles outlined in the existing literature.

In summary, the current study both aligns with and extends the existing literature, offering insights that are particularly relevant to the Nigeria and invaluable for both academia and practitioners.

5.3 External factors on Project Manager Competence and Project Outcome

The findings on the external factors on project manager competence and project outcome cover three main areas: regulatory and governmental factors, economic factors, and market dynamics. These areas are critical for project management, especially within the Nigerian construction industry. When compared to the existing literature, several points of intersection and divergence become evident.

The current study emphasizes the complexity and unpredictability of the regulatory environment in Nigeria, and the necessity for project managers to navigate these effectively. Muhammed et al. (2022) also touch upon the importance of understanding the external factors affecting project outcomes, particularly in North-Central Nigeria, albeit not in great detail. While existing literature often focuses on competencies and skills, there is less attention to how regulatory aspects could influence project management, especially in a specific context like Nigeria. This gap makes the current study's focus on Nigerian-specific regulatory challenges a valuable addition.

Economic aspects, such as inflation and availability of funding, are cited as significant influences on project outcomes in the current study. While Adeleke et al. (2018) discuss risk management practices, including financial aspects, they do not tie these directly to project outcomes. This suggests a gap in the literature concerning the direct impact of economic factors on project management, particularly in the

Nigerian context. The current study fills this gap by elucidating how economic conditions can affect project success, from immediate costs to long-term sustainability.

The current study also brings into focus the need for project managers to be aware of market trends and customer demands, a topic less explored in the existing literature. While Cleveland and Cleveland (2020) propose a leadership competency framework that could theoretically be adapted to different market trends, they do not explicitly address this aspect. The current study's emphasis on market dynamics adds a layer of complexity to the skillset required of project managers, including adaptability and a keen awareness of market trends.

Overall, the current study brings specificity to the general themes often discussed in project management literature. While existing studies focus on competencies and the human aspect of project management, the current findings emphasize the importance of understanding external factors, particularly in the challenging environment of the Nigerian construction industry. This offers a more rounded picture, suggesting that project managers need not only a combination of hard and soft skills but also an in-depth understanding of the economic, regulatory, and market forces at play. Therefore, the current study both complements and expands upon existing literature, offering specific insights that have broad implications for both academic and practical advancements in the field of project management.

5.4 Interpersonal Factors and Project Outcomes

The study underscores the centrality of effective communication and stakeholder engagement in project outcomes. This emphasis aligns well with the existing literature on project management, which

often cites these as critical success factors. However, what sets this study apart is its focus on the Nigerian context. For example, Thamhain (2014) talks about the importance of aligning team goals with stakeholder expectations but does not delve into the multifaceted nature of stakeholder engagement in a setting like Nigeria. The study's emphasis on the need for project managers to be adept at navigating different social, political, and economic landscapes adds a nuanced layer that is sometimes missing in general project management literature.

The study strongly supports the idea that teamwork and collaboration are pivotal for project success, an idea that is well-established in project management literature. For instance, Cooke-Davies (2002) emphasized the role of teamwork in project effectiveness. However, this study goes further by highlighting the specific challenges and opportunities of teamwork in the culturally diverse setting of the Nigerian construction industry. The participants' comments suggest that managing cultural diversity is not just a 'nice-to-have' but an essential skill, a nuance that is particularly relevant in a globalized world but not always explicitly addressed in the literature.

When juxtaposed with existing literature, this study offers both confirmation and extension of known themes. It confirms the widely accepted idea that communication and teamwork are essential but extends this by providing specific insights. For example, the point about managing diverse stakeholders is not just about effective communication in a general sense but requires an understanding of the specific cultural, political, and economic landscape of Nigeria.

SUMMARY AND CONCLUSION AND RECOMMENDATION

6.0 Introduction

This chapter provides a summary of key research findings, aligned with the study's objectives, and includes targeted recommendations for Nigerian construction project managers and future research directions.

6.1 Major Findings

6.1.1 Objective One: Project Manager Competencies

The study identified specific competencies critical for project outcomes in Nigeria's construction industry:

Planning and Execution: Effective scheduling, milestone setting, and resource allocation, with adaptability to regulatory changes.

Risk Management: Recognized as both a technical skill and a strategic necessity.

Technical Skills: Essential knowledge of construction processes, budget management, and compliance with local regulations. These competencies collectively drive project success, demonstrating that technical, adaptive, and interpersonal skills are interconnected.

6.1.2 Objective Two: Impact of Training and Development

Training and development significantly enhance project management competencies:

Certifications: Programs like PMP and Agile provide structured methodologies for effective management.

Mentorship: Offers real-world insights and emotional support, crucial in Nigeria's complex environment.

Experience-Based Learning: Practical experience improves problem-solving and decision-making. These forms of training synergize to strengthen project management skills, underscoring the importance of a

multi-faceted approach to professional development.

6.1.3 Objective Three: Influence of External Factors

External factors affect the relationship between project manager competency and outcomes:

1. **Regulatory Compliance:** Necessary to navigate Nigeria's regulatory landscape.
2. **Economic Conditions:** Inflation and funding availability impact project costs and sustainability.
3. **Market Dynamics:** Awareness of trends and demands allows alignment with project goals. Project managers must develop adaptability to respond to these external factors effectively.

6.1.4 Objective Four: Impact of Interpersonal Factors

Interpersonal skills are vital for managing construction projects:

1. **Communication and Stakeholder Engagement:** Essential for clarifying goals, managing risks, and resolving conflicts.
2. **Collaboration:** Building trust and valuing contributions fosters a cooperative environment. These skills are fundamental in Nigeria's culturally diverse construction industry, enhancing project success through effective interaction.

6.2 Conclusion

The study underscores the importance of project manager competencies, including formal education, practical experience, and interpersonal skills, in driving successful project outcomes. Project managers in Nigeria require a balanced skill set that combines technical knowledge, adaptability to external conditions, and strong

interpersonal abilities to meet the complex demands of the industry.

6.3 Recommendations

6.3.1 Recommendations for Project Managers

1. **Invest in Formal Training:** Certifications like PMP and Agile enhance competencies.
2. **Seek Mentorship:** Gain practical insights from experienced professionals.
3. **Strengthen Communication Skills:** Critical for stakeholder engagement and project success.
4. **Foster Team Collaboration:** Build a supportive, cooperative environment.
5. **Stay Updated on Regulations:** Proactive regulatory knowledge mitigates risks.
6. **Develop Interpersonal Skills:** Cultural sensitivity, negotiation, and conflict resolution are key.
7. **Adopt Agile Methodologies:** Adaptability is essential in a changing environment.
8. **Engage with Local Communities:** Understanding local needs ensures smoother project implementation.
9. **Focus on Financial Planning:** Manage risks to avoid budget overruns and delays.

6.3.2 Recommendations for Future Research

1. **Longitudinal Studies:** Examine how competencies evolve over time.
2. **Comparative Studies:** Compare Nigerian construction with other countries.
3. **Role of Gender and Diversity:** Explore their impact on project management.
4. **Skill Gap Analysis:** Identify actionable insights for training programs.
5. **Economic Modeling:** Predict economic impacts on project outcomes.

6. **Stakeholder Perspectives:** Incorporate views from agencies, investors, and communities.

7. **Psychological Factors:** Study the role of motivation, stress management, and decision-making.

8. **Sustainable Construction:** Focus on project management's role in promoting sustainability.

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