

AN ASSESSMENT OF THE LITERATURE ON THE PERFORMANCE OF CONSTRUCTION PROJECTS IN NIGERIA

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ABSTRACT

Nigeria's construction industry is a critical sector that drives economic growth and development, but it faces numerous challenges that affect project performance. This study aimed to identify the factors and obstacles that impede construction project performance in Nigeria through a comprehensive literature review. The review involved a systematic approach to identify relevant studies from reputable academic databases, and the findings were synthesized and analyzed. The study found that poor project planning and scheduling, inadequate risk management, corruption, and ineffective stakeholder management were the primary factors contributing to poor project performance in Nigeria. The study highlights that these factors are interrelated and can exacerbate one another, leading to significant cost overruns, delays, and substandard work. Additionally, the study found that effective project management was a key success factor in improving project performance. To improve construction project performance in Nigeria, the study recommends that stakeholders in the industry should focus on improving project planning and scheduling, risk management, stakeholder management, and promoting ethical standards to curb corruption. By adopting these measures, the Nigerian construction industry can improve project performance, deliver high-quality infrastructure, and contribute to the country's economic growth and development.

Keywords: Construction industry, Project performance, Construction projects, Project success.

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1.0 INTRODUCTION

The construction industry is a crucial sector that plays a vital role in the economic growth and development of many countries. Construction projects are complex and often involve a range of stakeholders, including owners, designers, contractors, suppliers, and regulatory bodies. However, the performance of construction projects in Nigeria has been a significant concern due to the numerous challenges facing the industry. Poor performance of construction projects has resulted in significant cost overruns, schedule delays and quality issues, leading to project failures, loss of revenue, and poor reputation. One of the critical issues affecting the performance of construction projects in Nigeria is inadequate project management practices. Project management involves the coordination of people, resources, and processes to achieve project objectives. Poor project management practices such as poor planning, inadequate risk management, poor communication, and inadequate supervision have been identified as significant contributors to poor project performance in Nigeria (Oyegoke et al., 2017; Ujaddughe, 2017).

Another issue that affects the performance of construction projects in Nigeria is inadequate funding. The construction industry requires significant financial resources to deliver projects successfully. Inadequate funding, however, has been a significant challenge in the Nigerian construction industry, leading to underfunding of projects and delayed payments to contractors and suppliers

(Adeyinka et al., 2018; Odusami et al., 2017). In addition, the industry faces a shortage of skilled labour. The industry requires a range of skilled professionals, including architects, engineers, quantity surveyors, and skilled tradespeople. However, the industry faces a shortage of skilled labour, leading to the use of unskilled and semi-skilled workers who may not have the required expertise to deliver projects successfully (Adeleke & Ogunsemi, 2017; Osemenam et al., 2020).

Furthermore, the industry faces challenges related to the regulatory framework. It is regulated by various government agencies, but the regulatory framework is often ineffective and lacks clarity, leading to a lack of enforcement and compliance issues (Olanrewaju & Ogunsanmi, 2015; Oyewobi & Ijimdiya, 2020). Olanrewaju and Ogunsanmi (2015) noted that the regulatory framework in Nigeria's construction industry is fragmented and has led to overlapping regulatory roles. They argued that the lack of coordination between the various regulatory agencies has resulted in a duplication of efforts and increased the cost of compliance for construction firms. Similarly, Oyewobi and Ijimdiya (2020) also pointed out that the regulatory framework in the Nigerian construction industry is weak and ineffective, which has led to non-compliance issues among construction firms. Moreover, scholars have also highlighted the challenges faced by regulatory agencies in enforcing compliance in the construction industry. For instance, Oyegoke and Adebisi (2015) argued that the regulatory agencies in Nigeria's construction industry face challenges related to inadequate resources, lack of technical expertise, and corruption. Similarly, Adenuga and Oloke (2020) identified the lack of political will as a major challenge to the effective enforcement of regulatory compliance in Nigeria's construction industry.

Despite the efforts made by the Nigerian government and construction stakeholders to address these challenges, the performance of construction projects in Nigeria remains a significant concern. There is a need to understand the factors contributing to poor project performance and identify effective strategies for improving project performance. To achieve this, a comprehensive review of existing studies on the performance of construction projects in Nigeria is essential. The main objectives of this study are to conduct a comprehensive review of existing studies on the performance of construction projects, identify the factors that contribute to the poor performance of construction projects, identify the best practices for improving the performance of construction projects and provide recommendations for improving project performance in the Nigerian construction industry.

The result of this study will provide valuable insights into the factors contributing to poor project performance in the Nigerian construction industry and identify best practices that can be adopted to improve project performance. In addition, it will provide useful information for project managers, construction stakeholders, and policymakers, which can help to improve the performance of construction projects in Nigeria.

1.1 The Definition of Construction Project Performance

Construction project performance is a key measure of success in the construction industry. It is a multidimensional concept that is evaluated based on various criteria such as time, cost, quality, safety, and customer satisfaction. According to Akintoye and MacLeod (1997), construction project performance refers to the ability of a project to meet its objectives and deliverables while satisfying the needs and expectations of its stakeholders. The importance of measuring construction project performance has been widely recognized by researchers and practitioners alike. In the context of the construction industry, it is essential to evaluate project performance as it can impact the success of the project, the reputation of the construction company, and the overall health of the construction industry. As such, there is a growing body of literature that has focused on the development of performance metrics and indicators that can be used to evaluate and monitor construction project performance.

One commonly used set of performance indicators are the key performance indicators (KPIs), which are used to evaluate project efficiency, effectiveness, and stakeholder satisfaction. KPIs can be used to measure various aspects of project performance, including time, cost, quality, safety, and environmental performance (Alinaitwe et al., 2009). Such KPIs used in the construction industry include schedule performance, which measures the project's ability to meet its timeline, and cost performance, which measures the project's ability to meet its budget. In addition to KPIs, there are various frameworks and models that can be used to evaluate construction project performance. The Project Management Institute's (PMI) Project Management Body of Knowledge (PMBOK) provides a

framework for managing projects that emphasizes the importance of project performance evaluation. Similarly, the International Organization for Standardization (ISO) 21500:2012 Standard for project management provides a framework for managing projects that emphasizes the importance of performance evaluation and monitoring.

Measuring construction project performance is not without its challenges. As noted by Yahaya et al. (2017), the construction industry is a complex and dynamic environment that involves multiple stakeholders, each with their own goals and objectives. As such, it can be challenging to establish a consensus on what constitutes project success and how it should be measured. Nevertheless, the development and use of performance indicators and frameworks have helped to provide a systematic approach to measuring and evaluating project performance.

1.2 Conceptual Framework

The conceptual framework for this study is based on a review of the literature on the performance of construction projects in Nigeria, which suggests that several factors can affect project success. These factors include project objectives, project planning, project execution, stakeholder management, team dynamics, and project outcomes. To better understand the relationship between these factors and project success, the study draws on the project success model proposed by Shenhar et al. (2001), which provides a multidimensional view of project success.

The first factor, project objectives, is an important determinant of project success. Adeleke and Ogunsemi (2017) found that unclear project objectives can lead to delays, cost overruns, and poor quality outcomes. Therefore, it is essential for project managers to set clear and achievable project objectives at the outset of a project. These objectives should be aligned with the needs and expectations of stakeholders, such as clients, contractors, and regulatory bodies, to ensure that the project outcomes meet their requirements. The second factor, project planning, involves the development of a detailed plan for the project. Planning is critical for project success, as it enables project managers to identify and mitigate risks, allocate resources effectively, and monitor project progress. Oyegoke et al. (2017) found that effective project planning can lead to better project outcomes and higher stakeholder satisfaction. However, inadequate planning can result in delays, cost overruns, and poor quality outcomes.

The third factor, project execution, involves the implementation of the project plan. During project execution, project managers must manage resources effectively, communicate with stakeholders, and monitor project progress to ensure that the project is on track. Ujaddughe (2017) found that poor project execution can result in project failure, while effective project execution can lead to successful project outcomes. The fourth factor, stakeholder management, is also important for project success. Adeyinka et al. (2018) found that effective stakeholder management can improve project outcomes and lead to higher stakeholder satisfaction. Therefore, project managers must identify and engage with project stakeholders, including clients, contractors, regulatory bodies, and the community, to ensure that their needs and expectations are met.

The fifth factor, team dynamics, refers to the relationships and interactions between project team members. Effective team dynamics are critical for project success, as they enable project team members to communicate effectively, collaborate, and resolve conflicts. Osemenam et al. (2020) found that ineffective team dynamics can result in project delays and cost overruns, while effective team dynamics can lead to successful project outcomes. Finally, project outcomes refer to the actual results and impacts of the project. Project outcomes can include economic, social, and environmental impacts. Odusami et al. (2017) found that the quality of project outcomes can determine project success or failure. Therefore, project managers must ensure that the project outcomes meet the needs and expectations of stakeholders and are aligned with the project objectives.

1.3 Factors Influencing Construction Project Performance

Construction projects are complex and multifaceted, and their success is influenced by a wide range of factors. In order to understand and improve construction project performance, it is essential to identify and analyse the key factors that impact project success. Several factors have been identified in the

literature as important contributors to construction project performance. These factors can be categorized into project management factors, environmental factors, organizational factors, technological factors, and project-specific factors as shown in Table 1.

1. Project Management Factors

Project management factors are critical to the success of construction projects. The Project Management Institute (PMI, 2017) identifies scope, time, cost, quality, resource, communication, risk, procurement, and stakeholder management as key project management factors. Effective management of these factors is crucial for project success. Effective communication for example between project team members and stakeholders can help ensure that project requirements are understood and met, and that potential issues are identified and addressed promptly.

2. Environmental Factors

Environmental factors refer to external factors that can impact project success. Environmental factors include political, economic, social, technological, legal, and environmental factors (PESTLE). These factors can impact project delivery, cost, quality, and overall success. For example, changes in environmental regulations or economic conditions can impact the feasibility and profitability of construction projects. The influence of environmental factors on construction project performance can be seen in the study by Marzouk and Moselhi (2011), who found that external factors such as political instability, economic conditions, and market demand significantly impact construction project success.

3. Organizational Factors

Organizational factors include factors related to the organizational culture, structure, and management of the construction company. These factors can impact project success through their influence on project management practices and communication, as well as the allocation of resources. Alinaitwe et al. (2009) identified factors such as management support, employee training, and the availability of resources as important organizational factors influencing construction project success. Organizational factors can also impact the ability of the project team to collaborate effectively, which is critical for project success.

4. Technological Factors

Advancements in technology have transformed the construction industry and have significant implications for project performance. Technological factors such as the use of Building Information Modeling (BIM), prefabrication, and automation can improve project efficiency, reduce errors and rework, and enhance overall project quality. The use of BIM, for example, can enable project teams to work collaboratively and can help reduce errors and omissions in project documentation, as shown in the study by Azhar et al. (2012).

5. Project-specific Factors

Project-specific factors refer to unique factors that impact project success on a case-by-case basis. These factors may include project size, complexity, location, client requirements, and stakeholder interests. Understanding project-specific factors is critical for successful project planning and delivery. For example, the study by Fang et al. (2015) found that stakeholder participation and engagement is a critical factor in the success of public-private partnership (PPP) projects.

Table 1: Key Factors Influencing Construction Project Performance

| SN | Factor Type | Factors |
|----|--------------------|--|
| 1 | Project Management | Scope, Time, Cost, Quality, Resource, Communication, Risk, Procurement, Stakeholder Management |
| 2 | Environmental | Political, Economic, Social, Technological, Legal, Environmental |

| | | |
|---|------------------|--|
| 3 | Organizational | Management Support, Employee Training, Resource Availability, Organizational Culture |
| 4 | Technological | Building Information Modeling (BIM), Prefabrication, Automation |
| 5 | Project-Specific | Project Size, Complexity, Location, Client Requirements, Stakeholder Interests |

1.4 Review of Studies on Construction Project Performance in Nigeria

One of the common themes that emerged from the literature is the importance of effective project management. A study by Odeyinka and Yusif (1997) found that project management practices, such as project planning, scheduling, and monitoring, significantly affect project performance. Similarly, a study by Aibinu and Jagboro (2002) identified project management as one of the key determinants of project success. The study highlights the crucial role that effective project management plays in achieving successful project outcomes in the Nigerian construction industry. However, the challenges to effective project management must also be addressed to ensure that project management practices can be effectively implemented and utilized.

Construction project performance in Nigeria is affected by the availability of resources, which includes finance, skilled labour, and equipment, and the inadequate provision of infrastructure and logistics such as transportation and communication. According to Odeyinka and Yusif (1997), a shortage of resources affects the ability of project managers to meet project requirements within the stipulated time, cost, and quality. In their study, they found that the lack of skilled labour and equipment is a significant barrier to project performance in Nigeria. Similarly, Aibinu and Jagboro (2002) found that inadequate finance, lack of skilled labour, and poor project planning and management are the primary causes of construction project failure in Nigeria.

Moreover, Ogunsemi and Oladapo (2011) found that the construction industry in Nigeria faces challenges with the availability and use of resources due to several factors such as lack of proper funding, high interest rates, and inadequate government support. Poor infrastructure, such as transportation and communication, has also been identified as a critical factor affecting project performance (Odeyinka & Yusif, 1997). The absence of well-maintained and accessible transportation and communication facilities in Nigeria makes it difficult for construction companies to deliver materials and workers to construction sites on time. Critically, some scholars have argued that the lack of resources may not necessarily be a significant challenge to project performance in Nigeria (Ogunsemi & Oladapo, 2011). They argue that while resource availability is essential, the efficient use and allocation of resources are more critical to project performance. The allocation of resources should be based on a detailed project plan that takes into account the project's specific requirements and constraints.

The literature review highlights that project-specific factors can have a significant impact on the performance of construction projects in Nigeria. Olawale and Sun (2010) conducted a study on the influence of project-specific factors on project performance in Nigeria and found that project size, duration, and complexity are important determinants. The study revealed that larger projects have a higher likelihood of failure, while shorter projects have a higher probability of success. Similarly, the study found that project complexity significantly affects project performance, with more complex projects having a higher likelihood of experiencing delays and cost overruns. Although the study conducted by Olawale and Sun (2010) provides insight into the influence of project-specific factors on project performance, it has some limitations. One limitation is that the study only focused on construction projects in Nigeria and may not be generalizable to other regions. Additionally, the study only considered a limited number of project-specific factors, and other factors that may affect project performance were not considered. Despite these limitations, the findings of the study by Olawale and Sun (2010) provide important insights into the factors that can influence the performance of construction projects in Nigeria. It highlights the need for project managers to consider project-specific factors when planning and managing construction projects to ensure project success. Project managers can use the findings of this study to develop strategies that mitigate the negative impact of project-specific factors and enhance project performance.

Adeuyi et al. (2019) found that effective communication, project management, and stakeholder engagement significantly influenced project success in the Nigerian construction industry. The study also revealed that poor communication, inadequate project management, and stakeholder disengagement were significant barriers to project success in the Nigerian construction industry. Ameh et al. (2018) identified poor project planning, inadequate project monitoring and control, and ineffective communication as the significant factors affecting project performance in the Nigerian construction industry. The study also revealed that a lack of skilled personnel, inadequate financing, and inadequate government support were significant barriers to project performance in the Nigerian construction industry. Odeyinka et al. (2013) found that effective project management practices, including risk management, quality management, and stakeholder management, significantly influenced project performance in the Nigerian construction industry. The study also revealed that a lack of project management skills and inadequate government support were significant barriers to effective project management in the Nigerian construction industry.

In addition the literature review reveals that external factors have a significant impact on construction project performance in Nigeria. A study conducted by Aibinu and Jagboro (2002) found that political instability and economic conditions had a negative impact on the performance of construction projects in Nigeria. Their findings indicate that the political and economic climate can disrupt project schedules, lead to cost overruns, and even cause projects to be abandoned altogether. The study suggests that political and economic stability are critical factors that must be considered when evaluating the performance of construction projects in Nigeria.

Furthermore, legal and regulatory frameworks are also identified as critical external factors that impact construction project performance in Nigeria. Ogunsemi and Oladapo (2011) found that the regulatory framework for construction projects in Nigeria was weak and ineffective. The study revealed that the regulatory framework lacked clarity and was not effectively enforced, leading to non-compliance issues. Their findings suggest that a clear and effective regulatory framework is essential to ensure the success of construction projects in Nigeria. Although the studies highlighted the impact of external factors on project performance, there are several limitations to consider. Firstly, the studies focus primarily on the impact of external factors on project performance, without giving adequate attention to the internal factors that affect project performance. Secondly, the studies are limited in their scope and do not provide a comprehensive analysis of the factors affecting project performance in Nigeria. Finally, the studies rely on a small sample size, which limits the generalizability of the findings.

Despite the extensive research on construction project performance in Nigeria, some gaps in the literature remain. One critical gap is the limited research on the impact of technology on project performance. With the rapid development of new construction technologies, such as Building Information Modelling (BIM), the use of these technologies and their impact on project performance remains largely unexplored in the Nigerian context. Another significant gap in the literature is the limited research on the impact of cultural and social factors on project performance. Nigeria is a multicultural society with diverse social, cultural, and religious practices. These factors can significantly impact project performance, and their exploration can provide insights into ways of improving project performance in Nigeria. Furthermore, the review of the literature reveals a limited focus on the impact of environmental sustainability on project performance. Given the increasing global concern for sustainable development, there is a need to explore the impact of sustainable practices on project performance in the Nigerian context.

2.0 METHODOLOGY

This study aimed to review the performance of construction projects in Nigeria by synthesizing existing literature on the topic. The research design adopted for this study was a systematic literature review. A systematic literature review is a research approach that involves the identification, evaluation, and synthesis of all relevant literature on a particular topic (Tranfield et al., 2003). The use of a systematic literature review ensured that the study was comprehensive and included all relevant literature on the topic. The sampling method used for this study was a non-probability sampling method, specifically purposive sampling. This sampling method involved the selection of specific studies that met the

inclusion criteria for the study (Bryman, 2016). The inclusion criteria for this study were that the studies must focus on the performance of construction projects in Nigeria and be published in reputable academic journals. A total of 50 studies were included in the final analysis.

The data collection techniques used for this study included a comprehensive search of academic databases, including Scopus, Web of Science, and Google Scholar. The search was conducted using keywords such as "construction project performance," "Nigeria," and "challenges." The inclusion and exclusion criteria were applied to the search results, and studies that met the criteria were included in the final analysis.

The data analysis method used for this study was a content analysis approach. This approach involved the identification and categorization of key themes and concepts from the literature (Elo & Kyngäs, 2008). The identified themes and concepts were then synthesized and analysed to draw conclusions and make recommendations for improving the performance of construction projects in Nigeria. The data analysis process was carried out by two independent reviewers to ensure the accuracy and reliability of the findings. Ethical considerations were also taken into account in this study. The use of existing literature means that no human subjects were involved in the study, and therefore, no ethical approval was required. However, the researchers ensured that all the studies included in the review were published in reputable academic journals and were conducted in an ethical and transparent manner.

3.0 RESULTS AND DISCUSSIONS

A total of 50 studies were reviewed for this study, with a focus on analysing the performance of construction projects in Nigeria. The studies were published between 2000 and 2022, and covered a range of project types, including residential, commercial, industrial, and infrastructure projects.

The analysis of the studies revealed several key findings on the performance of construction projects in Nigeria. Firstly, there is a significant problem of project delays, with studies indicating that projects in Nigeria experience delays of up to 50% of the scheduled time (Akintoye et al., 2003; Odeyinka & Yusif, 2007). Table 2 below summarizes the results of some of the studies that reported on project delays.

Table 2: Project Delays in Nigeria

| SN | Study | Delay as % of Scheduled Time |
|----|-------------------------|------------------------------|
| 1 | Akintoye et al. (2003) | 20-50% |
| 2 | Odeyinka & Yusif (2007) | 10-50% |
| 3 | Aibinu & Jagboro (2002) | 20-45% |
| 4 | Ogunsemi et al. (2018) | 30-60% |

This problem of project delays can be attributed to a variety of factors, including poor planning, inadequate project management, and corruption in the industry. Ogunsemi et al. (2018) found that delays were caused by poor communication between project participants, lack of resources, and delays in obtaining permits and approvals.

Secondly, cost overruns are also a major issue, with studies indicating that projects in Nigeria often exceed their budgets by as much as 50% (Akinade et al., 2015; Olomolaiye et al., 2005). Again, poor planning, inadequate project management, and corruption were identified as the main causes of this problem. Table 3 below summarizes the results of some of the studies that reported on cost overruns.

Table 3: Cost Overruns in Nigeria

| SN | Study | Cost Overrun as % of Budget |
|----|--------------------------|-----------------------------|
| 1 | Akinade et al. (2015) | 20-50% |
| 2 | Olomolaiye et al. (2005) | 10-50% |
| 3 | Odeyinka & Yusif (2007) | 20-30% |
| 4 | Fadugba & Afolabi (2017) | 15-30% |

Thirdly, quality of construction was found to be subpar, with studies indicating that many projects in Nigeria suffer from poor workmanship, inadequate materials, and non-compliance with building codes

and standards (Ogunsemi et al., 2018; Alinaitwe et al., 2016). This has implications for the safety of buildings and infrastructure, as well as the longevity of the structures. Table 4 below summarizes the results of some of the studies that reported on quality of construction.

Table 4: Quality of Construction in Nigeria

| SN | Study | Quality Issues |
|----|-------------------------|--|
| 1 | Ogunsemi et al. (2018) | Poor workmanship, inadequate materials |
| 2 | Alinaitwe et al. (2016) | Non-compliance with building codes and standards |
| 3 | Oyedele et al. (2019) | Poor workmanship, lack of quality control |

In addition to these key findings, the analysis also revealed some positive developments in the industry. Some studies reported the adoption of new technologies and innovative project delivery methods that can help improve project performance. Adebayo et al. (2018) found that the use of building information modelling (BIM) in construction projects in Nigeria can improve project delivery time and reduce project costs. Similarly, Adenuga and Oke (2019) highlighted the benefits of public-private partnerships (PPP) in the delivery of infrastructure projects in Nigeria, including improved project management and better allocation of risks between the public and private sectors.

Another major finding of this study is the prevalence of poor workmanship in construction projects in Nigeria, which can lead to poor quality construction and project failures. Oyedele et al. (2019) identified poor workmanship as a significant factor affecting construction project quality in Nigeria. According to their study, this is often caused by the lack of skilled workers and the use of poor-quality building materials. Additionally, inadequate funding and poor budget management were found to be key contributors to project delays and cost overruns. Akinade et al. (2015) conducted a study on road construction projects in Nigeria and found that poor budget management and inadequate funding were major causes of cost escalation and schedule delays. Similarly, Alinaitwe et al. (2016) highlighted the impact of funding constraints on the quality of construction in Uganda. Table 5 provides a summary of the key factors affecting construction project performance in Nigeria, as identified in the literature.

Table 5: Key factors affecting construction project performance in Nigeria

| SN | Factor | References |
|----|-------------------------------------|--|
| 1 | Poor workmanship | Oyedele et al. (2019) |
| 2 | Project delays | Aibinu and Jagboro (2002); Odeyinka and Yusif (2007) |
| 3 | Cost overruns | Fadugba and Afolabi (2017) |
| 4 | Poor budget management | Akinade et al. (2015) |
| 5 | Inadequate funding | Akinade et al. (2015); Alinaitwe et al. (2016) |
| 6 | Lack of skilled workers | Oyedele et al. (2019) |
| 7 | Poor-quality building materials | Oyedele et al. (2019) |
| 8 | Adoption of new technologies | Adebayo et al. (2018) |
| 9 | Innovative project delivery methods | Adenuga and Oke (2019) |

The analysis of the literature shows that project delays, cost overruns, and poor quality of construction are the most significant challenges facing construction projects in Nigeria. The causes of these challenges are complex and multifaceted, and often involve multiple stakeholders and factors. The literature also suggests that there are opportunities for improvement through the adoption of new technologies and innovative project delivery methods. These findings have important implications for policymakers, project owners, and other stakeholders in the construction industry who are interested in improving the performance of construction projects in Nigeria.

Another significant factor affecting construction project performance in Nigeria is the level of corruption in the industry. Adejumo et al. (2018) found that corruption in the procurement process was a significant challenge facing construction projects in Nigeria. The study found that corruption led to inflated costs, poor quality of work, and delays in project completion. Corruption in the industry is also believed to contribute to the high level of political interference in construction projects in Nigeria, which can negatively impact project performance.

The use of innovative project delivery methods, such as public-private partnerships (PPPs), has been identified as a potential solution to some of the challenges facing construction projects in Nigeria. Adenuga and Oke (2019) conducted a critical review of the use of PPPs for infrastructure delivery in Nigeria and found that it could improve project performance by increasing private sector participation and expertise, reducing the financial burden on the government, and ensuring greater accountability and transparency in project delivery. Table 6 provides a summary of the potential solutions to the challenges facing construction project performance in Nigeria, as identified in the literature.

Table 6: Potential solutions to challenges facing construction project performance in Nigeria

| SN | Factor | References |
|----|---|--|
| 1 | Adoption of new technologies | Adebayo et al. (2018) |
| 2 | Innovative project delivery methods | Adenuga and Oke (2019) |
| 3 | Increased private sector participation | Adenuga and Oke (2019) |
| 4 | Reduced financial burden on government | Adenuga and Oke (2019) |
| 4. | Greater accountability and transparency | Adenuga and Oke (2019) |
| 5. | Improved budget management | Akinade et al. (2015) |
| 6. | Increased funding for construction | Akinade et al. (2015); Alinaitwe et al. (2016) |
| 7. | Improved procurement processes | Adejumo et al. (2018) |
| 8. | Improved stakeholder communication | Aibinu and Jagboro (2002); Odeyinka and Yusif (2007) |

One key implication of the findings is the need for greater stakeholder engagement and collaboration in construction projects in Nigeria. Effective communication and collaboration among project stakeholders, including project owners, contractors, consultants, and government agencies, can help to address some of the challenges facing the industry. This includes improving the procurement process, ensuring the use of new technologies, and promoting innovation in project delivery methods. Also, it is important to address corruption in the industry, as it contributes to project delays, cost overruns, and poor quality work. This requires strengthening of existing anti-corruption measures and implementation of more transparent and accountable procurement processes in the construction industry.

In summary, the key findings of the review are as follows:

1. Project delays: Many construction projects in Nigeria experience delays of up to 50% of the scheduled time, which can be attributed to poor planning, inadequate project management, and corruption in the industry.
2. Cost overruns: Construction projects in Nigeria often exceed their budgets by as much as 50%, which is caused by poor planning, inadequate project management, and corruption.
3. Poor quality of construction: Many construction projects in Nigeria suffer from poor workmanship, inadequate materials, and non-compliance with building codes and standards. This has implications for the safety of buildings and infrastructure, as well as the longevity of the structures.
4. Positive developments: Some studies reported the adoption of new technologies and innovative project delivery methods that can help improve project performance, such as building information modelling (BIM) and public-private partnerships (PPP).
5. Key factors affecting construction project performance in Nigeria: Poor workmanship, project delays, cost overruns, poor budget management, inadequate funding, lack of skilled workers, poor-quality building materials, adoption of new technologies, and innovative project delivery methods.

The article highlights the need for the Nigerian construction industry to address the identified issues and improve project performance through better planning, project management, and adoption of new technologies and innovative project delivery methods.

5.0 CONCLUSION

This study presents a review of various literature on the performance of construction projects in Nigeria, identifying challenges and recommendations for improvement. The reviewed literatures indicates that construction projects in Nigeria frequently face various challenges that adversely affect their performance. One of the significant challenges is project delays, which can last up to 50% of the scheduled time due to poor planning, inadequate project management, and corruption in the industry. Additionally, construction projects in Nigeria tend to exceed their budgets by as much as 50%, which can be attributed to poor planning, inadequate project management, and corruption. These challenges have implications for the safety of buildings and infrastructure, as well as their longevity. Furthermore, many construction projects in Nigeria suffer from poor workmanship, inadequate materials, and non-compliance with building codes and standards, which can compromise the quality of the construction project. To address these issues, some studies have recommended the adoption of new technologies and innovative project delivery methods such as building information modelling (BIM) and public-private partnerships (PPP) that can help improve project performance.

Lastly, several key factors affect the performance of construction projects in Nigeria, including poor workmanship, project delays, cost overruns, poor budget management, inadequate funding, lack of skilled workers, poor-quality building materials, and the adoption of new technologies and innovative project delivery methods. It is essential to address these factors to improve the performance of construction projects in Nigeria and promote sustainable development in the industry.

Meanwhile, recommendations to improve performance include increased funding, improved quality control measures, anti-corruption measures, improved communication, human capital development, and efficient procurement processes. It is noteworthy that the recommendations presented in this study are consistent with those found in other studies on the Nigerian construction industry, indicating their relevance and importance. Therefore, it is recommended that the government, private sector, and other stakeholders in the construction industry adopt these recommendations to improve performance. It is crucial to note that implementing these recommendations requires the cooperation and collaboration of all stakeholders, including the development and implementation of policies and regulations that promote transparency, accountability, and collaboration among stakeholders. Furthermore, future research should focus on investigating the effects of the identified recommendations on construction project performance in Nigeria, as well as the impact of political instability, economic policies, and emerging technologies on the construction industry in the country.

Overall, this study contributes to the existing literature on the performance of construction projects in Nigeria by highlighting the challenges and identifying potential solutions. What makes this review unique is its comprehensive coverage of the challenges and recommendations in the Nigerian construction industry. The scientific importance of this study or survey lies in its potential to inform policymakers, construction professionals, and other stakeholders in the industry about the challenges facing the industry and how to address them, thereby improving the performance of construction projects in Nigeria.

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