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AN EVALUATION OF THE INFLUENCE OF CROSS-FUNCTIONAL TEAMWORK ON ATTAINMENT OF PROJECT TARGETS AMONG CONSTRUCTION PROFESSIONALS IN LAGOS STATE, NIGERIA

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Abstract
Despite widespread recognition of cross-functional teamwork's benefits improved communication, faster decision-making, and stronger problem-solving there is still a notable absence of empirical, context-specific research examining its structure, effectiveness, impact on project objectives, and the obstacles faced by construction professionals in Lagos State, Nigeria; to address this gap, a quantitative study was undertaken in which a structured questionnaire anchored on four objectives (1) to examine the structure and characteristics of cross-functional teams, (2) to assess the effectiveness of CFT, (3) to evaluate the impact of CFT on project targets, and (4) to identify challenges in CFT, Questionaire was administered to 200 registered construction professionals representing diverse functional roles, with data analyzed using descriptive statistics (mean item scores, standard deviations) and exploratory factor analysis (principal component extraction with varimax rotation), which yielded four distinct factors 'Strategic Leadership Support' (mean=4.05, SD=0.68), 'Effective Decision-Making Processes' (mean=4.12, SD=0.63), 'Optimal Resource Allocation' (mean=3.98, SD=0.72), and 'Collaborative Communication Infrastructure' (mean=3.82, SD=0.77) that collectively explained 67.4 percent of total variance (eigenvalues >1; factor loadings 0.62–0.84), while communication breakdowns (mean=3.75, SD=0.81) and cultural-diversity misunderstandings (mean=3.61, SD=0.85) emerged as significant impediments to team cohesion; the findings suggest that establishing clear goals, investing in continuous professional development, and deploying integrated communication platforms can mitigate collaboration challenges and enhance project delivery, leading to the conclusion that CFT constitutes a strategic lever for achieving project objectives in Nigeria's construction industry, with recommendations for managers to institutionalize cross-functional structures, strengthen leadership engagement, and provide targeted training, and with an invitation for future research to explore longitudinal impacts of CFT adoption, the mediating role of Building Information Modeling (BIM), and sectoral comparisons across other rapidly urbanizing contexts.

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INTRODUCTION

The construction industry in Lagos State, Nigeria, is characterized by its operational complexity, multi-stakeholder engagement and; the increasing pressure to deliver infrastructure projects within constrained timelines and budgets. As urbanization accelerates and infrastructure demands intensify, the adoption of robust project management strategies has become imperative. Among these, cross-functional teamwork (CFT) has emerged as a strategic mechanism for integrating diverse professional competencies, such as those of architects, engineers, quantity surveyors, Builders and project managers, to enhance project delivery outcomes (Sang et al., 2018; Nasaruddin & Rahman, 2017).

Cross-functional teams facilitate knowledge sharing, joint problem-solving, and inclusive decision-making, which are essential for navigating the dynamic nature of construction projects. Effective CFT has been linked to improvements in team coordination, communication efficiency, and overall project performance (Mohammed & Alserhan, 2020). However, the translation of these theoretical benefits into practice remains problematic in the context of Lagos State. Persistent challenges such as weak interdepartmental communication, fragmented leadership structures, cultural and professional disparities, and the absence of standardized collaboration protocols continue to hinder the operational efficiency of such teams (Hashem, 2019; Wimalaratne & Kulatunga, 2022). The existing body of literature has extensively explored the positive implications of cross-functional collaboration in developed economies, particularly in contexts where institutional frameworks support integration across disciplines (Al-Aidrous et al., 2022). Yet, there is a conspicuous gap in empirical studies focusing on Sub-Saharan Africa, particularly Nigeria, where sector-specific dynamics such as regulatory inconsistencies, resource constraints, and skill mismatches complicate collaborative efforts (Rahman & Al-Emad, 2018; Oke et al., 2021). In Lagos State, project delays, cost overruns, and disputes among professionals remain pervasive, often attributed to poor stakeholder alignment and inadequate communication mechanisms.

Given this context, this study aims to assess the role of cross-functional team dynamics in the attainment of project objectives within Lagos State's construction sector. This study examines how leadership, resource availability, decision-making structures, and communication quality influence the effectiveness of cross-functional collaboration. By identifying key enablers and inhibitors, this research not only addresses the critical knowledge gap but also proposes strategic interventions for improving collaborative practices.

The findings of this study are expected to contribute to the evolving discourse on project management, offering both theoretical and practical insights for professionals and policymakers. Ultimately, the study supports efforts to foster a more integrated and cooperative project delivery environment, which is essential for addressing the infrastructural challenges facing Nigeria's construction industry.

1.0 Literature Review

1.1 Introduction to Cross-Functional Teams (CFTs) in Construction

Cross-functional teams (CFTs) have become increasingly relevant in the modern construction industry because of their capacity to integrate professionals from varied disciplines within an organizational structure. Defined as groups composed of members from diverse functions, levels, or departments, CFTs are established to enhance collaboration, innovation, and decision-making across project cycles (Gjorgjievski, 2024). In the context of construction, which typically involves interdisciplinary coordination, CFTs support effective stakeholder engagement, faster problem- solving, and operational adaptability. However, this potential is often impeded by internal conflicts, differences in priorities and divergent communication styles, which call for deliberate conflict resolution and structured management approaches. The academic discourse on CFTs underlines their value in increasing organizational efficiency and resilience. Santa et al. (2023) emphasized the correlation between CFT

implementation and heightened organizational performance, particularly in crisis-prone environments. Likewise, Vries et al. (2022) explored how cross-functional integration mitigates disruptions in supply chains—an increasingly relevant issue in construction project delivery.

CFTs are also instrumental in fostering ambidextrous innovation. According to Zhang et al. (2021), this dual capacity for exploration and exploitation allows teams to manage complex infrastructure projects while simultaneously introducing novel engineering solutions. Furthermore, Rane (2023) asserted that the deployment of generative artificial intelligence in construction relies on interdisciplinary synergy, which CFTs are uniquely equipped to facilitate. Leadership quality is another critical success factor of CFTs. Transformational leadership enhances organizational citizenship behavior, motivation, and productivity among team members (Verma & Bala, 2022).

Relational leadership further contributes to open innovation and team development, particularly in digital environments (Engelsberger et al., 2024). In construction-specific applications, the Design Structure Matrix (DSM) and Modular Function Deployment (MFD) have proven effective in supporting CFT coordination, project modularization, and delivery efficiency (Forti et al., 2022). Adu and Opawole (2019) and Sagar et al. (2022) point to the essential role of CFTs in improving teamwork, creativity, and performance in both physical and virtual construction environments. As globalization increases reliance on distributed teams, virtual CFTs offer adaptability and cost- efficiency, enabling greater access to cross-border expertise. Thus, CFTs serve as a strategic mechanism for enhancing project execution in construction; however, their efficacy depends on team leadership, communication, role clarity, and conflict resolution.

1.2 Challenges and Barriers to Effective Cross-Functional Teamwork in Construction Effective cross-functional teamwork in construction is often challenged by communication deficiencies, cultural diversity, inconsistent leadership, and team conflict. These issues disrupt the information flow and undermine team unity. For instance, language barriers, technological gaps, and unclear communication protocols hinder mutual understanding and project alignment. Gamil and Rahman (2017) advocated structured communication tools, such as formal debriefings and after-action reviews, to enhance knowledge dissemination and cohesion. Cultural and socioeconomic diversity within teams can also lead to misunderstandings and interpersonal tension. Open communication, inclusive leadership, and diversity training are essential for reducing these barriers. Rahman and Al-Emad (2018) emphasized that leadership must balance technical expertise with interpersonal skills to promote harmony and innovation. In virtual team settings common in transnational construction firms—Sagar et al. (2022) identify challenges such as trust-building, coordination, and cultural misalignment. These issues can be mitigated through technology adoption, clarity in team roles, and virtual leadership training. Overall, a holistic approach to overcoming these barriers requires an emphasis on inclusive communication, adaptive leadership, and team-building interventions tailored to the unique demands of construction projects.

1.3 Strategies to Mitigate Challenges in Cross-Functional Teams in Construction Cross-functional teams (CFTs) operating in the construction sector often encounter complex coordination issues stemming from fragmented communication, disciplinary boundaries, and project pressures. The following research-informed strategies address these challenges by fostering cohesion, enhancing efficiency, and promoting collective accountability.

1.3.1 Structured Communication Protocols:

Implementing structured communication frameworks such as regular feedback loops, scheduled briefings, and knowledge exchange sessions—plays a vital role in mitigating misunderstandings and promoting transparency.

According to Gamil and Rahman (2017), these practices reduce ambiguity in task delegation and ensure timely information dissemination, thereby improving team coordination.

1.3.2 Social Media Integration:

Using digital messaging platforms such as WhatsApp or Microsoft Teams enhances communication flow, especially in geographically dispersed teams. Karimi (2024) emphasized that such tools support immediate feedback, improve collaboration, and create an informal communication environment conducive to problem-solving.

1.3.3 Building Information Modeling:

As noted by Manzanares et al. (2024), BIM significantly improves collaborative planning by allowing real-time visualization of project elements. The integration of BIM facilitates joint decision-making, minimizes interpretation discrepancies, and streamlines construction processes among multidisciplinary teams.

1.3.4 Team Training and Leadership Development:

Adopting transformational and relational leadership styles fosters a supportive team culture and individual empowerment. Verma and Bala (2022) argued that leadership training not only strengthens interpersonal dynamics and enhances a team's ability to adapt to change and respond effectively to emerging challenges.

1.3.5 Multidisciplinary Collaboration Platforms:

Collaboration technologies that support real-time input from multiple disciplines—such as integrated project delivery (IPD) systems—promote innovation and help reduce project delays. Rane (2023) suggested that such platforms are especially effective in aligning technical perspectives with managerial objectives.

1.3.6 Conflict Resolution Mechanisms:

Clearly defined protocols for conflict identification, escalation, and resolution enhance trust and improve team resilience. The establishment of these mechanisms contributes to psychological safety, which is essential for candid communication and mutual respect.

1.3.7 Communication Planning:

Assigning clear communication responsibilities, establishing hierarchies, and defining information flow paths enhances accountability and task tracking. Setiawan et al. (2021) recommended that communication plans be revisited periodically to address evolving project needs.

1.3.8 Virtual Collaboration Tools:

The deployment of digital workspaces ranging from cloud-based project management tools to AI- enabled dashboards reduces communication delays and increases team accessibility. Kapogiannis and Sherratt (2018) highlighted the critical role of such tools in maintaining workflow continuity in modern construction projects. By adopting these strategies, construction firms can create an enabling environment for cross-functional teams to operate more effectively, ultimately improving project outcomes.

1.4 Influence of Cross-Functional Teamwork on Construction Project Effectiveness Effective CFTs significantly enhance project performance by fostering trust, leadership alignment, and stakeholder integration. Yap et al. (2020) found that participative engagement and shared accountability within CFTs strengthen performance metrics across project timelines and deliverables. Team diversity, when strategically managed, leads to better risk handling and decision-making (Wu et al., 2019). Studies have also demonstrated that collaboration reduces project delays and enhances compliance with quality and safety standards (Faris et al., 2022; Olasunkanmi, 2024). Leadership styles, particularly empowerment-based and participatory models, further contribute to team success by promoting mutual respect and knowledge sharing (Ssenyange, 2023; Zhang et al., 2021). The importance of stable team structures and HR support systems has

been emphasized by Ellis et al. (2022), who noted that person-team compatibility and internal resource management significantly influence team synergy and resilience. Thus, CFTs are central to fostering collaborative project cultures, optimizing resource use, and driving innovation.

1.5 Strategies for Promoting Effective CFTs in Construction

Improving CFT effectiveness requires insights from not only construction but also other high- reliability sectors. These cross-disciplinary approaches offer practical models for enhancing integration and performance.

1.5.1 Adaptation of Health care Team Models:

High-pressure healthcare models such as Crew Resource Management (CRM) and Team STEPPS offer valuable lessons in role clarity, communication precision, and coordinated response. Buljac- Samardžić et al. (2020) proposed their application in construction settings, particularly for managing high-risk and time-sensitive operations.

1.5.2 Marketing and Architecture Integration:

Combining branding and architectural design processes improves internal alignment and external stakeholder engagement. Integrating visual communication strategies and stakeholder feedback loops ensures project vision clarity and promotes trust.

1.5.3 Mental Health Sector Techniques:

Lessons from collaborative care models—including emotional intelligence training, team autonomy, and psychological safety—are relevant in promoting well-being and cohesion within CFTs. McGuier et al. (2023) suggested that these techniques improve the resilience and satisfaction of project teams.

1.5.4 Supply Chain Resilience Models:

The manufacturing and logistics sectors demonstrate the effectiveness of early stakeholder engagement and integrated cross-functional coordination. According to Vries et al. (2022) and Poberschnigg et al. (2020), such approaches enhance agility, adaptability, and project responsiveness—attributes that are increasingly vital in dynamic construction environments. Together, these strategies emphasize the importance of interprofessional learning, continuous process improvement, and systems thinking in optimizing cross-functional team performance in construction.

1.6 Factors Influencing Effective CFTs in Construction

A range of interrelated factors influence how cross-functional teams perform in construction projects. These include both structural and behavioral components:

1.6.1 Trust and Communication:

Effective communication fosters trust, reduces role ambiguity, and minimizes goals misalignment. Bond-Barnard et al. (2018) emphasized that trust is foundational to the collaborative culture required for CFT success.

1.6.2 Team Development Programs:

Programs that focus on goal-setting, role clarification, and shared learning experiences improve cooperation and project efficiency. Lacerenza et al. (2018) confirmed that structured interventions elevate team capability and cohesion.

1.6.3 Project Ownership and Stakeholder Involvement:

Tools such as the Project Expectancy Inventory provide mechanisms for evaluating team readiness and ensuring alignment with stakeholder expectations. Wei (2024) also noted that active ownership strengthens accountability and commitment.

1.6.4 Safety and Risk Management:

A culture of safety reinforces psychological security and focus, thus enhancing performance. Chinniah (2024)

argued that proactive risk strategies are integral to effective team management.

1.6.5 Relationship Management and Emotional Intelligence:

High emotional intelligence contributes to smoother interpersonal relations, improved time management, and higher team productivity. Daboun et al. (2023) and Zhang and Hao (2022) stressed the role of empathy and adaptability in successful teamwork.

1.6.6 Lean Construction Practices:

Lean tools, such as the Decision-Making Trial and Evaluation Laboratory (DEMATEL) method, can help identify inefficiencies and isolate key performance drivers. Dehdasht et al. (2022) highlighted how lean strategies refine operational workflows.

1.6.7 Leadership Styles:

Adaptive leadership, inclusive, and participative enhances engagement and facilitates stakeholder buy-in. Ssenyange (2023) asserted that such leadership is essential for navigating complex team environments.

In summary, successful CFT implementation in construction requires the interplay of technical expertise, strategic planning, and interpersonal competence. Embedding these practices in project culture is essential for sustainable performance and long-term industry advancement.

3.0 RESEARCH METHOD

A quantitative research methodology was adopted for this study. Data were gathered in Lagos State, Nigeria, by distributing questionnaires to registered engineers, architects, builders, and quantity surveyors. The purpose of the questionnaire was to collect demographic information about the respondents, such as their occupation, years of experience, and academic background. This is beneficial for the research study that will serve as the foundation for divergent expert viewpoints regarding the best ways to evaluate the impact of cross-functional teamwork in achieving project targets among construction professionals in Lagos State, Nigeria. Finding out more about the impact of cross-functional teamwork in achieving project targets among construction professionals in Lagos State, Nigeria was the aim of the self-administered survey. The respondents used a Likert-type scale of 5, with Very low being equal to 1, Low being equal to 2, Moderate being equal to 3, High being equal to 4, and very high being equal to 5. The study's target audience is licensed Architects, Quantity Surveyors, Builders, and Engineers in Lagos State, Nigeria. The sample size was calculated using the Yamane (1967) formula; Yamane's theory n = N/1+N (e) ^2. This study requires a minimum sample size of 370 construction industry experts. A total of 357 questionnaires were administered using the census technique; 300 were returned and found suitable for analysis. Approximately 81% of the sample size responded to the questionnaire, which is greater than the 20%–30% response rate that surveys often receive in management research (Hatamleh et al. 2018). The survey was distributed by hand during the 2 months of data collecting. with descriptive data such as mean scores and frequency distribution, the results were presented in tables and charts. The statistical techniques used to obtain the mean item score. The reliability of the instrument was assessed using Cronbach's alpha test. SPSS 27, a statistical program for the social sciences, was used to assist with the analysis.

4.0 ANALYSIS OF RESULTS AND DISCUSSION OF FINDING

The data summary of a sample of 100 respondents, as shown in Figure 1, highlights a highly educated workforce within the industry. Notably, 44.3% hold a Master's degree (M.Sc.), while 31.3% have qualifications such as a Higher National Diploma (HND), Bachelor's degree (B.Sc. or B.Tech.), or a Postgraduate Diploma (PGD). In contrast, only 10.7% hold a doctorate (Ph. D.), and 13.7% have an Ordinary National Diploma (OND), suggesting that practical experience is often prioritized over advanced academic credentials. Experience levels are substantial among respondents, with 40.3% reporting 6–10 years of professional practice,

positioned many mid-career with foundational knowledge and applied skills. Those with 11–15 years of experience comprise 36.7%, whereas a smaller portion (12.0%) have 16–20 years and 5.0% exceed 20 years, indicating a strong potential for mentorship within the workforce. A modest 6.0% of respondents had 1–5 years of experience, indicating fewer entry-level roles in this sector.

The professional composition of the sample is diverse yet concentrated in certain roles, with builders making up 32.3%, followed by quantity surveyors at 27.7%. Civil engineers account for 21.3% of the construction industry, and architects account for 18.7%. This specialization may reflect the industry's specific demands in project management and execution. The gender distribution was predominantly male, with 82.0% identifying as male and 18.0% as female. The marital status indicated that 63.7% of respondents were married, while 36.3% were not.

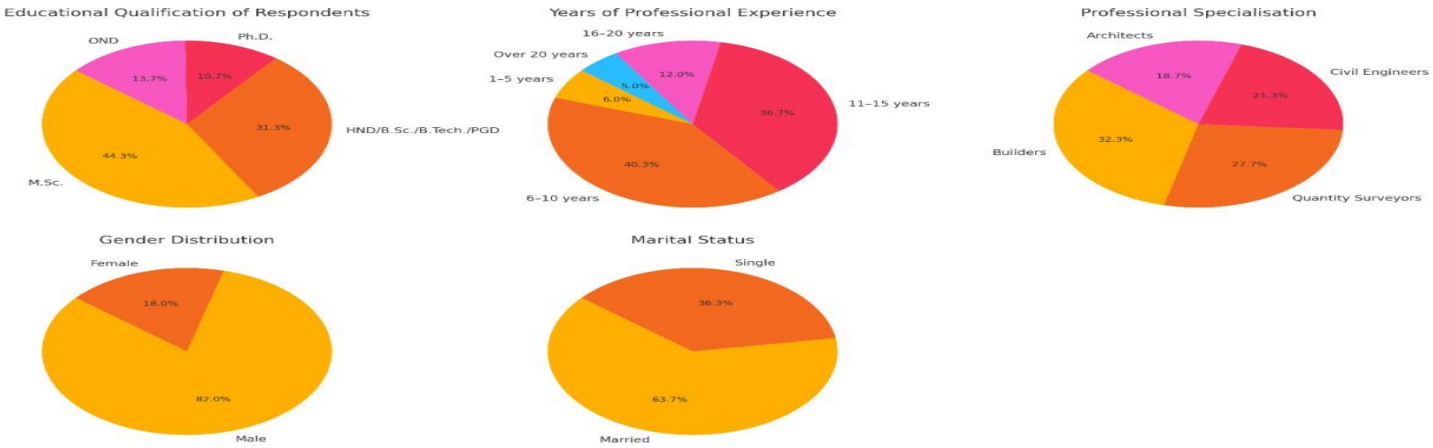


Figure. 1: Graphical Presentation: Background Information of Respondents

4.1 Factors that Impact the Effectiveness of Cross-Functional Teamwork in Achieving Project Targets among Construction Professionals

Figure 2 presents factors affecting cross-functional teamwork effectiveness, ranked by mean scores and standard deviations. Leading the list, decision-making processes had the highest mean score of 3.37, emphasizing the critical role of inclusive and efficient decision-making in fostering team success by encouraging ownership and commitment among members. The resource availability, with a mean of 3.36, highlights the necessity of adequate resources, such as time, tools, and staffing, to support effective team operations. Leadership support ranks third, with a mean of 3.32, underlining the importance of project leaders providing direction and motivation. Feedback mechanisms, scored 3.31, underscore the need for robust systems that facilitate performance feedback, while communication quality, scored 3.29, stresses the importance of clear, frequent, and effective interactions for successful collaboration.

Interpersonal skills and team diversity had a mean score of 3.27, suggesting the value of empathy, negotiation, and varied perspectives from diverse functional backgrounds in creating a positive team environment. Workload management follows closely with a score of 3.26, indicating stressing strategies to manage workloads and prevent burnout. Trust and respect, along with training and development (both scoring 3.26), highlighted the importance of mutual respect and continuous skill-building for team cohesion. Team cohesion, which had a mean of 3.25, reflected the value of unity within the team. Performance metrics and shared goals (each scoring 3.23) emphasize the need for clear evaluation criteria and alignment with common objectives. Managing conflicts of interest and implementing conflict resolution strategies (scoring 3.21 and 3.19, respectively) further contribute to smooth teamwork dynamics.

Lastly, cultural differences and role clarity, with scores of 3.14 and 3.13, underscore the influence of diverse cultural backgrounds and the importance of well-defined roles. Overall, these data suggest that strengthening cross-functional teamwork requires a holistic approach that emphasizes decision-making, resource allocation, leadership support, communication, and other essential factors.

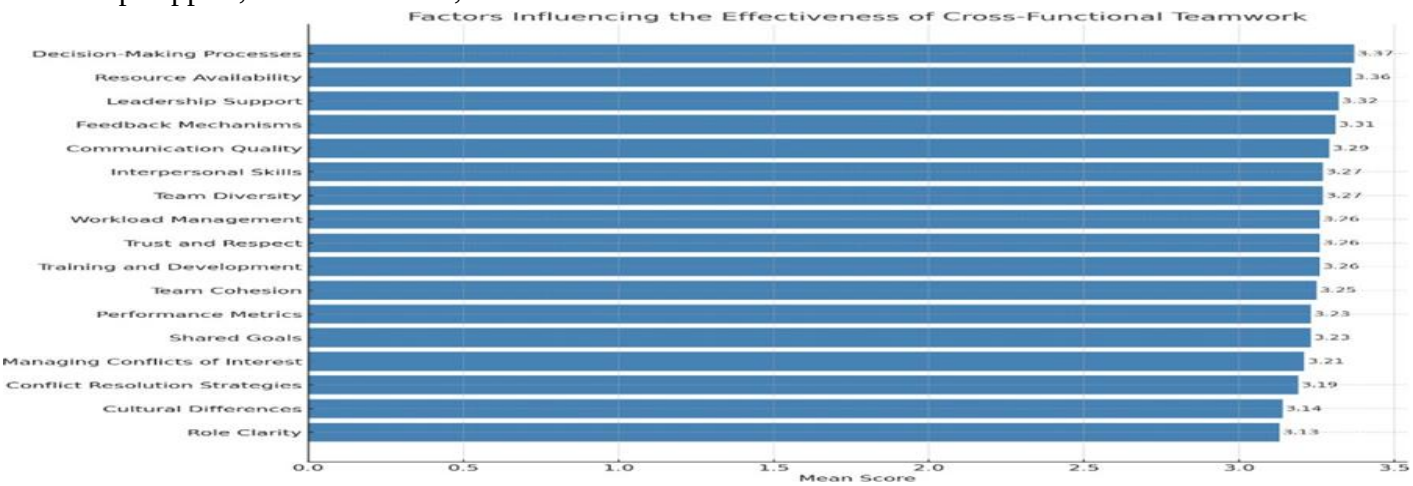


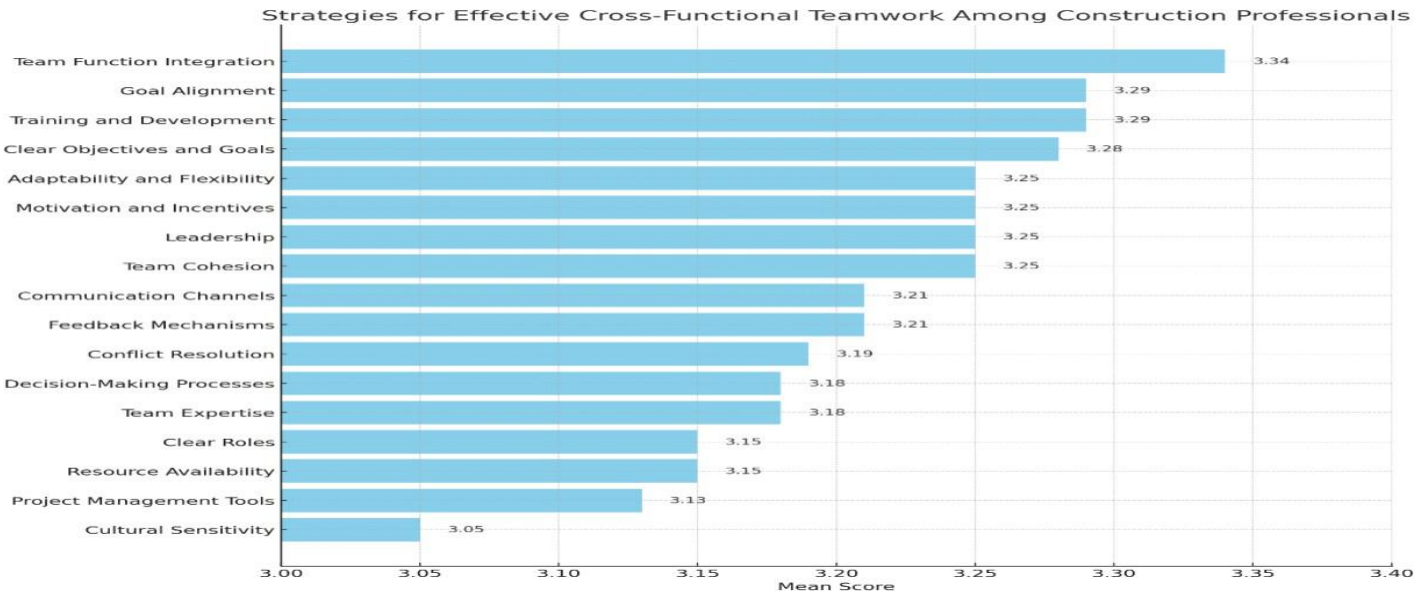
Fig. 2: Factors Influencing the Effectiveness of Cross-Functional Teamwork in Achieving Project Targets

4.2 Strategies for Effective Cross-Functional Teamwork Approach among Construction Professionals

Figure 3 outlines pivotal strategies for improving cross-functional teamwork among construction professionals, with each ranked by mean score and standard deviation. Leading the list is team function integration (mean score: 3.34), emphasizing the necessity of collaborative work across functional areas to foster cohesion and dismantle silos. This approach highlights the value of creating a unified environment in which diverse specialties collaborate effectively. Goal alignment ranks closely behind (mean score: 3.29), underscoring the importance of synchronizing individual and team objectives with broader project goals to enhance overall project efficiency.

Training and development, also with a score of 3.29, underscores the role of comprehensive training in enhancing skills and team adaptability and building a competent workforce suited to dynamic project demands. Clear objectives and goals, with a mean score of 3.28, reflect the importance of defining targets when guiding team focus and efforts. Adaptability and flexibility, along with motivation, incentives, leadership, and team cohesion, scored 3.25, indicating the importance of effective leadership, motivational initiatives, and a high degree of trust within the team.

Communication channels (mean score: 3.21) revealed the need for efficient information flow, which is crucial for seamless teamwork. Similarly, feedback mechanisms (3.21) emphasize the role of constructive feedback in enhancing performance, while conflict resolution (3.19) highlights the need for managing disputes constructively. Both decision-making processes and team expertise (3.18) underscore the importance of informed decisions and diverse team skills. Lower-ranked strategies, including clear roles, resource availability, and project management tools (scoring between 3.15 and 3.13), still play important roles, although secondary to top strategies. Cultural sensitivity, at 3.05, suggests that attention to cultural nuances can further improve team dynamics. Overall, the findings suggest that a strategic approach focusing on integration, alignment, training, and communication is crucial for optimizing teamwork among construction professionals.



Figures. 3: Strategies for effective Cross-Functional Teamwork Amongst Construction Professionals

4.4 Discussion of Findings

4.4.1 Factors that Impact the Effectiveness of Cross-Functional Teamwork in Achieving Project Targets Among Construction Professionals

The effectiveness of cross-functional teamwork in construction is shaped by several interrelated factors that collectively influence team performance and project delivery. The most important among these is the decision-making process. When decision-making is inclusive and participatory, it fosters a sense of ownership and accountability among team members. This approach not only enhances cooperation but also leads to more considered and collectively supported outcomes.

Equally important is the availability of resources time, personnel, equipment, and information. Adequate resourcing enables teams to plan effectively, remain agile in response to emerging challenges, and avoid disruptions that compromise efficiency. By contrast, inadequate resources frequently result in delays and reduced morale.

Leadership plays a critical role in supporting team functionality. When leaders actively promote collaboration, maintain clarity of vision, and offer guidance without micromanagement, teams tend to be more cohesive and goal-driven. Leadership that promotes autonomy while ensuring accountability provides a structure in which cross-functional efforts can thrive.

Effective communication remains a foundational pillar of teamwork. Clear, consistent, and timely communication improves coordination, prevents misunderstandings, and strengthens interpersonal relationships. Within such a communication framework, structured feedback mechanisms serve as vital instruments for continual improvement, helping teams evaluate performance and make necessary adjustments in real time. Interpersonal dynamics such as empathy, trust, and mutual respect significantly influence how team members interact and resolve issues. Teams that cultivate strong interpersonal relationships often exhibit higher levels of cooperation and resilience, particularly when under pressure. Additionally, diversity within teams in terms of discipline, experience, or perspective can foster innovation and broaden problem-solving capacity when managed constructively.

Another essential consideration is workload distribution. Effective workload management not only reduces burnout but also promotes a sense of fairness and shared responsibility. It allows for better planning and use of skills across functions. The presence of clearly defined roles within the team structure enhances efficiency by

minimizing role conflict and overlapping responsibilities. This clarity, combined with opportunities for continuous learning and development, helps professionals to adapt to evolving project demands and contribute more effectively.

Aligning individual roles and efforts with broader project goals ensures collective focus and streamlines performance measurement. Teams that work toward a unified vision are more likely to meet performance benchmarks and client expectations. Finally, conflict resolution strategies and role clarity are indispensable. The constructive handling of disputes ensures that collaboration remains uninterrupted and that issues do not escalate into project risks.

In sum, decision-making inclusivity, resource sufficiency, supportive leadership, communication efficiency, interpersonal trust and aligned objectives stand out as central drivers of effective cross- functional teamwork in construction projects.

4.4.2 Strategies for Effective Cross-Functional Teamwork Approach among Construction Professionals

To enhance cross-functional teamwork in construction, several targeted strategies have been identified as pivotal. The chief among these is the integration of team functions. By encouraging collaborative practices across specialized roles, project teams can dismantle operational silos and foster a cohesive work environment. Aligning team and individual goals with overarching project objectives is another fundamental strategy. Such alignment ensures that all efforts are purposely directed, reducing inefficiencies and reinforcing a sense of shared mission.

Investment in training and development is crucial. Structured learning equips professionals with the technical and interpersonal competencies required for effective teamwork, particularly in fast- paced or technically complex projects. Similarly, establishing clear objectives helps team members maintain focus and prioritize tasks in alignment with broader timelines and deliverables.

Teams should also be adaptable. The dynamic nature of construction work demands flexibility in approach, responsiveness to unexpected conditions, and the capacity to recalibrate strategies as needed. In this context, motivational initiatives and effective leadership are essential. Leaders who build trust and model collaborative behavior inspire teams to remain engaged and resilient.

Maintaining open communication channels enhances transparency and facilitates the rapid dissemination of information. In addition, feedback systems promote a culture of continuous improvement, where successes are reinforced and weaknesses are constructively addressed.

Conflict resolution frameworks and decision-making protocols are essential for managing interpersonal differences and guiding complex tasks. The inclusion of diverse team expertise adds strength, particularly in addressing multidimensional challenges.

Although supportive measures such as clear role definition, sufficient resources and the use of project management tools provide operational stability, cultural sensitivity adds a nuanced layer of team cohesion, especially in diverse workforce environments.

Collectively, these strategies provide a structured yet flexible approach to improving team synergy and project execution in the construction industry. Emphasizing integration, goal alignment, ongoing training, and effective communication can significantly elevate individual and collective performance.

5.0 CONCLUSIONS AND RECOMMENDATIONS:

This study evaluated the impact of cross-functional teamwork in achieving project targets among construction professionals in Lagos State, Nigeria. This study assessed the factors that impact the effectiveness of cross-functional teamwork in achieving project targets among construction professionals in Lagos State, Nigeria and

appraised the strategies for an effective Cross-Functional Teamwork Approach among construction professionals in Lagos state. In this closing chapter, the study summarizes the research findings and posited appropriate recommendations.

The success of cross-functional teamwork in construction relies on several interdependent strategies to strengthen team dynamics and project outcomes. Key factors include fostering inclusive decision making, aligning goals, integrating team functions, and providing leadership support. Effective communication, structured feedback, and continuous training are essential to minimize misunderstandings and ensure cohesive efforts. Prioritizing adaptability, managing workloads, and building interpersonal skills further enrich team interactions while recognizing cultural differences and defining roles support navigating project complexities. By focusing on integration, alignment, and collaborative communication, organizations can significantly improve team effectiveness and project success.

Organizations can strengthen cross-functional teamwork by prioritizing inclusive decision- making, adequate resource allocation, and strong leadership support. Additionally, implementing structured feedback, improving communication, and respecting cultural differences enhance team dynamics and project success, contributing to overall organizational growth. For effective teamwork in construction, organizations should focus on integrating team functions, aligning goals, and offering continuous training. Encouraging adaptability, fostering clear communication and supporting strong leadership, along with well-defined roles and cultural awareness, will further improve team cohesion and drive successful project outcomes.

References

Adu, M. A., & Opawole, A. (2019). *Role of cross-functional teams in enhancing teamwork and creativity in construction*. Journal of Construction Management, 13(2), 45–56.

Al-Aidrous, A.; Alzahrani, J.; Khan, S. (2022). *Institutional integration and collaborative project delivery in construction: A review*. International Journal of Construction Research, 8(1), 19–32.

Bond-Barnard, T. J., Fletcher, L., & Steyn, H. (2018). Linking trust and collaboration among project teams to project management success. *International Journal of Managing Projects in Business*, 11(2), 432–457. https://doi.org/10.1108/IJMPB-06-2017-0068

Buljac-Samardžić, M., Doekhie, K. D., & van Wijngaarden, J. D. (2020). Interventions to improve team effectiveness in healthcare: A systematic review of the past decade. *Human Resources for Health*, 18(2), 1–42. https://doi.org/10.1186/s12960-019-0411-3

Chinniah, Y. (2024). *Proactive safety strategies for high-risk industries: Lessons for construction.*

Safety and Risk Management Journal, 17(1), 28–40.

Daboun, S., Hassan, M., & Najjar, L. (2023). *Emotional intelligence as a predictor of construction team success*. Journal of Human Factors in Construction, 11(3), 60–72.

Dehdasht, G., Awang, M., & Abdullah, A. (2022). *Lean construction and the DEMATEL method for evaluating project performance*. Journal of Lean Construction Studies, 14(4), pp. 89–105.

Ellis, S., Marais, D., & Ntuli, P. (2022). *Team structure and human resource dynamics for construction project*

success. Built Environment Review, 18(1), 23–36.

Engelsberger, T., Schmidt, H., & Vahl, S. (2024). *Relational leadership in digital teams: A construction industry perspective*. Journal of Leadership and Innovation, 6(1), 33–49.

Faris, M. A., Khan, M., & Zhou, L. (2022). *Collaborative construction practices for risk mitigation*. Journal of Construction Innovation, 22(2), 123–140.

Forti, D., Cascini, G., & Russo, D. (2022). *Modular Function Deployment and DSM for construction efficiency*. Journal of Integrated Design and Process Science, 26(2), 15–30.

Gamil, Y., & Rahman, I. A. (2017). *Communication and coordination strategies for cross- functional teams in construction*. Engineering, Construction and Architectural Management, 24(6), 1143–1156.

Gjorgjievski, M. (2024). *Cross-functional teams and innovation in project-based organizations*.Project Management Insights, 10(1), 13–25.

Hashem, M. (2019). *Challenges of cross-disciplinary collaboration in developing economies*.

Journal of Project Organization, 7(3), pp. 77–90.

Hatamleh, M., Hassan, M., & Khalid, N. (2018). Survey response rates in construction management research. *International Journal of Construction Management*, 18(3), 210–

220. https://doi.org/10.1080/15623599.2017.1326306

Karimi, M. (2024). *The role of messaging platforms in virtual construction teamwork*. Digital Construction Journal, 6(1), 42–55.

Lacerenza, C. N., S. L. Marlow, S. I. Tannenbaum, and E. Salas (2018). Team development interventions: Evidence-based approaches for improving teamwork. *American Psychologist*, 73(4), 517–531. https://doi.org/10.1037/amp0000295

Manzanares, A., García, L., & Martínez, F. (2024). *Enhance construction coordination through BIM applications*. Journal of Digital Engineering, 19(2), 85–101.

McGuier, D., Rivera, J., & Nelson, T. (2023). *Psychological safety in cross-functional health care teams: Implications for construction*. Journal of Interdisciplinary Collaboration, 4(2),pp. 66–78.

Mohammed, H., & Alserhan, B. (2020). *Cross-functional team performance in construction projects*. Journal of Project Management Research, 12(4), 55–68.

Nasaruddin, A., & Rahman, I. A. (2017). *Multidisciplinary collaboration on Malaysian construction projects*. Asian Journal of Built Environment, 5(3), 24–39.

Oke, A. E., Aghimien, D. O., and Aigbavboa, C. O. (2021). *Challenges in sustainable construction in Sub-*

Saharan Africa. Smart and Sustainable Built Environment, 10(1), 91–108.

Olasunkanmi, A. (2024). *Compliance and teamwork in construction project execution*. Journal of African Construction Studies, 15(1), 70–82.

Poberschnigg, T. F., Pournader, M., & Seuring, S. (2020). *Supply chain resilience strategies: A cross-functional coordination perspective*. International Journal of Operations and Production Management, 40(3), 173–203, 2017.

Rane, N. (2023). *AI-driven decision-making in construction project management*. Construction Tech Review, 8(4), 22–34.

Rahman, I. A., & Al-Emad, M. (2018). *Team integration challenges in developing construction markets*. International Journal of Built Environment and Sustainability, 5(2), 45–54.

Sagar, S., Kumar, A., & Varghese, K. (2022). *Virtual cross-functional teams in international construction projects*. International Journal of Project Organization and Management, 14(3), 199–215.

Sang, H., Ndegwa, G., & Kariuki, P. (2018). *Cross-functional team effectiveness in construction project execution*. East African Journal of Project Management, 3(2), 48–60.

Santa, R., Hyvönen, S., & Mäkinen, S. (2023). *Cross-functional performance during crises: Lessons from construction*. Journal of Organizational Performance, 12(2), 37–50.

Setiawan, H., Firmansyah, R. and Wijaya, D. (2021). *Communication planning in cross-functional construction teams*. Indonesian Journal of Built Environment, 9(1), 59–73.

Ssenyange, R. (2023). *Leadership strategies for improving construction project outcomes in Africa*. African Journal of Project Leadership, 7(1), pp. 88–101.

Verma, R., and Bala, R. (2022). *Transformational leadership in multidisciplinary teams*. Journal of Organizational Behavior Studies, 5(4), 121–137.

Vries, H. de, Liu, S., & Peters, M. (2022). *Supply chain collaboration in project-based construction*. Journal of Supply Chain Management Research, 17(3), 90–106.

Wei, T. (2024). Stakeholder *alignment and team ownership in infrastructure projects.* International Journal of Infrastructure Development, 13(2), 44–59.

Wu, P., Wang, H., & Zhao, X. (2019). *Risk management in cross-functional construction teams.* Journal of Engineering, Design and Technology, 17(1), 80–95.

Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). New York, NY: Harper & Row.

Zhang, C., & Hao, H. (2022). *Emotional intelligence and collaboration in construction project teams*. Journal of Construction Psychology, 3(1), 15–29.

Zhang, Z., Liu, Y., & Wang, Q. (2021). *Ambidextrous innovation in infrastructure project teams*. Technovation, 104, 102217. https://doi.org/10.1016/j.technovation.2021.102217