

Effective Management of Construction Project Team: Identifying Team Composition Strategies and Criteria

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Abstract

Original Research Article

This study delves into team composition within the construction industry, exploring its uniqueness amid the proven benefits of effective teamwork in productivity, innovation, and member satisfaction. Acknowledging the challenges arising from diverse workforces and projects-specific team requirements in construction, the research emphasizes the need for careful member selection to ensure project success. Focused on addressing gaps in understanding construction team management, the study aims to uncover fundamental elements crucial for steering these teams effectively. It endeavors to identify indispensable requisites by examining influential factors and criteria essential for creating an ideal team composition conducive to efficient management in construction. To achieve these goals, the study first reviewed the literature to distill critical criteria contributing to team effectiveness in various research fields. Subsequently, in-depth interviews with nine expert project managers and team members renowned for successful project leadership provided qualitative insights, which were analyzed thematically. The research identified three pivotal contributors to construction team effectiveness: Structured selection criteria and processes, qualifications, experience, and expertise, and finally, interpersonal skills and capabilities. These factors collectively shape a framework for optimizing construction team management, emphasizing the importance of systematic selection processes, relevant expertise, and critical interpersonal skills to foster collaborative team dynamics. This study illuminates the crucial components necessary for steering construction teams effectively, presenting insights valuable for refining industry practices and improving project outcomes. The study lays the groundwork for more efficient and successful construction project executions by bridging gaps in understanding the significance of member selection.

Keywords: Construction, Dynamics, Effectiveness, Expertise, Management, Member, Project, Selection, Skills, Team.

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INTRODUCTION

This study delves into the well-explored territory of team composition in social sciences like human resource management (HRM), sociology, and psychology. Highlighting the significance of forming effective work teams, studies such as (Zainal *et al.*, 2020) and (Bell *et al.*, 2018) underscore the roles of teamwork in bolstering productivity, innovation, and member satisfaction. Urionabarrenetxea *et al.*, (2021) Emphasized how “team formation can have firsthand influence in shaping team performance, it can also have far-reaching effects on the team member’s attitudes, and behaviors since with the right blend of people and complimentary skill set the team members attitudes, and behaviors will be adequately nurtured” (p. 20).

However, the construction industry presents unique challenges due to its diverse workforce, and

crews are typically reshuffled and assembled for nearly every new undertaking. These challenges necessitate meticulous team member selection and composition for project success. Payner and Christofer (2020) stress the labor-intensive nature of the construction business, advocating for collaborative, integrated teams to resolve issues and meet project objectives efficiently. Their assertions align with the notion that “building effective teams allows the solving of complex interdisciplinary problems and facilitates qualitative and timely managerial decision-making for a minimum period due to the synergetic effect” (Kobushko *et al.*, 2020, p. 1245).

This study serves as a crucial segment within a comprehensive exploration to uncover the fundamental elements vital for managing construction teams effectively. Prior research primarily focused on team composition for performance enhancement, problem-

solving, or innovation, overlooking the nuances of team management specific to the construction domain. Consequently, an unmet need exists to investigate the essential components for effectively leading and guiding construction teams.

Guided by identifying and comprehending the indispensable requisites for adeptly managing construction teams, this research aims to unravel the influential factors and criteria pertinent to constructing an ideal team composition conducive to effective management within the construction industry. Consequently, it revolves around the pivotal question: What strategies and criteria for team assembly are essential in steering construction teams effectively? Through this exploration, the research endeavors to elevate understanding regarding team interactions within construction projects, ultimately fostering improved managerial approaches in the industry.

Study Objectives and Aims

The study titled "Effective Management of Construction Project Team: Identifying Team Composition Strategies and Criteria" was driven by two primary objectives aimed at elevating comprehension within this domain:

1. Investigation of Team Composition in Previous Studies:

This phase of research embarked upon a comprehensive exploration of effective team composition. It entailed meticulously scrutinizing earlier studies concerning team composition and its impact on team performance. The primary goal was to distill and elucidate the pivotal factors contributing to successful team management, drawing upon insights from existing research.

2. Identification of Essential Factors and Criteria for Optimal Team Composition:

Furthermore, the study endeavored to pinpoint and document critical strategies and actions associated with team composition that facilitated the successful management of construction teams. This encompassed an exhaustive analysis integrating perspectives from construction team members and project managers. The objective was to identify consistently successful methodologies and approaches, aiming to outline comprehensive elements detailing essential factors and criteria organizations could adopt to refine team composition and management processes.

This research delved deeply into the nuances of steering construction teams and unearthed foundational strategies and criteria necessary to foster effective team establishment, reinforcing team management. The overarching aspiration was to offer the construction industry invaluable insights to refine practices and augment project outcomes.

LITERATURE REVIEW

Team Composition

The literature strongly advocated for the correct assembly of teams to achieve effectiveness, high performance, and, ultimately, project success. Zainal *et al.*, (2020) Identified several factors contributing to ineffective teams, including conflicts, inadequate skill sets, imbalanced role assignments, lack of teamwork, and the presence of non-competent team members. Understanding and addressing these factors are pivotal in forming successful and functional teams.

Multiple studies stressed the importance of integrating members' traits with team dynamics and all facets influencing teamwork. Gilal *et al.*, (2017) asserted the significance of amalgamating personal and technical proficiencies among team members to elevate overall team performance where the "ignorance of personality variable during team role assignment may impact the overall results" (p.10). They cautioned that mishandling this integration could potentially disrupt project development despite its potential to foster healthy employee behavior and project success. Furthermore, Radović *et al.*, (2020) Analyzed team members' personality traits. Their findings align with various studies across different nations, indicating that "the collective average of extraversion and openness significantly influences teamwork performance" (p.33). These results robustly affirm the presence of a singular overarching personality factor closely linked to effective teamwork. Conclusively, Gilal *et al.*, (2017) highlighted the pivotal role of team members' personalities in effective team composition, cautioning against overlooking personality variables during role assignment due to their potential impact on overall team success" (p. 12).

Mathieu *et al.*, (2017) traced the evolution of team research. They highlighted a transition from an individual-focused approach or individual versus team comparisons towards focusing on the team itself and larger systems of teams. They stressed the significance of team composition concerning identifying relevant characteristics and their distributional properties within a team context.

Bell and Brown (2015) advocated for effective team staffing strategies encompassing considerations of team members' knowledge, skills, abilities, and other critical characteristics (KSAOs). They emphasized the importance of evaluating individual-level competencies, team-level complementarity of KSAOs, and the organizational contributions of teams for organizational success. These findings were supported by Mukhongo *et al.*, (2018), who mentioned that "committed project teams, balanced composition with the right expertise and experience are the gem that brings success" (p. 22).

Acheampong *et al.*, (2019) Argued that there was a "significant marginal effect of team mix and team

experience on performance” (p. 3). Andrejczuk *et al.*, (2017) Studied team composition for best performance and found that “the key factors influencing team performance are competencies and personality of team members” (p. 1).

Moreover, Bell, Brown, Colaneri *et al.*, (2018) delved into foundational concepts crucial in elucidating relationships between team composition and teamwork. They identified key aspects, including team member attributes, operationalization at the team level (e.g., diversity, team mean), contextual factors, and temporal considerations. Zainal *et al.*, (2020) Emphasized the necessity for specific role-tailored characteristics within a team setting, underlining the importance of aligning traits with role responsibilities.

Swart-Opperman and April (2018) researched the composition criteria for innovation teams in the workplace. Their findings revealed that "members of innovation teams possess distinct emotional perspectives. Notably, the outcomes indicated that effective execution relies more on the internal mental strengths of individuals rather than a defined team composition. The research emphasized that the key attributes for successful innovation teams revolve around internal mental strengths such as cognitive agility, self-regulation of emotions, and emotional intelligence, rather than the dynamics within the team and interpersonal attributes" (p. 357).

In their 2018 study, Bendor and Page delved into team makeup concerning tool-driven issue resolution. Their research underscored three primary discoveries: Initially, teams with diverse cognitive abilities are better poised to tackle problems. Second, groups comprising individuals adept in various tools gain an indirect strategic edge due to enhanced coordination from tool diversity. Third, the strategic selection of tools leads to unexpected optimal recruitment strategies. They illustrated this with an example that suggests "ideal teams might not include the most skilled individuals but could incorporate those typically overshadowed" (p 1).

In summary, the literature emphasized effective team assembly for project success. Issues like conflicts, skill gaps, and role imbalances highlighted the need for functional teams. Blending personal traits with technical skills was crucial, cautioning against neglecting personality in role assignments. Traits like extraversion and openness significantly impacted teamwork. The shift from individual to team-focused research stressed identifying team characteristics. Adequate staffing involves aligning traits with roles. Innovation teams thrived on cognitive agility and emotional intelligence. Diverse abilities and strategic tool use redefined ideal teams, prioritizing overlooked strengths. Thus, individual attributes, aligned skills, diversity, and strategic trait fusion significantly shaped the team's success.

Team composition in construction projects

The literature exploring team composition within the construction industry highlighted various facets and models. Rahmani *et al.*, (2021) delved into the requisites of knowledge, skills, attributes, and experience (KSAE) necessary for individuals within relational contracting in construction projects. Through content analysis of interviews, they identified sixteen behavioral factors and four knowledge/experience areas, mapping these against Belbin's team role clusters framework. Their findings indicated a particular emphasis on people-oriented roles within relational contract arrangements, underscoring the importance of competence compared to action-oriented or thought-oriented clusters. This aligns with Kwofie *et al.*, (2017), who asserted that trust, mutual dependency, freedom of expression, established relationships, and participant access signify the maturity level of a construction team.

Payner and Harper (2020) asserted that utilizing measured personality characteristics could facilitate a better understanding of an individual's capabilities, enabling their placement in situations where they could function as more effective team members. The authors extensively examined the Big Five Factors (BFF) related to personality traits, exploring their potential role in aiding or hindering the selection of team members during project team procurement. Their findings indicated that extraversion and agreeableness exhibit heterogeneity, while conscientiousness, neuroticism, and openness to experience display homogeneity across the various studies measuring team performance. Conscientiousness emerged with the highest correlation, significantly influencing positive team performance. Conversely, neuroticism consistently negatively impacted team performance prediction, evidenced by its lowest correlation value across the selected studies.

In the study about the preferred team roles of the construction team members, Ayinde and Oke (2017) Identified more than one preferred team role. The most preferred role of quantity surveyors, clients, and contractors is resource investigator. In contrast, the most preferred team roles of architecture, civil engineer, and service engineer were the planner, implementer, and specialist. The authors identified the resource investigator as the most common team role preferred by many construction team members. They argued that all intended team members on a construction project should be studied and determined their preferred team roles before co-opting them to be members of a construction project team. Meanwhile, Adeleke *et al.*, (2018) disclosed, “Effective communication, team competency, and skills with active leadership have a significant influence on construction risk management” (p. 460).

In summary, the construction industry's team composition heavily relied on technical expertise, with an emerging focus on behavioral and relational aspects. Skills necessary for relational contracting were

highlighted, emphasizing competence in people-oriented roles. Similarly, trust, relationships, and communication were highlighted as the influential composition factors that signified team maturity. The correlation between measured personality traits, like conscientiousness, and positive team performance was stressed. Diverse preferred roles among construction team members were identified, advocating pre-assessment for fit. Competencies and leadership were mentioned as the crucial composition factors that significantly impacted construction risk management.

Despite the extensive literature emphasizing key indicators for selecting individuals for teams in construction, Shuffler *et al.*, (2018) highlighted the need for further research specifically focused on the methodology for team membership selection. This suggests a gap in understanding how to select team members for effective team management within the construction context.

Study Problem and Questions

The literature review unearthed various studies delving into team composition, examining its impact on diverse facets such as “effective performance” (Acheampong *et al.*, 2019), (Radović *et al.*, 2020) and (Andrejczuk *et al.*, 2017), “innovation” (Swart-Opperman & April, 2018), “problem-solving” (Bendor & Page, 2018), “software development” (Gilal, *et al.*, 2017), (Costa, *et al.*, 2020) and (Zainal *et al.*, 2020), and

composition for achieving specific objectives (Arabpour & Moselhi, 2020) and (Rahmani *et al.*, 2021). However, within the context of construction teams, a noticeable gap emerges as a lack of comprehensive research investigating how team composition directly influences the management of construction teams. Prior studies highlighted a dearth of exploration into the crucial factors and methodologies for crafting an optimal team composition tailored to fostering effective management practices within the construction industry. Consequently, as argued by Bell, Brown, Colaneri *et al.*, (2018), “Effective team management is informed by team composition research” (p. 3). Therefore, the crux lies in understanding that effective team management in the construction industry is significantly shaped by the insights derived from team composition research. Thus, the subsequent question is posed to pursue these research objectives:

What strategies and criteria for team assembly are essential in steering and managing construction teams effectively?

RESEARCH METHODOLOGY

This exploratory research adopted a two-step research design, outlined in Figure 1. The research framework employed a qualitative method for data collection and analysis.

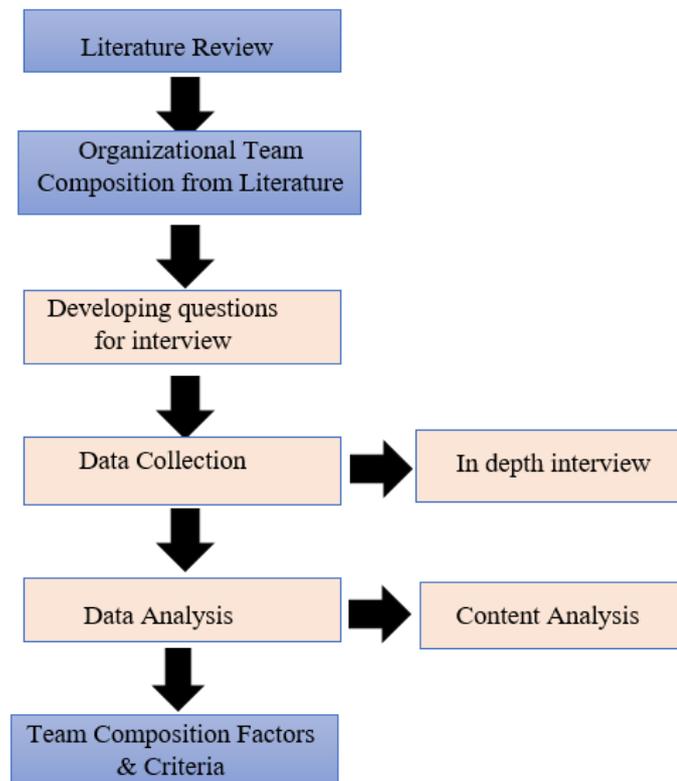


Figure 1: Research Design

The initial step involved an extensive review of the literature focusing on factors contributing to team effectiveness composition. These influential team composition factors, sourced from broader studies encompassing various team dynamics, served as the foundational framework for the subsequent phase. These factors were not exclusively tied to construction teams but were drawn from a broader spectrum of team-related research.

Moving to the second step, the research developed questions aimed at probing practical criteria and elements of team composition pertinent to effectively managing the construction project teams. These questions were administered to expert project managers and team members with a record of accomplishment of successful project leadership. The primary goal was to address the research inquiry and ascertain the influential factors and criteria associated with team composition that play a pivotal role in the effective management of construction teams.

For the second step, qualitative data collection ensued through in-depth, face-to-face interviews with nine expert project managers and project team members. We Employed a semi-structured format that allowed for a controlled yet comprehensive exploration of participants' experiences. Questions drawn from insights gleaned in the literature, Appendix 1, were designed to be clear and direct, aiming to avoid leading or provocative inquiries. The interviews were recorded and securely stored to ensure the integrity and preservation of the data.

The subsequent data analysis employed qualitative techniques, specifically content analysis using thematic analysis methodology. This involved multiple stages, including initial coding, identification, and construction of broader themes, and the development of overarching concepts.

In summary, this research methodologically embraced a qualitative data collection and analysis approach, facilitating an in-depth exploration of factors and criteria influencing effective management within construction teams.

Data Collection and Analysis

In-depth Interview

This section elucidates the outcomes and findings derived from data analysis collected from the interviews.

Interviewees Overview

Interviews were systematically conducted with nine highly seasoned project members actively engaged in the construction sector. This group comprised individuals representing various organizations, encompassing client firms, consultancy firms, and contractor organizations. Each participant occupied distinct roles within their respective organizations, reflecting an extensive and nuanced background in the construction industry. A more detailed breakdown of the participants' basic professional information is summarized in Table 1 below:

Table 1: Summary of Participants' Basic Professional Information

Interviewee	Organization Type	Position	Years of Experience
Interviewee 1	Consultant	contract engineer	28
Interviewee 2	Consultant	Project Manager	25
Interviewee 3	Consultant	Contracts Manager	27
Interviewee 4	Client	Project Manager	9
Interviewee 5	Consultant	Senior Resident Engineer	46
Interviewee 6	Consultant	Resident Engineer	29
Interviewee 7	Contractor	Senior Civil Engineer	15
Interviewee 8	Consultant	Resident Engineer	30
Interviewee 9	Client	Team Leader	25
Interviewee 10	Consultant	Construction Engineer	13

Interview Results

Table 3 offers a succinct overview of themes and sub-themes extracted from the perspectives shared by seasoned construction project practitioners. These

perspectives revolve around crucial aspects such as team selection criteria, factors deliberated upon during the selection process, and the pivotal role played by the organization in the selection of team members.

Table 3: Summary of Themes and Sub-Themes Identified from Team Composition Questioners

The theme of Team Composition	Sub-themes - the selection of influential project team members								
	Interviewee 1	Interviewee 2	Interviewee 3	Interviewee 4	Interviewee 5	Interviewee 6	Interviewee 7	Interviewee 8	Interviewee 9

<p>Interpersonal Skills and capabilities</p>	<p>1-Seek Proactive Members 2- Good in interpersonal relationships 3-To be independent 4-Prioritize Skills and Knowledge Over Certifications 5-Seek Well-Organized and Self-Disciplined Members 6- Look for Resourceful and Influential Individuals 7- Find People who are Willing to Commit 8- Look for Excellent Communicators</p>	<p>1-Good Personal skills 2- Learning and development passion</p>	<p>1- Soft skills are an important selection</p>	<p>1-Ability to deal with site issues 2-having Problem-solving skills 3-Ability to support you in making technical decisions 4-Look for proactive members 5-Hire the best fit for the role 6- Look for an excellent communicator</p>	<p>1-Fitness and activeness 2-Good contract background</p>	<p>1-Strong ability to read people 2-Self-assured 3-Independent 4- Highly organized 5-Select a member who can bring a diverse range of viewpoints and ideas to the table 3-Select a member who has a good personality 6-Select a member who can enable the group to work together harmoniously 7-Select a member who has the ability to challenge others when necessary 8- Excellent Communicators</p>	<p>1-Ability to understand other team members</p> <p>1-Strong collaboration skills 2-Having the necessary skills and expertise for the tasks required 3-Motivated and committed to the project or task 4- Willingness to put effort into achieving the goals 5- Personality and work style compatible with the team and the project or task 6- Strong communication skills is essential</p>	
<p>Qualifications, Experience, and Expertise</p>	<p>1-Must have a Certificate Degree 2-Average level of experience related to the project 3-Good administration and supervision skills 4- Hire the Best Fit for the Role 5-Have experience/knowledge about project team management</p>		<p>1-experience is important selection criteria 2- Previous similar project experience 3-Selection should consider project requirement 4- Select one that matches the requirements</p>	<p>1- Select the team member based on their experience</p>	<p>1-should have Academic qualification 2-Practical experience, 3-Management experience 4- Avoiding the employment of low-qualification</p>	<p>1-should have estimation skills 2- Average level of experience and ability</p>	<p>1-previous experience</p> <p>1-Have the necessary skills and expertise for the tasks and project requirements. 2-Experience is an important factor in the selection</p>	<p>1-good experience</p>
<p>Structured Selection Criteria and Process</p>	<p>1-Analyzing the project requirements and selecting members accordingly 2-Seeking members' strengths and weaknesses 3- Establishing a Specific process for the selection of team members 4-- Selection should consider diversity in the team members</p>	<p>1-Establishing specific process for the selection of team members</p>	<p>1- Continuous evaluation of selected members 2- Developing selected members</p>	<p>-</p>		<p>1- Establishing selection criteria 2- Establishing Process for selection</p>	<p>1- Ensuring the selection process is thorough 2- Defining clear job requirements 3-Define clear team goals and roles this will help ensure that the right people are selected for the right job 4-Establish criteria for member selection 5- During the interview, ask questions that assess their skills, experience, and fit with the organization's culture. 6- Evaluate candidates objectively 7- Selection from a diverse range of backgrounds, experiences, and perspectives</p>	<p>1- The team leader's feedback should be considered in the team selection process</p>

Interview Analysis

This research explores vital team composition factors from interviews with nine construction team members. Three primary factors emerged, each contributing significantly to the construction team's effectiveness and fostering effective management practices: Structured selection criteria and processes, qualifications, experience, and expertise, and finally, Interpersonal Skills and Capabilities, Table 4.

1. Structured Selection Criteria and Processes:

The first factor, focused on selection methodologies, emphasizes the importance of a structured and meticulous approach to team member selection. This factor comprises several criteria, including:

Establishing a specific selection process: The need for a well-defined process tailored to the project's requirements ensures a systematic and fair selection of team members.

Aligning with project requirements: The emphasis on analyzing project needs and selecting individuals accordingly underlines the importance of matching skills and expertise to project demands.

Defining clear team goals and roles: Clarity in defining roles and setting team goals ensures that the right individuals are selected based on their suitability for specific tasks.

Objective evaluation and continuous assessment: Objective assessment of candidates and evaluation of selected members help maintain the team's efficiency and effectiveness.

Development and feedback: Investing in the developing selected members and considering input from team leaders enhances the team's adaptability and performance.

Diversity considerations: Acknowledging diversity in backgrounds, experiences, and perspectives enriches the team's problem-solving capacity and creativity.

2. Qualifications, Experience, and Expertise:

The second factor revolves around the fundamental qualifications, experience, and expertise required for construction project team members. This factor comprises several criteria, including:

Educational qualifications and project experience: Emphasizing the necessity of a certificate degree and previous experience in similar projects ensures a foundational knowledge base and practical understanding for effective contributions.

Administration and team management skills: Highlighting the importance of administrative competencies and project team management knowledge to streamline project-related activities.

3. Interpersonal Skills and Capabilities:

The third factor centers on interpersonal skills and individual capabilities for team synergy and collaboration. This factor comprises several criteria, including:

Communication and interpersonal relationships: Strong communication skills and the ability to maintain good relationships within the team are pivotal for effective collaboration and conflict resolution.

Proactiveness and problem-solving: Proactive and self-disciplined members with problem-solving abilities contribute to efficient decision-making.

Adaptability, teamwork, and diversity of perspectives: The ability to adapt work harmoniously with diverse viewpoints and challenges constructively fosters innovation and a comprehensive approach to problem-solving.

This analysis underscores the multi-faceted nature of team composition in construction projects, emphasizing the need for a holistic approach that considers not only technical skills and experience but also interpersonal dynamics and alignment with project objectives. When combined and implemented effectively, these factors form the backbone of a well-composed and high-performing construction project team.

Table 4: Team Composition Factors and Criteria

Team Composition Factors	Team Composition Criteria
Structured Selection Criteria and Processes	Establishing a specific process for the selection of team members
	Analyzing the project requirements and selecting members accordingly
	Define clear team goals and roles.
	Seeking members' strengths and weaknesses
	Evaluate candidates objectively
	Continuous evaluation of selected members
	Developing selected members
	The team leader's feedback should be considered in the team selection process
	Selection should consider diversity in backgrounds, experiences and perspectives.
Qualifications, Experience and Expertise	Must have a Certificate Degree
	Previous similar project experience
	Good administration and supervision skills

Team Composition Factors	Team Composition Criteria
Interpersonal Skills and Capabilities	knowledge in the project team management
	Good interpersonal relationships
	Well-Organized and Self-Disciplined Members
	Proactive Members
	Independent, Self-assured, and Organized
	Influential Individuals
	Willing to Commit and Motivated
	Learning and development passion
	Ability to deal with site issues
	Having Problem-solving skills
	Ability to support technical decisions
	Fitness and activeness
	Good contract background
	Able to work with the team in harmony
	can bring a diverse range of viewpoints and ideas to the table
	Ability to challenge others when necessary
	Willingness to put effort into achieving the goals
	Ability to understand other team members
Personality and work style compatible with the team and the project or task	
Strong communication skills	

DISCUSSION

Overview of Key Findings

The study focuses on team composition factors from interviews with nine construction team members. The study's findings offer valuable perspectives on pivotal factors essential for successful team composition, illustrated in Table 4. These factors collectively establish a framework for optimizing the management of construction project teams.

Structured Selection Criteria and Processes

The first factor emphasizes the significance of a systematic approach to team member selection. Baykasoglu *et al.*, (2007) argued that the effectiveness of teams relies significantly on the individuals comprising the project team, thereby emphasizing the critical importance of meticulous project team selection for overall project success. Teams can ensure a balanced and effective composition by tailoring selection processes to project requirements, aligning individual skills with project demands, defining clear roles, and perpetuating objective evaluations. The emphasis on development, feedback, and diversity recognition enriches the team's problem-solving capacity and creativity.

Qualifications, Experience, and Expertise

The second factor underscores the foundational importance of qualifications and expertise. It highlights the necessity of educational qualifications, relevant project experience, administrative competencies, and alignment with project-specific needs. These elements ensure a robust knowledge base and streamlined activities to meet project demands effectively.

Emphasis on Interpersonal Skills

The third-factor centers on critical interpersonal skills for collaborative team dynamics. Effective communication, proactiveness, adaptability, and teamwork contribute significantly to conflict resolution, innovation, and a comprehensive problem-solving approach. The findings coincide with Su *et al.*'s (2018) research, emphasizing that assembling an efficient and collaborative team relies not just on the individual knowledge competence of its members but also on the significance of knowledge complementarity and collaboration performance when selecting team members. Highlighting the importance lies in recognizing that an employee's potential is not solely defined by their personality traits, abilities, emotions, and talents. It also encompasses the attitude toward their behavior and their preparedness to embrace new tasks and responsibilities (Zdonek *et al.*, 2017, p. 218). NetoI *et al.*, (2023) Argue, "It is possible to see that the success of projects is deeply linked to the balance between hard skills and soft skills, integrating appropriate leadership behaviors" (p. 15).

Limitations and Directions for Further Research

The study aimed to gather valuable insights into enhancing construction team management by tapping into the perspectives of industry professionals involved in construction projects. However, the study faces limitations that need addressing. Firstly, the research relied on a relatively small sample size, potentially limiting the breadth and applicability of its findings. Moreover, biases from the interviewees' viewpoints, shaped by project environments and organizational culture, might have skewed the insights, restricting their broader relevance. To overcome these limitations,

researchers could diversify samples, use varied sampling methods, cross-reference data sources, employ structured interviews, grasp contextual influences, opt for longitudinal studies, and seek peer validation.

Another constraint arises from the somewhat generic nature of participant responses, offering limited guidance for tackling specific challenges in construction team selection. Tailored interviews, real-life scenarios, and probing criteria could be employed to address this. Collaborating with experts, studying ongoing projects over time, seeking iterative feedback, and embracing interdisciplinary collaboration can refine research, yielding precise insights into the nuances of construction team selection challenges.

CONCLUSION

In conclusion, this study elucidates the intricate nature of team composition in construction projects. It emphasizes the importance of a comprehensive approach that integrates diverse elements, ranging from technical proficiencies to interpersonal dynamics, in fostering successful management of construction project teams. The effective amalgamation of these multifaceted factors forms the cornerstone of a well-composed and high-performing construction project team. Integrating these factors synergistically forms the foundation of a well-composed team that fosters effective management practices within the construction industry. Implementing these recommendations can significantly enhance construction team effectiveness by ensuring a well-balanced and skillful team capable of addressing project complexities and challenges while fostering innovation and collaborative problem-solving.

Appendix 1

Interview Questioners

Part 1 – General questions

- 1- Are you working in a client, consultant, or contractor organization?
- 2- What is your position in the organization?
- 3- How much experience do you have in managing construction projects?

Part 2 – Question about Team Composition

- 4- How do you select your team members? Why do you use these criteria for selection?
- 5- Are the selection criteria fixed for all projects you managed? Why?
- 6- What factors do you consider when selecting your team members?
- 7- What is your organization's role in the selection process? Do you think this role is influential and for the team's benefit and why?
- 8- If you were the organization's CEO, how would you make member selection more valuable to build an effective team?

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