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PROJECT MANAGERS' LEADERSHIP STYLES AND THEIR DIFFERENTIAL EFFECTS ON TEAM COHESION AND TASK PERFORMANCE IN THE NIGERIAN CONSTRUCTION INDUSTRY

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Abstract

The success or failure of complex construction projects, especially in emerging economies such as Nigeria, is closely linked to the effectiveness of project management leadership in improving team cohesiveness. This paper discusses the most prevalent form of leadership styles by project managers (PMs) within the Nigerian Construction Industry (NCI) and their impact on the social relations-task performance dichotomy of the team, as well as their impact on team cohesiveness. Data was collected using a structured questionnaire from 70 construction practitioners in Lagos state, Nigeria. The data analysis was performed using descriptive and inferential statistics, including the Mean Item Score (MIS), and regression analysis. The most common leadership style in the NCI was democratic leadership (MIS = 4.15), followed by transformational leadership (MIS = 3.98). However, a counterintuitive finding emerged as democratic leadership was negatively correlated with task performance ($r = -0.205$, $p < 0.05$) but positively correlated with social relations ($r = 0.251$, $p < 0.01$). On the other hand, the autocratic leadership showed positive relationships with social relations ($r = 0.185$, $p < 0.05$) and task performance ($r = 0.240$, $p < 0.01$). Transformational leadership had the strongest positive relationships with each dimension of social relations ($r = 0.355$) and with task performance ($r = 0.288$, $p < 0.01$). The results indicate that contingent leadership models that incorporate aspects of transformational and adaptive leadership should be embraced by project managers to maximise social cohesion and task performance. This study contributes empirical evidence on context-specific leadership effectiveness in developing economy construction sectors.

Keywords: Leadership Style, Nigerian Construction Industry (NCI), Project Manager, Social Relation, Team Cohesion, Task Performance

INTRODUCTION

Project managers (PMs) require a proper and systematic use of knowledge, skills, tools and techniques to meet the predefined goals that result in project success (PMI, 2021). This process is usually done in a sequential manner, which involves project initiation, planning, execution, monitoring and control and formal closure, and it is a prerogative of the PM (Kerzner, 2017). The performance of the PM is therefore critical because the best project management knowledge and skills play a significant role in determining an organisation's profitability, operational efficiency, and competitive advantage (Turner & Muller, 2005; Jugdev & Muller, 2005).

The construction industry is one of the most important sectors of the global economy, as it contributes substantially to Gross Domestic Product (GDP), generates job opportunities, and supports infrastructure development in a country (Oladinrin *et al*., 2012). But the intricacies and fragmentation threaten the industry, contributing to high costs and poor service quality (Doloi *et al.*, 2012; Ogunde *et al.*, 2017). The nature of construction projects is multi-stakeholder, with unceasing challenges that create enormous demand for strong managerial skills and, especially, leadership skills (Larsson *et al*., 2015). Effective leadership is characterised by effective communication skills that enable teams to steer, promote collaboration, and ensure cohesion, leading to positive work conditions and high performance (Larsson et al., 2015; Martin & Edwards, 2016). Conversely, ineffective leadership is always associated with low productivity, low morale, and a high likelihood of project failure (Avolio et al., 2009; Saleem et al., 2022; Zada *et al*., 2023). The PMs of the Nigerian Construction Industry (NCI) are perpetually employing diverse leadership practices, which have a significant impact on the team cohesiveness (Limsila & Ogunlana, 2008).

Owusu-Manu *et al*. (2021) conceptualise leadership as a process of influencing others to understand what needs to be done and how it can be accomplished. Building on this understanding, scholars have further explored how leadership practices directly influence employee performance, retention, and overall organisational effectiveness. In this regard, Nukic *et al*. (2022) emphasise the critical role of leadership in enhancing employee performance and retention through effective role delegation, structuring the work environment, motivation, and the configuration of governance systems (e.g., command-and-control versus networked and distributed leadership arrangements).

Accordingly, the project managers' leadership style emerges as an important factor in achieving successful construction project performance, as it obliges stakeholders to fulfil their responsibilities and deliver the client's objectives. This position is reinforced by Martin and Edwards (2016) having highlighted the significance of using appropriate leadership styles in achieving construction project objectives, and this cannot be overemphasised. Furthermore, Ahmed and Vittal (2017) opined that the competence of a PM is paramount in motivating members of the project team towards achieving positive project outputs.

In the construction industry, it has been identified that the cohesion and collaborative potentials of construction teams are influenced by the approaches used by the PM (Odusami *et al.*, 2003; Turner & Muller, 2015). Studies have shown that quality leadership is characterised by effective communication, motivation, and collaboration within the team, which create a favourable working environment and enhance project success (Giudici & Filimonau, 2019; Meirinhos *et al*., 2023; Rehan *et al*., 2024). On the other hand, ineffective leadership behaviours result in reduced productivity, low morale, and an increased likelihood

of project failure (Mohammed *et al.*, 2024). According to Enwereuzo *et al*. (2020), a leader's values, behaviours, and principles influence the ethical path a team takes and provide a basis for the team's effectiveness and overall organisational achievement.

Leadership studies have concentrated on communication (Larsson *et al*., 2015) or the overall performance of the project (Olugboyega *et al.*, 2023); however, there is a lack of literature on the NCI. In particular, the effects of the various leadership styles on the social and task aspects of team cohesion and their respective impacts on the project outcomes. The NCI offers a specific socio-cultural and working environment that is high-pressure, hierarchical, and high-power distance, which might mean that universalised leadership models will be inadequate or even very counterproductive when applied without adaptation to the context (Çuhadar & Rudnak, 2022; Olasunkanmi *et al.*, 2024). The current research is therefore required to test the connection between existing leadership styles and their varying effects on team cohesiveness within the NCI at an empirical level. The results are expected to provide context-related information that will guide project management practices and improve the construction project's outcomes.

LITERATURE REVIEW

Traditional and Contemporary Leadership Models in Construction

The literature on leadership in project management is extensive but continues to evolve. In this, leadership has been conceptualised along a continuum of styles, including transactional, transformational, authoritarian (autocratic), democratic, and charismatic approaches (Ramírez-Herrero *et al*., 2024). Leadership encapsulates a process of influencing others to understand what needs to be done and how it can be done. The Centre for Creative Leadership (CCL, 2026) identified 12 key attributes of effective leaders: respect, courage, resilience, collaboration, vision, effective communication, and a shared sense of commitment. The combination of these views implies that successful project leadership cannot be determined by a particular style or quality, but rather by the leader's ability to combine various methods and abilities in response to the requirements of the project environment.

In project settings, leadership is crucial to mobilising teams to achieve shared goals and ensure projects are delivered on time (Mbazor *et al*., 2022; Nauman et al., 2021). While leadership is important, its effectiveness depends on the project's socioeconomics and situational dynamics (Fiedler, 1967). As such, to be an effective project leader, one must be context-sensitive, ensuring that leadership behaviours align with the demands of the project environment to maximise team performance and project outcomes.

Transactional Leadership (TRL)

The Transactional Leadership (TRL) concept is anchored in exchange system theory, which holds that leaders motivate subordinates by appealing to their self-interests through contingent rewards and corrective actions (Bass, 1985). The plan is based on the transparency of positions, performance monitoring, and reward-punishment mechanisms, which make it

particularly useful in spheres where precision, compliance, and habitual performance are essential (Bass & Riggio, 2006). However, Sung and Savaspakdee (2021) posited that while TRL is capable of enhancing quick performance and providing clarity in difficult situations, it may undermine intrinsic motivation when applied in ways that are perceived as controlling or overly extrinsic.

TRL can be useful in construction management by ensuring compliance with safety and quality standards and the proper timing of task performance, particularly in the most controlled environments. Nevertheless, it is commonly criticised for obstructing employees' creativity and preventing initiative (Olasunkanmi *et al*., 2024). TRL can decrease employee autonomy and inhibit problem-solving and innovation qualities, which are becoming increasingly required in the modern, dynamic construction industry that combines technology. Therefore, though TRL ensures that control and order are established, it might not promote the flexibility required to address unexpected issues or to be innovative in the most effective way.

Laissez-Faire Leadership (LFL).

The Laissez-Faire Leadership (LFL) style is a non-interventionist, hands-off leadership approach in which leaders avoid decision making, abdicate their responsibilities, and leave decision-making and implementation to team members as much as possible (Robert & Vandenberghe, 2021). The approach may be effective in situations where one needs to manage highly skilled, self-directed teams, as it encourages creativity, independence, and ownership. It is argued that this kind of situation, LFL, fosters autonomy, creativity, ownership, and innovation by minimising micromanagement and allowing experts to exercise judgment (Raji *et al*, 2023). Ibrahim and Erdogdu (2024) claim that LFL may encourage autonomy, creativity, ownership, and innovation, but only when structure, alignment, and context support are provided to avoid the lack of direction and accountability. Elgoibar et al. (2025) observed that, within a team with strong self-management skills, this freedom can be beneficial for motivation and problem-solving. Nevertheless, LFL is commonly linked to a slow decision-making process, role ambiguity, and ineffective communication in an environment that requires much coordination and responsiveness, such as construction (Avolio et al., 2009).

Femi (2014) underscores that, with time-bound, risk-prone projects in the construction industry, LFL might contribute to project delays and misunderstandings regarding roles. In the absence of adequate direction, subordinates will lack the necessary support to make high-stakes technical decisions, resulting in costly inefficiencies. Therefore, LFL has the potential to promote independence, but it requires a well-established and well-coordinated team to function effectively.

Democratic Leadership (DL)

Democratic Leadership (DL) is based on participative management, in which team members are actively engaged in decision-making by inclusivity, open communication, collaboration

and mutual responsibility (Imran *et al.*, 2025). DL fosters an inclusive, cooperative, and intellectual atmosphere that, in most instances, results in increased morale and dedication (Yukl, 2013). DL is also consistent with the focus of the modern project management on stakeholder involvement and ongoing improvement. However, DL is limited when quick decision-making is necessary. The process of consensus-building can prolong decision-making and delay project development, particularly in contexts characterised by conflicting opinions, diverse stakeholder knowledge, and the need for extensive deliberation and alignment (Khahro *et al*., 2023; Tran et al., 2024; Tariq *et al*., 2023). The research in the construction sector provides inconclusive evidence, as on the one hand, DL has been associated with high safety culture and job satisfaction (Grill *et al*., 2017), whereas on the other hand, it can slow down the performance of a high-pressure, rapid-paced project (Larsson *et al*., 2015). Therefore, DL works best when time permits deliberation and when teams are harmonious, communicative, and competent.

Autocratic Leadership (AL)

Autocratic Leadership (AL) is characterised by the concentrated of authority in the leader, who makes most decisions independently and demands strict adherence to these directives (Harms *et al*., 2018). This leader provides clear directives, sets expectations, and maintains strong authority (Pizzolitto *et al*., 2023). AL style is appealing in crisis-driven or time-sensitive environments where prompt, rapid decision-making is essential. The centralisation of authority enables swift responses, reduces delays associated with consultation, and ensures decisive action when time is critical. Consequently, autocratic leadership can minimise decision-making lag and enhance operational efficiency under pressure.

AL is perceived as clear, predictable, and manageable, and suitable for projects that require strong project coordination under pressure, e.g., construction during a crisis or a safety-driven operation (Zaman *et al*., 2021). However, negative aspects of AL include low employee morale, low levels of innovation, and opposition to authority. In construction, AL typically occurs in crisis situations or when following rigid schedules (Larsson *et al*., 2015). Excessive use of this style may deter employee involvement and lead to a lack of ownership among subordinates. This underscores the usefulness of AL as a contextually appropriate short-term control instrument rather than a long-term leadership philosophy.

Charismatic Leadership (CL)

Charismatic Leadership (CL) is based on the capacity of a leader to motivate and make his/her subjects feel emotionally connected with him/her by his/her charisma, self-confidence and communicational skills (House, 1977). Charismatic leaders do not just inspire followers through vision, but also through their own beliefs, compassion, and optimism, which allows them to establish a strong emotional connection and cohesion. Even though CL is similar to TL, the primary difference between the two leadership styles lies in CL's personality-driven influence, in which leaders use their personal magnetism to rally followers. In contrast, TL focuses on developing a shared vision and establishing a power structure. According to Dvir *et al*. (2002), CL works especially well in high-stress or high-visibility initiatives, where

confidence and team spirit can enhance team strength and dedication. Construction Charismatic leaders can be instrumental in motivating teams through tough periods, lifting the morale and confidence of stakeholders, especially in dealing with complex client or regulatory environments.

The Contingency and Situational Imperative

The current state of the art in the project management literature has led to the conclusion that there is no single style of leadership that consistently works (Rehan *et al*., 2024). Instead, Del Pino-Marchito *et al*. (2025) noted that the most efficient project managers are primarily situational project managers who adjust their style to the project stage, the task's complexity, the team's maturity, and the competence of team leaders. The Situational Leadership Theory, developed by Hersey and Blanchard, is particularly useful in this situation, where it is argued that the transition between being directive (telling/selling) and supportive (participating/delegating) should be flexible (Del Pino-Marchito *et al*., 2025). This is further evident in the construction industry, where the job life cycle requires different project leadership roles from conceptual planning through to construction implementation (Kisimbi, 2025).

The New Leadership Paradigms in Construction and Engineering

The accelerated rate of technological progress and the globalisation of the construction and engineering industry have given rise to a major paradigm shift in leadership research and practice. The conventional command-and-control leadership position is losing its effectiveness (Olasunkanmi *et al*., 2024). Flexible, adaptive and human-oriented styles are now necessary for project managers to negotiate complexity, uncertainty, and rapid change. This change cannot be attributed to technical excellence or to structured, empowered leadership, either to deliver fast and collaboratively or to deliver in the short and long term with resilience.

Classical contingency theories, such as those of Fiedler (1967) and Hersey and Blanchard (1969), emphasise that the leader should align his style with key situational variables, including task structure, team maturity, followers' readiness, and environmental complexity, to achieve optimal outcomes. This opinion is supported by more recent syntheses, such as Northouse (2022) and Yukl and Gardner (2020). Situational and transformational leadership are especially useful in dynamic construction settings. Such strategies promote innovation, employee engagement, and organisational flexibility, characteristics required to succeed in an environment of technological disruption and competition (Iqbal *et al*., 2020; Eva *et al*., 2019; Wang *et al*., 2021; Hoch *et al*., 2018). Leaders are to mirror their behaviours to the level of competence and commitment of their teams, a concept which is particularly true in fragmented or culturally diverse environments like the construction industry in Nigeria.

Rosing *et al*. (2022), in their study of emergency action teams (which are also highly applicable to construction crises), show that directive (autocratic) leadership establishes trust

during execution stages through signals of competence and facilitates quick action, whereas democratic behaviours establish trust during planning or transition stages through perceived benevolence. Good project leaders thus combine varying leadership approaches dynamically, using elements of authority to achieve speed in times of crisis, transactional mechanisms to maintain normal control, and more participative approaches to drive innovation and team building (Rosing *et al*., 2022). According to Siddiquei *et al*. (2025), a people-centred leadership philosophy and practice in which the primary motivation and role of the leader is to serve others first, rather than seeking power, control, or personal advancement, aggregates a positive and significant effect on project outcomes and organisational citizenship behaviours. Leaders can create an empowering climate to allow teams to work in uncertainty, overcome setbacks, and sustain performance even in volatile situations (Luo *et al*., 2023; Franz *et al*., 2017). This people development focus is an extension of rather than a replacement of more directive or exchange-based styles in construction, as projects can experience unpredictable disruptions (e.g., supply chain problems, regulatory changes, site hazards).

Digital Leadership in the Era of Construction 4.0

The digital transformation of the construction industry in the era of emerging technologies further adds a layer of criticality to the leadership context. Olugboyega (2022) posits that a new generation of digital leadership is required in Construction 4.0 technologies, including Building Information Modelling (BIM), AI, IoT, and data analytics. Digital leaders are skilled in technical and soft skills to drive the adoption of tools, encourage the use of data to inform decision-making, and build a culture of enduring innovation. Olasunkanmi *et al.* (2024) resonate with this by stating that project managers should combine digital fluency and human-oriented skills to drive change at the firm level. This ambivalent ability makes the work of a traditional project manager more difficult, but opens the path to increased efficiency, collaboration, and long-term results. Digital leadership is then more of a meta-competency to augment the use of other paradigms- enabling situational modification using real-time data, supporting servant behaviours using transparent communication platforms, and making quick, authoritative decisions where it is needed.

All of these new paradigms demand flexible, context-driven leadership that incorporates aspects of transactional clarity, laissez-faire independence (when suitable with expert teams), authoritative decisiveness in crises, transformational inspiration, servant empowerment, situational flexibility, and digital acuity. This hybrid solution presents the best chance of success in the Nigerian and the general developing-world construction environment, in which project resources are often limited, there are cultural hierarchies, and the levels of uncertainty are high. Leaders who learn to exist in these new paradigms never relinquish structure or power, but rather make good use of them and focus on flexibility, strength, and capitalising on technology. The outcome is better project performance, stronger teams, and greater organisational agility in a more complex industry environment. This integrative, human-centred, and digitally enabled mindset should be a focus of future research and training in construction leadership.

The Nexus Between Leadership Styles and Team Cohesion in Project Environments

Team cohesion is the extent of attraction among team members and the desire of members to remain in the team as they work together towards a common objective. Cohesion, according to Beal *et al*. (2003), is an indicator of how appealing the project manager perceives the team to be for its members and the level of interpersonal relationships within the team. The idea remains the cornerstone of project management literature. Based on Tuckman's (1965) stages of team development, cohesive teams tend to progress more effectively through the four stages (forming, storming, norming, and performing) and achieve greater efficiency and goal achievement. A key mechanism for building cohesion is effective vertical (leader-subordinate) and horizontal (peer-to-peer) communication, which will ultimately contribute to quality project delivery, problem awareness, motivation, morale, decision-making, and creativity.

How Leadership Styles Shape Team Cohesion

Leadership style is a critical antecedent of team cohesion, and its impact on social ties (interpersonal attraction, trust, and desire to remain in the group) and task commitment (shared focus on goals, collaboration, and performance standards). The strength and direction of this impact vary according to contextual factors, including the project stage, team maturity, environmental uncertainty, and industry demands, particularly in dynamic, high-stakes, and temporary settings such as construction and engineering projects (Zhang & Hao, 2022). The strongest positive links between leadership and team cohesion are consistently associated with transformational and servant leadership styles. Transformational leaders create both shared vision and individualised consideration, as well as emotional bonds (social cohesion) and commitment (task cohesion). Empirical evidence further shows that transformational leadership strengthens teamwork quality and cohesion, which, in turn, improves project performance, particularly in construction environments (Hamed, 2024; Han *et al*., 2024).

Similarly, servant leadership, which prioritises the growth, well-being, and empowerment of team members, promotes trust, collaboration, and resilience. Recent project-based research indicates that servant leadership significantly enhances team cohesion, which subsequently mediates improvements in project performance and organisational citizenship behaviours (OCBs) (e.g., project management studies examining servant leadership–team cohesion–performance relationships). According to Khalil *et al*. (2025) Servant leaders enhance project outcomes primarily by building stronger team cohesiveness and a collaborative environment. Similarly, Siddique *et al* (2025) found that servant leadership significantly predicts project success (team-level) and organisational citizenship behaviours (OCB, individual-level).

Siddique *et al*. (2025) opined that TL supports task cohesion through clear expectations, contingent rewards, and active monitoring (management by exception). This reduces ambiguity and streamlines efforts, especially during routine or compliance-intensive project phases. AL is perceived to be strongest in the crisis or execution phases, where unilateral decision-making and clear directives can strengthen task cohesion by reducing decision

latency and providing immediate direction. Rosing *et al.* (2022) demonstrate, in emergency action teams (directly analogous to construction crises), that autocratic leadership builds trust and, by extension, cohesion during action phases through perceived leader competence, while democratic leadership better supports cohesion in transition/planning phases via perceived benevolence.

LFL style hands-off approach often undermines both social and task cohesion, leading to role ambiguity, reduced motivation, and fragmentation, especially in interdependent construction settings. It may work with highly mature, expert teams, but generally correlates with weaker cohesion and performance (Siddique *et al*, 2025). However, the most effective leaders adjust styles fluidly. Emotional intelligence in project managers further amplifies this by mediating cohesion: leaders with high EI create stronger team bonds, which then drive overall team effectiveness. Studies of construction projects show that team cohesion is a key mediator between leadership behaviours (or EI) and project outcomes.

RESEARCH METHOD

Research design

The research design employs a quantitative survey method, which is appropriate for obtaining numerical data from a large sample to generalise the findings and determine statistical relationships between variables. The target population for this research will include construction professionals such as Project Managers, Architects, Builders, Quantity Surveyors, and Engineers engaged in construction projects in the state of Lagos, Nigeria. The city of Lagos was selected as a study area since it is the business hub of Nigeria, and there are numerous significant construction projects and a complicated professional community. During the survey, 98 questionnaires were distributed, of which 70 were successfully returned and equally considered suitable and usable for analysis, yielding a response rate of 71.4%. This response rate is sufficient for survey research in the construction industry. Snowball sampling was employed to access the targeted population, a method often required in specialised, professional fields where access can be difficult.

Instrument and Analysis of Data

The study utilised a structured questionnaire as the primary data collection instrument which was designed to gather information on the demographic characteristics of respondents, perceived dominance of different leadership styles which include democratic, autocratic and transformational approaches, perceived barriers to effective team building and team cohesion, as well as the extent of team cohesion measured against its two dimensions, social relations and task performance. The collected data were analysed using the Statistical Package for the Social Sciences (SPSS) version 23, employing descriptive statistics, such as frequencies and percentages, to summarise demographic details, prevalent leadership styles, and leadership-related challenges. The Mean Item Score (MIS) ranked the identified leadership styles and challenges according to their degree of importance or occurrence. The hypotheses were tested,

and the strength and direction of relationships between leadership styles (independent variables) and team cohesion components (dependent variables) were determined using the Pearson Correlation Coefficient. Moreover, a regression analysis was carried out to evaluate the predictive effectiveness of the styles of leadership on the social and task-related types of team cohesion.

FINDINGS AND DISCUSSION

Background Characteristics of Respondents

The demography of the respondents for this study in terms of the background characteristics of respondents consists of 70 respondents from a variety of disciplines, including quantity surveyors (29%), builders (23%), engineers (17%), and architects and project managers (11% apiece), while others represent (9%). More than half of the respondents (64%) held a Higher National Diploma (HND) or a Bachelor of Science Degree, and the workforce sample was highly educated and professional.

Table 1: Distribution of Respondents by Profession and Academic Qualification

Variable	Category	Frequency (N=70)	Percentage (%)
Profession	Quantity Surveyors	20	28.57
	Builders	16	22.86
	Engineers	12	17.14
	Architects	8	11.43
	Project managers	8	11.43
	Other	6	8.57
Academic Qualification	OND/NCE	7	10.00
	HND/B.Sc.	45	64.29
	M.Sc./Ph.D.	18	25.71

Prevalent Leadership Styles

The study assesses the prevalent leadership styles in the NCI to establish a clear ranking of importance. Table 2 presents rankings of the prevailing leadership styles used in construction projects, based on respondents' opinions. Mean Item Score (MIS) and Standard Deviation (SD) were used to measure the prevalence and consistency of adoption of each leadership style. The data reveal that the most preferred leadership style among construction leaders is DLS, as indicated by the highest mean of 4.15 and a relatively low standard deviation of 0.65, which suggests high judiciousness among the respondents. This indicates that participatory decision-making and inclusive communication are widely used leadership characteristics in the industry.

Table 2: Ranking of Prevalent Leadership Styles (MIS)

Leadership Style	Mean Item Score (MIS)	Standard Deviation (SD)	Rank
Democratic Leadership Style (DLS)	4.15	0.65	1
Transformational Leadership Style (TLS)	3.98	0.71	2
Transactional Leadership Style (TRS)	3.70	0.82	3
Charismatic Leadership Style (CLS)	3.55	0.78	4
Autocratic Leadership Style (ALS)	3.12	0.90	5
Laissez-Faire Leadership Style (LLS)	2.85	0.85	6

The next most widely adopted style is the TLS, with an MIS of 3.98, indicating that the sub-dimension attributes of motivation, inspiration, and innovation are also highly adopted, but there is slightly more room for misperception (SD = 0.71). TRS (MIS = 3.70) and CLS (MIS = 3.55) are moderately adopted, indicating that reward-based control and personal influence, but not participatory and transformational leadership, are dominant. The ALS with a MIS of 3.12 was perceived as the least adapted, suggesting less dependence on top-down decision-making structures. In the same vein, the lowest mean was observed for the LLS, with an MIS of 2.85, indicating that superiors are characterised by a lack of direction and involvement, suggesting that laissez-faire management is the least favoured mode of supervision in construction project management.

The results indicate a strong reliance on leadership styles that foster participation, collective responsibility, and a positive impact on members' characteristics, typically associated with enhanced collaboration and improved project performance.

Challenges to Team Cohesion

Table 3 shows that construction project teams consider the following problems to be the most important factors affecting their cohesion. The project managers' lack of experience has been a significant challenge (MIS = 4.35; SD = 0.59). Respondents clearly agree that a project without cohesive leadership and satisfactory performance undermines cohesive teamwork, possibly through poor decision-making, poor coordination, and an inability to confront challenges innovatively. Dissimilarities of interest among team members (MIS = 4.20; SD = 0.61) were the second most significant source of team dysfunction. Fragmentation at the team level may be characterised by conflicts and differing motives, leading the team to be unaligned with the group's goals and to not participate in team activities.

Table 3: Ranking of Key Challenges to Team Cohesion (MIS)

Challenge to Team Cohesion	Mean Item Score (MIS)	Standard Deviation (SD)	Rank
Lack of experience by project managers	4.35	0.59	1
Dissimilarities of interest among team members	4.20	0.61	2
Poor communication flow	3.95	0.68	3
Lack of clear goals and objectives	3.80	0.75	4
High staff turnover	3.55	0.80	5

The 3rd-ranked challenge to team cohesion was poor communication flow (MIS = 3.95, SD = 0.68). This confirms a number of studies, which identify communication as one of the most important facilitators of collaboration and trust when working on a construction project. Communication lapse can result in role confusion, delays, misunderstandings and interpersonal conflicts. The fourth-ranked problem, a lack of clear goals and objectives (MIS = 3.80; SD = 0.75), shows that even well-skilled teams can experience ambiguity in expectations, leading to inefficiency and misaligned efforts. The standard deviation is relatively high, indicating that respondents' views are slightly more variable; this suggests the possibility of a significant difference in the degree of goal clarity across project settings. Lastly, high personnel turnover is considered a moderate challenge (MIS = 3.55; SD = 0.80), as it suggests that frequent personnel changes destabilise existing relationships and, therefore, require team reorganisation. The largest standard deviation in the table shows opposite views, which might be due to turnover intensity varying across firms and project sizes.

Leadership Styles and Team Cohesion

The Pearson Correlation Coefficient was used to explore the strength and direction of the relationship which exists between the leadership styles and the two aspects of cohesion in a team: Social Relation (SR) and Task Performance (TP).

Table 4: Correlation Matrix of Leadership Styles and Team Cohesion Dimensions.

Leadership Style	Social Relation (SR)	Task Performance (TP)
Democratic Leadership Style (DLS)	0.251**	-0.205*
Autocratic Leadership Style (ALS)	0.185*	0.240**
Laissez-Faire Leadership Style (LFL)	0.171*	-0.037
Transformational Leadership Style (TLS)	0.355**	0.288**
Transactional Leadership Style (TRS)	0.220*	0.171*
Charismatic Leadership Style (CLS)	0.211*	0.190*

Note: *** *Significant at 0.01 level (2-tailed); * Significant at 0.05 level (2-tailed).*

Table 4 presents the correlation coefficients between six leadership styles and the two dimensions of team cohesion: Social Relation (SR) and Task Performance (TP). The correlation values vary from [-1, 1], with positive values meaning that increases in leadership style correlate with increases in team cohesion and negative values indicating the inverse relationship.

Social Relation (SR) Cohesion

TLS showed the strongest relationship with SR ($r = 0.355$, $p < 0.01$), indicating that transformational leaders build stronger interpersonal relationships, trust, and mutual respect

within their teams. DLS also reported a positive effect on SR ($r = 0.251$, $p < 0.01$), suggesting that participative decision-making directly affects social cohesion. Autocratic (ALS), Charismatic (CLS), Transactional (TRS), and Laissez-Faire (LFL) styles demonstrate significant ($p < 0.05$) yet weaker (r ranging from 0.171 to 0.220) correlations with social cohesion, suggesting they contribute to it, albeit to a lesser degree than TLS and DLS.

Task Performance (TP) Cohesion

The results from Table 4 further show that ALS Style ($r = 0.240$, $p < 0.01$) and TLS ($r = 0.288$, $p < 0.01$) are significantly and positively correlated, indicating that both autocratic and transformational leadership may contribute to coordinated task performance. Furthermore, CLS and TRS have a significant positive influence on TP (ranging from 0.171 to 0.190), indicating that team-focused and enthusiastic leadership can produce task-referenced cohesion.

There is a non-significant negative significant correlation between DLS and TP ($r = -0.205$, $p < 0.05$). Although democratic leadership has positive socio-emotional outcomes, it also negatively affects the speed of task presentation, task urgency, and task execution, leading to poorer alignment. The correlation between LFL and TLS is weak and not significant ($r = -0.037$), suggesting that task cohesion can be compromised when guidance is limited.

Social Relation ($r = 0.251$, $p < 0.01$) and Task Performance ($r = -0.205$, $p < 0.05$) show positive and negative relationships, respectively, with Democratic Leadership Style. This indicates that, though DLS is likely to leave team members feeling better about working together, they will be hindered from improving things. ALS has a strong correlation with Social Relation ($r = 0.185$, $p < 0.05$) and Task Performance (Beta = 0.240, $p < 0.01$). This is a key discovery, indicating that the directive approach, though the least utilised, was more effective in achieving the project objectives in the NCI. The most effective style is the TLS, which shows the highest positive relations with Social Relation ($r = 0.355$, $p < .01$) and Task Performance ($r = 0.288$, $p < .01$).

Discussion of Findings

Construction Project Managers' Leadership Style

Democratic Leadership Style (DLS) was found to be the most common in the construction industry in Nigeria. This supports the claim of Ahmed and Anantatmula (2017) regarding the significance of such leadership inclusiveness and participation, and how it is gaining greater acceptance in construction projects, especially given the interdisciplinary and interdependent character of project teams. The average level of variability (SD = 0.65) aligns with global trends, where employee engagement and shared decision-making focus on improving project coordination and employee morale (Hwang & Ng, 2013). The second leadership style was that of Transformational Leadership Style (TLS). This poses an organisational development towards an innovation-driven transformation based on the leadership practices of the

emerging economies. This observation aligns with Ofori (2021) observation that construction firms are moving towards more sophisticated, technology-friendly project delivery platforms.

Conversely, ALS and LLS had the least usage. This is unlike the history of past construction in Nigeria, where strong hierarchies and command-and-control structures defined the sector. The above change implies greater resistance to leadership that suppresses employees' autonomy or that fails to provide guidance, which is contrary to productivity and professional development. The latter findings can be explained by a paradigm shift toward relational and empowering models of leadership, consistent with the prevailing philosophy of construction management in the contemporary literature.

Challenges to Team Cohesion

The lack of experience among project managers (MIS = 4.35) is a concern, indicating a skills shortage among project leaders in the construction sector in Nigeria. This observation is consistent with the literature on factors related to the nonetheless inadequate leadership and the failure to plan the project process within the team and to develop an efficient channel of communication (Omran & Suleiman, 2017; Windapo & Cattell, 2021). Moreover, the absence of cohesion among team members is natural and can be explained by the forces of Social Identity Theory, which assumes that individual interests may collide, disrupting the team's collective orientation and integration. This is likely to generate a natural conflict of interest within the extremely complex world of construction, where parties and organisational entities are colossal, thereby compounding the problem of project success. Communication-related factors, such as ineffective flow and ambiguous goals, also contributed. This outcome is also in line with the findings of Omran and Suleiman (2017), who emphasise that poor communication has been a core cause of disconnect, time loss, and high expenses.

Relationship between Leadership Styles and Team Cohesion

According to the results of the correlation analysis, leadership styles that are highly interpersonal have a strong, significant effect on the social-relational aspect of team cohesion. Transformational leadership was identified as most strongly correlated with Social Relation (SR) ($r = 0.355$, $p < 0.01$), and with its ability to create trust, mutual respect, and an emotional bond among team members. This is in line with the empirical research conducted on the behaviour of transformational. The findings indicated that TLS improves bonding in interpersonal relationships by enforcing shared values, integrating vision, and providing socio-emotional support within the team. Empirical and theoretical research in education, healthcare, and organisational settings reports that TLS influence, inspire, motivate, provide intellectual stimulation, and offer individualised consideration, generating relational and psychological situations that enhance follower attachment, trust, and cooperative engagement (Trigueros et al., 2020; Vazquez et al., 2018). This type of leadership promotes teamwork synergy, which is essential in the construction project environment, where people of varying professional backgrounds must work harmoniously to complete intricate tasks.

Being involved in the governance of the project, as witnessed in the DLS, through open communication, joint decision-making, and acknowledgement of workers' input, may lead to a sense of belonging and identification with the group. This is consistent with studies that reveal that democratic leadership enhances social cohesion by promoting equal communication among team members and minimising the gap between power (Ahmed & Anantatmula, 2017; Hwang & Ng, 2013). In the context of the Nigerian construction sector, with its traditional hierarchical organisation, the change is also a manifestation of a transition to more inclusive leadership approaches, rather than command-based leadership, towards harmonious cooperation.

TLS, CLS, ALS, and LLS exhibited less favourable positive associations, which can serve the purpose of interpersonal relationships, with low priority given to the emotional component. An example of such leadership is autocratic leadership, which utilises authority and command, which may make adherence work, but not that helpful in making the interactions more sociable or inspiring trust (Oladinrin et al., 2018). Likewise, transactional leadership is a "carrot-and-stick" or contractual relationship oriented toward goal attainment rather than relational engagement, which may not extend beyond task-related interactions (Yimam, 2022). The weaker relational impact of laissez-faire leadership is consistent with past literature, which suggests that it might create a leadership vacuum, often leading to disengagement and interpersonal strain.

These results indicate that leadership approaches that promote motivation, group decision-making, and consideration among individuals are best suited to fostering high-level relational cohesion among construction project team members. It is crucial, particularly in the Nigerian setting, where multi-organisational frameworks and cultural differences are prone to fragmentation and conflict (Windapo & Cattell, 2020). Through strategically implemented transformational and democratic leadership behaviours, construction leaders can enhance cooperation, reduce relational conflicts, and improve overall project performance.

Task Performance Cohesion

The correlation between TLS and the task performance cohesion dimension implies that TLS inspires the team, giving it a sense of purpose, so that members can achieve performance cooperatively with greater alignment and coordination. Transformational leaders will take their staff members out of self-interest and into cultivating their high-throughput skills, and they will collaborate to achieve work. Khan et al. (2020) substantiate this stance by noting that the positive association between transformational leadership and work performance was strong across other sectors. Surprisingly, task performance cohesiveness is also related to autocratic leadership (but not as strongly as to transformational leadership). To illustrate, in the construction industry, where compliance with safety provisions is required, a directive (or command-and-control) leadership approach would help clarify the task and the speed at which it must be performed. This observation indicates that although autocratic leadership is criticised for negative relational outcomes, it is applicable to task cohesion in construction

projects. Nonetheless, task focus should be counterbalanced with possible relational/motivational expenses.

Although the positive impacts on social cohesion are rather logical, the negative connection between democratic leadership and social cohesion in the execution of responsibilities is astonishing and of the opposite nature. We conclude that although inclusive and participatory leadership fosters interpersonal relations that facilitate task-based cohesion (i.e., coordination, urgency, role clarity, and implementation), democratic leadership may be subject to stalling and a lack of accountability. To back this up, research on leadership decision-making shows that the degree of participation can affect the speed of decision-making on important decisions, as well as efficiency in time-sensitive circumstances.

Theoretical and Practical Implications

From a theoretical perspective, these results highlight the contingent nature of leadership style's effectiveness across the cohesion dimensions. The findings are consistent with the Path-Goal Theory (House, 1977), which suggests that the leader's style (directive, supportive, participative) should be tailored to the task's demands and the followers' characteristics. We find that ALS and TLS are more suitable for the task performance cohesion in an environment under high pressure and focused on execution. In contrast, a democratic style is more appropriate for the social relational cohesion but not for the fast execution of tasks.

Therefore, for construction project managers in Nigeria and other global environments, enhancing task cohesion through transformational leadership behaviours, articulating vision, inspirational motivation, challenging assumptions and individualised consideration, while at the same time reinforcing relational cohesion. Knowing when directive (autocratic) leadership (particularly during times of crisis, short timeframes, or teams that are less experienced) is called for, but making sure to balance it with relational behaviours to reduce the risk of disengagement.

CONCLUSIONS AND SUGGESTIONS FOR FUTURE RESEARCH

Whilst such correlations offer an insight, they should not be overinterpreted as causality. Further regression analysis that controls for confounders (e.g. team size, project complexity, experience) would increase inferential power. Moreover, using qualitative methods could explain why democratic leadership negatively affects task cohesion in this environment. Longitudinal designs could allow for a study of the effect of leadership style on cohesion and performance across the project's expansion (initiation, execution, and close-out). Overall, the results indicate two paths to task performance cohesion: transformational leadership's motivational and visionary orientations, and autocratic leadership's direction-and-control orientation. Third, although participative leadership may be helpful for relational outcomes, it may harm task cohesion when decision clarity and speed are crucial.

REFERENCES

Ahmed, R., & Anantatmula, V. S. (2017). Empirical study of project managers leadership competence and project performance. *Engineering Management Journal*, 29(1): 1-17

Ahmed, R., & Vittal, S. (2017). Empirical study of project managers leadership competence and project performance. *International Journal of Project Management*, 35(7), 1335–1346.

Avolio, B. J., Walumbwa, F. O., & Weber, T. J. (2009). Leadership: Current theories, research, and future directions. *Annual Review of Psychology*, 60, 421–449.

Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership* (2nd ed.). Lawrence Erlbaum Associates Publishers.

Beal, D. J., Cohen, R. R., Burke, M. J., & McLendon, C. L. (2003). Cohesion and performance in groups: A meta-analytic clarification of construct relations. *Journal of Applied Psychology*, 88(6), 989–1004.

Center for Creative Leadership. (2026, January 3). *The 12 characteristics of a good leader*. Retrieved April 2nd 2026 from https://www.ccl.org/articles/leading-effectively-articles /characteristics-good-leader/

Çuhadar, S. & Rudnák, I. (2022). Link between cultural dimensions and leadership styles of organisational managers in Turkey context of Hofstede and Globe studies. *Studia Mundi - Economica,* 9(4), 88–103. doi: https://doi.org/10.18531/studia.mundi. 2022.09.04.88-103

Del Pino-Marchito, A., Galán-García, A., & Plaza-Mejía, M. de los Á. (2025). The Hersey and Blanchard's Situational Leadership Model revisited: Its role in sustainable organisational development. *World*, 6(2), 63.

Doloi, H., Sawhney, A., Iyer, K., & Rentala, S. (2012). Analysing factors affecting delays in Indian construction projects. *International Journal of Project Management,* 30, 479–489.

Dvir, T., Eden, D., Avolio, B. J., & Shamir, B. (2002). Impact of transformational leadership on follower development and performance: A field experiment. *Academy of Management Journal*, 45(4), 735-744.

Elgoibar, P., Ruiz-Palomino, P., Gutiérrez-Broncano, S. (2025). Laissez-faire leadership, trust in subordinates and problem-solving conflict management: A multigroup analysis across family and non-family businesses. *European Management Journal*, 43(3), 466–480. https://doi.org/10.1016/j.emj.2024.04.009

Enwereuzor, I. K., Onyishi, I. E., Albi-Oparaocha, F. C., & Amaeshi, K. (2020). Perceived leader integrity as a mediator between ethical leadership and ethical climate in a teaching context. *BMC Psychology*, 8(52), 1–11.

Eva, N., Robin, M., Sendjaya, S., van Dierendonck, D., & Liden, R. C. (2019). Servant leadership: A systematic review and call for future research. *The Leadership Quarterly*, 30(1), 111–132.

Fiedler, F. E. (1967). *A theory of leadership effectiveness*. McGraw-Hill.

Franz, B., Leicht, R., & Molenaar, K. (2017). Impact of team integration and group cohesion on project delivery performance. *Journal of Construction Engineering and Management*, 143(1), 04017079.

Giudici, M. & Filimonau, V. (2019). Exploring the linkages between managerial leadership, communication and teamwork in successful event delivery. *Tourism Management Perspectives,* 32, 100558. https://doi.org/10.1016/j.tmp.2019.100558

Grill, M., Pousette, A., Nielsen, K., & Grytnes, R. (2017). Safety leadership at construction sites: The importance of rule-oriented and participative leadership. *Scandinavian Journal of Work, Environment & Health*, 43(6), 564–573.

Harms, P. D., Wood, D., Landay, K., Lester, P. B., & Lester, G. V. (2018). Autocratic leaders and authoritarian followers revisited: A review and agenda for the future. *The Leadership Quarterly, 29*(1), 105–122. https://doi.org/10.1016/j.leaqua.2017.12.007

Hersey, P., & Blanchard, K. H. (1969). Life cycle theory of leadership. *Training and Development Journal*, 23(5), 26–34.

Hoch, J. E., Bommer, W. H., Dulebohn, J. H., & Wu, D. (2018). Do ethical, authentic, and servant leadership explain variance above and beyond transformational leadership? *Journal of Management,* 44(2), 501–529.

House, R. J. (1977). *A 1976 theory of charismatic leadership*. In J. G. Hunt & L. L. Larson (Eds.), Leadership: The cutting edge (pp. 189–207). Southern Illinois University Press.

Hwang, B.G. & Ng, W. J. (2013). Project management knowledge and skills for green construction: Overcoming challenges. *International. Journal of Project Management,* 31, 272–284.

Ibrahim, S. & Erdoğdu, A. (2024). The effect of leadership style on employee motivation: A case study of Hormuud telecom in Somalia. International Journal of Science and Research Archive, 13(2), 1590–1602. https://doi.org/10.30574/ijsra.2024.13.2.2324

Imran, M., Li, J., Bano, S., & Rashid, W. (2025). Impact of democratic leadership on employee innovative behavior with mediating role of psychological safety and creative potential. *Sustainability*, 17(5), 1879. https://doi.org/10.3390/su17051879

Iqbal, Z., Niazi, A., & Hassan, H. (2020). Autocratic, democratic, transformational and charismatic leadership styles and contingency of different performance outcomes in SMEs. *Journal of Business & Tourism*, 6(1), 1-12.

Jugdev, K., & Müller, R. (2005). A retrospective look at our evolving understanding of project management capability. *Project Management Journal*, 36(4), 19-31.

Kerzner, H. (2017). *Project management: A systems approach to planning, scheduling, and controlling* (12th ed.). John Wiley & Sons.

Khahro, S. H., Shaikh, H. H., Zainun, N. Y., Sultan, B., & Khahro, Q. H. (2023). Delay in decision-making affecting construction projects: A sustainable decision-making model for mega projects. *Sustainability*, 15(7), 5872. https://doi.org/10.3390/su15075872

Khalil, A. A., Khan, I., Ahmad, A., & Ullah, W. (2025). Servant Leadership and Project Success: Exploring the Interplay Between Team Cohesion and Top Management Support. *Journal of Asian Development Studies,* 14(1), 713–725. https://doi.org/10.62345/jads.2025.14.1.55

Kisimbi, J. (2025). Development of an innovative dynamic and multidimensional leadership model in project management: A case study of the engineering and construction industry [Doctoral dissertation, Unicaf University].

Larsson, J., Eriksson, P. E., Olofsson, T., & Polat, S. (2015). Leadership in civil engineering: Effects of project managers' leadership styles on project performance. *Journal of Management in Engineering*, 31(5), 04015003.

Likert, R. (1967). *The human organisation: Its management and value*. McGraw-Hill.

Limsila, K, & Ogunlana, S. O. (2008). Performance and leadership outcome correlates of leadership styles and subordinate commitment. *Engineering, Construction and Architectural Management*, 15(2), 164-184.

Luo, L., Yang, Y., Wu, G., Zheng, J., & Liu, D. (2023). Effects of organisational leadership on project citizenship behavior and management performance in complex construction projects. *Buildings*, 13(1), 259.

Martin, H., & Edwards, K. (2016). The interaction between leadership styles and management level, and their impact on project success. *Procedia Engineering*, 164, 249-256.

Mbazor, D., Aigbavboa, C., & Thwala, W. (2022). Identifying factors influencing organizational leadership for adequate housing delivery in Nigeria: A Delphi survey approach. *International Journal of Built Environment and Sustainability*, 10(1), 1-16. doi: https://doi.org/10.11113/ijbes.v10.n1.947

Meirinhos, G., Cardoso, A., Neves, M., Silva, R., & Rêgo, R. (2023). Leadership styles, motivation, communication and reward systems in business performance. *Journal of Risk and Financial Management*, *16*(2), 70. https://doi.org/10.3390/jrfm16020070

Nauman, S., Musawir, A., Munir, H., & Rasheed, I. (2021). Enhancing the impact of transformational leadership and team-building on project success: the moderating role of empowerment climate.

International Journal of Managing Projects in Business, 15(2), 423-447. doi: https://doi.org/10.1108/ijmpb-02-2021-0031

Northouse, P. G. (2022). *Leadership: Theory and practice* (9th ed.). Sage Publications.

Nukić, I. Š., Matotek, J., & Zlata, D. (2022). Investigation of leadership competences of project managers in construction industry. *Interdisciplinary Description of Complex Systems*, 20(6), 707-722.

Odusami, K. T., Omirin, M. M., & Iyagba, R. R. 0. (2003). The relationship between project leadership, team composition and construction project performance in Nigeria. *International Journal of Project Management*, 21(7), 519-527.

Ofori, G. (2021). *Leadership in the construction industry: Developing authentic leaders in a dynamic world*. Routledge.

Ogunde, A. O., Olaolu, O., Afolabi, A., & Owolabi, J. (2017). Challenges confronting construction project management system for sustainable construction in developing countries: Professionals perspectives (a case study of Nigeria). *Journal of Building Performance*, 8(1), 1–10.

Oladinrin, T. O., Ogunsemi, D. R., & Aje, I. O. (2012). Role of construction sector in economic growth: Empirical evidence from Nigeria. *FUTY Journal of the Environment*, 7(1), 1–10.

Olasunkanmi, F. O., Ikediashi, D. I., & Ajiero, I. R. (2024). Assessing the factors of transactional leadership style for construction projects: a case of Nigerian construction industry. *Journal of Engineering, Design and Technology*, 22(1), 1–20.

Olugboyega, O. (2022). BIM leadership theory for organisational BIM transformation. *Frontiers in Built Environment*, 8, 1030403.

Olugboyega, O., Ejohwomu, O., Omopariola, E., & Omoregie, A. (2023). Project leadership functions and the associated behaviour for projects and project organisations. *Buildings,* 13(7), 1739. https://doi.org/10.3390/buildings13071739

Omran, A., Suleiman, & Suleiman, A.S. H. (2017). Identifying the competence components of the construction project managers in the Palestinian construction industry. (2024). *Engineering Project Organization Journal*, 7(2), 1-26.

Owusu-Manu, D., Debrah, C., Amissah, L., Edwards, D. J., & Chileshe, N. (2021). Exploring the linkages between project managers' mindset behaviour and project leadership style in the Ghanaian construction industry. *Engineering, Construction and Architectural Management*, 28(9), 2690–2711, doi: https://doi.org/10.1108/ECAM-03-2020-0149

Pizzolitto, E., Verna, I. & Venditti, M. (2023). Authoritarian leadership styles and performance: A systematic literature review and research agenda. *Management Review Quarterly,* 73, 841–871. https://doi.org/10.1007/s11301-022-00263-y

PMI. (2021). *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)* – Seventh Edition and *The Standard for Project Management*. Project Management Institute.

Raji, A., Daraojimba, C., Okogwu, C., Agho, M., Egbokhaebho, B., & Ihemereze, K. (2023). Business administration: A detailed examination of leadership styles and their influence on the growth and success of start-ups. *Cultural Communication and Socialization Journal,* 4(2), 78–77. https://doi.org/10.26480/ccsj.02.2023.78.87

Ramírez-Herrero, V., Ortiz-de-Urbina-Criado, M., & Medina, J. (2024). Intergenerational leadership: A leadership style proposal for managing diversity and new technologies. *Systems,* 12(2), 50. https://doi.org/10.3390/systems12020050

Rehan, A., Thorpe, D., & Heravi, A. (2024). An empirical study on project managers' leadership behavioral practices impacting project success – The Australian construction sector. *International Journal of Construction Education and Research,* 21(2), 164–188.

Rehan, A., Thorpe, D., & Heravi, A. (2024). Project manager's leadership behavioural practices – A systematic literature review. *Asia Pacific Management Review*, 29(2), 165-178.

Rosing, F., Boer, D. & Buengeler, C. (2022). When timing is key: How autocratic and democratic leadership relate to follower trust in emergency contexts, *Frontiers in Psychology*, 13, 904605. https://doi.org/10.3389/fpsyg.2022.904605.

Saleem, F., Malik, M. I., Hyder, S., & Perveen, A. (2022). Toxic leadership and project success: Underpinning the role of cronyism. *Behavioral Sciences*, 12(11), 427-439.

Siddiquei, A. N., Ahmad, S., & Asmi, F. (2025). Fostering team resilience with servant leadership: A multi-level study of the construction industry. *Acta Psychologica,* 253, 104732.

Siddiquei, A. N., Ahmad, S., & Asmi, F. (2025). Fostering team resilience with servant leadership: A multi-level study of the construction industry. *Acta Psychologica*, 253, 104732. https://doi.org/10.1016/j.actpsy.2025.104732

Sung, T. & Savaspakdee, V. (2021). The deteriorating role of active transactional leadership on employees perceived uncertainty and emotional exhaustion: evidence from educational sector of Thailand. *Journal of Contemporary Research in Business Economics and Finance*, 3(3), 60–69. https://doi.org/10.33094/ 26410265.2021.33.60.69.

Tariq, J., & Gardezi, S. S. (2023). Study of delays and conflicts in construction projects and their mutual relationship: A review. *Ain Shams Engineering Journal,* 14(1), 101815. https://doi.org/10.1016/j.asej.2022.101815

Tran, T.N.T., Felfernig, A. & Le, V.M. (2024). An overview of consensus models for group decision-making and group recommender systems. *User Modeling and User-Adapted Interaction,* 34, 489–547. https://doi.org/10.1007/s11257-023-09380-z

Trigueros, R., Padilla, A., Aguilar-Parra, J. M., Mercader, I., López-Liria, R., & Rocamora-Pérez, P. (2020). em *International Journal of Environmental Research and Public Health*, 17(20), 7687.

Tuckman, B. W. (1965). Developmental sequence in small groups. *Psychological Bulletin*, 63(6), 384–399.

Turner, J. R., & Muller, R. (2005). The project manager's leadership style as a success factor on projects: A literature review. *Project Management Journal*, 36(1), 49–61.

Van Vianen, A. E. M., & De Dreu, C. K. W. (2001). Personality in teams: Its relationship to social cohesion, task cohesion, and team performance. *European Journal of Work and Organizational Psychology*, 10(2), 97-120.

Vázquez, G. V., Casal, C. C., Álvarez-Pérez, D., & Araújo, M. L. d. R. (2018). Promoting the sustainability of organizations: Contribution of transformational leadership to job engagement. *Sustainability*, 10(11), 4109.

Wang, H., Tsui, A. S., & Xin, K. R. (2011). CEO leadership behaviors, organizational performance, and employees' attitudes. *The Leadership Quarterly*, 22(1), 92–105.

Windapo, A., & Cattell, K. (2021). Causes and effects of ineffective communication on construction projects. *Journal of Engineering, Design and Technology*, 20(2), 456–480.

Yimam, M. H. (2022). Impact of leadership style on employee commitment in Bahir Dar University, Ethiopia. Teaching Public Administration, 41(3), 303-318.

Yukl, G. A., & Gardner, W. L. (2020). *Leadership in organizations* (9th ed.). Pearson Education.

Yukl, G.A. (2013). *Leadership in organizations* (8th ed.). Pearson.

Zada, M., Khan, J., Saeed, I., Zada, S., & Jun, Z. Y. (2023). Linking public leadership with project management effectiveness: Mediating role of goal clarity and moderating role of top management support. *Heliyon*, 9(5), e15543.

Zaman, U., Florez-Perez, L., Khwaja, M. G., Abbasi, S., Qureshi, M. G. (2021). Exploring the critical nexus between authoritarian leadership, project team member's silence and multi-dimensional

success in a state-owned mega construction project. *International Journal of Project Management*, 39(8), 873–886. https://doi.org/10.1016/j.ijproman.2021.10.007

Zhang, Q. & Hao, H. (2022). Construction project manager's emotional intelligence and team effectiveness: The mediating role of team cohesion and the moderating effect of time. *Frontiers in Psychology*, 13, 845801. https://doi.org/10.3389/fpsyg.2022.845801