

Optimizing Leadership Styles for Enhanced Skills Transfer Among Construction Managers in Lagos State, Nigeria

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ABSTRACT

It is essential to comprehend how shared leadership, transformational leadership, and other leadership philosophies can be used to encourage the transfer of skills in Lagos State's construction management industry. In order to achieve sustainable project success, it is also essential to optimize leadership styles for improved skills transfer among construction managers. Organizations can create strategies that improve project outcomes overall and individual performance by looking at how leadership styles affect the acquisition and application of skills. The purpose of this study is to examine how leadership styles can improve the transfer of skills among construction managers in Lagos State, Nigeria. Improved cooperation, employee performance, and project outcomes in construction environments have been strongly associated with leadership methods, especially transformational and transactional types.

This study focuses on the ways in which different styles affect skills transfer, which is essential to accomplishing organizational objectives and project success. For this study, a quantitative research methodology was adopted. Data was gathered in Lagos State, Nigeria, by distributing questionnaires to registered engineers, architects, builders, and quantity surveyors. Three hundred and fifty (350) questionnaires were distributed using the census technique; 228 of them were returned and deemed appropriate for examination. The questionnaire received responses from about 62% of the sample. In addition, with descriptive data like mean scores and frequency distribution, the results were displayed in tables and charts. The statistical techniques that were employed were factor analysis and the mean item score. Effective communication, management support, mentorship programs, and emotional intelligence are emphasized in the analysis as crucial tactics for maximizing leadership styles to enhance skills transfer. The results suggested that in order to improve project performance and sustainability in the construction sector, it is critical to create a collaborative and flexible leadership environment that encourages ongoing learning and development.

Keywords: Construction Managers, Mentorship Programs, Skills Transfer, Transformational Leadership, Transactional Leadership,

INTRODUCTION

In the dynamic and complex landscape of construction management, effective leadership is paramount for navigating challenges and driving project success. Leadership styles, particularly transformational and transactional leadership, have been extensively studied within this sector, revealing their significant impact on employee performance, team dynamics, and overall project outcomes. According to Yousif et al. (2015), these leadership philosophies are commonly used by construction project managers and are linked to better teamwork and increased productivity, which eventually result in project success. The capacity to create a cooperative atmosphere where team members are encouraged to contribute to project objectives and maximize organizational performance highlights the efficacy of certain leadership philosophies (Grill et al., 2018; Lingard et al., 2019). The transfer of abilities through leadership styles has been increasingly important in construction management in recent years. To maximize project performance and accomplish organizational objectives, it is critical to comprehend how various leadership philosophies support team members' skill development and application. Increased productivity, better project execution, and higher stakeholder satisfaction have all been associated with effective leadership (Clarke, 2012). In order to customize leadership

techniques that optimize employee potential and project performance, more research is necessary to fully understand the complex interaction between leadership styles and skills transfer (Kelloway et al., 2006). This understanding is particularly relevant in Lagos State, Nigeria, where the construction sector faces unique challenges and opportunities that necessitate a nuanced understanding of leadership dynamics. Furthermore, several industries have emphasized the importance of transformational leadership in raising worker performance (Magasi, 2021), suggesting the possible advantages of particular leadership philosophies in raising results. It is essential to comprehend how shared leadership, transformational leadership, and other leadership philosophies can be used to encourage the transfer of skills in Lagos State's construction management industry.

It is essential to investigate how mindset behavior influences skills transfer among construction managers in Lagos State, despite existing studies that have explored the relationship between project managers' mindset behavior and leadership styles in the construction industry (Owusu-Manu et al., 2020). Additionally, studies in several industries have examined how leadership styles affect workers' job performance (Omogero & Okwutu, 2023), highlighting the importance of leadership in promoting performance results. Limited research exists on the impact of leadership styles on skills transfer, particularly within Lagos State's construction industry. By examining the link between leadership styles and skills transfer, this study can provide valuable insights for enhancing the effectiveness of construction management practices in Lagos State.

Optimizing leadership styles for enhanced skills transfer among construction managers is critical for achieving sustainable project success. Organizations can create plans that increase individual performance and project outcomes by looking at how leadership styles affect the development and application of skills. The hierarchical structure of construction management also makes it necessary to comprehend how leadership philosophies affect feedback and communication systems in order to promote the smooth transfer of expertise at every level of the project hierarchy. This thorough examination of leadership philosophies and how they affect the transfer of skills is crucial to improving project management techniques in the building sector.

LITERATURE REVIEW

Leadership Styles in Construction Management

In the construction sector, leadership styles play a critical role in project outcomes, team dynamics, and overall performance. According to research, relationship-oriented leadership styles are more important for Thai construction project managers than task-oriented ones (Limsila & Ogunlana, 2008). Construction innovation has been found to be influenced by both transformational and transactional leadership styles, with the effectiveness of each type varying according to situational factors (Zheng et al., 2019). Furthermore, humble leadership has been associated with improved project performance and team effectiveness, indicating that it may have advantages over transformative leadership in some circumstances (Ali et al., 2020). Leadership styles among construction project managers have also been linked to emotional intelligence (Potter et al., 2018).

According to Grzesik and Piwovar-Sulej (2018), flexibility in leadership styles has been emphasized as being crucial for effective project management, with a focus on adaptability to a variety of project requirements. Democratic, transformational, and situational leadership styles have been found to be important for project performance in Ghana's construction industry. This highlights the significance of matching leadership styles to team dynamics and project needs (Owusu-Manu et al., 2020). With research comparing leadership styles in post-disaster and non-disaster construction projects, there is continuous discussion on which leadership style is best for project success in the construction sector (Witton et al., 2019). Construction safety atmosphere has been demonstrated to be impacted by safety leadership styles, highlighting the importance of leadership in establishing a secure workplace (Sankar et al., 2022).

In Australian construction contexts, workgroup health and safety have been found to be influenced by leadership styles and communication techniques. This underscores the significance of leadership in establishing safety cultures and behaviors within construction teams (Lingard et al., 2019). Additionally, the performance of employees in construction companies has been linked to leadership styles, organizational

communication, and work satisfaction, demonstrating the complex influence of leadership on organizational functioning (Yudiawan et al., 2017). There are several different and significant leadership philosophies in construction management that affect different facets of projects and team dynamics. The intricacy of leadership in construction contexts emphasizes how project managers must modify their approaches to match changing project requirements and foster productive workplaces.

Impact of leadership styles on project performance and team dynamics

Leadership styles significantly shape team dynamics and project outcomes within the construction industry. Kariuki (2018) notes that project managers employing transformational leadership can inspire team members, enhancing project timelines and overall success. In Polish construction firms, the interaction between a project manager's leadership style and teamwork is a critical factor in achieving project success (Grzesik & Piwowar-Sulej, 2018). Effective leadership styles have a strong positive impact on teamwork, leading to improved project outcomes. Numerous studies underscore the importance of project managers' leadership approaches and skills in driving project success. In Ghana, project managers' leadership philosophies play a vital role in strengthening team relationships and enhancing project performance (Ametepey et al., 2022).

Effective leadership is essential for fostering teamwork and achieving project success. Owusu-Manu et al. (2020) report that Ghanaian project managers in construction seek adaptable leadership philosophies that boost project performance. Research indicates a significant relationship between a project leader's professional background, leadership style, team composition, and project performance (Limsila & Ogunlana, 2008). In South Africa's construction sector, project managers' leadership practices are crucial for elevating employee performance and meeting project objectives, underscoring the role of effective leadership in team management and successful project completion (Emere et al., 2021).

The success of construction companies is closely linked to leadership and team effectiveness, with appropriate leadership styles playing a critical role in supporting project success (Yudiawan et al., 2017). Project managers who adapt their leadership styles to align with specific work environments and project types positively influence project outcomes, emphasizing the value of adaptive leadership in construction projects (Vaagaasar et al., 2020). The leadership style preferred in managerial roles within construction management plays a crucial role in project success. The experiences and chosen leadership styles of individual project managers significantly shape project outcomes and offer valuable insights for future research.

A project leader's ability to apply effective leadership styles has a profound impact on overall project performance (Tahir & Naeem, 2017). In addition, the leadership behaviors of construction project managers are notably affected by their emotional intelligence; high emotional intelligence fosters transformational leadership behaviors, which in turn enhance project and organizational success (Potter et al., 2018). The application of effective leadership styles is vital for improving workplace atmosphere, job satisfaction, and productivity. Leadership styles strongly influence team dynamics and project performance in the construction industry. Teamwork is encouraged, project performance is improved, and total project success is influenced by effective leadership styles. To secure successful project outputs, cultivate teamwork, and create a healthy work atmosphere, project managers need to carefully assess their leadership tactics.

Skills Transfer in Construction Management

The transferable abilities that are necessary for project success and team performance must be taken into account while addressing the problem of skills transfers in construction management. For project teams to effectively exchange information and expertise, skill transfer in construction management is essential. Numerous studies offer insightful information about the value of skill transfer and how leadership abilities affect project performance in the construction sector. Ioi et al. (2012) conducted a pertinent study that suggests a model for project management skill transfer that emphasizes stages like knowledge extraction, recognition, practical transfer, and evaluation. According to Ioi et al. (2012), this model emphasizes the methodical approach required for efficient skills transfer in construction project management. Furthermore, beyond credentials and experience, Volmer et al. (2021) emphasize the value of transferable abilities including communication, teamwork, and leadership in improving project success. Manoharan et al. (2021) compare the

skills of domestic and international construction workers in construction management, underscoring the importance of transferable skills applicable across various employment sectors. Additionally, Xu et al. (2019) examine knowledge transfer in project-based organizations, highlighting the role of organizational culture in facilitating knowledge sharing and transfer between project teams. In their investigation of the connection between pre-construction leadership abilities and the accomplishment of sustainable construction projects, Latiffi & Zulkiffli (2021) emphasize the importance of teamwork, communication, planning, and conflict resolution abilities. Furthermore, technical, interpersonal, and conceptual abilities are recognized by Natukunda et al. (2020) as critical managerial competencies impacting worker productivity in the building construction sector. Thulani et al. (2020) emphasize that integrating newly graduated construction managers into the industry requires a solid understanding of skills and knowledge transfer within construction management. Graduates must have the essential skills and talents to fulfill industry demands and work well in project teams in order to complete this integration process. One important factor affecting project success, team chemistry, and overall performance is the transfer of construction management skills. Construction managers can improve project outcomes and guarantee the effective completion of construction projects by concentrating on cultivating and imparting critical abilities like technical know-how, leadership, and communication.

Influence of Leadership Styles on Stakeholder Management Practices in Construction Projects

In construction projects, leadership philosophies have a significant impact on stakeholder management techniques. Project managers' leadership style has a direct impact on how well they manage stakeholders and guarantee project success (Kalambayi et al., 2021). The significance of choosing the right leadership styles based on project requirements and stakeholder needs is emphasized by the fact that different leadership philosophies have varying effects on stakeholder involvement and project outcomes (Blom, 2023). The need for adaptable leadership techniques in construction projects is underscored by the influence of project managers' personal characteristics and leadership styles suited to specific project lifecycle stages and varying complexity levels (Blom, 2023).

Kariuki (2018) asserts that the leadership style that project managers choose has a direct impact on how well construction projects operate. Specifically, project managers' leadership style and intellectual stimulation have a big impact on team member engagement and project time performance (Kariuki, 2018). According to Kariuki (2018), project managers that are able to intellectually challenge their team members are more likely to cultivate an innovative and high-performing culture inside the project environment, which will ultimately have a favorable impact on stakeholder management procedures and project outcomes. This emphasizes how crucial transformational leadership is in encouraging and inspiring project teams to meet project objectives. The significance of leadership in stakeholder management within construction projects is further demonstrated by the impact of leadership styles on worker performance in construction firms (Kalambayi et al., 2021). The study highlights that project managers' leadership styles directly influence worker performance, with certain leadership approaches yielding a stronger impact on performance outcomes (Kalambayi et al., 2021). A tailored blend of leadership philosophies that take into account the particular needs of the project and the team members engaged is necessary for effective leadership in construction projects. Project managers that are able to include every team member in decision-making exhibit strong leadership, which enhances stakeholder relations and team performance.

The connection between leadership practices and project outcomes is evident in how organizational culture and leadership styles together influence the creative behaviors of participants in construction projects (Zheng et al., 2019). Leadership styles that align with company culture can encourage innovative behaviors among project participants, thereby enhancing stakeholder management processes and improving project performance (Zheng et al., 2019). Project managers must comprehend how corporate culture, stakeholder involvement, and leadership styles interact in order to successfully negotiate the challenges of construction projects. Leadership style is crucial in the construction sector for motivating staff to meet project goals (Emere et al., 2021). Effective project managers are able to effectively lead staff, which results in projects being completed successfully and stakeholders' expectations being met (Emere et al., 2021).

Project success and the efficacy of stakeholder management are also influenced by project managers' capacity to modify their leadership philosophies according to the kind of project and workspace (Vaagaasar et al., 2019). Sustaining stakeholder relationships and guaranteeing project success demand that leadership approaches be modified to fit the needs and environment of the project. Furthermore, it has been discovered that responsible leadership techniques enhance the overall performance of stakeholders in building projects, underscoring the significance of moral and responsible leadership in successfully managing stakeholders (Lin, 2024). By encouraging a culture of openness and accountability, responsible leadership not only improves stakeholder interactions but also helps projects succeed overall (Lin, 2024). Project managers can increase credibility and trust with stakeholders by putting their needs first and practicing responsible leadership. This will eventually improve project outcomes and stakeholder satisfaction. Stakeholder management procedures in construction projects are significantly impacted by leadership styles. In order to effectively manage stakeholders, project managers must adopt leadership styles that are in line with company culture, stakeholder expectations, and project requirements.

RESEARCH METHODOLOGY

This study adopted a quantitative research methodology, with data collected in Lagos State, Nigeria, through questionnaires distributed to registered engineers, architects, builders, and quantity surveyors. The primary aim of the questionnaire was to gather demographic information from respondents, including their occupation, years of experience, and academic background. This data is essential for the research, which aims to capture diverse expert perspectives on how best to optimize leadership styles to enhance the transfer of skills within the construction industry. The self-administered survey sought to explore strategies for maximizing leadership styles to improve skills transfer in the sector. Respondents rated items on a Likert-type scale ranging from 1 (Very Low) to 5 (Very High).

The study targeted licensed architects, quantity surveyors, builders, and engineers in Lagos State, Nigeria. The sample size was determined using the Yamane (1967) formula: $n = N / 1 + N(e)^2$, which calculated a minimum sample size of 370 construction professionals. A total of 350 questionnaires were distributed using a census approach, and 228 completed responses were received and deemed suitable for analysis. This represents a 62% response rate, which exceeds the typical 20-30% response rate common in management research surveys (Hatamleh et al., 2018). The survey data were collected over two months, with results presented in tables and charts, including descriptive statistics such as mean scores and frequency distributions. Statistical techniques such as factor analysis and mean item score were used for data analysis, and the reliability of the instrument was assessed using Cronbach's alpha. The analysis was conducted using SPSS 27, a statistical software for social sciences.

ANALYSIS OF RESULTS AND DISCUSSION OF FINDING

Table 1 displays the background analysis of the respondents. According to gender, just 33 respondents, or 14.5% of the total, are female, while 195 respondents, or 85.5% of the total, are male. According to Type of Practice, the respondents' professional backgrounds are diverse. Of them, architects make up 12.3% (28 respondents), builders make up 28.1% (64 responses), civil engineers make up 33.8% (77 respondents), and quantity surveyors make up 25.9% (59 respondents). Additionally, the majority of respondents (81.1%) had an HND, B.Sc., B.Tech., or PGD (185 respondents), while the remaining 18.9% (43 respondents) had an MSc degree. The results as presented in Table 1 indicated that the respondents' years of experience differed by profession, with 23.7% (54 respondents) having 1–5 years of experience and 25.4% (58 respondents) having 6–10 years. 33.3%, or 76, of the respondents had between 11 and 15 years of experience, followed by 10.1%, or 23, who had between 16 and 20 years, and 7.5%, or 17, who had been in practice for more than 20 years.

According to the professional qualification results, the respondents have a variety of professional certifications: 32% (78 respondents) are certified by MNSE/COREN, 14% (32 respondents) are members of MNIA/ARCON, 25.9% (59 respondents) are members of NIOB/CORBON, and 25.9% (59 respondents) are qualified by MNIQS/QSRBN. The findings under the Size of Organization category show that respondents work for a variety of companies: 45.2% (103 respondents) are employed by organizations with 21–50 people, 27.2% (62 respondents) are employed by organizations with 51–100 people, and 27.6% (63 respondents) are

employed by organizations with more than 100 people. The data show that male civil engineers with an HND, B.Sc., B. Tech, or PGD make up the majority of responders. They work for organizations with 21–50 employees, have 11–15 years of experience, and are certified by MNSE and COREN.

Table 1: Background Information of Respondents

Factors	Variables	Frequency	Percent
Gender	Male	195	85.5
	Female	33	14.5
	Total	228	100.0
Type of Practice	Architect	28	12.3
	Builder	64	28.1
	Civil Engineer	77	33.8
	Quantity Surveyor	59	25.9
	Total	228	100.0
Highest Academic Qualification	HND/B.Sc./B.Tech/PGD	185	81.1
	MSc	43	18.9
	Total	228	100.0
Years of Practicing	1-5yrs	54	23.7
	6-10yrs	58	25.4
	11-15yrs	76	33.3
	16-20yrs	23	10.1
	Above 20yrs	17	7.5
	Total	228	100.0
Professional qualification	MNIA/ARCON	32	14.0
	NIOB/CORBON	59	25.9
	MNSE/COREN	78	34.2
	MNIQS/QSRBN	59	25.9
	Total	228	100.0
Size of Organization	21-50	103	45.2
	51-100	62	27.2
	Above 100	63	27.6
	Total	228	100.0

Strategies to Optimize Leadership Styles to Improve Skills Transfer Within the Construction Industry

A thorough grasp of the components that contribute to effective leadership is revealed through the examination of various elements and tactics that impact leadership effectiveness. The significance of emotional awareness, structured mentorship, and management support in leadership development is demonstrated by factors such as emotional intelligence (mean = 4.26), the lack of mentorship programs (mean = 4.20), and the lack of management support (mean = 4.17). Furthermore, tactics such as training and development (mean = 4.33),

trust building (mean = 4.38), and effective communication (mean = 4.51) are found to be crucial for creating a supportive leadership environment. The need for leaders to adjust and understand interpersonal dynamics within their teams is further highlighted by the importance of a Continuous Improvement Mindset (mean = 4.33) and Understanding Team Dynamics (mean = 4.32). Other noteworthy tactics that emphasize the value of cooperation and clear communication include a Knowledge Sharing Culture (mean = 4.24), the Use of Technology (mean = 4.22), and Feedback Mechanisms (mean = 4.21). According to the analysis, while training and development, trust building, and effective communication are prioritized, cultural competence (mean = 3.97) and social network utilization (mean = 3.84) are acknowledged but may not be given as much emphasis. The variation in standard deviations among these variables and tactics points to differing perspectives and experiences among the participants, underscoring the multifaceted nature of leadership dynamics. Table 2 presents the various strategies to optimize leadership styles and improve skills transfer within the construction industry

Table 2: Strategies to optimize leadership styles to improve skills transfer within the construction industry

S/N	Strategies	Mean	Std. Deviation	Rank
1	Effective Communication	4.51	0.821	1
2	Trust Building	4.38	0.750	2
3	Training and Development	4.33	0.776	3
4	Continuous Improvement Mindset	4.33	0.692	4
5	Understanding Team Dynamics	4.32	0.726	5
6	Adaptability to Change	4.28	0.818	6
7	Knowledge Sharing Culture	4.24	0.676	7

Table 2: Strategies to optimize leadership styles to improve skills transfer within the construction industry Contd.

S/N	Strategies	Mean	Std. Deviation	Rank
8	Use of Technology	4.22	0.712	8
9	Feedback Mechanisms	4.21	0.740	9
10	Collaborative Learning Environments	4.21	0.755	10
11	Recognition and Reward Systems	4.20	0.959	11
12	Mentorship Programs	4.18	0.806	12
13	Emphasis on Safety Training	4.14	0.757	13
14	Project Management Standardization	4.12	0.809	14
15	Leadership Styles	4.09	0.775	15
16	Generational Awareness	4.07	0.837	16
17	Emotional Intelligence	4.06	0.927	17
18	Performance Metrics	4.05	0.814	18
19	Cultural Competence	3.97	0.895	19
20	Social Network Utilization	3.84	0.893	20

Factor Analysis for Strategies to optimize leadership styles to improve skills transfer within the construction industry

Factor analysis was conducted to identify variables that could measure aspects of the same underlying dimensions. Prior to performing principal component analysis, the suitability of the data was assessed. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was used to evaluate whether the data distribution was suitable for factor analysis.

According to Field (2009), a dataset with a KMO index of 0.50 or higher and a significant Bartlett's test of sphericity ($p < 0.05$) is deemed appropriate for factor analysis. As shown in Table 3, the KMO index value is 0.832 (which is greater than 0.5), and the Bartlett's test of sphericity is significant ($p = 0.000$). These results confirm that the sampling is adequate for conducting factor analysis.

Table 3: KMO and Bartlett’s Test for Strategies to optimize leadership styles to improve skills transfer within the construction industry

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.832
Bartlett's Test of Sphericity	Approx. Chi-Square	3419.967
	Df	190
	Sig.	0.000

Strategies to optimize leadership styles to improve skills transfer within the construction industry

Table 4 shows that three components with eigenvalues greater than 1.0 were extracted, using a factor loading cutoff of 0.30, as recommended by Pallant (2005). The total variance explained (TVE) by each extracted component is as follows: component 1 (48.17%), component 2 (9.48%), and component 3 (5.65%). Thus, the final results of the principal component analysis indicate that the extracted components account for approximately 63% of the total cumulative variance among the factors. Since it is rare to neatly categorize behavior into independent groups, the use of orthogonal rotation could result in the loss of valuable information if correlations exist among the factors. Therefore, theoretically, an oblique rotation is preferred for providing a more accurate solution. Oblimin rotation, an oblique method, was chosen over varimax, an orthogonal method, because in social science research, correlations among factors are generally expected. If no correlations exist, both oblique and orthogonal rotations produce nearly identical results (Costello & Osborne, 2005).

Table 4: Total Variance Explained for Strategies to optimize leadership styles to improve skills transfer within the construction industry

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		Rotation Sums of Squared Loadings ^a	
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	9.634	48.169	48.169	9.634	48.169	48.169	7.791
2	1.896	9.480	57.649	1.896	9.480	57.649	6.383
3	1.130	5.652	63.301	1.130	5.652	63.301	5.482
4	0.990	4.950	68.251				
5	0.912	4.559	72.809				
6	0.808	4.041	76.850				

7	0.702	3.508	80.357				
8	0.683	3.415	83.773				
9	0.530	2.649	86.422				
10	0.472	2.359	88.781				
11	0.370	1.850	90.631				
12	0.346	1.731	92.362				
13	0.318	1.588	93.951				
14	0.260	1.298	95.249				
15	0.244	1.220	96.469				
16	0.210	1.050	97.519				
17	0.172	0.862	98.381				
18	0.161	0.807	99.188				
19	0.098	0.492	99.680				
20	0.064	0.320	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Table 5 shows the various pattern matrix for strategies to optimize leadership styles to improve skills transfer within the construction industry.

Table 5: Pattern Matrix for Strategies to Optimize Leadership Styles to Improve Skills Transfer Within the Construction Industry

FACTOR	Component		
	1	2	3
Mentorship Programs	0.865		
Adaptability to Change	0.849		
Effective Communication	0.824		
Knowledge Sharing Culture	0.807		
Training and Development	0.694		
Feedback Mechanisms	0.637		
Trust Building	0.626		
Understanding Team Dynamics	0.592		
Continuous Improvement Mindset	0.558		
Project Management Standardization	0.331		
Emotional Intelligence		0.873	
Cultural Competence		0.820	
Recognition and Reward Systems		0.727	
Collaborative Learning Environments		0.651	
Performance Metrics		0.505	

Generational Awareness			0.803
Social Network Utilization			0.693
Emphasis on Safety Training			0.571
Use of Technology			0.467
Leadership Styles			0.424

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 14 iterations.

Reporting the Three Clustered Factors for Strategies to Optimize Leadership Styles to Improve Skills Transfer Within the Construction Industry

The pattern matrix displays the coefficients for the linear combination of the measured variables. Negative factor loadings indicate that the variables should be interpreted in the opposite direction, though this does not exclude them from the constructs (Burns & Grove, 1993; Pallant, 2011). Each factor was named based on a label that reflects all the variables associated with it. In cases where it was challenging to select an appropriate name, the variable(s) with the highest factor loadings among those that loaded onto a factor were used to assign the name. The three factor groupings are reported as follows:

A total of ten (10) variables loaded onto Factor 1, as shown in Table 6, indicating that these variables are recognized as the primary factors for Strategies to Optimize Leadership Styles. This factor loads ‘Mentorship Programs’, ‘Adaptability to Change’, ‘Effective Communication’, ‘Knowledge Sharing Culture’, ‘Training and Development’, ‘Feedback Mechanisms’, ‘Trust Building’, ‘Understanding Team Dynamics’, ‘Continuous Improvement Mindset’, and ‘Project Management Standardization’. Therefore, they are collectively called ‘Mentorship Programs’ and accounts for 48.17 percent of the variance. Five (5) variables were loaded onto Factor 2 as shown in table 6.

This factor loads ‘Emotional Intelligence’, ‘Cultural Competence’, ‘Recognition and Reward Systems’, ‘Collaborative Learning Environments’, and ‘Performance Metrics’. Therefore, they were collectively called ‘Emotional Intelligence’ and account for 9.48 percent of the variance. Five (5) variables were loaded onto Factor 3 as shown in table 6. This factor loads ‘Generational Awareness’, ‘Social Network Utilization’, ‘Emphasis on Safety Training’, ‘Use of Technology’, and ‘Leadership Styles’. As a result, these variables were collectively labeled "Generational Awareness" and account for 5.65 percent of the variance.

Table 6: Reduced Components for Strategies to Optimize Leadership Styles to Improve Skills Transfer Within the Construction Industry

Components	Variables	Factor loadings
Mentorship Programs	Mentorship Programs	0.865
	Adaptability to Change	0.849
	Effective Communication	0.824
	Knowledge Sharing Culture	0.807
	Training and Development	0.694

	Feedback Mechanisms	0.637
	Trust Building	0.626
	Understanding Team Dynamics	0.592
	Continuous Improvement Mindset	0.558

Table 6: Reduced Components for Strategies to Optimize Leadership Styles to Improve Skills Transfer Within the Construction Industry Contd.

Components	Variables	Factor loadings
	Project Management Standardization	0.331
Emotional Intelligence	Emotional Intelligence	0.873
	Cultural Competence	0.820
	Recognition and Reward Systems	0.727
	Collaborative Learning Environments	0.651
	Performance Metrics	0.505
Generational Awareness	Generational Awareness	0.803
	Social Network Utilization	0.693
	Emphasis on Safety Training	0.571
	Use of Technology	0.467
	Leadership Styles	0.424

DISCUSSION OF FINDINGS

This section contains a report on the discussion of the findings. The analysis's findings, which came from the disseminated surveys, form the basis of the discussion. To determine if the studies' contributions to the body of knowledge are in agreement or disagreement, connections are created between observations made about the results and earlier research that was similar to the research activity.

Strategies to Optimize Leadership Styles to Improve Skills Transfer Within the Construction Industry

To optimize leadership styles and enhance skills transfer in the construction sector, key strategies include management support, mentorship programs, and emotional intelligence. Emotional intelligence enables leaders to understand and manage both their own emotions and those of their team members, fostering a collaborative environment that promotes effective communication and skill sharing (Rehman et al., 2022). Additionally, it has been demonstrated that the use of mentorship programs promotes professional growth and knowledge transfer since mentors offer mentees encouragement, direction, and constructive criticism (Yardley et al., 2018).

Furthermore, according to Rehman (2023), a lack of management support may make these initiatives less successful. For this reason, leaders must actively work to establish a supportive culture that values emotional

intelligence and mentoring as essential elements of leadership. Optimizing leadership styles to improve skills transfer in the construction business requires training and development, trust-building, and effective communication. According to Wart (2012), leaders who speak openly and sympathetically help their team members develop trust, which is essential for cooperation and information exchange. Additionally, team cohesion and resilience are greatly enhanced by good communication techniques, including nonverbal indications, especially under trying situations (Azhar, 2024).

Developing leadership communication skills through training programs will help leaders become more effective, which will improve team performance and make it easier for important skills needed for construction project success to be transferred (Lee, 2021). To maximize leadership styles and optimize skills transfer in the construction sector, it is crucial to embrace a philosophy of continual improvement and comprehend team dynamics. According to Jiang and Luo (2018), effective leadership creates an atmosphere that is conducive to trust and engagement, both of which are essential for enabling team members to transfer skills. According to Vignoli et al. (2018), transformational leadership, which focuses on teamwork and employee development, has a strong impact on self-efficacy and the intention to transfer skills. By prioritizing these strategies, leaders can cultivate a culture of learning and adaptation, ultimately improving team performance and project outcomes (Coolen et al., 2015). Based on the factor analysis conducted on strategies to optimize leadership styles for improving skills transfer within the construction industry, three factors emerged, which are discussed as follows:

Cluster Factor 1 - Mentorship Programs

A total of ten (10) variables loaded onto Factor 1, as shown in Table 6, indicating that these variables are recognized as the primary factors for Strategies to Optimize Leadership Styles. This factor loads 'Mentorship Programs', 'Adaptability to Change', 'Effective Communication', 'Knowledge Sharing Culture', 'Training and Development', 'Feedback Mechanisms', 'Trust Building', 'Understanding Team Dynamics', 'Continuous Improvement Mindset', and 'Project Management Standardization'. These loaded variables in this factor are the most essential strategies to optimize leadership styles to improve skills transfer within the construction industry.

In the construction industry, mentoring programs are crucial for fostering a culture of open communication, flexibility, and information sharing, all of which enhance the transfer of professional skills. The construction sector benefits greatly from formal mentorship programs that provide guidance and encourage the development of team members' trust and interpersonal relationships because of its fast-paced work environment. Effective mentorship can lead to improved communication skills, more teamwork, and a deeper understanding of team dynamics, all of which are necessary for navigating the complexities of construction projects (Hoffmeister et al., 2011). Furthermore, by incorporating feedback mechanisms into these mentorship frameworks, mentors and mentees can advance and enhance their skills in response to shifting market demands, encouraging flexibility and continuous development (Cuervo et al., 2023). Furthermore, providing mentorship programs with opportunities for training and growth ensures that participants have the abilities required to meet the needs of the construction industry. This approach enhances individual performance and increases the overall effectiveness of project management by using established procedures that promote consistency and high-quality outputs (Deng et al., 2022). By creating a culture of trust and open communication, mentoring programs can significantly enhance the transfer of knowledge and skills, leading to a more capable and resilient workforce in the construction industry (Turesky et al., 2020).

Cluster Factor 2 - Emotional Intelligence

Five (5) variables were loaded onto Factor 2 as shown in table 6. This factor loads 'Emotional Intelligence', 'Cultural Competence', 'Recognition and Reward Systems', 'Collaborative Learning Environments', and 'Performance Metrics'. These loaded variables in this factor are the most essential strategies to optimize leadership styles to improve skills transfer within the construction industry.

Strategies like emotional intelligence, cultural competency, reward and recognition programs, collaborative learning environments, and performance metrics are essential for improving leadership styles and facilitating

greater skills transfer in the construction industry. Emotional intelligence enhances a leader's ability to manage relationships with people and fosters a supportive environment that makes talent transfer easier, claim Rock Stuhl et al. (2011). Leaders of diverse teams need to be culturally competent in order to handle and use cultural differences and enhance team performance (Groves & Feyerherm, 2011).

Programs for recognition and rewards boost employee motivation by reinforcing desired behaviors and skill development (Yim et al., 2022). Collaborative learning settings promote trust and shared knowledge, two things that are necessary for effective teamwork and skill transfer, claim Samriangjit et al. (2016). Finally, performance measurements offer quantifiable results that aid in evaluating these tactics' efficacy and directing future advancements (Radwan et al., 2019).

Cluster Factor 3 - Generational Awareness

Five (5) variables were loaded onto Factor 3 as shown in table 6. This factor loads 'Generational Awareness', 'Social Network Utilization', 'Emphasis on Safety Training', 'Use of Technology', and 'Leadership Styles'. These loaded variables in this factor are the most essential strategies to optimize leadership styles to improve skills transfer within the construction industry. To optimize leadership styles and enhance skills transfer, the construction industry has to incorporate strategies including generational awareness, social network usage, technology use, safety training emphasis, and adaptive leadership styles. Leaders can employ generational awareness to improve engagement and knowledge retention by tailoring their training and communication techniques to the diverse generations of their workforce (Lyubykh et al., 2022). Additionally, team members can interact and exchange knowledge by using social networks, which enhances group learning and safety protocols (Kines et al., 2010).

Prioritizing safety training is essential because it not only equips employees with the skills they need, but it also fosters a safety culture that can significantly reduce the frequency of accidents at work (Schwatka et al., 2020). Safety performance and climate are positively impacted by supervisors that demonstrate proactive engagement and visible commitment, which is commonly referred to as safety leadership (Goldenhar et al., 2019; Magalhães et al., 2022). Additionally, integrating technology into training and communication protocols can speed up operations, increase accessibility to safety resources, and enhance overall safety outcomes (Jameson, 2013). Finally, a flexible leadership style that adapts to the needs of the team and the situation can further enhance skills transfer by creating a supportive environment that is conducive to learning and development (Clarke, 2012; Skeepers & Mbohwa, 2015). Combining these strategies increases leadership effectiveness and ensures a safer and better-trained workforce in the construction industry.

CONCLUSION AND RECOMMENDATIONS

This study was able to Optimize Leadership Styles for Enhanced Skills Transfer Among Construction Managers in Lagos State, Nigeria. The study's findings led to the following conclusion; Optimizing leadership styles in the construction industry requires emotional intelligence, mentorship, management support, and effective communication. These strategies foster trust, collaboration, and continuous learning, enhancing team performance and facilitating the transfer of critical skills. Therefore, the recommendations are to improve management support for a learning culture, provide organized mentorship for knowledge sharing, give emotional intelligence top priority for improved teamwork, and maximize leadership in the construction industry. For a workforce that is resilient and cohesive, leadership training should place a strong emphasis on team dynamics, communication, and trust-building.

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