

INVESTIGATING THE INFLUENCE OF TRANSFORMATIONAL LEADERSHIP ON PERFORMANCE OF CONSTRUCTION COMPANIES IN LAGOS STATE: ARTISANS' PERSPECTIVES USING QUANTITATIVE METHOD

*Adebamowo, O.¹ & Adebamowo, M²

¹University of Lagos Business School

oyeyemiadebamowo@gmail.com

+2348022233472

(*Corresponding Author)

Abstract

This study leveraged transformational leadership theory to examine how artisans in construction companies in Lagos State can perform better in terms of project quality and productivity with the right leadership. The study focuses on 4 selected construction companies that have been in operations over 20 years and headquartered in Lagos State. Primary and secondary data were employed in this study through questionnaire from the staff of the 4 selected construction companies in Lagos State, and secondary data that covered 5 years from the companies (2018-2022). Convenience and cross-sectional survey methods were considered to administer 50 copies of questionnaire to the staff of each selected construction company in Lagos State making a total of 200 copies out of which 182 copies representing 91% response rate were completely filled and returned. Simple regression was used to test the hypothesis and the result revealed that transformational leadership can significantly influence the performance of artisans in Lagos State with $R=.747$, $t=15.258$, $p<0.05$. Trend analysis was used to determine the productivity of companies through the projects they have completed for the periods of five years for government and non-government projects. The results revealed that while Formwork was doing relatively well with government projects, other three construction companies were better in non-government projects. The study, therefore, suggests the need for managers in construction companies to consider artisans as one of the major internal stakeholders since their contributions go a long way to deliver quality projects and improved performance.

Keywords: Construction artisans, operational performance, productivity, transformational leadership

1.1 Introduction

Today's business environment is highly competitive, thereby making the enterprises such as construction companies to be more concerned with their growth and survival. However, the society also largely depends on the survival of construction companies in terms of job creations, infrastructural development, economic development and social responsibilities. This has demonstrated the reason why construction operators need to understand how a right leadership could be built to drive the activities of artisans who are primarily involved in core operational activities. Organisations could grow in the face of growing market, but the demand for transformational leadership appears having the propensity to multiply, thereby making leadership itself essentially important to the higher performance and effectiveness of construction companies. Leadership plays a crucial role in improving and retaining the interest and commitment of employees in organisation (Fardiansyah, Jumady & Djaharuddin, 2025). It is essential for success as it drives the vision, motivates employees and fosters innovation and growth towards superior

performance (Hariadi & Muafi, 2022). This is achievable when organisations that operate in environment like developing countries such as Nigeria consider transformational leadership as a major priority (Owusu-Agyeman, 2021; Rabiou & Zakari, 2021). The concept of leadership has been discussed from different perspectives. Hogan et al (2021) argued that leaders with strong commitment can foster organisational change; the leaders with transformational style can influence innovations within the organisation. Therefore, leadership style is a valuable capacity for organisations, and this signifies from every indication that transformational leadership has a significant relationship with the survival of enterprises (Demircioglu & Chowdhury, 2021; Kim & Lee, 2021).

Effective leadership could positively influence employee satisfaction, commitment and performance. Good leaders tend to inspire their team members through clear communication, setting high standards and offering guidance and support. By building trust and fostering a positive culture, leaders create an environment where employees feel valued and empowered to contribute their best (Fardiansyah, Jumady & Djaharuddin, 2025). Leadership approach in an organisation like construction firm plays a pivotal role in shaping its culture, employee engagement and overall performance (Vasudevan et al., 2023). In addition, the behaviour of leaders refers to action and attitudes exhibited by a leader when leading and influencing subordinates like artisans. It involves traits such as communication, decision making, empathy and integrity. The leadership skills exhibited in an organisation are critical for the success of any construction project (Alrazehi & Amirah, 2020).

As suggested by Li et al (2020), leaders who display transformational behaviour such as inspiring and motivating workers positively impact their performance outcomes. For instance, a leader in construction company who sets clear goals and direction with the right motivation, and provides timely feedback could significantly improve workers' productivity and quality of work. Furthermore, managers in construction companies who prioritize safety and establish a culture of accountability can enhance workers engagement and reduce accidents (Han, Oh & Kang, 2020).

1.2 Statement of the Problem

It is interesting to note that construction industry plays significant roles in infrastructural development because of the nature of their jobs regarding building and engineering. However, artisans involve in the major operational activities of this industry. In most cases, the areas where these artisans are needed are mostly deadly, challenging, and demanding physically. What the managers in construction companies may fail to understand is that the success of their organisations is greatly influenced by how the artisans are being managed in the place of work. As demonstrated in the literature, leaders need to understand that human beings are the most crucial component of the company, hence, they should be seen as being synonymous with the company. Interestingly, construction companies are not adequately paying increasing attention to the function of the vital role that leadership plays in driving the performance and innovation of artisans (Opoku, Ahmed & Cruickshank, 2015). Artisans' morale could be low in a construction company with bad leadership which can cause them to be less dedicated to the company goals. Project development and management appear significantly influenced by leadership (Al-Sada, Al-Esmael & Faisal, 2017). It involves trying to persuade workers to achieve higher results, and this could be impossible when there are terrible working conditions for the artisans. Therefore, in order to manage construction projects effectively, it is essentially necessary to foster high performance and team work between the superiors and subordinates like artisans (Hui & Singh, 2020). This study, therefore, seeks to examine how transformational leadership can drive the performance of construction companies in Lagos State from the perspective of artisans that do most of the work

in the industry. On this backdrop, the study is based on two objectives: i) to examine the influence of transformational leadership on the operational performance of artisans in construction companies in Lagos State; ii) ascertain the influence of transformational leadership on productivity of construction companies in Lagos State.

2. Literature Review

2.1. Concept of Transformational Leadership

Every organisation operates in an open system, thereby making the environment unpredictable for managers. However, with more complexity in the future owing to changing in business environment, good leadership is considered as being a veritable weapon to manage and retain workforce particularly those in construction sector (Lawler, 2007; Vasudevan et al., 2023). A good leadership tends to be aware of the rapid changes in the environment (industry, customers, clients, competitors, partners, products and services) as factors that constitute strengths, weaknesses, opportunities and threats (Manshadi *et al*, 2014). Inability to understand how these factors operate in a business setting may spell doom for managers and the general performance of organisation.

In attempt to compare a common adage in Nigeria with the importance of good leadership, Hassan and Faezeh (2011) state that as the trees get decomposed from the head and die, institutions do suffer from stupor and destruction when the top-level management of such establishment can no longer manage it. Therefore, transformational leadership signifies the degree to which the leader can effect a change that is not limited to the firm's culture but also extended to firm's profitability and survival (Cao & Le, 2024; Koednok, 2013). Consequently, transformational leaders inspire their people towards activities that are in line with the stated objectives and goals, and as well give them all the supports to achieve results beyond expectations (Cao & Le, 2024; Manshadi *et al*, 2014).

2.2 Concept of Performance in the Construction Industry

The increasing prominence of performance measurement has made organisational performance to be recognised by experts as essential efforts to support continuous enhancement methods and quantity the effectiveness of firm's actions (Garengo, Biazzo & Bititci, 2005; Mellado, Lou & Becerra, 2019; Oyewobi, Windapo & Rotimi, 2015). Traditionally, the performance of construction companies is focused on the quality of projects delivered, delivery time, and satisfaction of clients (Masoetsa et al., 2022; Unegbu, Yawas & Dan-Asabe, 2022). It also involves budgeting, level of defects, safety, durability, and profitability (Hove & Banjo, 2015; Oyewobi et al., 2015). However, clients anticipate continuous improvement from the construction companies they patronize so as to withstand any environmental challenges (Hove & Banjo, 2015; Unegbu et al., 2022).

Construction performance in the effectiveness and efficiency with which construction projects are planned, executed, and delivered in alignment with predefined goals related to cost, time, quality, safety, and client satisfaction (Majumder, Majumder & Biswas, 2022). It measures how well construction activities meet both technical standards and stakeholder expectations within the unique socio-economic, environmental, and regulatory conditions (Yahya, Abba, Yassin, Omar, Sarpin & Orbintang, 2024). Given the rapid urbanization, infrastructure deficits, and economic challenges in Nigeria, construction performance reflects the industry's ability to adapt to local constraints such as limited funding, bureaucratic inefficiencies, and a shortage of skilled labor (Alamu, Hassan, Asa & Odunayo, 2024). However, artisans play a vital role in achieving construction performance in Nigeria by providing the hands-on skills needed to execute building tasks with quality and precision (Idris, Mohammed, Kunya & Usman, 2025). Their craftsmanship

directly impacts key performance indicators such as time, cost, and quality, making them essential to the successful delivery of projects (Aluko, Omoniyi & Aluko, 2018; John, Faremi & Lawal, 2016).

2.3 Conceptual Framework

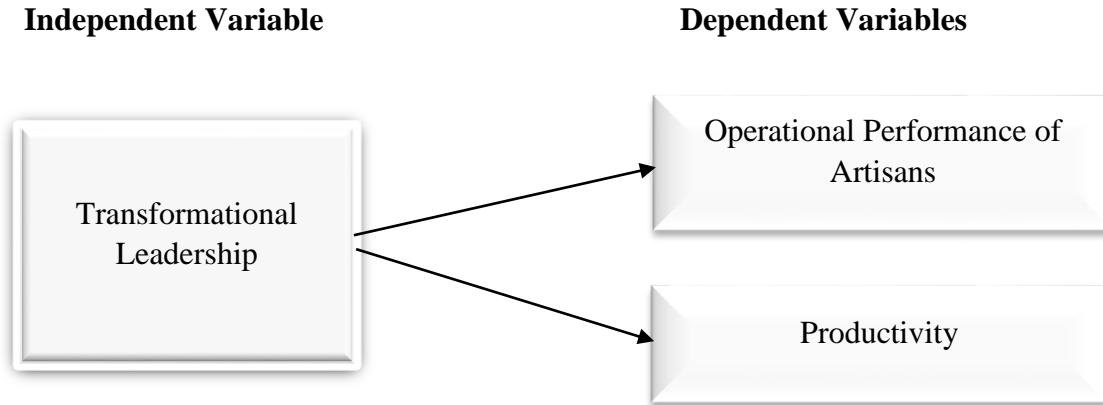


Fig. 1: The Study Conceptual Model

Source: Researcher's Field Survey (2025)

The model in figure 1 demonstrates the causal effect of transformational leadership on operational performance of Artisans and productivity of construction firms in Lagos State, Nigeria.

2.4 Transformational Leadership Theory

Transformational leadership theory is established on studies of charismatic leadership examined by Weber with the argument that charismatic leaders enjoy outstanding qualities which make them to be exceptional from others in terms of authority (Septriani, 2021). Therefore, this type of leadership habitually becomes known in the period of challenges by persuading the subordinates to stand firm so as to overcome the situation, and examples of such leaders are Mahatma Ghandi, Hitler, and Martin Luther. In the opinion of Damirch, Rahimi and Seyyedi (2011), the concept of transformational leadership was originally introduced by leadership specialist James MacGregor Burns in 1978.

However, from the time when burns introduced the theory of transformational leadership, a number of concepts have been developed, and the most well-known among them is the Bass theory of transformational and transactional leadership as argued by Yukl (1999). In the opinion of Damirch et al. (2011), Bernard Bass examined Burns initial ideas and built upon it to what is today regarded as Bass' transformational leadership theory. The Bass theory is different from Burns theory because Bass ideology does not view transactional and transformational leadership from opposite sides on a continuum like Burns point of view, but as two varied dimensions.

Transactional leaders tend to have an exchange relationship with their subordinates, while transformational leaders are concern about the people's values (Nurlina, 2022; Tafvelin, Armelius & Westerberg, 2011). This argument is the basis of this study to demonstrate how having transformational leaders in construction companies could inspire artisans towards achieving higher productivity and better performance. Transformational leadership is not only about developing people but also a leadership mechanism to enhance exceptional performance (Rao & Kareem Abdul, 2015). The ideology of Burns and Bass was further grouped into four components as examined in Koednok (2013) and presented in the figure 2.

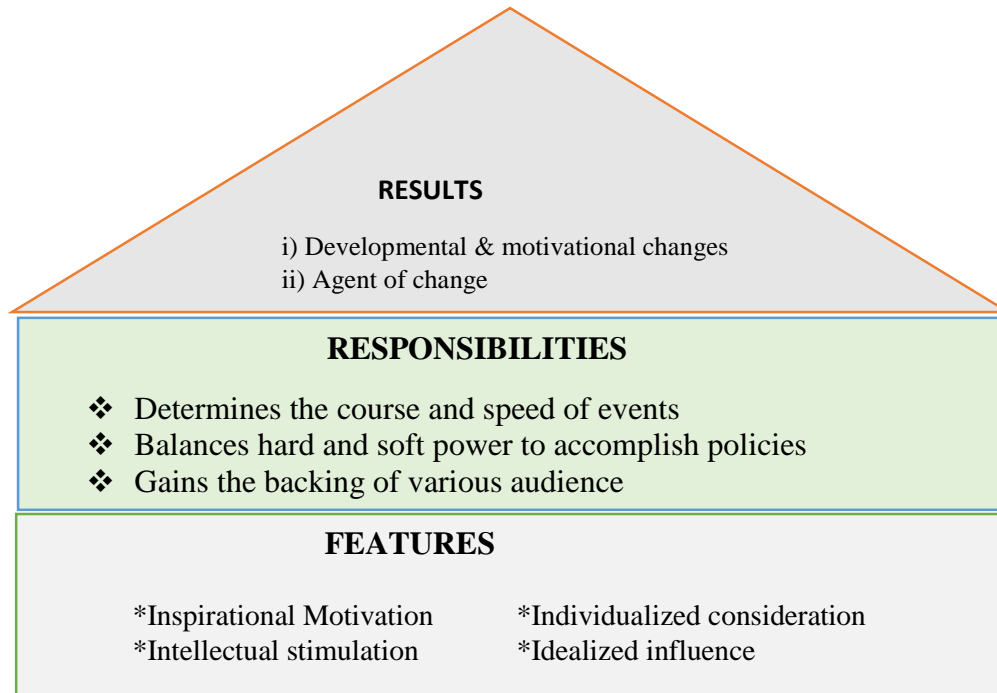


Fig. 2: Transformational Leadership Model

Source: Burns (1978) and Bass (1985) cited in Koednok (2013).

3. Methodology

This is a field survey study, and non-probability sampling technique via convenience method was applied to select the participants. Convenience sampling is considered in this study because it offers a method to receive specific feedback from individual perspectives. Convenience sampling is a method of non-probability sampling that involves the participants being drawn from a close population group with relevant knowledge about the study's concept. It is regarded as the option that is most advantageous for survey approach (Patterson, 2016; Roberts, 2014) as applicable in this study. However, this study has an element of probability sampling through randomization in making sure every participant has an equal chance to be part of the selection. The survey technique adopted in this study is cross-sectional investigation by way of dispensing and issuing copies of questionnaire. The justification around this is to get vital information and understanding into the association that exists amongst the variables.

The study involved the staff of 4 selected construction companies in Lagos State (Formwork Limited, Interkel Group, Brickhouse Construction Company Limited, and Vita Construction Plc). However, 50 participants were selected from each construction company using purposive method making a total of 200. Inclusion and exclusion criteria were deployed in this study to select the 4 construction companies on the basis of their ages in the sector (20 years and above) and the sectors they have covered in their projects such as government, and non-government projects. Lagos State was also considered in this study because it has the highest number of construction companies in Nigeria in terms of head offices (Akanni, Ikpo & Oke, 2022; Osuizugbo et al., 2025). Survey method was adopted simply because it offers the researcher to solicit primary and reliable data from appropriate respondents via distribution of questionnaire.

Data were gotten from primary source via questionnaire, and this is regarded as the field source because it is a way of getting information directly from the participants. Questionnaire, interview, and individual reflection are typically considered for the primary data. Essentially, this study

involved in using questionnaire, and individual reflection and observation to collect primary data from the participants. In addition, scoping approach was employed in this study by extracting secondary data from existing projects that the 4 selected construction companies have executed in the last five years. The hypotheses were tested with the use of simple regression statistic. Every outcome of the analysis from the hypotheses was tested and verified at 5% level of significance at calculated degree of freedom. In addition, the secondary data were analyzed using trend analysis.

4. Analysis

A correlation analysis was deployed to measure how the variables adopted in this study are interrelated.

Table 4.1: Correlation matrix among the study variables

S/N	Variables	N	1	2	3
1	Transformational Leadership	182	1		
2	Operational Performance of Artisans	182	.524**	1	
3	Productivity	182	.431**	.601**	1

Source: Researchers' Computation (2025)

In the Table 4.1, the correlation matrix establishes the degree of association among the variables, essentially to define the correlation coefficient among the variables. Though, the findings in the table 1 do not specify prediction but to determine the interactions among the study variables by adopting Pearson correlation statistical analysis at $**p < 0.01$. It was shown in the table 1 that transformational leadership (independent variable) is meaningfully correlated to the two dependent variables (operational performance artisans = .524** $p < 0.01$, and productivity = .431** $p < 0.01$). In addition, the association between the two dependent variables (operational performance artisans and productivity) was positive and significant (.601** $p < 0.01$). Considering the level of association between the independent and dependent variables, the study presumed that they are reasonably normal as they floated between -0.01 and 0.601 which does not create any concerns for multicollinearity.

Table 4.2: Demographic Profile of the Participants (Artisans in Construction Sites)

Characteristics	Status	Frequency	Valid Percent	Cumulative Percent
Age	21-30 years	59	32.4	32.4
	31-40 years	82	45.1	77.5
	41-50 years	41	22.5	100.0
	Total	182	100.0	
Marital Status	Single	37	20.3	20.3
	Married	145	79.7	100.0
	Total	182	100.0	
Highest Educational Qualification	PRY CERT	55	30.2	30.2
	WAEC/TECH	97	53.3	83.5
	OND/NCE	21	11.5	95.0
	Others	9	5.0	100.0
	Total	182	100.0	

Source: Fieldwork 2025

Table 2 illustrates the demographic spreading of sampled participants by showing their age with 32.4% of the participants between 21-30 years, while the majority of the participants with 45.1% were within 31-40 years, and the remaining 22.5% of the participants were within the range of 41-50 years. The spreading of participants on the basis of marital status indicated that 20.3% were

single, while the majority of the participants with 79.7% have married. Concerning the highest educational qualification the participants, 30.2% had primary school certificate, 53.3% of the participants had WAEC or technical certificates, 11.5% of the participants had OND/NCE, while the remaining 5.0% had other qualifications that were not captured in this study. The implication of this data is that artisans with WAEC and technical certificates responded more followed by primary school certificate.

Table 4.3: Presents regression analysis for transformational leadership and operational performance of artisans in construction companies in Lagos State

Model	N	R	R ²	Adj. R	Std Error	F	t	Beta	P-Value (Sig.)
Value	182	.747 ^a	.559	.556	.306	232.804	15.258	.747	.000

Source: Researcher's Field Survey (2025)

Predictors: (Constant), Transformational leadership

Dependent Variable: Operational performance of artisans ($P < 0.05$)

In table 4.3, the regression analysis established R coefficient of 0.747 and this has illustrated an association between transformational leadership and operational performance of artisans in construction companies in Lagos State. The R² value of 0.559 showed a maximum of 55.9% in the operational performance of artisans' variant that transformational leadership could account for, while the remaining 44.1% could be attributed to other factors that were not mentioned in this study. The F-statistic value of 232.804, $p < .05$ revealed the model's goodness of fit to explain the variants and to reject the null hypothesis. Therefore, this confirmed the alternative hypothesis with the postulation that transformational leadership has a significant influence on operational performance of artisans in construction companies. The Beta (β) values of .747 also confirmed the significant association between the variables. The value of $t = 15.258$, $p < .05$ showed that transformational leadership can significantly influence the operational performance of artisans in construction companies in Lagos State.

Trend Analysis

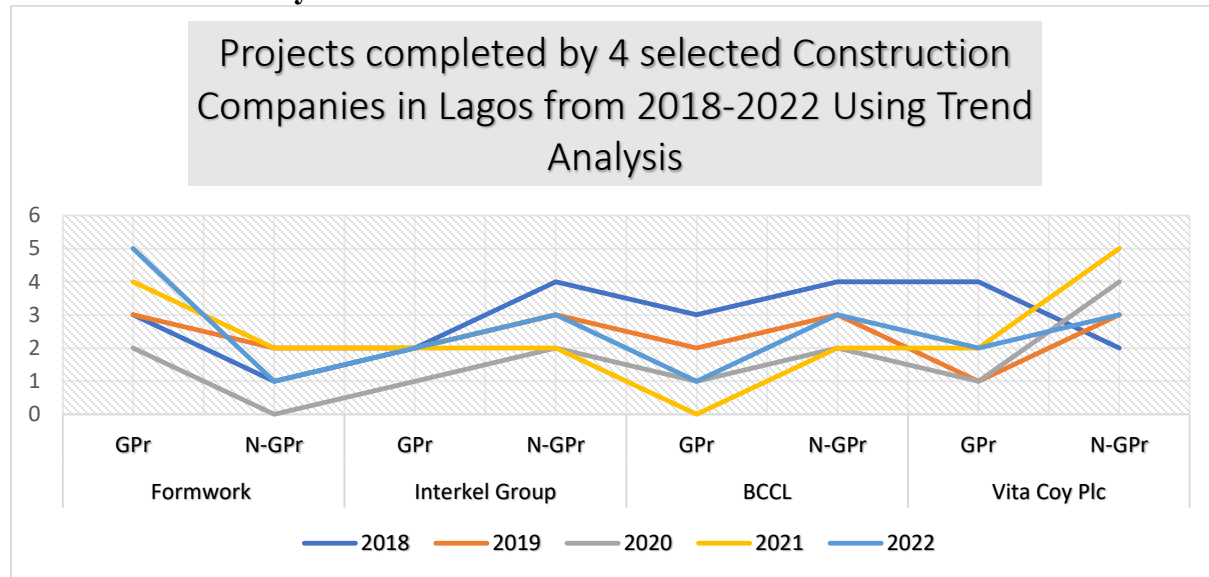
Table 4.4: Secondary data of the 4 selected construction companies in Lagos using trend analysis

	Formwork Limited		Interkel Group		BCCL		Vita Coy Plc	
	GPr	N-GPr	GPr	N-GPr	GPr	N-GPr	GPr	N-GPr
2018	3	1	2	4	3	4	4	2
2019	3	2	2	3	2	3	1	3
2020	2	0	1	2	1	2	1	4
2021	4	2	2	2	0	2	2	5
2022	5	1	2	3	1	3	2	3

Source: Extracted for the records of the 4 selected construction Companies from 2018-2022

Keywords: BCCL = Brickhouse Construction Company Limited; GPr = Government Projects; N-Gpr = Non- Government Projects (i.e individual or private companies)

Chart 1: Trend Analysis



Source: Researcher's Computation (2025)

Chart 1 is a pictorial representation of the data in table 4.4 by illustrating the trend analysis of the projects completed by the 4 selected construction companies in Lagos State. In the chart 6, it is demonstrated that Formwork completed more government projects than non-government projects for the period of five years. However, in the case of Interkel Group, Brickhouse Construction Company Limited, and Vita Company Plc, they executed more non-government projects than government projects for the period of five years. Though, leadership plays vital roles in executing organisational objectives like completed projects in the case of construction companies, yet, there are other factors that could contribute to poor execution of projects. A typical example was movement restriction and social distancing system during the Covid-19 in the year 2020. By and large, transformational leaders try as much as possible to have upward trend in their performance (projects executed) rather than downward trend.

5. Discussion of Findings and Conclusion

The findings of this study revealed that transformational leadership has significant influence on operation performance of artisans in Lagos State construction companies with the F-statistic value of 232.804, $p < .05$, Beta (β) value of .747, and $t = 15.258$, $p < .05$ at 5% significant level, and this statistically indicates that, with transformational leadership mindset and behaviour, construction companies in Lagos State can improve the quality of their outputs through the activities of artisans. This finding corroborates the study of Boateng and Ackon (2018); Naibaho and Naibaho (2023) who found out significant relationship between transformational leadership and workers outcomes in the construction industry.

In addition, the findings from the secondary data with the use of trend analysis indicated that transformational leadership has influence on the productivity of construction companies, though, there are other factors that can enhance productivity. This finding is relatively in tandem with the outcomes of Asal and Koksai (2018); Naibaho and Naibaho (2023) and Mustapha et al. (2024) with the submission that transformational leadership is a viable tool to drive construction productivity. Therefore, transformational leadership has been established as a vital tool that can drive the motivation of artisans in the construction industry towards achieving better performance particularly in Lagos State that is regarded as a commercial hub of the nation. With the empirical

evidence of this study, it is concluded that transformational leadership is a strategic tool that construction companies can deploy to improve the performance of artisans and enhance effective project execution.

Managerial Implications

Transformational leadership has been recognised as an innovative way of inspiring employees in construction companies. Therefore, the artisans that are not mostly integrated into the mainstream of the construction companies should be allowed to benefit from the outcomes of transformational leadership because they do most of the core operational activities of construction operations to avoid low productivity. In addition, leaders in construction companies are expected to leverage on transformational leadership approach by considering artisans as part of the organisation since their contributions go a long way to deliver quality projects and improved performance even in the face of competition, ecological and climate change. There should be a provision for leadership training, programs, mentorship initiative and the development of a supportive organizational culture that fosters transformational leadership behaviours.

References

- Akanni, P. O., Ikpo, I. J., & Oke, A. E. (2022). Impact of craftsmen's mode of employment on performance in selected construction firms in Lagos State, Nigeria. *LAUTECH Journal of Civil and Environmental Studies*, 8(2), 45-57.
- Alamu, O. I., Hassan, A. O., Asa, K. J., & Odunayo, H. A. (2024). Addressing infrastructure deficits through public-private partnership funding of public projects in Nigeria: A Review. *TWIST*, 19(3), 130-138.
- Alrazehi, H., & Amirah, N. A. (2020). A review of training and development towards employee retention in the banking sector. *The Journal of Management Theory and Practice (JMTP)*, 16-21.
- Al-Sada, M., Al-Esmael, B., & Faisal, M. N. (2017). Influence of organizational culture and leadership style on employee satisfaction, commitment and motivation in the educational sector in Qatar. *EuroMed Journal of Business*, 12(2), 163-188.
- Aluko, O. R., Omoniyi, S. S., & Aluko, O. O. (2018). Perceptions of strategies for minimizing skilled labour shortages for building projects amongst building contractors in Lagos state, Nigeria. *African Journal of Environmental Research*, 1(2), 25-35.
- Asal, B., & Koksall, A. (2018). Transformational leadership practices for small and medium sized companies in the construction industry. *Social Sciences*, 8(2), 69-82.
- Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership*. London: Psychology Press.
- Boateng, C., & Ackon, F. (2018). The influence of transformational and transactional leadership styles of site managers on job performance of crafts in Cape Coast Metropolis. *Developing Country Studies*, 8(11), 32-41.
- Cao, T. T., & Le, P. B. (2024). Impacts of transformational leadership on organizational change capability: A two-path mediating role of trust in leadership. *European Journal of Management and Business Economics*, 33(2), 157-173.
- Damirch, Q., Rahimi, G., & Seyyedi, M. (2011). Transformational leadership style and innovative behavior on innovative climate at SMEs in Iran. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 1(4), 119-127.
- Demircioglu, M. A., & Chowdhury, F. (2021). Entrepreneurship in public organizations: The role of leadership behavior. *Small Business Economics*, 57(3), 1107-1123.

- Fardiansyah, I. E., Jumady, E., & Djaharuddin, D. (2025). Leadership and organizational commitment in improving employee performance: The role of job satisfaction as a mediator. *Golden Ratio of Human Resource Management*, 5(1), 221-231.
- Garengo, P., Biazzo, S., & Bititci, U. (2005). Performance measurement systems in SMEs: A review for a research agenda. *International Journal of Management Reviews*, 7(1), 25-47.
- Han, S. H., Oh, E. G., & Kang, S. P. (2020). The link between transformational leadership and work-related performance: moderated-mediating roles of meaningfulness and job characteristics. *Leadership & Organization Development Journal*, 41(4), 519-533.
- Hariadi, A. R., & Muafi, M. (2022). The effect of transformational leadership on employee performance mediated by readiness to change & work motivation: A survey of PT. Karsa Utama Lestari employees. *International Journal of Research in Business and Social Science*, 11(6), 252-263.
- Hogan, R., Kaiser, R. B., Sherman, R. A., & Harms, P. D. (2021). Twenty years on the dark side: Six lessons about bad leadership. *Consulting Psychology Journal: Practice and Research*, 73(3), 199-213.
- Hove, G., & Banjo, A. (2015). Performance in the construction industry- A conceptual and theoretical analysis. *Open Journal of Business and Management*, 3, 177-184.
- Hui, L. S., & Singh, G. S. B. (2020). The Influence of Instructional Leadership on Learning Organisation at High Performing Primary Schools in Malaysia. *Asian Journal of University Education*, 16(2), 69-76.
- Idris, A. S., Mohammed, I. Y., Kunya, U. S., & Usman, N. (2025). Strategies required for bridging artisan's skill shortages in the Nigerian building construction industry. *International Journal of Natural Resources and Environmental Studies*, 12(1), 12-27.
- John, I. B., Faremi, O. J., & Lawal, O. S. (2016). Construction Craftsmen Skill Needs and Training in the Nigerian Construction Industry. *Lagos Journal of Environmental Studies*, 8(1), 72-84.
- Kim, G., & Lee, W. J. (2021). The Venture Firm's Ambidexterity: Do Transformational Leaders Boost Organizational Learning for Venture Growth? *Sustainability*, 13(15), 8126.
- Koednok, S. (2013). Effective of transformational leadership in human capital management for creating a sustainable ASEAN Community (AEC). *Journal of Advanced Management Science*, 1(1), 129-132.
- Li, W., Bhutto, T. A., Xuhui, W., Maitlo, Q., Zafar, A. U., & Bhutto, N. A. (2020). Unlocking employees' green creativity: The effects of green transformational leadership, green intrinsic, and extrinsic motivation. *Journal of Cleaner Production*, 255, 1-10.
- Majumder, S., Majumder, S., & Biswas, D. (2022). Impact of effective construction planning in project performance improvement. *Quality & Quantity*, 56(4), 2253-2264.
- Masoetsa, T. G., Ogunbayo, B. F., Aigbavboa, C. O., & Awuzie, B. O. (2022). Assessing construction constraint factors on project performance in the construction industry. *Buildings*, 12(8), 1183.
- Mellado, F., Lou, E. C., & Becerra, C. L. C. (2019). Synthesising performance in the construction industry: An analysis of performance indicators to promote project improvement. *Engineering, Construction and Architectural Management*, 27(2), 579-608.
- Mustapha, Z., Akoma, B. B., Mensah, D., Wisdom, G., & Tieru, C. K. (2024). Boosting construction workers' performances through motivation: A study in Ghana. *Built Environment Journal*, 21(2), 67-77.

- Naibaho, T., & Naibaho, W. (2023). The effect of transformational leadership style, employee creativity, and employee empowerment on employee performance at PT Casa Woodworking Industry. *Enrichment: Journal of Management*, 13(3), 32-40.
- Nurlina, N. (2022). Examining linkage between transactional leadership, organizational culture, commitment and compensation on work satisfaction and performance. *Golden Ratio of Human Resource Management*, 2(2), 108-122.
- Opoku, A., Ahmed, V., & Cruickshank, H. (2015). Leadership style of sustainability professionals in the UK construction industry. *Built Environment Project and Asset Management*, 5(2), 184-201.
- Osuizugbo, I. C., Oshodi, O. S., Kukoyi, P. O., Yohanna, H. S., & Edike, U. E. (2025). Implementation of work-life balance strategies among construction companies in Lagos, Nigeria: construction workers' perspectives. *Journal of Engineering, Design and Technology*, 23(3), 998-1016.
- Owusu-Agyeman, Y. (2021). Transformational leadership and innovation in higher education: A participative process approach. *International Journal of Leadership in Education*, 24(5), 694-716.
- Oyewobi, L. O., Windapo, A. O., & Rotimi, J. O. B. (2015). Measuring strategic performance in construction companies: a proposed integrated model. *Journal of Facilities Management*, 13(2), 109-132.
- Patterson, S. L. (2016). The effect of emotional freedom technique on stress and anxiety in nursing students: A pilot study. *Nurse Education Today*, 40, 104-110.
- Rabiu, M., & Zakari, M. (2021). Entrepreneurial orientation and firm performance: the moderating role of transformational leadership behaviour of SMEs in Ghana. *International Journal of Entrepreneurship* 5(1), 26-41.
- Rao, A. S., & Kareem Abdul, W. (2015). Impact of transformational leadership on team performance: An empirical study in UAE. *Measuring Business Excellence*, 19(4), 30-56.
- Roberts, K. (2014). *Convenience sampling through Facebook*. SAGE Publications, Ltd.
- Septriani, S. (2021). Transformational leadership style and innovative behavior with self-efficacy as a mediator. *Human Resource Management Studies*, 1(1), 58-67.
- Tafvelin, S., Armelius, K., & Westerberg, K. (2011). Towards understanding the direct and indirect effect of transformational leadership on well-being: A longitudinal study. *Journal of Leadership and Organizational Studies*, 18, 480-492.
- Unegbu, H. C. O., Yawas, D. S., & Dan-Asabe, B. (2022). An investigation of the relationship between project performance measures and project management practices of construction projects for the construction industry in Nigeria. *Journal of King Saud University-Engineering Sciences*, 34(4), 240-249.
- Vasudevan, A., Musaed, M. M. A., Sam, T. H., Nagaraj, S., Thinakaran, R., Ruiteng, X., & Beleya, P. (2023). Ethical leadership on employee engagement in construction industry during pandemic in Malaysia: mediating role of organizational culture (market culture). *Resmilitaris*, 13, 1507-1530.
- Yahya, M. Y., Abba, W. A., Yassin, A. M., Omar, R., Sarpin, N., & Orbintang, R. (2024). Innovative Strategies for Enhancing Construction Project Performance. *Journal of Technology Management and Business*, 11(1), 17-31.