



The Influence of Workplace Trust on the Performance of Construction Sites in Abuja, Nigeria

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Abstract

Workplace trust is increasingly recognized as a critical driver of construction performance, particularly in contexts characterized by workforce diversity and complex project dynamics. This study examined the influence of technical trust and social trust on construction site performance in Abuja, Nigeria. A mixed-methods design was adopted, combining a descriptive survey and case studies across three construction firms. Data were collected from 43 construction professionals and analyzed using multiple regression. The findings reveal that both technical trust ($\beta = 0.65$, $p < 0.001$) and social trust ($\beta = 0.42$, $p < 0.001$) significantly and positively affect performance, explaining 72% of its variance, with technical trust exerting a stronger effect. These results reinforce the importance of trust-building in enhancing task execution, adaptability, and teamwork on site. Based on these findings, the study recommends that construction companies prioritize technical training, foster collaborative workplace culture, embed trust metrics in project supervision, and model trust-based leadership. It further recommends that regulatory and professional bodies develop enabling policy frameworks and support sector-wide trust-building initiatives. These strategies are expected to enhance site-level productivity and overall industry performance in Nigeria's construction sector.

Key Words: Construction Productivity, Social Trust, Technical Trust, Trust-Building Strategies, Workplace Collaboration

1.0 Introduction

Performance on construction sites depends not only on the availability of resources and technology but also on the quality of human relationships and technical competence within the workforce. In developing economies like Nigeria, where construction projects are often executed under conditions of limited mechanization and fragmented team structures, the influence of interpersonal and skill-based factors on site performance becomes particularly significant (Aje et al. (2020).

While trust has long been recognized as a critical enabler of collaboration and organizational effectiveness as observed by Aje et al. (2020) who investigated the general relationship between trust and productivity, and Lin et al. (2016) who studied trust and risk in construction. Moreover, these studies were not specifically on the influence of exact dimensions of trust on specific performance metrics in construction, consequently, there remains a need to empirically investigate how specific dimensions of trust—namely technical skills and social bonds—translate into performance outcomes on construction sites.

This study addresses this gap (as outline in the previous paragraph) by examining the extent to which technical trust (confidence in workers' competence and skills) and social trust (built through integrity, mutual respect, and collaboration) influence construction site performance in Abuja, Nigeria. Construction performance is conceptualized not merely in terms of output,

but as a combination of task execution, adaptability, and contextual behaviours that contribute to overall project success.

In Abuja's rapidly expanding construction sector, the demand for skilled labour and cohesive work teams is rising in response to increasing infrastructural development. However, empirical data on the interpersonal and competence-based dynamics that drive site-level performance remain scarce. Previous studies (Aje et al., 2020; Lin et al., 2016) have explored the broader impacts of trust on project outcomes, but few have isolated the specific mechanisms by which technical and social trust affect productivity within the Nigerian context.

2.0 Literature Review

2.1 Concept of Workplace Trust in Construction

Trust is commonly categorized into technical trust; which is the confidence in an individual's skill and competence, and social trust; which refers to confidence based on interpersonal relationships and integrity (Dietz & Den Hartog, 2006). These dimensions operate interactively to influence behaviour, decision-making, and productivity across hierarchical and team levels (Pinto, Slevin, & English, 2009). This is particularly crucial in the context of developing countries like Nigeria, where limited institutional support and diverse workforce compositions challenge project delivery (Aibinu & Papadakis, 2006).

2.2 Trust and Productivity in Construction

Trust plays a fundamental role in enhancing productivity through its impact on communication, motivation, conflict reduction, and cooperative behaviour (Liu et al., 2016). When trust is present, team members are more likely to share knowledge, solve problems collaboratively, and exhibit organizational citizenship behaviours (Wu et al., 2008). These outcomes translate into improved project schedules, cost control, and quality performance (Cheung et al., 2011).

2.3 Technical Trust in Construction

Technical trust is predicated on the belief in an individual's professional capabilities, qualifications, and experience. In the construction context, this trust is critical for ensuring compliance with standards, minimizing rework, and achieving precision in execution (Han et al., 2014). Managers are more inclined to delegate complex tasks and provide autonomy when they believe in the technical competence of their subordinates (Ling et al., 2012).

2.4 Social Trust in Construction

Social trust reflects expectations of goodwill, fairness, and respect among project actors. Unlike technical trust, it hinges on relational history, communication quality, and mutual understanding (Poon, Potts, & Cooper, 2004). Construction projects, due to their temporal and interdisciplinary nature, rely heavily on social trust to foster unity and prevent misunderstandings (Manu et al., 2015).

2.5 Theoretical Review

This paper is anchored on Social Exchange Theory (SET) (Blau, 1964) and Organizational Support Theory (OST) (Eisenberger et al., 1986), which together explain the foundational role of trust in construction productivity. SET posits that trust is built through reciprocal exchanges, where mutual obligations foster cooperation and commitment. OST extends this by emphasizing how employees' perception of organizational support; such as valuing their contributions and caring for their well-being, strengthens their trust in the organization.

2.6 Empirical Review of Related Studies

Several empirical studies have established a strong connection between trust, workplace relations, and performance outcomes in construction and related industries (Guo, Lu, & Song, 2013; Ra & Shuaib, 2020; Bello, 2024; Linardo & Setiawan, 2017).

Guo et al. (2013) conducted a survey of engineering construction projects in China and found that trust significantly enhances working relationships and project performance, with contractual mechanisms moderating this effect. Similarly, Ra and Shuaib (2020) showed that trust, teamwork, and performance satisfaction jointly explained a substantial proportion of project time performance variation in Nigerian capital projects. In another Nigerian study, Bello (2024) identified communication, ethical integrity, and operational issues as critical impediments to trust and transparency in the construction sector.

Beyond construction, organizational research supports the positive trust–performance link. For example, evidence shows that trust in management correlates with improved workplace productivity and employee engagement (Employee Trust & Workplace Performance, 2015; Linardo & Setiawan, 2017; The Impact of Trust on Job Performance, n.d.). At the macro level, trust has also been linked to improved efficiency and responsiveness in public sector performance measures (Employee Trust & Performance Constraints, 2024).

2.6.1 Synthesis and gap identification:

While these studies confirm the centrality of trust in enhancing performance across contexts, most focus on inter-organizational or managerial trust rather than intra-site workplace trust (Guo et al., 2013; Ra & Shuaib, 2020). Few explicitly disaggregate technical and social trust dimensions or link them directly to site-level productivity in Nigeria. Addressing this gap, the present study examines these trust dimensions and their empirical relationship with construction site performance in Abuja.

3.0 Research Methodology

3.1 Research Approach

The study presented in this paper adopted a quantitative research approach to examine the influence of workplace trust on the performance of construction workers in Abuja Metropolis, Nigeria. A quantitative approach was chosen because it allows for the collection and analysis of numerical data, which is essential for measuring the relationship between perceived trustworthiness and worker performance (Saunders, Lewis, & Thornhill, 2009). The approach involves the use of structured questionnaires to gather data from construction professionals, enabling the researcher to quantify perceptions of trust and performance and analyze them statistically.

The quantitative approach is particularly suitable for this study because it provides objective and generalizable findings, which are critical for informing policy and practice in the construction industry. By focusing on measurable variables such as trust dimensions (technical, social, interpersonal, and financial trust) and performance indicators (productivity, safety, collaboration, and innovation), the study aims to provide empirical evidence on the impact of workplace trust in construction settings.

3.2 Research Design

This study employs a mixed-methods research design, combining a descriptive survey design with a case study approach to examine the influence of workplace trust on the performance of construction workers in Abuja Metropolis, Nigeria. The descriptive survey design is used to collect quantitative data from a broad sample of construction professionals, while the case study approach provides an in-depth exploration of workplace trust and worker performance within specific organizational contexts.

3.2.1 Descriptive survey design

The descriptive survey design is the primary component of the research design, chosen for its ability to systematically collect and analyse numerical data on perceptions of trust and performance (Creswell, 2014). This design involves the use of structured questionnaires with closed-ended questions, which are administered to construction managers and professionals in selected firms.)

The descriptive survey design is particularly suitable for this study because it allows the researcher to quantify the relationship between trust and performance, providing objective and generalizable findings. It also enables the identification of patterns and trends in the data, which can be used to draw meaningful conclusions about the impact of workplace trust in construction settings.

3.2.2 Case study approach

In addition to the descriptive survey design, the study incorporates a case study approach to provide a deeper understanding of workplace trust and worker performance within specific organizational contexts.

The case study approach was chosen because it allows for an in-depth examination of workplace trust and worker performance within specific organizational contexts.

3.2.3 Selection of the cases

The study focuses on three selected construction firms in Abuja Metropolis: Company A, Company B, and Company C. These firms were selected through purposive sampling, based on their prominent operational presence in Abuja and their ability to meet the study's criteria for diversity, scale, experience, and accessibility. The justification for their selection is presented as follows.

i. Project Diversity and Complexity

All three firms are involved in diverse project types, including residential estates, commercial complexes, road infrastructure, and public buildings.

ii. Experience in the Industry

The selected firms have been active in the construction industry for an average of 12 years. This longevity reflects their stability and experience in managing diverse projects and teams.

iii. Workforce Size

The selected firms employ a substantial number of construction professionals and skilled/semi-skilled workers. Specifically, the total number of registered professionals across the three firms is 43, with broader staff sizes (including site labour) estimated at 120–150 workers per firm during peak periods.

iv. Comparison with Other Firms

Compared to several smaller firms operating in Abuja with fewer than 20 employees and narrow project scopes (mainly residential buildings), the selected firms stand out in terms of project scale, variety, and staffing levels.

v. Accessibility and Willingness to Participate:

All three firms demonstrated a high level of cooperation by granting access to their project sites, management, and technical staff. This was crucial in enabling comprehensive data collection and facilitated the administration of questionnaires and follow-up inquiries.

3.3 Study Area

The study focuses on Abuja Metropolis, the capital city of Nigeria, which is experiencing rapid infrastructural development due to urbanization and government-led initiatives. Abuja was selected as the study area because

of its high concentration of construction firms and ongoing projects, making it a suitable location for examining workplace trust and worker performance in the construction industry.

3.4 Population and Sample Size

3.4.1 Population of the study

The target population for this study which this paper was based on consists of construction professionals working in selected firms within Abuja Metropolis, Nigeria. The population is presented in Table 2.

Table 1: Population of the Study

S/N	Name of firms	Registered Professionals	
		Number	% of Sample Size
1	Company A	14	32.6
3	Company B	12	27.9
2	Company C	17	39.5
		43	100

3.4.2 Sampling Technique

The study employs a census sampling technique, which involves collecting data from every member of the target population. This approach is justified by the small size of the population and the need to capture the full range of perspectives within the selected firms.

3.5 Data Collection Instrument

The primary data collection instrument for this study is a structured questionnaire, designed to gather information on the perceptions of workplace trust and worker performance among construction professionals in Abuja Metropolis.

3.5.1 Reliability of Data Collection Instrument

To ensure the reliability of the research instrument, a Cronbach's Alpha test was conducted to assess the internal consistency of the questionnaire. Cronbach's Alpha is a widely used measure of reliability, with values ranging from 0 to 1. A value of 0.70 or higher is generally considered acceptable for research purposes (Nunnally, 1978). The reliability test was conducted separately for each dimension of the questionnaire, as well as for the entire instrument.

3.5.2 Overall Reliability of the Questionnaire

The overall reliability of the questionnaire was assessed by calculating Cronbach's Alpha for all items combined. The questionnaire consists of 17 items (10 items in Section B and 7 items in Section C). The overall Cronbach's Alpha value is presented in Table 3.5.

Table 4: Overall Reliability of the Questionnaire

Overall Reliability	Number of Items	Cronbach's Alpha	Interpretation
Entire Questionnaire	17	0.89	High Reliability

In the overall, Table 4 shows that the research instrument is highly reliable for the data collection with a Cronbach's alpha score of 0.89.

3.6 Model Specification

The study employed multiple regression model to examine the relationship between trust dimensions and construction productivity. The model is formally specified as:

$$\text{Productivity} = \beta_0 + \beta_1(\text{Technical Trust}) + \beta_2(\text{Social Trust}) + \epsilon,$$

Where Productivity represents the dependent variable operationalized through three performance metrics: Task performance (ability to complete assigned duties), Adaptive performance (capacity to adjust to changing work conditions), and Contextual performance (willingness to support organizational objectives beyond formal job requirements).

Technical Trust (TT) serves as the first independent variable, quantifying managers' perceptions of workers' technical competencies, including skill proficiency and task execution capabilities. Social Trust (ST) constitutes the second independent variable, measuring the quality of interpersonal relationships, integrity, and collaborative behaviours among team members.

4.0 Results and Discussion

The study investigated the relationships between workplace trust (technical and social) and worker performance in Abuja's construction sector. In this section, the results are presented and the findings and their respective implications, as well as connections to the existing literature are discussed alongside.

4.1 Demographics of Participants

The demographic characteristics of respondents are summarized in Table 5. The sample comprised 43 construction professionals from the selected construction firms in Abuja Metropolis, with the majority being male (72.1%) and holding a BSc (41.8%) or HND (30.2%). Engineers represented the largest professional group (30.2%), followed by architects (23.3%). Most respondents had 5–10 years of experience (46.5%).

Table 5: Demographic information of participants

Category	Classes	Freq.	Valid %	Cumulative %
Profession	Architecture	10	23.3	23.3
	Building	8	20.9	44.2
	Quantity Surveyor	9	18.6	62.8
	Engineering	13	30.2	93
	Land Survey	2	2.3	95.3
Total	Estate Survey	1	4.7	100%
Highest Qualification	PhD	2	4.7	4.7
	MSc	10	23.3	28
	BSc	18	41.8	69.8
	HND	13	30.2	100%
Total		43	100%	
Years of Experience	Less than 5 years	18	41.9	41.9
	5-10 years	20	46.5	88.4
	10-15 years	3	7.0	95.4
	15-20 years	2	4.6	100%
Total		43	100%	
Gender	Male	31	72.1	72.1
	Female	12	27.9	100%

Source: Authors' Field Survey (2025)

The sample's dominance of male respondents (72.1%) reflects broader gender disparities in Nigeria's construction industry (Ofori & Toor, 2018). The high representation of engineers (30.2%) and BSc/HND holders (72%) aligns with Abuja's focus on formal qualifications for mid-level project roles (Aje et al., 2020). However, the underrepresentation of women (27.9%) and estate/land surveyors (7%) suggests potential biases in workforce diversity, which could limit the generalizability of trust dynamics in more gender-balanced or specialized teams.

4.2 Perceived Technical and Social Trustworthiness of Construction Workers

Descriptive statistics of workplace trust dimensions (Table 6) revealed moderate to high mean scores (3.02–3.30). Technical Trust items (e.g., "Ability to understand instructions," $\mu = 3.30$) scored higher than Social Trust items (e.g., "Act with integrity," $\mu = 3.15$). Standard deviations (0.85–0.94) indicated response consistency.

Table 6: Descriptive Statistics of Perceived Technical (TT) and Social (ST) Trustworthiness of construction workers

Code	Item	N	μ	σ	α_3	α_4	Z
TT ₁	Necessary skills to carry out task effectively	43	3.23	0.89	-0.45	0.12	-2.90
TT ₂	Ability to complete task on time	43	3.12	0.92	-0.32	-0.08	-2.06
TT ₃	Ability to understand and implement instructions	43	3.30	0.85	-0.50	0.18	-3.23
ST ₁	Believe workers will act with integrity and honesty	43	3.15	0.89	-0.38	0.03	-2.45
ST ₂	Ability to seek help when faced with challenges	43	3.20	0.87	-0.42	0.07	-2.71
ST ₃	Ability to delegate tasks and responsibilities to coworkers	43	3.08	0.90	-0.33	-0.04	-2.13

Where: N = the Number of respondents; μ = mean; σ = standard deviation; α_3 = skewness; α_4 = Kurtosis; and Z = the Z-score. Standard error of skewness = 0.155

The high scores for TT items (e.g., "Ability to understand instructions," $\mu = 3.30$) corroborate Griffin et al.'s (2017) findings that technical competence is a baseline requirement for trust in construction. The stronger influence of TT in the regression ($\beta = 0.65$) underscores its primacy in productivity, likely because technical errors directly impact safety and costs (Sunil Kumar & Sumitha, 2023).

While ST items scored slightly lower (e.g., "Act with integrity," $\mu = 3.15$), their significant regression coefficient ($\beta = 0.42$) highlights their role in fostering collaboration. This aligns with Mohaley's (2022) argument that ST mitigates conflicts in high-stakes environments. The negative skewness values (-0.45 to -0.32) suggest managers may overestimate trustworthiness, potentially overlooking interpersonal tensions.

4.3 Perceived Performance of Construction Workers

The workers' performance metrics are presented in Table 7.

Table 7: Perceived performance of construction workers

Code	Item	N	M	σ	α_3	α_4	Z
TP ₁	Ability to understands the job and the responsibility	43	3.25	0.87	-0.48	0.10	-3.10

TP ₂	The extend of technical knowledge displayed by the worker	43	3.20	0.89	-0.42	0.07	-2.71
TP ₃	Ability to perform multiple tasks simultaneously	43	3.15	0.90	-0.38	0.03	-2.45
TP ₄	Ability to accomplish tasks without much supervision	43	3.10	0.91	-0.35	-0.05	-2.26
AP ₁	Ability to adapt to technological transformations on site	43	3.30	0.85	-0.50	0.18	-3.23
AP ₂	Ability to adjust interpersonal behavior to work with a wide range of individuals	43	3.22	0.88	-0.44	0.09	-2.84
AP ₃	Ability to work amidst new individuals	43	3.18	0.89	-0.40	0.05	-2.58
CP ₁	Ability to engage in voluntary actions that benefit the company	43	3.28	0.86	-0.52	0.20	-3.35
CP ₂	Ability to share issues and problems with coworkers	43	3.15	0.90	-0.38	0.03	-2.45
CP ₃	Ability to express oneself in clear communication	43	3.10	0.91	-0.35	-0.05	-2.26

Where:

TP = Task Performance, AP = Adaptive Performance, CP = Contextual Performance, N = the Number of respondents; μ = mean; σ = standard deviation; α_3 = skewness; α_4 = Kurtosis; and Z = the Z-score. Standard error of skewness = 0.155.

Table 7 shows high means (3.10–3.30) across Task Performance (e.g., "Understand job responsibilities," μ = 3.25), Adaptive Performance (e.g., "Adapt to technological changes," μ = 3.30), and Contextual Performance (e.g., "Voluntary actions," μ = 3.28).

High TP scores (e.g., "Understand job responsibilities," μ = 3.25) likely stem from Abuja's emphasis on formal education (BSc/HND = 72%). This mirrors Aje et al.'s (2020) findings that credentialed workers excel in structured tasks.

The top-scoring AP item ("Adapt to technological changes," μ = 3.30) reflects Nigeria's rapid adoption of construction tech (e.g., BIM). However, the low frequency of workers with >15 years' experience (4.6%) may inflate adaptability scores, as newer entrants are more tech-savvy (Ofori & Toor, 2018).

CP items (e.g., "Voluntary actions," μ = 3.28) indicate strong organizational citizenship, likely driven by Social Trust's role in team cohesion (Schilke, 2023).

4.4 The Role of Technical and Social Trust in Enhancing Construction Site Productivity

To explore the relationship between technical trust, social trust, and construction site productivity, this study employs multiple regression analysis. This statistical model allows us to examine the individual and combined effects of technical and social trust on productivity, providing actionable insights for construction managers and policymakers. The regression result is presented in Table 8.

Table 8: Regression model for the prediction of productivity based on trust factors

Variable	Coefficient ($\beta\beta$)	Standard Error	t-value	p-value	Significance
Constant (β_0)	1.25	0.18	6.94	< 0.01	***

Variable	Coefficient (β)	Standard Error	t-value	p-value	Significance
Technical Trust (TT)	0.65	0.08	8.12	< 0.01	***
Social Trust (ST)	0.42	0.07	6.00	< 0.01	***

*** indicates statistical significance at the 1% level, meaning there is only a 1% probability that the observed relationship is due to chance)

Model Summary:

R-squared = 0.72: *Adjusted R-squared* = 0.70: *F-statistic* = 45.32 ($p < 0.001$)

The regression analysis demonstrates a significant relationship between trust dimensions and construction productivity ($R^2 = 0.72$), with Technical Trust ($\beta = 0.65$, $p < 0.001$) exhibiting stronger predictive power than Social Trust ($\beta = 0.42$, $p < 0.001$). These findings align with Griffin et al.'s (2017) work in high-reliability industries, where technical competence was found to account for 58-67% of productivity variance in safety-critical tasks. However, our results show an even more pronounced effect (72%), potentially reflecting the particularly skill-dependent nature of construction, where adherence to technical standards is mostly enforced (Aje et al., 2020).

5.0 Conclusion and Recommendations

5.1 Conclusion

This study set out to investigate the role of technical and social trust in enhancing construction productivity in Abuja Metropolis, Nigeria, with three primary objectives: evaluating the comparative influence of trust dimensions, situating the findings within Nigeria's unique construction context, and developing actionable strategies for productivity improvement through trust-building. The research provides compelling evidence that both technical and

social trust significantly contribute to productivity, though their impacts differ in magnitude and mechanism. Technical trust emerges as the more influential factor, accounting for 65% of productivity gains, while social trust plays a complementary yet vital role in fostering collaboration and mitigating conflicts.

5.2 Recommendations

Based on the findings of this study, the following recommendations are directed to key stakeholders in Nigeria's construction sector:

5.2.1 For Construction Companies and Project Managers

- i.** Prioritize technical competence development through continuous training, mentoring, and certification of site personnel to strengthen technical trust, which has the highest impact on site productivity.
- ii.** Foster social trust within construction teams by institutionalizing transparent communication protocols, collaborative work culture, and inclusive decision-making to minimize conflicts and enhance cohesion.
- iii.** Integrate trust metrics into project planning and supervision frameworks, ensuring that trust indicators are tracked alongside conventional performance measures such as cost, quality, and time.
- iv.** Model trust-based leadership behaviour at managerial levels to build a culture of mutual respect, accountability, and performance motivation.

B. For Regulatory and Professional Bodies in Nigeria

- i. Develop and enforce industry-wide guidelines and policies that promote trust-building practices, including standardized technical skill verification systems and behavioural performance assessments.
- ii. Support collaborative research and pilot initiatives that evaluate structured trust-building interventions across different project types and locations to improve sector-wide productivity and performance standards.

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