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The Impact Of 'Ego Conflicts' on The Perceived Rate Building Project Collapse in Lagos

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Abstract: Differs factors have been identified as the causes of the high rate of Building Project Collapse with little reference to difference types of conflict among building professionals. While some studies have examined possible conflict among professional colleague in building projects, their study was only focused at developing a model to prevent conflicts in general. This study assessed the level of contribution of what is term "Egoistic Conflict" on building project collapse in Lagos state.

This study adopted descriptive research design. The population of the study is infinite as it comprises of all stakeholders-home owners, engineers, surveyors, staff of relevant government agencies etc., in the informal Building Projects in Lagos state. Thus, for convenience an online contact of respondents through social medium was used. Using the formula adopted by Sheldon for infinite population, a sample size of 384 was drawn from the population. A random sampling technique was used based on time interval of responses. Data was collected through a self-developed questionnaire. The collected data was analysed using inferential statistics using SPSS (Statistical Package for the social sciences). The findings revealed that, Ego Conflicts explains 45.5% of Building Project Collapse in Lagos State, Nigeria. It was therefore recommended among others that periodic seminars and workshop should be organised for home owners and developers on what is a structural job and the scope of individual discipline in the industry.

Keywords: Ego Conflict, Ego Artisans, Building Project Collapse, Building Professionals, Building Regulations, Compliance and Non-Compliance

I. Background to the study

Across cultures, shelter, water and food are basic needs essential for survival, development, growth and sustainability of any system. Thus, the need to improve quality of life of the citizen requires affordable shelter (Omokanye, et al., 2023). Though, the Nigeria government have expended massively in the building industry have been plaque with consistent Building Projects Collapse (BPC) with no sigh of it abating in the nearest future despite differs policies formation and implementation.

Differs factors have been identified as the causes of the high rate of BPC. The Lagos state government (2021) traced it to the non-compliance with building codes, but to Edidiong (2023) the lack of political will on the part of the government in the enforcement of the building codes is the man cause of BPC, Researchers like Ajufoh, Gumau, & Inusa (2014); Awoyera, Alfa, Odetoyan, & Akinwumi (2021); Mansur & Tahar (2017) etc. identified use of defective or substandard building materials, no requisite bad design, technical knowledge, faulty construction, non-adherence to building codes and standards, the use of non-professionals, the high level of corruption, substandard reinforcement, structural steel and economical use of cement used for the production of foundations, columns, beams and slabs among others are the main causes of building projects collapse

However, one factor that most researchers have rarely examine is what this study will term "Egoistic Artisans", though researchers like Olanrewaju & Akinpelu (2014) have examined function or commitment overlap among differs professional in construction. Most researchers failed to determine how gaining experience by skilled artisans from formal education professionals has made them (skilled artisans) believed they can build homes without engineers, quantity surveyor architect etc. in Nigeria

The concept of Egoistic Artisans is based on this study's perception of the report of Azeez (2023) on the annual national conference of the Nigeria Bricklaying Association. A situation where some artisans especially the bricklayers believed they are experience enough to do the job of an engineer. Quoting the words of the report of Azeez,

……..”building collapse was not rampant in structures made by the artisans in the olden days as against what is the case nowadays. Many building consultants are not grounded in the building profession. Many of them are after their pay. For instance, some expatriates patronized by governments and wealthy individuals in the country do not have knowledge about our soil structures or land texture**”**……...

The above scenario is just one of the few indirect underlying statements that can be identified to give a glimpse of the perceived ego of a typical experience bricklayer in the building sector in Nigeria. Two questions among other were identified in the above quote. One, are experience bricklayers technically train to know how to do soil testing? Two, can the experience bricklayers do the job of the building consultants and expatriates that they feel are not grounded? This is why this study used the term "Egoistic Artisans" as a perceived factor that needs to be examined if it is significant enough to contribute to BPC.

Thus, this study examined how "Egoistic Artisans" affect the BPC in Lagos State.

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Statement of the Problem

Few researchers like Ramonu, et al. (2018) have examined possible conflict among professional colleague in building projects but their study was only focused at developing a model to prevent the conflicts. The loss of control by the team leaders and distrust among personnels- Lene & Tina (2019) especially between formal educated engineers, architect, builders etc.and the experience skilled artisans during building projects is sometimes as a result of what Olanrewaju & Akinpelu (2014)' referred to as commitment overlap. Though, few researchers like Adenaiya & Adejugbagbe (2017); Okuntade (2015) have examined these conflicts, they only examined the conflicts between skilled professionals like Architects, quantity surveyors, civil engineers, project managers and construction managers Builder. But this study examined the conflict between these identified skills professional and experienced artisans due to the artisan believing they had gained enough experience to start taking structural engineering or building decision thus creating what this study referred to as "Ego Conflict". This is a problem to developers and owners of building that have rarely been examined. Most researchers have failed to determine if it significantly contribute BPC.

Hence, this study assessed the level of contribution of this "Egoistic Artisans" to the perceived rate BPC in Lagos state either directly or indirectly.

Literature Review

Ego Conflicts

Though, the term ego conflict have limited literature especially as it relates to construction industries, Marteney (2019) identified three types of conflict that are common in workplace as 'Simple Conflict, Pseudo Conflict and Ego Conflict'. Marteney noted that the term Ego Conflict is a personality clash between two or more people/group. Marteney further noted that, it's very difficult to settle ego conflict as it involves the dignity, or self- esteem, or self-respect, or pride of those involved. To Akinsunmi (2021), it's a conflict that's as a of a disagreement between parties with each vying to be the "winner". Akinsunmi further observed that, ego conflict leads to non-acceptable vices within workplace such as non-cooperation, bullying, aggressiveness, and, even physical scuffle that can result in bodily harm. Though, Adenaiya & Adejugbagbe (2017) observed that conflict in the construction site maybe as a result of overlapping functions among the professionals like engineers, builders, architect, quantity surveyors etc., their work did not specify which type of conflict neither did it examine if the conflict between the skilled professionals and experience artisans especially the bricklayers. This study is examining this because, while the skilled professionals interpret or/and gives instruction on the work to be done, hence a conflict between them may be resolved before the actual work is done. But the artisans carry out the actual work, thus a conflict may occur before, during or after the building operations. This may affect the quality of job as observed by Adeyemi & Aigbavboa (2020). Akinsunmi (2021) also noted that, such conflict environment affect majority of the personnels. Even if they are not involved in the conflict as most organisations believe they can.t separate those in dispute from other to stop them from working. This affects the quality of e entire wok as noted by Adeyemi & Aigbavboa (2020).

Thus, this study believe Ego Conflict in the construction sector is the personality disagreement between two or more parties as a result of overlapping function/commitment or loss of functional direction of one of the parties involved as a result of experienced gained in the line of duty. This clash may influence the quality of output.

This study thus determines if ego conflict is impactful enough to cause BPC to give insight to better management strategy in the construction industry.

Building Project Collapse (BPC)

The origin of the BPC problem in Nigeria can be traced back to several factors. One of the main reasons is the lack of proper enforcement of building codes and standards by regulatory agencies. Since the early 1900s, the colonial government introduced building codes and regulations for urban centers in Nigeria, including Lagos state (Odusami, 2018). However, these regulations were not strictly enforced, and compliance was not given the necessary attention due to the engagement of unprofessional and untrained personnel on site and the level of corruption on the part of authorised personnel to enforced the regulation (Osuizugbo, 2018) . This has led to a higher risk of building collapses.

There is also a lack of political will to enforce building regulations, and corruption and bribery are widespread in the construction industry (Adedeji et al., 2021).

Additionally, there is a high demand for affordable housing in Nigeria and other developing countries, and developers often cut corners to reduce costs (Boateng, 2021), leading to the use of substandard materials and poor construction techniques. In many cases, buildings are constructed without proper planning or the supervision of qualified professionals, resulting in structural deficiencies that compromise the safety and durability of the building.

The situation in Nigeria is dire, as BPC have become a recurring problem in many parts of the country. Lagos state, resulting in the loss of lives and properties. According to a report by the Lagos State Government, over 135 buildings collapsed in the state between 2010 and 2020 (Lagos State Government, 2021).

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Figure 1: 21-A building collapsed on Gerard Road, in the highbrow area of Ikoyi, Lagos

Source: Adebola (2021)

In response to this problem, the Nigerian government in 2006 established the Nigerian Building and Road Research Institute (NBRRI) to provide research and development services for the construction industry. Additionally, in 2018, the government introduced the National Building Code (NBC) to regulate building construction and provide guidelines for building codes and standards. However, the several policies did not reduce the rate of BPC, highlighting the need for more robust and sustained action (Adedeji et al., 2021).

Figure 2.2: 10 killed, 23 rescued in Lagos three-storey building collapse

Source: Omorogbe (2022)

The implementation and enforcement of building specifications in Nigeria have been weak, particularly in Lagos state, where BPC is a recurring problem (Adenuga, 2021). Hence, this study observed from the above that the situation is not due to the lack of building codes and regulations but rather due to the ineffective implementation of these regulations.

Currently, the Lagos State Government has taken steps to address the issue of non-compliance with building codes and standards. In 2010, the Lagos State Building Control Agency (LASBCA) was established to enforce building codes and regulations in the state. The agency is responsible for monitoring the construction and renovation of buildings in Lagos state, ensuring compliance with building codes and regulations, and issuing permits and certificates for building construction and renovation.

Similarly, the Lagos State Physical Planning Permit Authority (LASPPPA) was established in 2012 to regulate physical planning and development in the state. The agency is responsible for approving building plans and designs, regulating land use, and ensuring compliance with zoning regulations.

Despite the establishment of these agencies, building collapses still occur in Lagos state due to non-compliance with building codes and standards. According to Nwachukwu et al. (2020), non-compliance is often due to corruption, lack of enforcement, and inadequate monitoring by regulatory agencies.

In addition to compliance with building codes and standards, there must be an emphasis on quality control throughout the entire construction process. Quality control measures such as material testing, inspections, and audits should be carried out regularly to ensure that only high-quality materials are being used

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Building specifications are not only limited to the materials used in construction but also cover various aspects such as personnel selection for the various tasks. This had been a major problem in Nigeria as noted by Enobakhare (2016) in the quest to reduces cost by home owners and developers. Enobakhare noted that the most common is given the job of engineers to bricklayers.

Theoretical Framework

Systems Theory:

There are some psychiatry and psychology theories like the Freudian approach or Freudianism. However, this study is not examining how to improve ego, the drive etc. but it's impact on building system, the focus will be on system theory.

The Systems theory is used to examine a system as a complex entity composed of interconnected and interdependent relating components/variables/subsystem to achieve desired goal(s). In the context of this study, the various stakeholders such as developers/home owners, engineers, architect, artisans, other categories of construction personnel, government agencies and the collapsed building are the subsystems in the system. This means system theory assume that, a quality building requires the availability of various subsystems such as the professionals, regulatory agencies and ministries, artisans and other systems. Each subsystem is interdependent, and the failure of one subsystem can affect the functioning of the others (Adedeji, Oloke, & Lawal, 2021). One such is the conflict that consistently occur due to overlapping commitment/function or an experience artisan believing in the experience he had gain working under formal educated professionals is enough to take over the responsibility of the professional ii the building system could have influence in the rate of BPC.

Also, the possibility of a home owner or developer compelling a cite professional to work with a particular team of artisans that the professional perceived inexperienced enough may cause the selection of unqualify personnel on the building site that affect the system. Thus, the failure of one subsystem can affect the surrounding subsystem.

II. Research Methods

This section highlights the process and procedure (which includes: research design, study population, the study sample and sampling techniques, sources of data and method of analysis) used in this study, and also presents important information (data) on specific fields where the survey was carried out.

This study adopted descriptive research design. The population of the study is infinite as it comprises of all stakeholders-home owners, engineers, surveyors, staff of relevant government agencies etc., in the informal Building Projects in Lagos state. Though, the population should have covered all the Local Government (LG) and local development council areas (LCDA), but the study experience difficulty of assessing the entire 57 through physical contact due to the cost implication. Thus, for convenience an online contact of respondents through social medium was used. Though, the online distribution of the research instrument-questionnaire-gives a quick and wider coverage of the respondents, the study observed two limitations which are not exhaustive. One, the possibility of respondents that are not covered in the population filling the questionnaire. Two, the possibility of respondents outside the study area-Lagos State-taken part in the survey. Three, the inability of the study to stratify the sample is difficult. This may affect the level of biasness of the results and interpretation.

The sample size is determined using the formula adopted by Sheldon (n.d.).

$\mathbf{S= Z^2 \times P \times} (1-P)/M2$

where,

S = sample size for infinite population

Z = Z score

P = population proportion (this

M = Margin of error

P is assumed to be 50% when a study is unsure of the population characteristics as noted by Sheldon, with confidence level of 95% and margin of error as 5%. The Z value from the table at 95% is 1.960. Thus,

$S= (1.960)^2 \times 0.5 \times (1-0.5)0.052$

$= 3.8416 \times 0.25 / 0.0025$
$S = 384.16 \approx 384$

Data collection was via a self-developed questionnaire. A questionnaire was designed in a five-point Likert Scaled format to assess the three factors identified by this study influence on BPC: capacity of available testing laboratory and authorised agency's enforcement of the 2006 LSMTL law; human resources procurement selection process and rate of hiring unqualify personnel; Ego Conflicts' and perceived rate BPC. The respondents were assessed through their online social media platforms to get a wilder coverage.

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Analyses of the collected data was done using descriptive statistics and inferential statistics (regression and coefficients of determination) with the statistical software SPSS (Statistical Product and Service Solution).

Reliability of the instrument

The instrument was tested for reliability to measure the level of consistency across various items in the questionnaire. Cronbach's alpha was used. Table 1 shows the reliability statistical table with a Cronbach's alpha of 0.925 which indicates that the research instrument is highly reliable because the value is higher than the recommended threshold of 0.70 (Nunally & Bernstein, as cited in Leong, Hew, Lee & Ooi, 2015).

Table 1: Reliability Statistics

Cronbach's Alpha	No of items
.925	20

Source: Researcher's computation (2024)

Data Presentation

Preamble

This section involved presentation and analysis of the data collected using tables, simple percentages, arithmetic mean, correlation and t-test used.

Table 2: Response Rate after Three Weeks

Response Rate	**Frequency**	**Percentage**
No of questionnaire required	**384**	**100%**
No of questionnaire filled	**323**	**84.1%**

Source: Field Survey (2024)

Table 2 shows the response rate of respondents online. The table shows that, out of 384 questionnaires required based on the calculated sample size. only 323 respondents responded within three weeks. This indicates 84.1% response rate.

Descriptive Analysis of the Demographic Details of the Respondents

The demographic description of the respondents presented for analysis includes sex, age, marital status, educational qualification, professional qualification and management level. These are all presented in table 3 below.

Table 3: Descriptive Statistics of Respondents Bio-Data

		Frequency	Percentage
SEX	Male	255	79%
	Female	68	21%
AGE	Below 25	23	7%
	26 – 30	78	24%
	31 – 40	132	41%
	41 and above	90	28%
Marital status	Single	84	26%
	Married	239	74%
Highest Academic Qualification	WASSCE/NECO	0	0%
	OND/NCE	45	14%
	HND/ BSc	213	66%
	MSc/MBA/PHD	65	20%

Source: Field Survey, 2024

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The table 4.3 shows most of the respondents are male which constitute79% 0f the total sampled.

It also shows that, 74% are married, at least 80% of the respondents have a minimum of HND and 69% of the respondents are above the age of 31. This shows that, majority of the respondents are mature and have enough experience in the building sector. Though, the years of working experience was not considered. This is because the home owners are also part of the respondents and are considered as a major stakeholder. Thus, the average age of respondents is used to consider the level of maturity and experience in the sector.

Descriptive Statistics of Study Variable

The descriptive analysis of the respondents' opinions is done in the section first by dealing with the independent variables, followed by the dependent variables. The responses were based on a five-point Likert scale coded with numerical values for ease of analysis. The values assigned were 5 for strongly agreed (SA), 4 for agreed (A), 3 for undecided (U), 2 for disagree (D) and 1 for strongly disagreed (SD). Results were interpreted using descriptive statistics such as percentages, mean and standard deviation. The mean of the responses using a width of the class interval was interpreted as follows: 4.50 – 5.00 implied strongly agree, 3.50 – 4.49 implied agreed, 2.50 – 3.49 implied undecided, 1.50 – 2.49 implied disagreed and 0.50 – 1.49 implied strongly disagreed. A standard deviation of more than 1 indicates that the responses are widely distributed or no consensus and less than 1 indicates consensus on responses obtained.

Table 4: Descriptive Statistics of Ego Conflicts

Description	Level of Agreement					Average	
	SD	D	U	A	SA	Mean	Std. Dev.
EC1	0%	7%	28%	22%	43%	4.01	1.000
EC2	0%	8%	35%	28%	29%	3.78	0.967
EC3	0%	7%	31%	32%	31%	3.86	0.939
EC4	0%	11%	36%	19%	33%	3.75	1.045
EC5	0%	6%	35%	28%	32%	3.86	0.939
Grand Average						**3.85**	**0.98**

Source: Field Survey (2024)

Table 4 shows that, the mean for Ego Conflicts is approximately 3.85. This mean most of the respondents' statements is in convergence as it relates to as it relates to Ego Conflicts. And with a standard deviation of 0.98, implies the responses were clustered around the mean.

Table 5: Descriptive Statistics of Building Project Collapse

Description	Level of Agreement					Average	
	SD	D	U	A	SA	Mean	Std. Dev.
BPC1	0%	7%	22%	33%	38%	4.01	0.942
BPC2	0%	8%	28%	35%	29%	3.85	0.944
BPC3	0%	7%	31%	39%	24%	3.79	0.887
BPC4	0%	6%	28%	28%	39%	4.00	0.949
BPC5	0%	4%	28%	26%	42%	4.06	0.933
Grand Average						**3.94**	**0.93**

Source: Field Survey (2024)

Table 5 shows that, the mean for BPC is approximately 3.94. This mean most of the respondents' statements is in convergence as it relates to as it relates to BPC. And with a standard deviation of 0.93, implies the responses were clustered around the mean.

Analysis of Research Hypotheses

Hypothesis: **The impact of** 'Ego Conflicts' on the perceived rate BPC in Lagos state is not **significant**

Table 10: Model summary of the relationship between 'Ego Conflicts' and BPC

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Model summary

Model	R	R square	Adjusted R square	Std. Error of the estimate
1	0.674[a]	0.455	0.443	0.393

Predictors: (Constant), Ego Conflicts

Coefficients[a]

Model	Unstandardized coefficients		Standardized coefficients	T	. Sig.
	B	Std. Error	Beta		
1 (Constant) stakeholder's Identification	1.232	0.418		2.947	0.004
	0.739	0.083	0.674	8.848	0.000

Dependent Variable: Building Project Collapse

Source: Researcher's Computation (2024)

The model summary table above shows that there is a moderate positive relationship between Ego Conflicts and Building Project Collapse (R= 0.674). The model further shows the extent to which the Ego Conflicts explains the Building Project Collapse. The coefficient of determination ($R^2 = 0.455$) indicates that Ego Conflicts explains 45.5% of Building Project Collapse. This result is statistically significant because the p-value of the result (0.000) is less than 0.01 level of significance used for this study. Therefore, the research hypothesis was rejected. This implies that there exists a significant relationship between Ego Conflicts and Building Project Collapse.

It is also observed from the table above that an evaluation of the unstandardized coefficient of the Ego Conflicts in the coefficient table, and its associated p-value shows that Ego Conflicts ($\beta_{SE} = 0.739$, $p<0.01$) is statistically significant and can be used in predicting Building Project Collapse. This, therefore, further suggests that the research hypothesis is rejected.

$$BPC = 1.232 + 0.739EC$$

III. Discussion of Findings

This study was examined from the perception of major stakeholders in the building industry such as structural engineers, architects, quantity surveyors, civil engineers, project managers, builder home owners, developers etc. The hypotheses showed a similar trend with the system theory with the "Ego Conflict" affecting BPC in Lagos state. This was also observed by Awoyera, Alfa, Odetoyan, & Akinwumi (2021) that recuitement of quack personnels is an important factor that contribute significantly to BPC. Thus, the act of selecting artisans rather than engineers or builders for structural jobs has contributed to the BPC in Lagos state and Nigeria as a whole.

IV. Conclusion and Recommendations

The study assessed the factors that are influencing BPC in Lagos state Nigeria. The result shows that the Ego Conflicts- contribute significantly either directly or indirectly to BPC. thus, this study made the following recommendations:

Periodic seminars and workshop should be organised for home owners and developers on what is a structural job and the scope of individual discipline in the industry. This will give them a clear sense of the human resources procurement selection process to reduce the possibility of procuring the services of quack and inexperience personnel or selectin an artisan over an engineer.

The periodic seminars and workshop identified in ii above should also be used to defined the overlapping roles among personnel, especially experience artisans and their limitation.

The Lagos state government should penalise any home owners or developer that substitute formal qualification for experience artisans as stipulated in the building codes/specifications of Lagos state.

References

1. Adedeji, O. H., Oloke, C. O., & Lawal, O. A. (2021). Building collapse in Lagos: An evaluation of the causes and implications on the built environment. ,. Journal of Building Performance, 12(1), 1-12.
2. Adenaiya, O., & Adejugbagbe, J. (2017). Investigating Causes of Conflict and Rivalry among Professionals in Construction Industry in Nigeria. in Construction Industry in Nigeria, 9(12), 69-73. Retrieved from https://core.ac.uk/download/pdf/234678642.pdf

ISSN 2278-2540 | DOI: 10.51583/IJLTEMAS | Volume XIV, Issue IV, April 2025

3. Adeyemi, B. S., & Aigbavboa, C. O. (2020, Febuary 3). Conflict factors investigation among construction professionals in Nigeria. Journal of Engineering, Design and Technology, 18(5), 1121-1137. Retrieved from https://www.emerald.com/insight/content/doi/10.1108/JEDT-08-2019-0210/full/html?skipTracking=true
4. Aimil. (2021, October 8). What do you understand by Building Material Testing? Why is it important to test the building material in construction? . Retrieved from https://www.aimil.com/blog/importance-of-construction-material-testing/
5. Ajufoh, M. O., Gumau, W. A., & Inusa, Y. J. (2014). Curbing the menace of building collapse in Nigeria. International Letters of Natural Sciences, 20(1), 168-178. doi:10.56431/p-9q3lxt
6. Akinsunmi, O. H. (2021). Effects of Conflict on Employees'Productivity: A Study Of AkinrichwayIndustrial Services Limited, Lagos State. The MTU Institutional Repository. Retrieved from http://ir.mtu.edu.ng/jspui/handle/123456789/59
7. Asadi, S., Chowdary, K., Sai, V., & Raju, M. (2017, March). Preparation of soil analysis for construction of commercial complex: A model study. International Journal of Civil Engineering and Technology, 8(3), 816-823. Retrieved from https://www.researchgate.net/publication/316133503_Preparation_of_soil_analysis_for_construction_of_commercial_complex_A_model_study
8. Awoyera, P. O., Alfa, J., Odetoyan, A., & Akinwumi, I. I. (2021). Building Collapse in Nigeria during recent years – Causes, effects and way forward. 2nd International Conference on Sustainable Infrastructural Development . 1036, pp. 1-10. Ota, Nigeria: IOP Publishing Ltd.
9. Azeez, B. (2023, May 17). Bricklayers identify causes of building collapse. Retrieved from Nigeria Tribune Website: https://tribuneonlineng.com/bricklayers-identify-causes-of-building-collapse/
10. Dosumu, O. S., Lawal, P. O., Uwineza, C., Mugiraneza, P., Dushimiyimana, E., & Ruzindana, M. (2021, June). Recruitment and Selection Practices of Construction Employers in Rwanda. Rwanda Journal of Engineering, Science, Technology and Environment, , 4(1), 1-18. doi:10.4314/rjeste.v4i1.8
11. Druyts, F. (n.d.). HYDRAULIC STRUCTURES, EQUIPMENT AND WATER DATA ACQUISITION SYSTEMS-TESTING OF MATERIALS AND SOILS. Department of Water Affairs and Forestry. Pretoria, South Africa: Life Support Systems. Retrieved from http://www.eolss.net/sample-chapters/c07/e2-15-05-07.pdf
12. Edidiong, I. (2023, April 24). Frequent building collapse exposes weak regulations, indicts officials. Retrieved from https://punchng.com/frequent-building-collapse-exposes-weak-regulations-indicts-officials/
13. Ezeagu, C. A., Udebunu, J., & Obiorah, S. M. (2023). Destructive and Non-Destructive Assessment of Collapsed Structures in Onitsha, Anambra State, Nigeria. American Scientific Research Journal for Engineering, Technology, and Sciences, 96(1), 170-187. Retrieved from https://core.ac.uk/download/pdf/235049616.pdf
14. Ezeanah, U. (2021). Housing Challenges in Nigeria. In A. Amjad, & A. Asaad, Sustainable Housing (pp. 1-11). IntechOpen. doi:10.5772/intechopen.99263
15. Gulf Testing Solutions Enterprise LLC. (2021, December 6). The Importance of Construction Materials Testing . Retrieved from https://gulftestinglab.com/importance-of-construction-materials-testing/
16. Ihua-Maduenyi, M. (2018, July 23). Nigeria records annual decline in skilled construction workers. Ogun State, Nigeria: Punch Nigeria Limited. Retrieved from https://punchng.com/nigeria-records-annual-decline-in-skilled-construction-workers/
17. Jaramillo, H. Y., Gómez, J. A., & Martinez, C. A. (2020). Physical analysis of building materials with soil. VII International Week of Science, Technology, and Innovation (pp. 1-7). Journal of Physics: Conference Series. Retrieved from https://iopscience.iop.org/article/10.1088/1742-6596/1708/1/012017/pdf
18. Lagos State Government. (2021). Lagos state government to sanction building developers and professionals over building collapse. Retrieved from https://lagosstate.gov.ng/blog/2021/03/17/lagos-state-government-tosanction-buildingdevelopers-and-professionals-over-building-collapse/
19. Lagos State Government. (n.d.). Lagos State Material Testing Laboratory,LSTML. Retrieved from https://lsmtl.lagosstate.gov.ng/
20. Lene, J., & Tina, Å. (2019). Trust and control in project management. Procedia Computer Science 164(6):, 164(6), 397-406. doi:10.1016/j.procs.2019.12.199
21. Mansur, H.-a., & Tahar, K. (2017). Causes of Building Failure And Collapse In Nigeria: Professionals' View. American Journal of Engineering Research, 6(12), 289-300. Retrieved from https://www.academia.edu/36489223/Causes_of_Building_Failure_And_Collapse_In_Nigeria_Professionals_View

ISSN 2278-2540 | DOI: 10.51583/IJLTEMAS | Volume XIV, Issue IV, April 2025

22. Marteney, J. (2019). Types of Conflicts. (ASCCC Open Educational Resources Initiative (OERI)) Retrieved from https://socialsci.libretexts.org/Bookshelves/Communication/Argument_and_Debate/Arguing_Using_Critical_Thinking_(Marteney)/01%3A_Standing_Up_For_Your_Point_Of_View/1.03%3A_Types_of_Conflicts

23. Nosike, M. (2022, September 3). NSE, stakeholders call for end of building collapse, declare state of emergency in power sector. (Vanguard Media Limited, Nigeria) Retrieved from https://www.vanguardngr.com/2022/09/nse-stakeholders-call-for-end-of-building-collapse-declare-state-of-emergency-in-power-sector/

24. Ogundeji, J. (2023, April 30). Low Building Approval Rate Aiding Poor Construction, Collapse – NIOB Treasurer. (Punch Nigeria Limited) Retrieved from https://punchng.com/low-building-approval-rate-aiding-poor-construction-collapse-niob-treasurer/

25. Okuntade, T. F. (2015). Managing The Causes Of Inter-Personal Conflicts Among Construction Professionals In Nigeria: A Review Of Architects And Builders Behaviour. International Journal of Business, Economics and Management Works, 2(6), 37-44. Retrieved from file:///C:/Users/NCC%20PROJECT%202020/Downloads/Managing_The_Causes_Of_Inter-Personal_Conflicts_Among_Construction_Professionals_In_Nigeria_A_Review_Of_Architects_And_Builders_Behaviour.pdf

26. Olabosipo, I. F., & Adedamola, O. (2010, Novermber). Building Failure and Collapse in Nigeria: the Influence of the Informal Sector. Journal of Sustainable Development 3(4, 3(4), 268-276. doi:10.5539/jsd.v3n4p268

27. Omokanye, O. A., Oyeyiola, O. J., Adenuga, B. A., Adetola, O. D., Fadeyi, A. A., & Opoko, A. P. (2023, April). The Influence of Artisans on Building Failure and Collapse in Nigeria. International Journal of Innovative Science and Research Technology, 8(4), 1266-. Retrieved from https://ijisrt.com/assets/upload/files/IJISRT23APR1303.pdf

28. Project Management Tutors. (n.d.). PROJECT HUMAN RESOURCE MANAGEMENT. (POeT Solvers Limited) Retrieved from https://www.pmtutor.org/resources/guides/7._Project_Human_Resources_Management.pdf

29. Ramonu, J. A., Ilevbaoje, J. O., A., O. O., A.O, O., Owamah, H., & Adewole, T. A. (2018). PREVENTION OF CONFLICT IN CONSTRUCTION INDUSTRY CONSIDERING; ORGANIZATION, CONSULTANCY FIRM, ONTRACTUAL FIRM AND THE PROFESSIONALS PERSONNEL IN NIGERIA. International Journal of Civil Engineering and Technology (IJCIET), 9(12), 472-484. Retrieved from http://eprints.lmu.edu.ng/1921/1/IJCIET0912053.pdf

30. Sheldon, K. (n.d.). Finding the Right Sample Size (the Hard Way). Retrieved from https://www.evalacademy.com/articles/finding-the-right-sample-size-the-hard-way

31. Sholihah, B. (2021, July). Human Resource Procurement in Pesantren? Insight from Pesantren Sirojuth Tholibin. Nadwa, Jurnal Pendidikan Islam Islamic Education Journal)WalisongoWalisongoWalisongo, 14(2), 345-368,. doi:10.21580/nw.2020.14.2.6487

32. Technischer Überwachungsverein. (n.d.). Construction Materials Testing: Improve the quality, safety and sustainability of your construction materials. Retrieved from https://www.tuvsud.com/en-ph/industries/real-estate/buildings/construction-materials-testing

33. Tveit, A. K. (2021). Does capacity increase compliance? Examining evidence from European cooperation against air pollution. International Environmental Agreements: Politics, Law and Economics, 21, 323-345. doi:10.1007/s10784-020-09497-1

34. Verma, V. K. (1996, April). Human Resource Management and Project Management. (PMI Network) Retrieved from https://www.wcu.edu/pmi/1996pub/N96APR34.PDF