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Building Collapse and Its Prevention in Lagos: The Role of Estate Surveyors and Valuers

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Abstract:
Building collapse incidents in Nigeria appear to be on the increase with the cases witnessed in Lagos State being the worst. The situation has been endemic notwithstanding the efforts of professionals and other stakeholders in the built environment. Numerous literatures exist on the issue of building collapse. However, they mostly focus on the roles of other professionals such as Structural Engineers, Builders, Architects and Town Planners. On the contrary, this study centers on highlighting the significance of Estate Surveyors and Valuers contributions by getting their perspectives on building collapse , particularly in Lagos Island areas VI, Lekki, Lagos Island & Ikoyi) of Lagos State. The study employed a conceptual model which identified various factors responsible for building collapse in Lagos Island areas of Lagos, the major roles of Estate Surveyors and Valuers which can facilitate a significant reduction building collapse in Lagos State, the challenges faced by Estate Surveyors and Valuers in ensuring building collapse prevention in Lagos State and evaluated the effectiveness of existing regulations and guidelines governing the role of Estate Surveyors and Valuers in building collapse prevention in Lagos State. Data collection was by the administration of a well-structured questionnaire. Out of 80 copies of the questionnaire administered using Purposive Expert-Homogeneous sampling technique, 83.75% response rate were retrieved and evaluated for further analysis, with mean item score, and inferential statistics using Chi-square Test for the hypothesis test. The result indicates that Estate Surveyors and Valuers have significant impact in the prevention of building collapse. Based on the research findings, some useful recommendations were advanced.

Keywords: Building collapse, Built-environment, Estate Surveyors and Valuers, Development, and Planning regulations.

1. Introduction

In Nigeria, particularly Lagos State, the occurrence of building collapse has gained widespread attention and has given cause for concern, regarding the safety and structural integrity of buildings as well as the avoidable loss of precious lives and human resources. According to a report by the Nigerian Tribune & Sahara Reporters (2022), Nigeria witnessed not less than 61 incidences of building collapse in one year: 2022. However, 20 out of all cases recorded, which makes for 48.7%, were recorded in Lagos alone. Observed trends suggest that the unfortunate and unexpected collapse of buildings in Lagos State are usually as a result of the use of substandard or low quality materials in construction, personnel problems such as involvement of quacks and non-professionals resulting in poor workmanship, supervision and maintenance, greed of stakeholders, design errors, as well as gross mistakes and oversights to mention a few (Adewole et al, (2016); and Oloyede et al, (2010)).

If truth be told, this menace casts a questionable outlook on the competence and virtuosity of the nation's professionals in the construction industry responsible at design, monitoring of construction and maintenance stages (Adebowale et al., 2016).

Although there exists ample literature on the causes of building collapse in Lagos State, a little less exists which actually treats its prevention, especially from the part, insights and perspectives of Estate Surveyors and Valuers, compared to some other fields in the built industry. There also exist major challenges and gaps such as inadequacy of existing regulatory framework which may be insufficient or poorly enforced; economic factors, such as budget constraints and cost-cutting measures, thereby leaving contractor Estate Surveyors and Valuers with the challenge of balancing economic considerations demands from clients/contractors with safety requirements. These could influence construction practices and lead to subpar practices which can compromise the quality and safety of buildings.

Aim and Objectives

The aim of this research is to examine the perception of Estate Surveyors and Valuers in the prevention of building collapse in Lagos State. In order to achieve the stated aim, the research objectives would be to:

1. identify the key factors responsible for building collapse in Lagos Island areas of Lagos State.
2. identify the major roles of Estate Surveyors and Valuers which can immensely facilitate a reduction in building collapse in Lagos State
3. identify the challenges faced by Estate Surveyors and Valuers in ensuring building collapse prevention in Lagos State.
4. evaluate the effectiveness of existing regulations and guidelines governing the role of Estate Surveyors and Valuers in building collapse prevention in Lagos State.

Research Hypothesis

- $\mathbf{H_0}$ **-** there is no significant impact of the role of Estate Surveyors and Valuers in the prevention of building collapse.
- $\mathbf{H_1}$ **-** There is significant impact of the role of Estate Surveyors and Valuers in the prevention of building collapse.

2. Review Of Related Literature

This descriptively and analytically digs into the existing body of knowledge related to the perspective of Estate Surveyors and Valuers in of building collapse within Lagos State. By examining relevant literature, it aims to shed the prevention light on the concept of building collapse, a focus on Lagos State and its distinctive structural failure challenges, an understanding into causes of building collapse, and insights into the role of Estate Surveyors and Valuers in construction.

The Concept of Building Collapse

Building Collapse is a state of complete failure, when the structure has literally given way and most members have caved-in, crumbled, buckled; the building can no longer stand as originally built (Adebowale et al., 2016). The failure is simply the unacceptable difference between expected performances as compared to an observed performance; when a component can no longer be relied on to fulfill its principal functions (Wasiu et al., 2014). Although building failure can be as a result of the Act of God or human errors (Alabi, 2016), this paper focused more on the human contribution. It is, however, imperative to distinguish the different types of building failure, such as defects and a partial or total collapse. Oftentimes, a total collapse is preceded by the emergence of defects such as cracks, subsidence, dampness, reinforcement corrosion, damaged concealed conduit wirings and plumbing; which could occur overtime and may or may not be obvious. Statistics provided by Sahara Reporters (2022) presents that there have been about 541 recorded cases of building collapse in Nigeria, within a 48-year period, that is, between October 1974 to November 2022. 20 of these occurred in Anambra; 19 in Oyo; 18 in Abuja; 17 in Kano; 12 in Ogun and Delta State; 11 in Ondo and Abia; 10 in Rivers; 9 in Enugu; 7 in Kwara State, Imo and Plateau; 6 in Kaduna, Edo and Osun; 5 each in Ebonyi and Jigawa; 4 in Cross River; 3 each in Benue, Adamawa and Niger State; 2 each in Ekiti, Kogi, Akwa-Ibom, Nasarawa State other states included, Zamfara, Kebbi, Sokoto, Bauchi, Katsina, Borno, Taraba, Yobe, Bayelsa, Gombe with 1 case each; then Lagos having the highest case of 322.

Building Collapse in Lagos State

Lagos State, Nigeria's commercial capital and one of Africa's largest cities, in the face of rapid urbanization, population growth, stringent bureaucracies and infrastructural challenges, has witnessed a significant number of building collapse incidents. Egunjobi and Adebayo (2016) in their research on incidences of building collapse in Nigeria, observed an escalating rate of building collapse in the State overtime, as a result of the negative contribution of policy decision makers, professionals and the public. Also, lack of coordination and collaboration among various government bodies, professionals, and stakeholders has contributed to the hindrances of effective preventive measures''. The Lagos State Materials Testing Laboratory (LSMTL) reported that the majority of buildings in Lagos do not adhere to minimum standards, further exacerbating the risk of collapse faced by Lagos also contributes to the vulnerability of its buildings as was the case with the Lekki Gardens building collapse in 2016 which left about 35 people dead and several others injured (Punch 2018). The regulatory landscape in Lagos is complex, thereby frustrating the government's efforts in the form of improved building regulations initiatives, to address this issue of building failure, however, implementation challenges persist. The majority of collapses in Lagos are witnessed on the island part of Lagos.

Building Collapse on Lagos Island

Lagos Island is observed to be an area that is more susceptible to building collapse in comparison with other parts of Lagos State owing to the rate of occurrences recorded in this region. Oyewale et al., (2018) using a report of the Lagos State Building Control Agency (LSBCA) from 2016, presented that about 15 cases of partial to complete building collapse had occurred in Lagos Island, resulting in more than 12 deaths and several injuries. The challenges are contributed to by mixed land-use patterns, narrow streets and overlapping architectural styles common in the area. Yet, the dynamics of Lagos Island presents a unique case study and offers valuable insights into the intricacies of building collapse prevention, as Estate Surveyors and Valuers navigate the balance between heritage conservation and structural integrity.

Notable incidents in Lagos Island include the collapse of a 21-storey building on Gerrard Road, Ikoyi in 2021 and that of a two-storey at Osapa-London, Lekki barely 24 hours after. However, Oloyede et al (2010); after their study in various states of the country, gathering the opinions of industry professionals and stakeholders, came up with different opinions of the causes of building collapse among professionals as they all tried to exonerate themselves blaming other professions in the built environment than themselves. While Oloyede et al (2010) concluded that employment of incompetent contractors, use of substandard materials and equipment and developers and contractors' non-compliance with specifications and standards were the three prominent causes of building collapse.

Also, the building industry is full of quacks and inexperienced contractors as Site Engineers and Builders, whose poor management and leadership has contributed to too many building failures in the past and at present (O. A. Adenuga, 2012) . Olubi and Adewolu (2018) concluded most building collapse in Nigeria to be as a result of structural defects due to humans' actions or inactions, such as poor design or improper interpretation of the design. Lagos State Material Testing Laboratory (LSMTL) report indicated that approximately 85% of buildings in Lagos State are not constructed according to approved building plans, however, Wasiu et al.,(2014) in their paper, added that this and imminent collapse is contributed to by poor Town Planning and non-enforcement of existing building laws by the Town Planning Authorities due to the lack of political will by the various arms of government, economic pressures, undue influence and selfishness/greed of non-compliant developers and building material suppliers, failing standard of education, lack of Continuing Professional Development, bribery/corruption. On the other hand, Onwuanyi (2016) argues that the building control function is inappropriately assigned to the State government, rather than the Local governments, and that the State bureaucracy cannot effectively execute building control because of poor capacity and practices

According to a report by the Nigerian Institute of Building, about 199 lives were lost between 2014 and 2016 in 4 major building collapses as a result of poor supervision and the use of inferior materials in the construction of buildings. These include the collapse of a guesthouse within the Synagogue Church of All Nations in 2014, attributed to structural failures and improper modifications.

Use of Substandard Material

The use of inferior materials in building construction has appeared almost in all related literature as one of the top causes of building collapse. Ohenhen (2022) found that low-quality materials had been cited too frequently globally, as a major cause of the annual increase in building collapses with enormous fatalities and financial losses. Also, Oloyede et al (2010) after seeking the opinion of three groups (real estate professionals, the public and academia), they found that the use of low quality building materials constitute the major contributor to the collapse of buildings across the country. The employment of inferior materials in construction, can lead to low load-bearing capacity of the buildings and increase their failure rate.

Poor Workmanship and the Involvement of Non-Professionals

Oloyede et al (2010) in citing Adebayo (2000) confirms the importance of the experience, skill and personal capability of workmen engaged in any property development, which usually shows in the measure of the quality of their works. While they also opined that the above statement can only be relied on where there may be capable building developers or contractors, who are appreciative of, willing and ready to pay for quality service, it may yet be difficult, with the infiltration of corruption and favoritism (either of persons or elements such as race) in societal workspaces to achieve a full team of seasoned skilled and professional workmen who would put in the required quality of work paid for without trying to cut corners.

Inadequacies in Law/Regulations Enforcement and Monitoring

Land is a scarce resource which just likes other resources must be judiciously allocated and utilized. Environmental and building laws, codes and regulations help to achieve this. Aluko (2011) noted that land in Lagos State is becoming increasingly scarce and the State seems to be grappling with the problems of promoting a balanced land use for their numerous activities, in a way that reduces conflict, environmental degradation, leading to efficiency and sustainability. In spite of these efforts, the rate of failure in achieving a sustainable built environment in the State, characterized by incessant occurrences of building collapse, is totally disappointing. A higher number of researchers on this issue have found the inadequacy and ineffectiveness of existing regulations as well as the regulatory bodies to be a solid factor behind the failures. Building design plans are usually created by architects and must be officially filed with local governmental agencies before construction can legally begin (Worth 2023). This is to uphold Development control which is a powerful tool for city management in the face of continuous growth, to ensure proper utilization of land, orderliness, and considerable reduction in environmental challenges (Aluko 2011).

Climatic and Natural Phenomenon

Climatic conditions include heavy rainfall, flooding and heavy wind, which can create some level of vulnerability for buildings, especially ones experiencing a great deal of obsolescence and fabric deterioration, ones with inadequate foundation and those built with substandard materials. In addition to the causes of building noted by Ohenhen (2022) subsidence, a sea-level rise (SLR) and human or earth movement hazard, was also identified as one of the factors.

The National Ocean Service defined subsistence as “the gradual settling or sudden sinking of the earth’s surface”, usually caused by the removal of soil, water, mineral resources, oil and natural gas or natural phenomenon like soil compartment, earthquakes. Oyeleye et al (2018) agrees with the opinion of Oni (2010) that most of the buildings that collapsed in Lagos were concentrated around swampy terrain not far from the Lagos Lagoon, where land reclamation for building purposes had been done many years ago without a strict planning approval and supervision process.

The Roles of Estate Surveyors and Valuers in Building Construction/Development

The property industry is generally associated with planning design, construction and development, buying and selling and management of property. Here finance and the built environment meet and investment as well as employment opportunities are created for different participants including skilled, semi-skilled and unskilled personnel (Alabi, 2016). The construction sector is an aspect of the industry that centers on development or redevelopment of commercial, residential, industrial, agricultural, and other purpose structures. In respect to building development, as described by (Alabi, 2016) as works associated with the change or re-establishment of the use or intensity of use of land and its building. It comprises of conceptualization or idea stage, Location studies and Site selection, Market research and Analysis, Financing, Contract award, Implementation/Actual development, marketing, Letting/Management/Disposal (Sani, 2021).

Onwuanyi et al. (2017) in their study of the level of engagement of Estate Surveyors for advice by private property investors and developers, noted that the expertise of the Estate Surveyor puts him in position to be involved in the property from conception to delivery and thereafter. Estate Surveyors and Valuers need to navigate the complexities of building construction while considering factors such as land tenure, land use regulations, fluctuating property value and market demands and subsequent post-construction maintenance and management.

Eleh, (2017) defines the profession of Estate Surveying and Valuation as the art, science and practice of:

- Determining the value of all types of property and of the interests in them
- Management and development of estates and other businesses concerned with management of landed property
- Securing the optimal use of land resources and resources associated with it, to meet both social and economic needs
- The determination of the condition of buildings and their services and advising on their maintenance, alteration and improvement;
- The determining of the (highest and best) economic use of land resources through financial appraisal for the building industry; and
- Selling (by auction or any other means), buying or letting (as an agent) of real and personal property and the interests in them, as well as giving advice on property rights and alienation.

Estate Surveyors and Valuers also perform the following functions

- Expert witnessing
- Project management
- Project development advising
- Arbitration services for alternate dispute resolution

While recommending the integration of a quality assurance committee to monitor structural quality and ensure adherence to building codes and regulations, Ojo et al., (2013) posited that “structural sustainability can greatly be improved upon, through the supervision of design and construction by intentionally depending on highly skilled professionals.

GAPS: Furthermore, owing to the alarming and also frightening figures of casualties recorded each collapse, largely due to poor emergency management resulting in late rescue operations, the preparedness of relevant private and government entities such as NEMA, LRU, Lagos State Fire Service and LASAMBUS, LASEMA as the agencies in charge of emergency in the disaster management and prompt response (Ebekozien et al. 2023) is crucial in the case of an unpredictable mishap. There is therefore a need for further study, to identify and provide sustainable solutions, including technological means, which helps to ameliorate the effects and magnitude of losses in the case of a disaster.

3. The Study Area: Lagos Island Of Lagos State, Nigeria

Lagos is the most populous city in Nigeria, the second fastest-growing city in Africa and the seventh in the world. It has a territorial land area of 351,861 hectares. Lagos State is made up of five administrative divisions, namely: Ikeja ie Capital of Lagos State, Badagry, Ikorodu, Lagos i.e. Eko, and Ekpe. It is the former capital of Nigeria and has the chief port. Lagos is ordinarily divided into two: Lagos mainland and Lagos Island. The study country (https://landsbureau.lagosstate.gov.ng>...; https://www.dictionary.com>lagos)area is Lagos Island in Lagos State, also known as Lasgidi. Lagos Island

occupies 800.26km (22.37%) out of the 3,557km^2 land area of Lagos State. It comprises of major places like Victoria Island, Lekkiand its environs, Ikoyi (one of the affluent districts in Lagos) and its environs, Ajah and its environs, Lagos Island (IsaleEko) and therefore comprising of both Eti-Osa and Lagos Island Local Government Areas which will be the focus area for this study. It is linked to the mainland by three large bridges (the Carter Bridge, Eko Bridge and the Third Mainland Bridge) which cross Lagos Lagoon to the district of Ebute Metta. Notable landmarks include the very serene Tinubu square, the imposing United Bank of Africa building, Cathedral Church of Christ (in Lagos Island), the Tafawa Balewa Square, Civic Center, Lekki-Ikoyi link Bridge, Freedom Park while important festivals held in the area include the Eyo festival. Lagos Island area of Lagos is the highbrow area of the State where the most influential individuals and experts occupy. Several business organizations also have their headquarters in these places. The historical significance, high population density, mixed land-use patterns, and the coexistence of old and new structures, all form complex urban landscape of Lagos Island which presents a unique case for exploration.

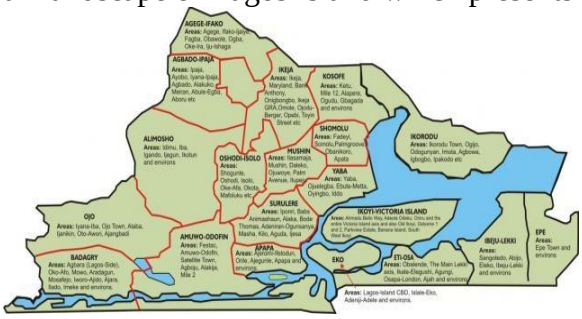

Fig 3. 1. Map of Lagos showing EtiOsa and Lagos Island local Governments.
Source: KunleAtiba (2017)

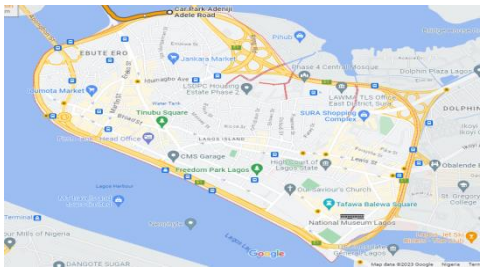

Fig 3.2: Map of Lagos Island.
Source: Google Map – (2023)

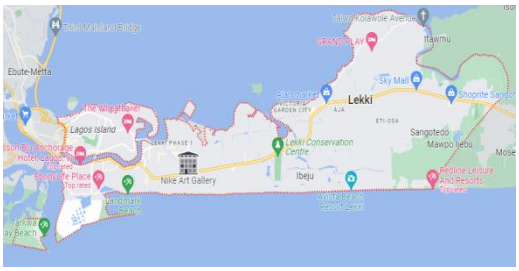

Fig 3.3: Map of Eti-Osa.
Source: Google Map - (2023)

4. Research Methodology

This section is dedicated to the description of the methods employed in this research to achieve its aim and objectives. It comprises the research design, target population, data sources, sampling frame, sample size, questionnaire design and methods of data analysis. This project employed both Quantitative and Qualitative approaches. A qualitative sampling method was used to determine sample size while quantitative surveys using a structured questionnaire was administered to this sample of Estate Surveyors and Valuers practicing in Lagos Island areas of Lagos, involved in property management, property development and Valuation. Being the primary instrument of data collection for this research, the administered questionnaire is designed to provide insights to meeting the stated objectives and test hypothesis.

Primary Data: It was gathered through a structured questionnaire survey from practicing Estate Surveyors and Valuers involved in property development, property management and property appraisal within Lagos Island areas of Lagos State (VI, Lekki, Lagos Island and Ikoyi).

Secondary Data: The data from secondary sources already exists in an accessible form that can easily be found. They are present in forms of journals, textbooks, newspapers, e-books, conference papers and other related materials. In this case, a careful evaluation of these data was done by the researcher in order to identify and differentiate their level of usefulness to the study.

The 2023 Estate Surveyors and Valuers' Registration Board of Nigeria (ESVARBON) register of Estate Surveyors and Valuers shows that there are 2,223 registered Estate Surveyors and Valuers across the country, 711 of them are domiciled in Lagos state (ESVARBON Register of ESV, 2023).

Administration of Questionnaire

The questionnaire was designed and administered to Estate Surveyors and Valuers to elicit data on their perspective on building collapse prevention in Lagos Island (Lekki, Lagos Island, Ikoyi and VI) areas of Lagos State. 40 copies of the questionnaire were evenly distributed across these four areas on two intervals, which sums up to 80 copies and 67 responses were retrieved (45 from physical questionnaire and 22 from online survey) representing 83.75% of the total questionnaires administered, as shown in the table below. The returned questionnaire formed the basis for the analysis.

Table 4.1 Rate of Response to Questionnaire

Questionnaire	**Frequency**	**Percentage (%)**
Retrieved	67	83.75%
Un-retrieved	13	16.25%
Total	80	100%

Source: Researchers' Field Survey, (2023)

Table 4.1 shows that 80 copies were administered but only 67 representing 83.75% were retrieved while 13 questionnaires representing 16.25% remained un-retrieved.

5. Data Analysis And Presentation

This section contains the results obtained from the study questionnaires which were collected from field surveys as well as their descriptions. The methods of analysis used in this study are descriptive statistics of frequency and percentage distributions and Mean Item Score; and finally followed by the test of hypothesis. The **analysis and presentation center on estate surveyors' perception on building collapse prevention in Lagos State.**

Table 5.1: Distribution of key factors responsible for building collapse in Lagos Island areas of Lagos State

Variables	**5**	**4**	**3**	**2**	**1**	**Sum**	**Mean**	**Rank**
Design problems	41	13	6	7	0	289	4.313	4th
Use of substandard material	61	3	3	0	0	326	4.866	1st
Negligence and Inadequate post-development management and maintenance	29	31	2	5	0	285	4.254	5th
Greed and corruption in relevant stakeholders	29	18	20	0	0	277	4.134	6th
Inadequacies in law/regulations enforcement and monitoring	28	22	11	6	0	273	4.075	7th
Non-compliance to development, redevelopment and planning regulations	33	26	8	0	0	293	4.373	2nd
Poor workmanship and the involvement of non-professionals	32	26	9	0	0	291	4.343	3rd
Natural disasters and climate change	14	16	25	12	0	233	3.478	10th
Poor public enlightenment/awareness and compliance	9	35	16	7	0	247	3.687	9th
Use of wrong tools, equipment and technology or wrong application of them	20	25	17	5	0	261	3.896	8th

Source: Researchers' Field Survey, (2023)

Table 5.1 shows the major causes of building collapse, with "Use of substandard material", "Non-compliance to development, redevelopment and planning regulations" and "Poor workmanship and the involvement of non-professionals" ranked 1st, 2nd and 3rd respectively at Mean Item Scores of 4.866, 4.373 and 4.343 respectively. "Poor public enlightenment/awareness and compliance" and "Natural disasters and climate change" ranked the least at 9th and 10th causes respectively. This means that the primary causes of building collapse in Lagos Island areas of Lagos are linked to quality control and regulatory adherence since the use of substandard materials, non-compliance with regulations, and poor workmanship and the

involvement of non-professionals, are identified as the top three contributors. This highlights a very serious need for strict oversight and quality assurance in construction practices.

Table 5.2: Major Roles of Estate Surveyors and Valuers Which Can Immensely Facilitate a Reduction in Building Collapse in Lagos Island Areas of Lagos State

Variables	5	4	3	2	1	Sum	Mean	Rank
Pre-Construction Evaluation and Analysis	33	21	13	0	0	288	4.299	5th
Conducting an Environmental Impact (EIA) and Regulatory Impact (RIA) Assessment	39	23	5	0	0	302	4.508	2nd
Public Awareness campaigns	8	30	25	4	0	243	3.627	8th
Collaboration with other Stakeholders and Advocacy	24	30	13	0	0	279	4.164	7th
Property Management and Maintenance	40	27	0	0	0	308	4.597	1st
Due diligence	36	28	3	0	0	301	4.493	3rd
Supervising and Ensuring Compliance	32	30	5	0	0	295	4.403	4th
Project Management	27	29	8	3	0	281	4.194	6th

Source: Researchers' Field Survey, (2023)

Table 5.2 shows the roles of Estate Surveyors and Valuers which can help to prevent building collapse, with "Property Management and Maintenance", "Conducting an Environmental Impact (EIA) and Regulatory Impact (RIA) Assessment" and "Due diligence" ranked 1st, 2nd and 3rd respectively at Mean Item Scores of 4.597, 4.508 and 4.493 respectively. Whereas, "Collaboration with other Stakeholders and Advocacy" and "Public Awareness campaigns" ranked the least at 7th and 8th respectively, with Mean Item Scores of 4.164 and 3.627 respectively. This means that Estate Surveyors and Valuers play a crucial role in preventing building collapses, through direct, technical interventions such as Property Management and Maintenance, Environmental Impact Assessment (EIA) and Regulatory Impact Assessment (RIA), and Due Diligence.

Table 5.3: Challenges Faced By Estate Surveyors and Valuers in Ensuring Building Collapse Prevention in Lagos State

Variables	Frequency (f) of responses	Percentage (%) of cases out of 50 responses	Percentage (%)
Inadequacy in training of the Estate Surveyor	24	48. 00	9.52
Poor public enlightenment	33	66.00	13.10
Bureaucratic bottlenecks	37	74.00	14.68
Lack of cooperation	37	74.00	14.68
Corruption and greed among stakeholders	42	84.00	16.67
Disagreements on responsibilities	38	76.00	15.08
Disregard for the role of Estate Surveyors in the construction process	41	82.00	16.27
TOTAL	211	504	100

Source: Researchers' Field Survey, (2023)

While feedback from 17 respondents representing 25.37% of the total respondents suggests that they do not encounter difficulty in collaborating with other stakeholders in the building industry, towards the prevention of building collapse, 50 respondents representing 74.63% suggest that they do.

his table presents the distribution of challenges faced, showing that 16.67% which is the higher number of 50 respondents encountered problems of greed and corruption among stakeholders, 16.27% met with a disregard for the role of Estate Surveyors in the construction process. Other major problems faced were disagreements on responsibilities among professionals by 15.08%, Lack of cooperation and Bureaucratic bottlenecks both at 14.68%. The least problem experienced is Inadequacy in training of the Estate Surveyor as reported by 9.52%. This data suggests that greed and corruption and outright disregard for the role of Estate Surveyors in the construction process are major problems faced by Estate Surveyors and Valuers. This shows the need to address ethical issues and improving collaboration and training within the industry

Test of Hypothesis
The hypothesis position was that;

- **H_0** - there is no significant impact of the role of Estate Surveyors and Valuers in the prevention of building collapse.
- **H_1** - There is significant impact of the role of Estate Surveyors and Valuers in the prevention of building collapse

The Chi-square is used to test hypotheses in this study.
Using the 1st and 2nd ranked variables from Table 5.2 on the Roles of Estate Surveyors and Valuers in the prevention of building collapse, we would have,

Cross Tabulation of "Property management & Maintenance" with "Conducting an Environmental Impact (EIA) & Regulatory impact assessment (RIA)"

		Conducting an environmental impact & regulatory impact assessment							
		U		A		SA		Total	
		N	%	N	%	N	%	N	%
Property management & Maintenance	A	5	100.0%	22	95.7%	0	0.0%	27	40.3%
	SA	0	0.0%	1	4.3%	39	100.0%	40	59.7%
Total		5	100.0%	23	100.0%	39	100.0%	67	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	63.024[a]	2	<.001
Likelihood Ratio	82.116	2	<.001
Linear-by-Linear Association	53.541	1	<.001
N of Valid Cases	67		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 2.01.

Comparing our obtained statistics to the critical statistics according to the chi-square table, we have the following interpretation:

We found that the p-value (0.000) is less than 0.05 level of significance, hence we reject this null hypothesis that "there is no significance impact of the role of Estate Surveyors and values in the prevention of building collapse" and therefore concluded that there is significance impact of the role of Estate Surveyors and values in the prevention of building collapse.

6. Summary Of Findings, Conclusion And Recommendations

After the consideration of the different aspects of this study that laid the foundation, there was the collection and analysis of relevant data. This chapter focuses on the summary of the entirety of the study. Thereafter, it makes conclusions and the necessary recommendations that come from the results as related to the aim and objectives.

Summary of Findings

The extent of this research is to obtain the perspective of Estate Surveyors and Valuers in the prevention of building collapse in Lagos Island areas of the State. It seeks to evaluate their significance and acknowledge their contributions to the built environment and suggest better ways for improvement,
The following analytical results have been summarized as follows;

1. This survey obtained the inputs of Estate Surveyors and Valuers of which 50.48% of the respondents are specializing in Valuation, others specialize or also deal with Facilities/property Management and Property Development. In the aspect of property development, it is observed that a very large number of Estate Surveyors (89.55%) are not actively or very often involved.
2. The result from this survey shows that 73.13% of Estate Surveyors and Valuers are of the opinion that the profession has a significant impact on the prevention of building collapse, whereas others do not share this view.
3 Findings from this study shows that when it comes to property development, the level of representation for Estate Surveyors and Valuers in comparison to other professionals in the built environment, is neither high nor low. It might be interesting to note that while slightly higher than half (55.22%) the number of Estate Surveyors and Valuers agrees altogether that the profession is adequately represented, the summation of the percentages of other responses (44.78%) is considerable.
4. The findings of this study has pegged the Use of substandard material, Non-compliance to development, redevelopment and planning regulations, Poor workmanship and the involvement of non-professionals and Design problems as the major causes among others, of building collapse in the Lagos Island areas of Lagos State.
5. Results from this study upheld Property Management and Maintenance, Conducting an Environmental Impact (EIA) and Regulatory Impact (RIA) Assessment and Due diligence as some of the major roles of the Estate Surveyors and Valuers which can facilitate the prevention of building collapse in Lagos Island areas of Lagos State.
6. While about 38% of Estate Surveyors and Valuers could not agree to the existence of profound cooperation among stakeholders in the built industry, about 62% does agree. This shows that the level of cooperation among stakeholders still needs to be improved.
7. The result of this survey shows that collaboration among stakeholders can be improved towards the prevention of building collapse majorly through coordinated building inspections and sharing of data and insights.
8. While a number of Estate Surveyors and Valuers may not have experienced difficulties when working alongside other stakeholders in property development and management, quite a large number have. These difficulties were found to include greed and corruption among stakeholders, a disregard for the role of Estate Surveyors in the construction process, lack of cooperation and bureaucratic bottlenecks among others.
9. Existing regulations, as found in the study, although adequate enough to provide guidance to identify potential risks related to building stability, have now become moderately to mildly effective and this has led to professionals overlooking it or just consulting it sparingly.

Conclusion

The study took a purposive sampling technique and both descriptive and inferential statistics were used in the analysis of the data obtained from the field study where it was concluded that the Use of substandard materials; Non-compliance to development, redevelopment and planning regulations; Poor workmanship, the involvement of non-professionals and design problems are the major causes among others, of building collapse in the Lagos Island areas of Lagos State.
It was also reached that while Estate Surveyors and Valuers play crucial roles in the property industry, efforts need to be made to ensure adequate recognition for their high significance and increased involvement in property development. Existing regulations, however, need to be revised and their effectiveness enhanced to facilitate the prevention of building collapses through the input of all relevant stakeholders.
It is the research's view that if the above given recommendations are clearly implemented; the occurrences of building collapse in these areas will be prevented or mitigated to a large extent. However, further studies can be undertaken on the effective use of emerging technology in the prevention of building collapse.

Recommendations

In the light of the above insights drawn, the recommendations are as follows:

1. A greater number of Estate Surveyors and Valuers are not or partially not involved in major decision making in the property development process, efforts should be made to encourage their participation and close the wide gap through targeted initiatives and programs to increase their engagement and involvement. Thus, the role of Estate Surveyors and Valuers in building collapse prevention should

be strengthened. Capitalizing on roles such as property management, maintenance, environmental impact assessments (EIA), regulatory impact assessments (RIA), due diligence, pre-construction analysis/valuation etc will help to minimize or prevent building collapse.

2. A comprehensive revision, implementation and enforcement of building regulations should be upheld; existing enforcement mechanisms should be also enhanced and regularly appraised by the relevant authorities to prevent a relapse. This will help to curb the use of substandard materials, non-compliance to development and planning regulations, poor workmanship, and the involvement of non-professionals.
3. Structured communication channels for regular dialogue and data sharing among stakeholders to address misunderstandings and promote mutual respect and understanding should be implemented and utilized.
4. Increased public awareness and education on building standards and the importance of involving professionals in construction projects can further reduce risks. This can be championed by the NIESV and ESVARBON in collaboration with other stakeholders.
5. Estate Surveyors and Valuers need to be involved in the development of regulatory frameworks through advocacy for policies that would mandate or highly encourage the involvement of the profession in the early stages of building development projects, in order to ensure that their expertise is utilized in assessing project risks and enforcing standards that will aid in the prevention of building collapses.

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