

PROPERTY VALUATION

The Adoption of Environmental, Social, and Governance (ESG) Features in Property Valuation in Ibadan, Oyo State, Nigeria

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Abstract

The growing emphasis on sustainability and long-term value creation has increased the relevance of Environmental, Social, and Governance (ESG) features in property valuation. However, there is limited and inconsistent adoption of ESG features in property valuation practice in the emerging market context. This paper evaluates the drivers of Environmental, Social, and Governance (ESG) features integration in valuation practice of properties in Ibadan, Oyo State, Nigeria.

Out of the 190 Estate Surveying and Valuation firms in the 2024 Nigerian Institution of Estate Surveyors and Valuers (NIESV) Directory, valid surveys from 179 respondent firms were completed, representing 94.2% retrieval rate. The analysis utilized descriptive statistics, the Kaiser-Meyer-Olkin (KMO) and Bartlett's tests, principal component analysis with Varimax rotation, and composite factor scoring.

Three latent factors (comprising 78.13% of the variance) were revealed: External Drivers (composite mean = 4.19), Internal Capabilities (composite mean = 3.89), and Economic Constraints (composite mean = 3.81). External Drivers were comprised of Government Regulations, client demand, and lack of awareness. Internal Capabilities included data availability, competitive advantage, and compliance with international standards. Economic Constraints were dominated by high implementation costs. External regulatory and market forces have the greatest influence.

The current study supports the need to develop internal capacity and address cost barriers, as these are expected to facilitate continuous adoption. The following recommendations were made: introduction of mandated ESG reporting standards, accredited continuing professional development, and the staggered adoption of guidelines.

Keywords: ESG adoption; property valuation; external drivers; internal capabilities; economic constraints; estate surveying and valuation

1 Introduction

In contemporary discourse around real estate investment and development, financial considerations are no longer the only aspect that matters. Real estate investment and development practices are now concerned with building financially viable businesses within a context that values ESG. The Environmental, Social and Governance (ESG) Criteria is the most recognized as a global standard for long term value and sustainability of assets (Battisti, 2023). ESG Criteria has gained importance as a significant determinant of the value of property and the attractiveness of the market against the background of climate change, social inequity, and demands for corporate responsibility.

The ESG Criteria is gaining ground in property markets in developing countries, including Nigeria. The advanced property markets in the USA, Europe and Asia have comprehensive frameworks and regulations for ESG regarding property markets (Tarczynska-Luniewska et al., 2024). Markets in Nigeria are only beginning to address the implications of ESG for the valuation and investment of real property (Oladiran et al., 2025). In this regard, valuation models in Nigeria still regard location, structure, size, and market trends. It is however anticipated that ESG will first place greater emphasis on the sustainability and responsibility of social systems and the environment through the prism of efficiency of governance..

In Ibadan – the largest city in West Africa – the issues of perennial flooding in Apata, Oke-Ado and Challenge, waste management, air pollution and the built environment's resistance to climate change and the lack of concern for the environment – pose the greatest challenge to the sustainability and resilience of the built environment. These sustainability challenges will degrade neighboring communities. From a social standpoint, sustainability challenges will negatively impact how safe the neighborhood feels and how accessible amenities are. Sustainability will also impact how inclusive the neighborhood is. Generally, sustainable neighborhoods are noticed and in high demand. Environmental sustainability improves quality of life and places a higher premium on a neighborhood. Governance challenges such as land tenure insecurity, boundary disputes, land transaction opacity, and haphazard enforcement of regulations also complicate the process of determining the value of real estate (Lawal et al., 2024). As a result, formal titles to real property are a rare commodity in Ibadan, and such properties are valued at low prices and have limited potential.

Because Environmental, Social, and Corporate Governance (ESG) integrations are low in real estate practices, there are relatively few integrated practices. The differences in the importance of ESG integrated practices by stakeholders may explain the lack of integrated practices. ESG integrated real estate practices are driven by regulatory frameworks and influenced by the availability and cost of professional services (RICS, 2021). In developing real estate markets, valuation practices continue to be tradition-bound and may not be amenable to the measurement of the various dimensions of the ESG.

Global literature connects the use of ESG to gains in property investments and asset performances. In the secondary urban Nigerian cities like Ibadan, not much empirical evidence supports the facilitators and inhibitors to the use of ESG in the valuation practice. Consequently, this study seeks to fill the existing research gap of the inadequate integration of ESG principles in property valuation practice in Ibadan, triggered by the growing body of evidence linking property investment and performance to ESG principles. This study looks chiefly at the third goal of the larger study, to detail the factors affecting the feat of Environmental, Social, and Governance elements in property valuations for the study area.

This study aims to fill the existing knowledge gap and offer new insights to the non-traditional valuation drivers in the Ibadan real estate practice. This study will offer insights to property valuers, developers, investors, urban planners, and policymakers. Ibadan as a rapidly growing city posed with issues of poor and irregular infrastructure, flooding, and poor governance and housing shortages is vulnerable to poor performance of real estate and attendant impacts of environmental and social concerns. The integration of ESG Principles is necessary in valuing real estate in order to adequately capture the risk exposure of real estate assets..

2 Literature review

2.1 Conceptual foundations of ESG in real estate

The Environmental, Social, and Governance (ESG) criteria evaluate a company's sustainability and ethics beyond traditional financial measures. ESG criteria enable investors, regulators, and stakeholders to assess an organization's management of environmental, social, and governance issues that affect long-term value creation and organizational resilience (United Nations Principles for Responsible Investment, 2006; Global Reporting Initiative 2021).

The environmental domain assesses an organization's impact on the environment and includes climate change, greenhouse gas emissions, waste, water, pollution, biodiversity, and natural resources. Organizations that perform well in the environmental sphere are more adept at managing the environmental risks and changing legislation (Eccles et al., 2014). In the real estate sector, environmental issues include the topography, prevailing climate, soil, natural and man-made hazards, pollution, energy efficiency, and the exposure to flooding (Olayiwola et al., 2006; Akinjare et al., 2011). Of particular importance is flooding, which results in the long-term deterioration of the building, devalues and discourages potential purchasers of the building, escalates insurance costs, and diminishes rental value.

The social dimension refers to the way an organization manages its relationships with employees, customers, suppliers, and the community at large. Social aspects of real estate include: labor, occupational health and safety, diversity and inclusion, human rights, community involvement, access to services and infrastructure, neighborhood safety, quality of life, education, and healthcare (Friede et al., 2015; Nicoletti et al., 2023). From the available empirical evidence in Nigeria, neighborhood security and accessibility to infrastructure are the most important factors affecting the value of real estate (Abidoye & Chan, 2016; Olatunji et al., 2022; Aliu, 2023). Resource accessibility and proximity to social services also affect the value of housing (Ouyang et al., 2021), though the effect may differ based on context and the household.

The governance dimension refers to systems, structures, and processes within an organization. In the case of real estate, governance refers to land tenure security, openness in land transactions and the enforcement of regulations related to planning and zoning, issuance of Certificates of Occupancy, mechanisms to resolve conflicts related to land, and observance of building regulations (Organisation for Economic Co-operation and Development, 2015; World Bank, 2011). Poor governance in the management of urban land in Nigeria has created legal uncertainty and a significant loss of confidence on the part of potential investors (Salihu, 2023). Properties in Ibadan and other Nigerian cities with documented formal land deeds fetch higher prices and have shorter market transaction periods.

2.2 ESG and property valuation practice

ESG features impact all stages of the real estate process from investing to valuation and management. Sustainable buildings simplify operational processes, preserve the environment, and please their occupants (Eichholtz et al., 2010). Recognizing these buildings, firms specializing in evaluations and investing developed their frameworks. The Royal Institution of Chartered Surveyors (RICS) developed their frameworks for commercial property valuation, and the International Valuation Standards Council (IVSC) incorporated ESG into their frameworks (RICS, 2021; IVSC, 2024). The

Global Real Estate Sustainability Benchmark (GRESB) is the de-facto industry standard to measure real assets' ESG performance.

On an international scale, these frameworks are developing rapidly, but fully integrating ESG into formal valuation practices in countries like Nigeria is still ongoing. The Nigerian Institution of Estate Surveyors and Valuers (NIESV) and the Estate Surveyors and Valuers Registration Board of Nigeria (ESVARBON) have not incorporated ESG into the national valuation standards, therefore, local valuers do not have adequate frameworks to guide them. Current valuation practices in Nigeria are dominated by conventional methods of sales comparison, income capitalization, and cost techniques, which generally exclude qualitative, forward looking or risk factors that ESG indicators bring,

2.3 Factors influencing ESG adoption in valuation

Research identifies ESG integration as a combination of enablers and barriers. One of the principal barriers to ESG integration is referred to as knowledge and capacity gap. Many Nigerian valuers attribute ESG integration gaps to lack of methodological knowledge and education (Ajibola, 2021; Babawale & Oyalowo, 2011). Curricular gaps in Nigerian real estate programs add to this capacity barrier.

The availability of data and institutions constrains adoption. The absence of environmental risk and social infrastructure and governance data drives valuers to rely on informal evidence and construct evaluation frameworks in a systematic way (Adeloye & Rustum, 2021; Olorunfemi et al., 2021). Domains that have digitized land records show far greater inclusion of governance factors when compared to areas that rely on manual systems.

The dynamics of the market and the economy determine the extent of adoption. The demand from clients, while significant, is mostly untapped. Valuations for institutional clients include ESG considerations much more than valuations for individual clients (Oladiran et al., 2025). Price sensitive markets show extreme resistance when the perceived cost of implementation is estimated to increase valuation costs by 15-25%. Competitive differentiation is the primary driver for adoption amongst progressive firms, particularly those with multinational clientele, while this trend is still developing in secondary cities such as Ibadan.

The regulatory and policy environment form a critical part of the context in which firms operate. Where regulations exist, however, adoption is voluntary and inconsistent where there is a lack of enforcement (Aluko, 2011). The absence of the Nigerian Valuation Standards on ESG provides a lot of flexibility that leaves adoption in the hands of the individual valuers. International Valuation Standards (IVS), the RICS Red Book, etc. all have a positive influence on adoption where they are known, however, their knowledge tends to surpass local application.

Professional regulation and institutional support further affect the extent of adoption. Professional standards and ethics frameworks of ESVARBON and NIESV, among others, provide valuable support for turning awareness into practice, and are critical for filling the reported systematic gaps in measurement and disclosure in valuation reports (Adeyemo, 2023).

In general, external factors such as rule and regulation, client demands, international standards and practices, as well as the capability and competitiveness of the firm, all impact the adoption of ESG in the context of property valuation. These factors are interrelated and operate in combination. The present study seeks, through empirical evidence, to fill the gap created by a lack of similar studies, specifically regarding the Ibadan property market..

3 Methodology

The study used a mixed-methods approach. The quantitative element focused on the 190 Estate Surveying and Valuation firms included in the 2024 NIESV Directory. A census was employed as the population was small enough to be manageable. The researcher was able to administer 190 questionnaires in person and received 179 completed responses, resulting in a 94.2% response rate.

The survey included a section on what the respondents thought were barriers to ESG adoption. This section contained eight statements and utilized a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The statements focused on the awareness of valuers, training and professional development, government regulations, client demand for sustainable properties, the cost of implementation, availability of quality data, achieving a competitive advantage, and the influence of international standards on valuation.

The data were assessed for factor analysis to determine if the statements included in the questionnaire were adequate. This was conducted by evaluating the Kaiser-Meyer-Olkin (KMO) measure of adequacy and the Bartlett's test of sphericity. After determining that factor analysis could be conducted with the data, principal component analysis was performed after Varimax rotation. The composite means and ranks of the factors were analyzed. Purposive interviews with 15 estate surveyors and valuers, developers and investors, and an analysis of a selected sample of valuation reports were also employed as complementary qualitative data.

4 Results

4.1 Socio-demographic characteristics of respondents

Table 1. Socio-Demographic Characteristics of Respondents.

S/N	Variable	Category	Frequency	Percentage
1	Gender	Male	115	64.2
		Female	64	35.8
		Total	179	100
2	Age	18–30 years	48	26.8
		31–40 years	61	34.1
		41–50 years	44	24.6
		51 years and above	26	14.5
		Total	179	100
3	Highest Educational Qualification	ND/NCE	25	14.0
		HND/B.Sc.	97	54.2
		Postgraduate	45	25.1
		Neutral	12	6.7
		Total	179	100
4	Position in Firm	Principal Partner	38	21.2
		Senior Valuer	52	29.1

S/N	Variable	Category	Frequency	Percentage
		Assistant Valuer	63	35.2
		Other Staff	26	14.5
		Total	179	100
		Sole Proprietorship	112	62.6
		Partnership	58	32.4
5	Type of Firm	Limited Liability	5	2.8
		Others	4	2.2
		Total	179	100
		Less than 5 years	41	22.9
		5–10 years	67	37.4
6	Years of Experience in Property Valuation	11–15 years	44	24.6
		Above 15 years	27	15.1
		Total	179	100

Source: Field Survey, 2026

The sample has a male dominance of 64.2% with a peak in the age range of 31-40 years of 34.1%. Over 54.2% of the sample possess HND/B.Sc. and 25.1% of the sample possess an advanced degree. Assistant Valuers made up 35.2% of the sample while Senior Valuers made up 29.1% of the sample. The majority of the sample was solo proprietorships at 62.6%. The sample members with 5-10 years of experience made up the largest experience group at 37.4% of the sample. The sample showed a balanced geographic distribution in the core local government areas of Ibadan with the highest sample concentrations occurring in the Ibadan North at 22.9% and Ibadan South West at 20.1%.

4.2 Data suitability for factor analysis

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.78, higher than .70 and thus acceptable. The dataset thus has sufficient common variance for factor analysis. Bartlett's test of sphericity had a chi-square statistic of 152.34 with 28 d.f. and $p < 0.001$. It was concluded that there are significant correlations among the variables and that the correlation matrix is not an identity matrix.

4.3 Total variance explained

Three factors were extracted via principal component analysis and accounted for a total variance of 78.13% when eigenvalues were set to greater than 1.0. Factor 1 explained 47.75% of the variance; Factor 2 explained an additional 18.13%; and Factor 3 explained a further 12.25%. The steep decline in eigenvalues after the third factor confirmed the appropriateness of the three-factor solution.

4.4 Rotated component matrix

Varimax rotation produced a clean factor structure with minimal cross-loadings:

Table 2. Rotated component matrix (varimax rotation).

Statement	Factor 1: External Drivers	Factor 2: Internal Capabilities	Factor 3: Economic Constraints
Training and professional development encourage ESG adoption	0.15	0.88	-0.10
Lack of awareness among valuers limits ESG adoption	0.82	0.35	0.22
Government regulations and policies influence ESG adoption in valuation	0.91	0.18	0.12
Clients' demand for sustainable properties drives ESG adoption	0.76	0.32	0.25
Availability of reliable data affects adoption of ESG in valuation	0.42	0.71	0.30
High cost of implementing ESG features discourages adoption	0.25	0.18	0.89
Competitive advantage encourages firms to adopt ESG practices	0.38	0.65	0.40
International valuation standards encourage ESG integration in practice	0.30	0.78	0.28

Source: Field Survey, 2026

External Drivers has high loadings on government regulations (0.91), lack of awareness (0.82), and client demand (0.76). Professional development and training (0.88), international standards (0.78), availability of data (0.71), and competitive advantage (0.65) define the Internal Capabilities. High implementation cost (0.89) shows the most dominance in the Economic Constraints factor.

4.5 Factor correlation matrix

The three factors have moderate positive correlations: External Drivers and Internal Capabilities (0.45), External Drivers and Economic Constraints (0.32), and Internal Capabilities and Economic Constraints (0.28). The factors are therefore distinct, however, they are correlated.

4.6 Composite factor means and rankings

Table 3. Composite factor means and rankings.

Factor	Number of Items	Composite Mean	Standard Deviation	Ranking
Factor 1: External Drivers	3	4.19	0.91	1
Factor 2: Internal Capabilities	4	3.89	0.98	2
Factor 3: Economic Constraints	1	3.81	1.05	3

Source: Field Survey, 2026

External Drivers rank highest, followed by Internal Capabilities and Economic Constraints. The higher standard deviation for Economic Constraints (1.05) indicates greater variability in respondents' perceptions of cost barriers.

5 Discussion

Three-Factor analysis sheds light on the numerous ESG adoption factors in the valuation profession in Ibadan. Respondents put the greatest importance on External Drivers (composite mean 4.19), suggesting that regulatory drivers together with the system's gaps and the demands of clients are the most critical factors. This is consistent with the earlier findings that government regulations and market expectations are the main drivers for the need to modify valuation techniques (RICS, 2021; Oladiran et al., 2025). The high loading of "lack of awareness" on the external factor also shows that most of the practitioners consider the knowledge gap to be a structural issue rather than a personal problem.

Internal Capabilities are ranked second (composite mean 3.89). The resources needed to execute the external pressures are identified as training, adoption of best practices, data and the client's market position. There is a moderate relation (0.45) between External Drivers and Internal Capabilities, suggesting that pressure from outside the organization leads to the organization providing the available capacity for adapting to the changing needs of the business while the support and reinforcement of the profession and the institution are of utmost importance.

Economic Constraints, although ranking third, display the highest variability, reflecting different cost experiences of firms with varying sizes and resource bases. High implementation cost is visible even if regulatory pressure and internal readiness are high. This is consistent with earlier reports that comprehensive ESG assessment can potentially increase valuation by at least 15-25% in price-sensitive markets.

The results show that the ESG integration in Ibadan is a combination of external drivers, internal organizational readiness, and domestic economics. While informal assessment of some ESG features is inherent in traditional valuation (location, accessibility, title, flooding), formal, systematic, and explicit integration remains highly restricted because the enabling factors discussed here are asymmetric.

6 Conclusion and recommendations

This research investigated the factors shaping the integration of Environmental, Social, and Governance features in property valuations in Ibadan, Oyo State. Three related factors, namely External Drivers, Internal Capabilities, and Economic Constraints, were identified to explain 78.13% of the variance observed in case respondents' perceptions. Among these three factors, the strongest influence is exerted by external regulatory and market pressures, although the sustained and regular integration of the ESG aspects is predicated on the development of professional capability and the reduction of cost barriers.

The professional bodies (NIESV and ESVARBON) should create mandatory ESG reporting standards within the Nigerian Valuation Standards to create an even regulatory space. Continuing professional development programmes, approved by the relevant authorities, focused on ESG measurement, data collection, and value adjustment should be a part of the license renewal process. The professional bodies should adopt specific guidelines towards designing a phased implementation strategy, with targeted support to address the cost barrier, specifically for the sole proprietor firms that dominate the Ibadan market.

Integrated implementation of these interventions will improve current situation of moderate to high conceptual awareness of ESG into a consistent, standardized and professionally valued practice, thus

building the long term confidence and credibility of valued property within the Ibadan and similar urban markets in Nigeria.

References

- [1] Abidoye RB, Chan APC (2016). Critical determinants of residential property value: Professionals' perspective. *Journal of Facilities Management*, 14(3), 283–300.
- [2] Babawale GK, Oyalowo BA (2011). Incorporating sustainability into real estate valuation. The perception of Nigerian valuers. *Journal of Sustainable Development*, 4(4), 236–248.
- [3] Battisti F (2023). SDGs and ESG criteria in housing. *Sustainability*, 15(12), 9372.
- [4] Eccles RG, Ioannou I, Serafeim G (2014). The impact of corporate sustainability on organizational processes and performance. *Management Science*, 60(11), 2835–2857.
- [5] Eichholtz P, Kok N, Quigley JM (2010). Doing well by doing good? Green office buildings. *American Economic Review*, 100(5), 2492–2509.
- [6] Friede G, Busch T, Bassen A (2015). ESG and financial performance: Aggregated evidence from more than 2000 empirical studies. *Journal of Sustainable Finance & Investment*, 5(4), 210–233.
- [7] International Valuation Standards Council (2024). International valuation standards. *IVSC*.
- [8] Nicoletti L, Sirenko M, Verma T (2023). Disadvantaged communities have lower access to urban infrastructure. *Environment and Planning B: Urban Analytics and City Science*, 50(3), 831–849.
- [9] Oladiran O, Ogunbanjo RA, Kemiki O, Ayoola AB, Dauda J (2025). The investment and valuation nexus: Exploring the perceptions of Nigerian real estate valuation professionals. *Journal of Property Investment & Finance*, 43(5), 89–112.
- [10] Ouyang Y, Cai H, Yu X, Li Z (2021). Capitalization of social infrastructure into China's urban and rural housing values: Empirical evidence from Bayesian model averaging. *Economic Modelling*, 107, 105706.
- [11] Royal Institution of Chartered Surveyors (2021). RICS guidance note: Sustainability and ESG in commercial property valuation and strategic advice. *RICS*.
- [12] Tarczynska-Luniewska M, Maciukaite-Zviniene S, Nareswari N, Ciptomulyono U (2024). Analysing the complexity of ESG integration in emerging economies. In *Exploring ESG challenges and opportunities* (Vol. 116, pp. 41–60). Emerald Publishing.
- [13] United Nations Principles for Responsible Investment (2006). Principles for responsible investment. *UNPRI*.
- [14] World Bank (2011). Doing Business 2011. *World Bank*.