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Analysis of the Barriers and Strategies to Sustainable Property Management Practices in Anambra State, Nigeria

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Abstract: *Real estate industry is a significant contributor to global environmental crises such as climate change, pollution, which calls for urgent need to embed sustainability in real estate industry especially in the area of property management. This study assesses the barriers and strategies to sustainable property management practices in Anambra State, Nigeria. Structured questionnaire was used to collect data from (29) estate surveying firms, while 25(86%) was retrieved and used for the study. Respondents were required to rate the barriers and strategies based on 5 point likert scale. Presentation and analysis of data was done using frequency tables, percentages and mean score. From the study economy stability, lack of technological knowhow, government policy on sustainability and financial constraints were major barriers to sustainable property management in the study area ranking first, second, third and fourth respectively. The study also found out that water conservation, waste recycling, energy efficiency and conservation, use of renewable resources, waste management and education and engagement of tenant in sustainability practices were some of the strategies that can be adopted in sustainable property management. The study therefore recommends that the government and real estate professional bodies should encourage sustainable property management practice by creating public awareness, promoting training and providing financial support on sustainability.*
Keywords: barriers**,** strategies, sustainability, property management, Anambra state, Nigeria.

INTRODUCTION

Property market is becoming more complexity and competitive with the advent of modern building technology and smart building technology, making the application of sustainable management strategy necessary to ensure maximum returns (Power, 2021). Presently, real estate industry has

to deal with sustainability (Zhang et al., 2011). Real estate accounts for about 40% of global carbon dioxide emissions, with building activities accounting for 70% and remaining 30% are produced by construction (Lu et al., 2020). Sustainable property management is essential because building operation activities contribute to greenhouse gas (GHG) emissions. Building operations represented 28 percent of global carbon dioxide emissions related to energy, which represent the highest level ever recorded in 2019 (United Nations Environment Programme, 2020).

Property management takes place during the operations and maintenance phase of building lifecycle and includes functions such as human resources, relationship management, finance, accounting, maintenance, repairs, risk management, marketing, and leasing. The emergence of sustainable management requires today's property managers to reconsider, innovate, and apply technicalities in managing property to further increase the value of properties without causing any harm to the environment. Sustainable property management is implementing green building initiatives during the operations and maintenance phase of the building lifecycle, taking into account their environmental, social, and economic impacts (Hopkins, 2023). Energy use, water use, indoor air quality, material use (including waste reduction), land use, and training for both builders and end users are some of the sustainability needs for modern property management (Coraglia et al., 2024). Sustainable property management can foster a decrease in carbon dioxide emissions while also lowering energy and water costs and providing healthier indoor environments for a building's occupants. (Hopkins, 2023) asserted that increased demand for sustainability from various stakeholders such as investors and building occupants is driving the property management industry to respond and increasingly incorporate sustainable building practices into the operations and maintenance of the real estate asset.

In Anambra state, there is lack of knowledge on application of sustainability strategies on property management that improves profitability while ensuring highest and best use amongst property managers. However, the implementation of green building strategies within the context of sustainable property management has become an issue. There is also limited empirical research on sustainable property management that specifically focused in Anambra state, Nigeria. This study therefore assessed the obstacles and strategies to sustainable property management practices in Anambra state, Nigeria.

LITERATURE REVIEW

Concept of Sustainability

Sustainability, which refers to as the ability to meet the needs of the present generation without compromising the future generation to meet their own needs, is on the rise across industries and the property management industry is no exception. Although sustainability, as used in the real estate context, is about preserving the environment, it is about more than that. In sustainable property management, sustainability encompasses three spheres; environmental, social, and economic. Otali and Ujene (2020) asserted that sustainability is "that which can be sustained; in ecology, the extent to which the earth's resources may be utilized without adverse effects.

Kauko (2018) stated that there has seemingly been a movement in the real estate sector's perception from green features to entire sustainability, which includes property management. Because sustainability criteria assist the property occupier, they are seen as fundamental components of modern management approaches. Regarding the positive effects of sustainability for the real estate and property management businesses, Kats and Capital (2003) claimed that eco-friendly aspects can dramatically cut energy, water, and waste expenditures, as well as emissions and environmental expenses. There are various benefits of sustainability in the real estate business as shown by several studies, including Ding (2005) and Lai and Lorne (2019). These studies also affirm that sustainability helps real estate enterprises, internal and external stakeholders, notably owners, investors, and employees, in addition to environmental protection. Thompson (2015) found out that Sustainability is also linked in numerous ways to property management; a culture of sustainable strategies in property management needs to be strengthened by taking risks and experimenting, and this can reduce costs, increase productivity and improve client's satisfaction. Kim and Lim (2020) found that green building sustainability rating was the strongest predictor or motivating factor for tenants' choice of green as opposed to conventional buildings.

Sustainable Property Management

Wiegelmann and Falcão (2024) stated that property management refers to a field which includes the utilization of skills to properly care for the property in order to maximize the owner's investment and produce the maximum return. Sustainable property management simply implies locating, designing, developing and handling property that is economically viable, environmentally friendly and has a positive and significant impact on quality of life of the inhabitant and the environment at large (Keeping and Shiers, 2004). A key emphasis of sustainable property management is maximizing the effectiveness of resources such as water and energy. Sustainable property management entails overseeing real estate that is economically viable and environmentally friendly, positively impacting both the ecosystem and the quality of life for residents (Philokyprou and Michael, 2021). Sustainable property management is implementing green building initiatives during the operations and maintenance phase of the building lifecycle, taking into account their environmental, social, and economic impacts with the goal of reconciling these three spheres in such a way that a balance is achieved between economic development and protection of environmental and social resources (Hopkins, 2023).

The Property managers are employed by property owners to perform the management of their properties based on their training. Lutzkendorf and Lorenz (2007) classified sustainable buildings and their management, in terms of overall areas of protection, which can be understood from the three dimensions of sustainable development; protection of the natural environment/ecosystem; protecting basic natural resources; protection of human health and welfare; protection of social values and public goods; protection and preservation of capital and tangible property. However, property owners engage property managers to supervise and administer their properties (Wiegelmann and Falcáo, 2024). According to the Royal Institute of Chartered Surveyors (2009), sustainable property management seeks to reduce the costs associated with a building's life cycle by examining every aspect of the development, including the extraction of raw materials, production, usage, repair, maintenance, the disposal and recycling, developing a culture of

environmentally friendly procedures in property management demands taking risks and trying to innovate, which can cut expenses, raise output, and promote customer satisfaction.

Barriers and Strategies to Sustainable Property Management

Trinkūnas et al. (2018) stated that the development of property management strategies needs consideration of different national characteristics, including but not limited to economic, social, demographic, political, technical, environmental and psychological issues. Sustainable property management is an evolving area in the built environment (Elmualim, Shockley, Valle, Ludlow and Shah, 2010). Lai (2006) suggested the incorporation of property management into sustainable development concepts. Evidence shows that lack of knowledge and lack of senior management commitment are the main barriers to the implementation of consistent and comprehensive sustainable property management policy and practice (Elmualim, Shockley, Valle, Ludlow and Shah, 2010). Pivo (2010) posited that green leasing requires the cooperation of tenants and landlords' technical skills and new social capabilities for eco-efficiency.

Lack of knowledge and awareness as well as financial constraints also create barriers to sustainable property management practices. For example, the decision-makers may lack the understanding of how the initial upfront costs may generate savings down the line when implementing a sustainable property management initiative. Researchers have underlined the clear role the property management profession can play in furthering the sustainability agenda by virtue of its potential influence on sustainability goals in enterprises (Luetz et al., 2019). Guribie et al. (2022) emphasised that notwithstanding the development of green buildings, there are hurdles to both the building and management of sustainable buildings. Sakariyau et al., (2024) findings indicate that technological expertise and economic stability were two major barriers to sustainable property management and increasing waste recycling and reducing water waste are important property management sustainability strategies. Bawagana, Bitrus and Muhammad (2023) found out that reduce water wastage, waste recycling, energy efficiency and conservation, use of renewable resources and incorporating sustainability clause in tenancy agreement were some of the strategies that can be adopted in sustainable property management as some of the benefit of sustainable property management are increase in habitation of property, increase return on property investment, minimizes time spend on management and reduce operating cost.

Climate change caused by greenhouse gas emissions has a number of negative effects on the Earth, shrinking water supplies, increasingly severe weather incidents, disruptions in food supply, and geographical changes to the Earth, to name just a few (Cairoli, 2023). These environmental changes not only negatively affect the environment; they also negatively affect society and the economy. As water and food are essential to human survival, a shrinking water supply and shift in food supply negatively affect human health and can increase the cost of procuring these essential supplies. Also, severe weather and rising tides that are changing the geography of the Earth affect the safety and well-being of society and incur significant costs to repair buildings and infrastructure. Sustainable property management can reduce negative environmental externalities, which in turn can foster benefits in the social and economic spheres as well.

RESEARCH METHODOLOGY

This study employed the survey method in which the purposive sampling technique was adopted. There were 29 registered Estate Surveying and Valuation Firms in Anambra state (Nigerian Institution of Estate Surveyors and Valuers, Anambra State branch Secretariat, 2025). The whole population was used as the sample size since the population is small. 29 questionnaires were administered to obtain relevant data from registered estate firms as they were expected to have greater experience in property management out of which 25(86%) were retrieved. Respondents were required to rate the barriers and strategies based on 5 point likert scale ranging from Strongly Disagree to Strongly Agree and Unimportant to Very Important, i.e. from 1 – 5, with point 5 representing strongly agree and very important respectively. Data were analyzed with the use of frequency tables, percentages, mean score and relative importance index.

RESULTS AND DISCUSSIONS

Table 1: Demographic Data

Variable	Category	Frequency	Percentage
Gender	Male	15	60%
	Female	10	40%
	Total	25	100%
Marital Status	Married	13	52%
	Single	8	32%
	Divorced/Separated	1	4%
	Widow/Widowed	3	12%
	Total	25	100%
Professional qualification	Probationer	10	40%
	Associate	12	48%
	Fellow	3	12%
	Total	25	100%
Average years of Experience	1-5	4	16%
	6-10	10	40%
	11-15	8	32%
	16 and above	3	12%
	Total	25	100%

Table 1 presents demographic data of the respondents. In terms of gender, out of the 25 respondents who returned their questionnaire, 15 (60%) were male while 10 (40%) were female. The marital status indicate that 13 (52%) of respondents were married, 8 (32%) were single, 1 (4%) were divorced/separated, while 3 (12%) were widow/widowed. The professional qualifications reveal that 10(40%) of respondents were Probationer members, 12(48%) were Associate members while 3(12%) were Fellow. Average years of experience indicates that 4(16%) of respondents have 1-5

years of experience, 10(40%) have 6-10years of experience, 8(32%) have 11-15years of experience and 10(40%) have 16+ years of experience.

Table 2: Ranking of barriers to sustainable property management

Barriers	Mean	RII	Rank
Financial constraints	4.08	0.82	4th
Economic stability	4.24	0.85	1st
Government policy on sustainability	4.16	0.83	3rd
Lack of Technological know how	4.20	0.84	2nd
Lack of knowledge and awareness	3.88	0.78	5th
Lack of availability of data	3.72	0.74	7th
High cost of sustainable building material	3.84	0.77	6th

Table 2 shows the ranking of barriers to sustainable property management. The economy stability was ranked first, lack of technological knowhow was ranked second, government policy on sustainability was ranked third which is in line with the study by Sakariyau et al., (2024) and Bawagana et al., (2023). Financial constraints was ranked fourth, lack of knowledge and awareness was ranked fifth which agree with the findings by Sakariyau et al., (2024) , Debrah et al. (2022) and Dawidowicz et al. (2020) who opined that there is greater need to focus on sustainability within the property management sector. High cost of sustainable building material was ranked sixth and lack of availability of data was ranked seventh**.**

Table 3: Ranking of strategies for sustainable property management

Strategies	Mean	RII	Rank
Water conservation	4.4	0.88	1st
Use of renewable resources	4.16	0.83	4th
Use of Eco-friendly material	3.96	0.79	6th
Waste recycling	4.32	0.87	2nd
Education and engagement of Tenant on sustainability practices	3.92	0.78	7th
Energy efficiency and conservation	4.20	0.84	3rd
Waste management	4.00	0.80	5th
Incorporating sustainability clause in tenancy agreement	3.84	0.76	8th
Indoor environmental quality	3.60	0.72	9th

Table 3 presents the ranking of strategies for sustainable property management in the study area. Water conservation was ranked first, waste recycling was ranked second, energy efficiency and conservation was ranked third, use of renewable resources was ranked fourth, the findings are in line with the findings of Sakariyau et al., (2024) and Bawagana et al., (2023). Waste management was ranked fifth, use of Eco-friendly material was ranked sixth, education and engagement of

tenant in sustainability practices was ranked seventh and incorporating sustainability clause in tenancy agreement and indoor environmental quality were ranked eighth and ninth respectively.

CONCLUSIONS AND RECOMMENDATION

As real estate sector continues to contribute significantly to global carbon dioxide emissions, integrating sustainability into property management has become essential. However, is unfortunate that most property managers have not incorporate sustainability into their property management practice and lack knowledge regarding the application of sustainable management techniques.
This study established that water conservation, waste recycling, energy efficiency, use of renewable resources, waste management and education and engagement of tenant in sustainability practices were some of the strategies that can be adopted in sustainable property management. The study also established that economy stability, lack of technological knowhow, government policy on sustainability and financial constraints were major obstacles hindering sustainable property management practices in the study area. Sustainable property management can be achieved if stakeholders collaborate together to adopt the identified strategies and addressed the major barriers hindering sustainable property management practices. There is a need for research studies to be conducted in areas like impact of sustainable management on investment returns of commercial and residential property, application of smart building technologies on sustainable property management and sustainable property valuation practices.

The study recommends that both the government and real estate professional bodies should encourage sustainable property management practice by creating public awareness, promoting education/training and providing financial support on sustainability. There is a need for government to enact regulatory laws that incorporate sustainability into property management practice. There is also a critical need for governments, investors and building occupants to collaboratively develop, promote, and adopt green technologies so as to minimize environmental harm, promote sustainable economic growth and protect public health and well-being.

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