

Criteria for Evaluating Commercial Property Investment Performance: Evidence from Lagos, Nigeria

Esther Oromidayo Thontteh

Department of Estate Management, Faculty of Environmental Sciences, University of Lagos, Akoka, Lagos

Email: ethontteh@unilag.edu.ng

<http://doi.org/10.5281/zenodo.23058095>

Abstract

Property investment performance evaluation has evolved as a strategic business framework for assessing the profitability and comparative advantages of one investment over another. This study examines the criteria considered critical in evaluating commercial property investment performance in Lagos, Nigeria. The study population comprised 368 registered entities, made up of 318 practicing firms registered with the Nigerian Institution of Estate Surveyors and Valuers (NIESV), Lagos State Branch, and 50 active property investors in Lagos State. A systematic random sampling technique was adopted in the selection of a sample of 47 respondents, representing approximately 13% of the population, and structured questionnaires were administered to elicit information on the factors critical to commercial property investment performance. Data was analysed using Factor Analysis with Principal Component Extraction and Varimax rotation to identify and extract the most significant determinants. Three critical factors emerged from the analysis, jointly accounting for 69.35% of the total variance: (i) property physical structure and mode of transportation (35.46% of variance); (ii) possibility of natural disasters (17.39% of variance); and (iii) effectiveness and efficiency of title processing and the regulatory framework (16.50% of variance). The study recommends a comprehensive restructuring of the legal and institutional framework governing commercial property investment, with particular attention to the security of property rights and title, streamlining of building plan approvals, ease of Certificate of Occupancy (C of O) registration, availability of land with clear title, and the integrity of the legal system. Furthermore, land documentation processes and their institutional frameworks require systematic reorganisation to enhance efficiency in title acquisition. This is a factor identified as a major determinant of commercial property investment performance in Lagos.

Keywords: Commercial property, Investment performance, Property indicators, Lagos, Nigeria

1. Introduction

Investment is the giving up of a capital sum now in exchange for benefit to be received in the future, which usually takes the form of an income flow and/or capital gain (Enever & Isaac, 2002; Ifeancha & Egbenta, 2023). Investment in property may be achieved in a number of ways, the chief of which are: property acquisition, mortgage investment, property development, and acquisition of shares in property companies, which produce interest, dividends or royalties. In the context of portfolio investing, real estate is traditionally considered an “alternative” investment class (Woychuck, 2012). That means it is a supplementary investment used to build on a primary portfolio of stocks, bonds and other securities. Woychuck (2012) affirmed that one of the beneficial features of real estate is that it produces relatively consistent total returns that are a hybrid of income and capital growth. In that sense, real estate has a coupon-paying, bond-like component in that it pays a regular, steady income stream, and it has a stock-like component in that its value has a propensity to fluctuate; and like all securities, one would prefer the value to go up rather than down. Hence, the need for consideration of factors determining property investment performance.

Property performance in the context of this study refers to the ability of a property investment to yield maximum expected return or profit in terms of rental and capital value. This study therefore considered factors that determine profitability in terms of return on commercial property investment. The essential objective of investment is to maximize returns while minimizing risks (Fraser, 1993; Jones 2021). Enever and Isaac (2002); Isah (2023) affirmed that the rate of return on a particular investment is determined by the forces of supply and demand within the market, and is evaluated by investors and their advisers by comparing returns from various investments. They further stated that certain underlying economic influences affect the rate of

return on property investment. These are inflation, incidence of taxation, tenant risk, risk of irregularity of income, legal risk, liquidity of the investment, cost of transfer (sale and purchase), and the cost and trouble of management, amongst others. However, there are other factors that affect property performance, which this paper identified to evaluate property investment performance in Lagos. An earlier study by Thontteh and Omirin (2014) examined criteria for evaluating commercial property investment performance in Victoria Island, Lagos, providing an empirical foundation upon which the present research builds.

Real estate investment, as a resource of primary importance in the economy of any nation, constitutes a large portion of the total wealth in Nigeria, although the estimated value is yet to be ascertained. Little is known about the risk and return characteristics of such investments, which limits future planning and forecasting. Moreover, willing foreign and local investors often seek to know the inherent risk in any geographical location before investing. However, real estate investment data are not generally accessible. This paper therefore aims to utilise the income derivative approach in estimating the sensitivity of commercial real estate investment performance, in order to enhance the general accessibility of data to investors. It is generally opined that real estate investments are related to general economic activity and the prosperity of a nation.

This study examined the criteria used in evaluating the performance of commercial property investments by investigating the factors that influence investment performance, the extent to which these factors are considered by investors and Estate Surveyors and Valuers, and the relative significance of each factor both generally and within the study area. Particular emphasis was placed on assessing their influence on the rate of return of commercial property investments in Victoria Island. The findings provide valuable insights for prospective local and international investors, thereby enhancing investment decision-making and potentially contributing to increased economic growth and development in Lagos State.

2 Price and Rent Theory in Property Investment Performance

Economic theory could be classified into two groups: monetary theory and price theory. Monetary theory deals with the level of prices in general, with cyclical and other fluctuations in total output, total employment

and other macro-level concerns, while price theory deals with the allocation of scarce resources among different uses, with the price of one item relative to another. According to Lamond (2008), the theory of house price falls into both macro- and micro-economic fields. Macroeconomics deals with the actions of supply, demand and pricing at a national or international level, and considers the action of governments and global organisations such as banks in influencing the way in which large populations behave. This theory further explains the growth or decline in national house prices against the cost of borrowing, supply of housing and national demographics. Microeconomic theory, or price theory, is more useful in explaining the choices individuals make in choosing one property over an alternative, given the constraints of income and needs, while price theory can further be explained through the mechanism of demand and supply and how it affects the rental value of property vis-à-vis its general performance. Furthermore, the theory contends that the price of any specific good or service is determined by the relationship between the forces of demand and supply, and that the point at which the benefit gained by those who demand the entity meets the seller's marginal cost is the most optimal market price for the good (Weber, 2013). In addition, Weber (2013) affirmed that value is derived as a result of relative scarcity, which determines real price, and concluded that strategic and non-strategic pricing of resources is affected by the presence of externalities, asymmetric information and behavioural anomalies. This generally explains the imperfection of the property market.

The law of rent was formulated by David Ricardo in 1809. This is a geographical economic theory that refers to how the price and demand for real estate changes as the distance from the Central Business District (CBD) increases. It states that different land users will compete with one another for land close to the city centre, based on the idea that investors wish to maximise their profit and are therefore willing to pay more for land close to the CBD and less for land farther away. Furthermore, Alonso (1964) propounded the bid-rent theory, which models the relationship between distance from the city centre and house prices. This theory is based on the reasoning that the more accessible an area is, the more profitable it becomes, which could be related to the performance of an investment in that geographical location. Location, as a factor, has shaped the performance of real estate investment in the property market, while rents re-

main the fundamental drivers of performance. According to this theory, rent arises due to differences in the fertility or location of agricultural land, a logic that can also be applied for the purpose of this study.

The study area (Victoria Island) is the nerve centre for commercial activities in Lagos and is also referred to as the major Central Business District (CBD). Furthermore, the amount offered for commercial property is dependent on its proximity to the CBD. Both local and foreign investors in the country often desire to have their head offices located in Victoria Island, hence creating competition among investors for the available scarce resources. This in turn pushes up value, because rental value is derived as a result of relative scarcity and competition between land users.

In evaluating the criteria for property investment performance, the use of factors both endogenous and exogenous to the property is inevitable. The endogenous factors are those that emanate from within the property (Umo, 2007). These are also called intrinsic or internal factors, which may be described as attributes of the property. The exogenous factors, on the other hand, are those that affect the endogenous features and are introduced from outside the property. Other names for exogenous factors are autonomous, extrinsic or external factors.

3 Factors Influencing Real Estate Investment Performance

Investors can invest directly in physical real estate or choose to invest indirectly through managed funds. Investing directly in real estate involves purchasing residential or commercial property to use as an income-producing property or for resale at a future time. The criteria used to assess commercial property market performance and guide investment strategy have attracted growing scholarly attention; Banyét and Mulhearn (2024) developed a criteria-based assessment tool drawing on surveys of property professionals across the United Kingdom, France, Germany and Sweden, grouping performance criteria into five weighted categories that support market adaptation under challenging conditions. Indirect ways to invest in the real estate market include real estate investment trusts (REITs), real estate exchange-traded funds (ETFs), commingled real estate funds (CREFs), and infrastructure funds (Woychuck, 2012). For an investment to be considered good, it should satisfy conditions such as return on investment and capital appreciation over a period of time, among others.

Moreover, like other investments, real estate is also affect-

ed by several factors that may not necessarily be economic, as there are many other factors that affect or determine real estate performance and, hence, limit the performance of real estate investment generally. Nguyen (2011) grouped factors that influence real estate investment into four categories, namely demographics, interest rates, the economy, and government policies/subsidies, while Riscario Investment Agency (2013) identified inflation, general economic factors and risk as factors affecting investment returns. Leiser and Groh (2011) also identified factors that affect commercial property investment performance, including property rights, security of property rights, ease of access to loans, credit information index, soundness of banks, interest rates, access to private capital, private equity investments, REITs market volume, crime, corruption, size and liquidity of the stock market, stock market capitalisation, quality of infrastructure, density of road network, taxation, the burden of obtaining a construction permit, cost of building materials, ease of registering properties, human development, political instability, population, direct foreign investment, and degree of urbanisation. Morley (1988) further suggested factors that affect property performance, such as rental value and rental growth, yield on sale and timing of sale, age and obsolescence, lease structure, liquidity, management costs, taxation and inflation.

Beyond financial metrics, Cajias et al. (2014) demonstrate that corporate social and environmental performance criteria, assessed through Environmental, Social and Governance (ESG) dimensions, also significantly influence total return outcomes for commercial real estate companies, underscoring the multi-dimensional nature of investment performance evaluation. Sanderson and Devaney (2017) further establish that occupier satisfaction with property management services constitutes a significant qualitative performance criterion, demonstrating a positive association between tenant satisfaction and benchmark-outperforming total returns across all commercial property sectors in the United Kingdom. Furthermore, Chandra (2010) identified factors affecting property investments as illiquidity of the market, maintenance efforts, political factors, social factors and development factors. Leiser and Groh (2011) further identified economic activity, infrastructural facilities, legal framework and socio-cultural factors. In a Lagos-specific context, Anule and Umeh (2016) identified

location, cost of building materials, quality of road infrastructure, rental growth, and security as the dominant performance indicators across five commercial property sub-markets, arguing that these empirically weighted criteria should replace rule-of-thumb approaches to commercial property investment decisions.

A study of United Kingdom housing price determination carried out at Harvard University in 2011 identified factors influencing property performance as micro- and macroeconomic indicators, including gross domestic product (GDP), gross national product (GNP), national income (NI), inflation, interest rates, mortgage interest rates, the global financial market and the global

economic meltdown. Tompos (2005) identified factors affecting the real estate market as forced liquidation, cost of transfers, management headaches, tax concerns, re-zoning possibilities, control/management of the property, and lack of local knowledge of property values. However, there are other factors that affect property performance which are seasonally or climatically inclined and are referred to as environmental hazards (Han, 2012); these include hazardous material pollution and natural hazards. Han (2012) further divided natural hazards into geological hazards (including earthquakes, landslides, snow-related avalanches and volcanic eruptions) and hydro-meteorological hazards (floods,

Table 1: Thematic Classification of Variables Influencing Commercial Property Investment Performance

Classification	Variables
Economic	Rental value; Exchange rate
Social/Demographic	Urban population growth
Social/Political	Security
Physical/Structural	Design of building; Age of property; Floor space; Obsolescence; Fire safety; Location
Infrastructural	Quality of water transport; Quality of air transport; Free flow of drainages; Government investment in infrastructure; Regular supply of electricity; Quality of rail road infrastructure; Regular supply of good water; Telecommunication; Density of road network; Quality of road infrastructure
Environmental	Possibility of land slide; Possibility of earthquake; Erosion
Legal/Regulatory	Ease of registering property for C of O; Regulatory quality; Implication of land use act; Security of property rights/title

Author's Classifications

droughts, hurricanes and heatwaves). Environmental sustainability considerations have similarly gained increased prominence as investment performance criteria; Jackson and Orr (2021) trace how sustainability rose from the seventh to the third most important attribute in commercial property stock selection decisions between 2007 and 2016, reflecting a broader shift in investor evaluation frameworks.

A review of the literature reveals that the numerous factors identified across studies can be meaningfully grouped into broad thematic categories, namely: economic factors, social/demographic factors, political/legal factors, environmental factors, physical/structural factors, and infrastructural factors. This thematic classification, presented in Table 1, constitutes a contribution of the present study, providing a structured framework within which subsequent researchers can situate and compare the determinants of property investment performance identified in literature.

4 Methodology

Commercial property investments include shops or stores, malls, showrooms, purpose-built offices, detached houses or blocks of flats converted to offices, cinema houses, hotels, motels, and other social centres used for commercial purposes. Office property generally applies to premises used for professional or trade purposes; the work carried out therein is of a clerical nature and does not include the display or sale of goods. It ranges from converted space within a predominantly residential block to purpose-designed buildings with elaborate services (Kuye, 2008; Baum, Crosby & Devaney, 2021). The main focus of this research is commercial properties within the Central Business District (CBD) of Victoria Island, specifically along the roads identified as the major commercial corridors, namely: Ahmadu Bello Way, Adeola Odeku Street, Akin Adesola Street and Ozumba Mbadiwe Avenue.

Victoria Island is the nerve centre of commercial activities in Lagos, being close to the harbour and surrounded by the lagoon and the Atlantic Ocean. Assessment was carried out on these major roads based on the high influx of commercial activities and occupancy indices, to assess factors determining commercial property investment performance in the study location. The commonest type of property use on these roads is offices; hence, the focus on properties used for office and purpose-built office purposes. Factors determining the

performance of office properties on the major roads were considered to be largely representative of the performance of office investment on the internal link roads within the CBD.

4.1 Sampling Frame and Sample Size

The target population for this study comprised two groups of respondents operating within the Lagos commercial property market: practicing firms registered with the Nigerian Institution of Estate Surveyors and Valuers (NIESV), Lagos State Branch, and active property investors with holdings in Victoria Island. The sample frame consisted of 318 registered firms of Estate Surveyors and Valuers and 50 registered property investors, giving a total population of 368. A systematic random sampling technique was adopted in the selection of respondents, with every seventh entry on the combined sample frame list selected, yielding a sample size of 47 respondents and approximately 13% of the total population. This sample size is consistent with established sampling conventions for survey-based property market research in Lagos, where response rates and the need for manageable, in-depth questionnaire administration typically constrain practical sample sizes to between 10% and 15% of the target population. Structured questionnaires were designed and administered to elicit information on the factors considered critical in determining commercial property investment performance.

4.2 Types of Data and Data Collection Procedure

This study utilised primary data collected through a structured questionnaire survey, administered to the 47 sampled Estate Surveying and Valuation firms and property investors operating within the Victoria Island commercial property market. The questionnaire was structured in two main sections: the first elicited respondents' demographics, including their category of participation in property investment and position held within their respective organisations; the second presented a list of 77 variables, derived from the literature review, that have been identified as potentially influencing commercial property investment performance. Respondents were asked to rate each variable on a five-point Likert scale (1 = Not Important to 5 = Very Important) according to the degree of importance they attached to each variable in evaluating commercial property investment performance in the study area.

Questionnaires were administered through direct, face-to-face delivery to the offices of the sampled Estate Surveying and Valuation firms and investors, with follow-up visits conducted to retrieve completed instruments. The data collected were subsequently coded and entered into the Statistical Package for Social Sciences (SPSS) for analysis.

4.3 Method of Data Analysis: Factor Analysis

Data were analysed using Factor Analysis with Principal Component Extraction and Varimax Rotation, to explore the most critical factors that determine commercial property investment performance, and to isolate the factors that are most critical to commercial property investment performance generally and in the study area in particular. Factor analysis is a collection of methods used to examine how underlying, unobserved factors influence the responses on a number of measured, observed variables (Decoster, 1998). This multi-criteria analytical approach aligns with the framework adopted by Huang and Ozer (2020), who employed a multi-criteria expert decision system to evaluate commercial real estate investment performance, demonstrating that structured, factor-weighted criteria achieve high predictive accuracy in assessing investment outcomes.

In this study, the 77 observed variables (V) rated by the 47 respondents (n) constitute the input data matrix of dimension 47×77 ($n \times V$). Factor analysis is performed by examining the pattern of correlations (or covariances) between these observed measures. Variables that are highly correlated, either positively or negatively, are likely to be influenced by the same underlying factor, while those that are relatively uncorrelated are likely to be influenced by different factors. The primary objective of factor analysis is to determine the number of common factors influencing the set of 77 observed variables, and the strength of the relationship between each factor and each observed variable. It is also used to determine which sets

of items “hang together”, to demonstrate the dimensionality of a measurement scale, and to determine which features or variables are most important when classifying a group of items.

Principal Component Extraction was first used to extract the initial set of factors as the initial, unrotated factor solution can be difficult to interpret. The analysis shows many variables loading on the first factor and few variables loading distinctly on subsequent factors. Therefore, Varimax rotation was applied to the extracted factors. Varimax rotation is an orthogonal rotation method that maximises the variance of squared factor loadings within each factor, producing a rotated factor solution that, while explaining a reduced proportion of total variance compared to the unrotated solution, yields a simpler and more interpretable factor structure in which each variable loads strongly on only one factor. This rotated solution forms the basis for naming and interpreting the factors in this study. The basic steps involved in the factor analysis procedure adopted include: collection of the 47×77 data matrix; computation of the correlation matrix to ascertain the correlations between each of the 77 variables; assessment of the suitability of the data for factor analysis using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity; extraction of the initial set of factors using principal component extraction and the Kaiser criterion (eigenvalue ≥ 1); rotation of the extracted factors to a simpler structure using Varimax rotation; interpretation of the rotated factor structure based on the variable loadings; and naming of the factors based on the variables that load most strongly on each. The strength of the relationship between each variable and each factor is contained in the respective factor loading coefficients, produced after Varimax rotation.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.298
Bartlett's Test of Sphericity — Approx. Chi-Square	1675.127
Bartlett's Test of Sphericity — Degrees of Freedom (df)	351
Bartlett's Test of Sphericity — Significance (Sig.)	.000

Table 3: Total Variance Explained — Initial (Unrotated) Eigenvalues

Component	Total Eigenvalue	% of Variance	Cumulative %
1	12.998	48.142	48.142
2	3.471	12.857	60.999
3	2.255	8.353	69.352
4	1.761	6.524	75.876
5	1.290	4.777	80.653
6	1.054	3.905	84.558

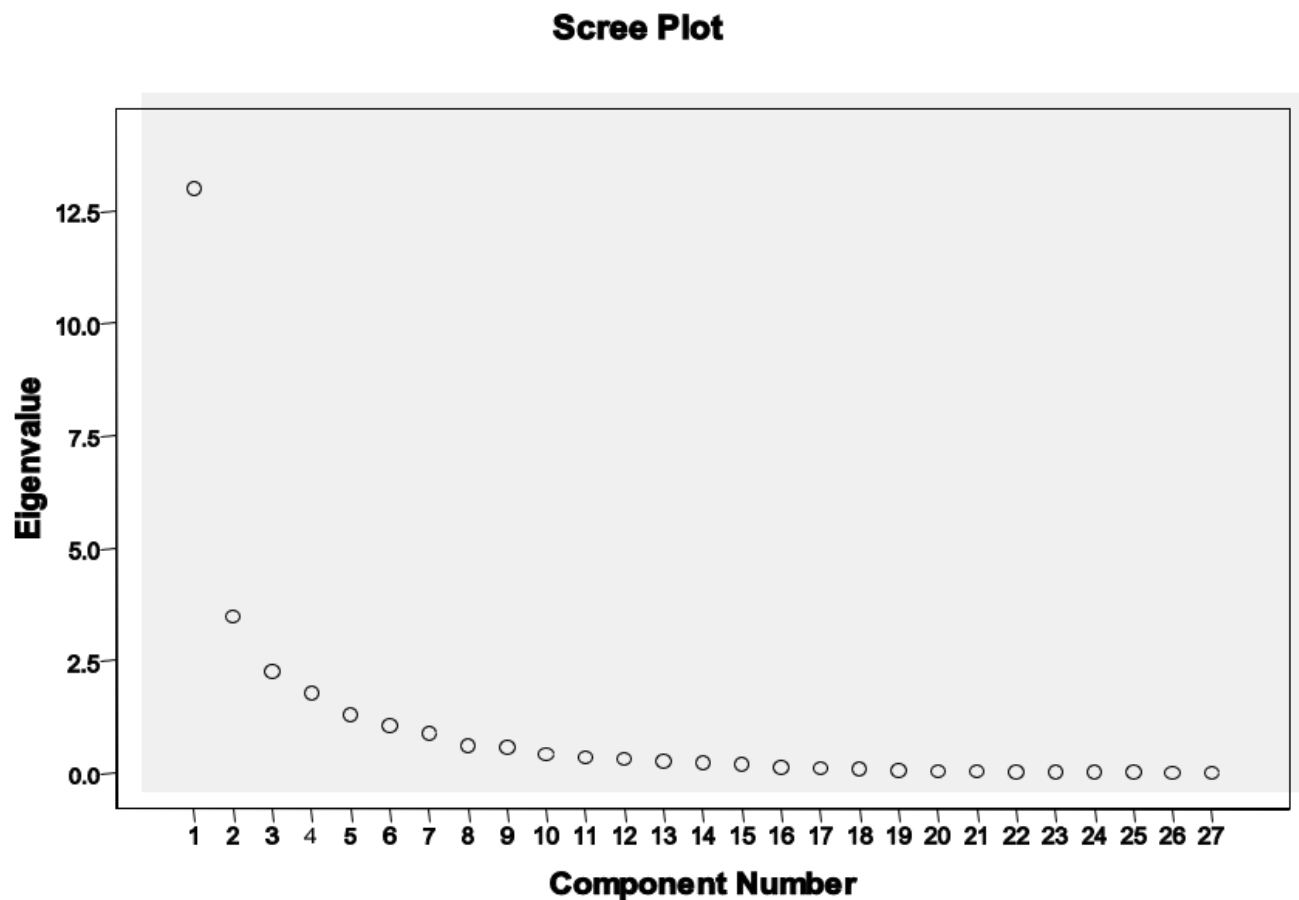
Figure 1: Scree Plot from Principal Component Analysis

Table 4: Rotated Factor Matrix

Variable	Factor		
	1	2	3
Design of building	.808		
Quality of water transport	.806		
Age of property	.761		
Quality of air transport	.754		.414
Rental value	.751		
Free flow of drainages	.746		
Floor space	.743		
Government investment in infrastructure	.731		
Regular supply of electricity	.702	.461	.424
Quality of rail road infrastructure	.693		.413
Obsolescence	.680		.537
Regular supply of good water	.663	.416	.477
Fire safety	.650		
Telecommunication	.650		.421
Exchange rate	.640		
Density of road network	.620	.474	
Quality of road infrastructure	.599	.474	
Urban population growth	.521		
Security	.495	.416	
Location	.472	.431	
Possibility of land slide		.960	
Possibility of earthquake		.943	
Erosion		.852	
Ease of registering property for C of O			-.843
Regulatory quality			-.810
Implication of land use act			-.810
Security of property rights/title		-.586	-.657

Table 5: Total Variance Explained - Rotated Factor Solution

Component	Total Eigenvalue	% of Variance	Cumulative %
1	9.575	35.463	35.463
2	4.694	17.387	52.850
3	4.456	16.502	69.352

Table 6: Named Factors and Their High-Loading Variables

Named Factor	High-Loading Variables (Loading Coefficient)
Factor 1 - Property Physical Structure and Mode of Transportation	Design of building (.808); Quality of water transport (.806); Age of property (.761); Quality of air transport (.754); Rental value (.751); Free flow of drain-ages (.746); Floor space (.743); Government investment in infrastructure (.731); Regular supply of electricity (.702); Quality of rail road infrastructure (.693); Obsolescence (.680); Regular supply of good water (.663); Fire safety (.650); Telecommunication (.650); Exchange rate (.640); Density of road net-work (.620); Quality of road infrastructure (.599); Urban population growth (.521); Security (.495); Location (.472)
Factor 2 - Possibility of Natu-ral Disasters	Possibility of land slide (.960); Possibility of earthquake (.943); Erosion (.852)
Factor 3 - Effectiveness and Efficiency of Title Processing and Regulatory Framework	Ease of registering property for C of O (-.843); Regulatory quality (-.810); Im-plication of land use act (-.810); Security of property rights/title (-.657, with cross-loading of -.586 on Factor 2)

5 Study Findings

5.1 Category of Respondents

The characteristics of the respondents are presented in terms of their category of participation in property investment and their position within their respective organisations. Of the 47 respondents, 41 (87%) were Estate Surveyors and Valuers, while 6 (13%) were investors. The distribution of respondents based on the position held within the organisation shows that 64.4% were staff members, 24.4% were principal partners, 8.9% were associate partners, and 2.2% were consultants to the firm.

5.2 Factor Analysis

The study deploys factor analysis with principal component extraction to explore the most critical factors from a pool of 77 variables determining commercial property investment performance. The correlation matrix shows that approximately 48% of the 77 variables in the study were poorly correlated and were thus removed from further analysis, leaving 40 variables for extraction. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were employed to assess the suitability of the retained data for factor analysis, as presented in Table 2.

Although the KMO value of 0.298 falls below the conventionally recommended threshold of 0.50, Bartlett's test of sphericity yielded a chi-square value of 1675.127 at 351 degrees of freedom, significant at the 5% level ($p = .000$), indicating that significant correlations exist among the chosen variables and providing a supportive criterion for proceeding with factor analysis on the basis of variable inter-correlation, notwithstanding the modest KMO value.

The preliminary, unrotated analysis of the 40 retained variables reports six components with eigenvalues of 1.0 or above, as shown in Table 3. These six components have a cumulative variance of approximately 84.6%. The explained variance by the first component alone is 12.998, representing 48.14% of the cumulative variance explained by the 40 chosen variables, while the sixth component explains only 3.91% of the total variance.

The scree plot (Figure 1) supports the extraction of three factors rather than the six suggested by the Kaiser criterion in Table 3, showing a clear break and point of inflection at the third factor. Three factors were therefore retained and subjected to Varimax rotation, the outcome of which is reported in the Rotated Factor Matrix (Table 4).

Table 5 shows that the three-factor rotated solution explains 69.35% of the total variance, compared to 84.56% explained by the six unrotated components. While the rotated three-factor solution explains a smaller proportion of total variance, it yields a markedly simpler and more interpretable factor structure, with each of the 27 variables loading strongly on a single factor, as shown in the Rotated Factor Matrix (Table 4).

As shown in Table 4, design of building (.808) and quality of water transport (.806) are the highest-loading variables on the first factor, followed by age of property (.761), quality of air transport (.754), rental value (.751), free flow of drainages (.746), floor space (.743) and government investment in infrastructure (.731), among others. On this basis, the first factor was named property physical structure and mode of transportation. The second factor is dominated by possibility of land slide (.960), possibility of earthquake (.943) and erosion (.852), and was accordingly named possibility of natural disasters. The third factor consists of ease of registering property for C of O (-.843), regulatory quality (-.810) and implication of land use act (-.810), and was named effectiveness and efficiency of title processing and regulatory framework. Table 6 summarises the named factors, their high-loading variables and corresponding loading coefficients.

The three named factors collectively represent the most critical determinants of commercial property investment performance in the study area. It is important to note that variables such as rental value, free flow of drainages, fire safety, infrastructural facilities, and ease of accessibility, while not forming the basis for naming a distinct factor, nonetheless loaded substantially on Factor 1 (property physical structure and mode of transportation), as shown in Table 4, and therefore remain relevant considerations within that factor grouping. Rental value, in particular, loads at .751 on Factor 1, confirming that rent-related considerations remain embedded within the property physical structure and mode of transportation factor, rather than being eliminated from the analysis.

6. Discussion of Findings

Findings of this study have shown that 69.35% of the total variance is explained by the three-factor rotated solution, compared to 84.56% explained by six unrotated components. These three factors: property physical structure and mode of transportation; possibil-

ity of natural disasters; and effectiveness and efficiency of title processing and regulatory requirements are the most critical determinants of commercial property investment performance in the study area, as identified through the factor analysis with Varimax rotation.

As discussed in Section 4, the first factor, property physical structure and mode of transportation, is anchored by design of building (.808) and quality of water transport (.806) as its highest-loading variables, but also encompasses rental value (.751), free flow of drainages (.746), fire safety (.650) and infrastructural facilities, among other variables that loaded strongly on this factor. The second factor, possibility of natural disasters, is anchored by possibility of land slide (.960), possibility of earthquake (.943) and erosion (.852). The third factor, effectiveness and efficiency of title processing and regulatory framework, is anchored by ease of registering property for C of O (-.843), regulatory quality (-.810) and implication of land use act (-.810).

These findings are not in agreement with those of studies such as the United Kingdom housing price determination study carried out at Harvard University in 2011, which identified macro- and micro-economic indicators and direct foreign investment as major factors influencing property performance (Harvard University, 2011); Chandra (2010), who identified change in taste and fashion as contributing to movements in estate prices and performance; and Tompos (2005), who identified tax burden as a major constraint on real estate performance. Respondents in the present study appear to attach comparatively limited weight to such macroeconomic and fiscal considerations, as only the three factors identified above: property physical structure/building design and mode of transportation, possibility of natural disasters, and effectiveness and efficiency of title processing and regulatory requirements emerged as the most critical determinants of property investment performance in the study location.

In line with the literature, this finding shows that the legal framework and ease of registering title documents are major determinants of commercial real estate investment performance in monetary terms. This resonates with the broader global discourse on performance benchmarking criteria; Newell et al. (2023) argue that effective benchmarking of real estate investment performance increasingly requires granular, outcome-focused metrics that extend beyond financial returns to include governance quality and regulatory effectiveness. For instance, when an investor wishes to invest in a property, they require a title document

stating ownership and an unencumbered title, which is governed by the legal framework applicable to the subject property. Without adequate title to a property, it may be underpriced or remain on the property market for a prolonged period, potentially allowing the building to deteriorate.

This constraint relating to the ease of registering titles and the regulatory framework was further asserted by Van der Molen (2002) and Kuntu-Mensah (2006), who noted that the granting of land title is often too slow and time-consuming, that land title frequently does not reflect the situation on the ground, and that this threatens the security of many customary right holders, while also reflecting broader institutional and technological constraints. The institutional issues stem from a lack of a comprehensive approach, with too many stages involved in the registration process; for instance, the activities of surveying, conveyancing and registration of land parcels are spread across different agencies, resulting in duplication of effort. The processing of a Governor's Consent, for example, may involve the Survey Department, the Town and Country Planning Department, the Lands Commission, and the Land Title Registry, with each agency successively depending on the other for certification. This generally causes delay, with title registration taking, on average, between two and three months, if not longer. Technological and resource constraints relate to the available technologies, with most agencies inadequately equipped to match the current demand for land transactions, such that many routine tasks take a long time owing to the lack of appropriate tools and technology necessary to execute them.

7 Conclusion and Recommendations

This study examined the criteria considered in the determination of commercial property investment performance and their relative significance in Lagos, Nigeria. Factor analysis with Varimax rotation was used to identify the three critical factors that exert the greatest influence on property investment performance in the study location.

The study has revealed that property physical structure/building design and mode of transportation, possibility of natural disasters, and effectiveness and efficiency of title processing and regulatory requirements are the most critical factors determining commercial property investment performance in Victoria Island, Lagos. These findings support those of Thontteh and

Omirin (2014), Leiser and Groh (2011) and Anule and Umeh (2016), each of which identified locational, infrastructural, and regulatory/legal considerations as central to commercial property investment performance in Lagos and comparable West African markets. The findings, however, contrast with those of the Harvard University (2011) UK housing price determination study, Chandra (2010), and Tompos (2005), which concluded that micro- and macro-economic indicators, direct foreign investment, changes in taste and fashion, and tax burden are major contributory factors to property investment performance. The present study shows that, within the study location, these macro-economic and fiscal factors appear to carry comparatively less weight than the physical, environmental and regulatory factors identified.

Based on these findings, the study recommends restructuring of the legal framework governing property investment, including the security of property rights/title, building plan approval, ease of registering property for a Certificate of Occupancy (C of O), availability of land with clear title, and the integrity of the legal system, amongst others, in order to ease the burden of processing and registering title and thereby provide security to the investor and the investment. Furthermore, the land documentation process and its institutional framework need to be reorganised to enhance efficiency in securing title to property, as this was identified as one of the major determinants of property investment performance within the three factors identified. Investors and Estate Surveyors and Valuers should also give adequate attention to the type of building designs used when considering commercial development, while government should intensify efforts to improve ease of accessibility and efficiency in modes of transportation, particularly water and air transportation in the study area.

The thematic classification of variables presented in Table 1 of this study offers a structured framework that subsequent researchers may draw upon when examining or comparing the determinants of commercial property investment performance across different markets and contexts.

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