

Assessment of the Effect of Anticipated Factors on Real Estate Investment Performance of Insurance Companies in Nigeria

Inuwa Mohammed Danlami^{1,2} and Zairul Nisham Musa^{1*}

¹Department of Real Estate, Faculty of Built Environment, Universiti Malaya, 50603 Kuala Lumpur, Malaysia

²Department of Estate Management and Valuation, Niger State Polytechnic, Zungeru, Niger State, Nigeria

*Corresponding author: zairul@um.edu.my

Abstract

Nigeria has a severe housing shortage of almost 28 million units, which is impeding social stability and economic prosperity. The National Housing Fund (NHF) Act and other legislative frameworks require insurance companies to invest a percentage of their premiums in real estate; nonetheless, the sector's actual investment is still quite small. To determine and rank the internal and external factors influencing Nigerian insurance firms' success in real estate investments, this study combines Factor Analysis, Principal Component Analysis (PCA), and the Relative Importance Index (RII) in a novel way. Structured questionnaires were used to collect data from 44 insurance companies, yielding solid, industry-specific insights. A methodological strength that improves the efficiency and clarity of interpretation is the PCA's ability to reduce 24 variables to six essential components, which together account for 83.32% of the total variance. While external variables like infrastructure, governance, and investor perception were shown to be significant but less dominant, internal factors like capital volume and fixed assets had the strongest influence ($RII > 0.87$). The study provides a new, empirically supported paradigm for identifying investment obstacles by fusing RII and PCA. By addressing the discrepancy between policy expectations and actual investment behaviours, this study contributes to the body of knowledge by providing specific recommendations for infrastructure planning, institutional capacity building, and policy reinforcement. The results offer a calculated plan for employing insurance cash to alleviate the housing situation in Nigeria.

Keywords:

Assessment, Factors, Insurance Companies, Real Estate, Investment.

Article History

Submission: 5 August 2024

Acceptance : 27 August 2025

1. INTRODUCTION

Housing has emerged as the central economic problem. It is an economic driver for low-income households since it is essential to the expansion and advancement of the family, the community, and the nation (Gupta, 2022, 2024). Nigeria, which has 235-238 million people in 2025 (UN, 2024), faces a housing shortage of an estimated 28 million units and 22 million units (UNDESA, 2022; IHRC, 2022; NBS, 2022), but the true figure is yet to be disclosed. Immediate attention is needed to address this issue. But based on the expert consensus, Nigeria must construct between 540,000 and 900,000 units annually for the next decade at a cumulative cost of 5.5-6 trillion per year, to start closing the gap (FMHUD 2024).

The Nigerian real estate sector, the country's fifth-largest contributor, has experienced a decrease in Gross Domestic Product (GDP) due to unpredictable economic conditions and limited foreign currency availability (Dimeji-Ajayi, 2018). An effective insurance market can encourage risk management, reduce exposure to insurable hazards, and support capital market growth (Chamberlain et al., 2017).

Wozala et al. (2000) found that institutional investors' perceptions of investment return significantly impact the financial sector. With substantial cash reserves, insurance firms are seen as conduits for economic growth. In Nigeria, insurance firms have been reorganised to raise capital for investments in real estate (Dubben & Sayce, 1991). Nigeria offers significant real estate investment opportunities, with a market value of around N59 trillion (USD 75.537 billion) (Orimisan, 2021). Despite the potential returns, most Nigerian insurance firms are hesitant to invest, with 73% committing only 1% to 11% of their resources. Despite legislation requiring 20% allocation for non-life insurance and 40% allocation for composite and life insurance, only two providers allocate resources in two-digit percentages (Inuwa et al., 2018).

The extent of the housing deficit in Nigeria is still being estimated. According to the 1991 National Housing Policy, to meet the target of 8 million housing units by 2000, 700,000 housing units would need to be constructed annually to make up for the nation's housing shortage. As of November 2022, the housing shortfall is estimated to have reached 28 million units (IHRC, 2022). According to Nigeria's housing industry analysis in 2022, there were 23 homes for every 1000 people in Nigeria. In meeting this deficit, the government, corporate entities, and private real estate providers face funding issues to construct housing units. To address this, the government has involved insurance companies in real estate investments, allowing them to invest up to 35% of their premiums. The National Housing Policy of 1991 and the Insurance Acts of 1992 and 2003 have also aimed to address housing shortages.

The National Housing Funds Act of Nigeria's main aim is to make it easier for the funds to be mobilised for the provision of dwellings for Nigerians at reasonable prices. In other countries, various policies and programmes about sustainable development through economic, physical, environmental, and social protection have already existed. Some of the programmes include the National Malaysian Housing Policy, which addresses housing construction in Malaysia (Othman & Alias, 2011), The United Kingdom's Help-to-Buy housing programme which seeks to incentivize potential homeowners to apply for mortgages and purchase newly constructed homes (Gov.UK, 2015) and the Home Affordable Refinance Program (HARP) in the United States that is to assist homeowners in refinancing their mortgages at a lower interest rate (Agarwal et al. 2015). The Home Starter Loan Programme in Hong Kong was created to help first-time homeowners acquire apartments in the private sector (Li, 2016).

In contrast, other countries have implemented housing programs that adopt varying strategies tailored to their unique socio-economic contexts, often with more robust frameworks and measurable outcomes. The National Malaysian Housing Policy, for example, focusses on sustainable housing development and public-private partnerships, with an emphasis on affordability, quality, and accessibility. Its phased implementation and regulatory backing have made it relatively more successful in stimulating housing construction, especially for low- and middle-income households (Othman &

Alias, 2011).

The United Kingdom's Help-to-Buy programme, targeting first-time homebuyers, the UK's Help-to-Buy program offers mortgage guarantees and equity loans that lower upfront costs and boost the housing market. Its implementation is distinguished by well-defined eligibility requirements and government-backed financial products, which have resulted in a notable increase in home ownership among the targeted demographics (Gov.UK, 2015).

In the United States, the Home Affordable Refinance Program (HARP) was created in the US to assist homeowners in refinancing their mortgages in the wake of the 2008 financial crisis. The goal of HARP was to provide financial assistance through interest rate reduction and refinancing flexibility, in contrast to Nigeria's NHF, which concentrates on raising money for new homes. Millions of Americans benefited from its significant uptake and mortgage savings, which were characterised by centralised management and robust institutional support (Agarwal et al., 2015).

Similarly, Hong Kong's Home Starter Loan Programme addressed housing affordability by providing low-interest loans to first-time buyers to access private sector apartments. Its success was linked to strict governance, targeted beneficiary identification, and integration with broader housing policy objectives (Li, 2016).

Overall, while Nigeria's NHF Act reflects an intent to address housing deficits through fund mobilization, its outcomes have been comparatively limited due to issues in execution and institutional coordination. In contrast, the programs in Malaysia, the UK, the US, and Hong Kong demonstrate more strategic alignment between policy design, implementation mechanisms, and socio-economic goals, resulting in greater impact on homeownership rates and housing market stability. These international models suggest that successful housing programs often depend not just on funding sources, but also on effective policy delivery, transparency, incentives, and stakeholder engagement.

Section 5 of The National Housing Funds Act states that all registered life and non-life insurance firms operating in Nigeria are to invest at least 40% and 20%, respectively, of their premiums in real estate at a maximum interest of 4%. According to section 20 (2), which also stipulates that anyone found guilty will be sentenced to a fine of N50,000 (USD 11.36) or five (5) years in prison or both. Housing policy (1991) state that insurance companies are involved in real estate investment because the held billions of naira which are gotten from premium payment are they accumulate annual and are held over a long time and could be a good source for real estate finance. The challenges faced by insurance companies in compliance with the NHF Act is that the portion of funds mandating them to channel into real estate investment is huge and real estate invest is a long term investment, the return attached to the real estate investment 4% by the NHF Act is unattractive when comparing to the market driven financial instruments, there are no direct incentive for any insurance companies that comply with the NHF Act. Since then, a significant amount of money, time, effort, and materials have been used at both the national and subnational levels to address Nigeria's housing needs. However, the government has only built 74,604 dwelling units with a provision of approximately 2,260 houses annually (CBN Economic & Financial Report, 2019). Issues related to housing scarcity have factors have worsened which further led to physical deterioration, poverty, unemployment, and deficiencies in service delivery systems. This issue formed the foundation for this study, which attempts to ascertain why insurance companies have not succeeded in their real estate investment in Nigeria despite having access to substantial resources and being mandated by law. To determine which of these factors has an effect, factor analysis is performed to ascertain the structure and dimensions of the multiple variables influencing real estate investment and factor displaying loaded indicates an influence. The Principal Component Analysis (PCA) method will be used to distil the many variables into a small number of controllable elements. Decision criteria based on a relative relevance index will be used to identify the most important variables influencing the real estate investment performance of insurance companies in Nigeria. The study is structured to gain a better understanding of the factors affecting the housing shortfall real estate investment performance of insurance companies in Nigeria and to identify the most important factors

influencing the real estate investment performance of insurance companies in Nigeria. To achieve these goals, the main literature on the housing deficit, as well as the present situation of Nigeria's housing deficit, will be reviewed. Factors influencing insurance companies' real estate investments, as well as the performance of real estate investment of insurance companies by National Housing Act requirement are then discussed. The analysis, the results and the conclusion are then presented and discussed.

2. LITERATURE REVIEW

Studies on insurance firms' real estate investments by NHF Act requirement in Nigeria are limited, despite numerous studies on REIT success in emerging, developed, and developing regions (Amidu, et al, 2008; Bello, 2003; Olaleye, 2000). The unreported and ambiguous status of real estate assets poses a threat to the growth and development of these investments, as they have not been included in the EPRA Global Real Estate Investment Report. Insurance companies' real estate investment profitability is influenced by operational success, yield and unit price appreciation. They invest in international markets, which include the US, Australia, Asia, and Europe (Shindo & Stewart, 2021), primarily in revenue-generating assets like offices and retail spaces. They also fund investments in high-rise residential, commercial, agricultural, healthcare, and hospitality facilities (Olanrele et al., 2018; Ong et al 2011).

Insurance companies' performance in real estate is influenced by their investments, with returns to investors serving as a gauge of their success. Baum & Murray (2010) and Baum (2008) categorise insurance company's real estate investment success into formal and informal elements. Informal factors include socio-political or operating environment factors (infrastructure, investor behaviour, social security, political risk), whereas formal factors are regarded as economic and market factors (including investment attributes like Size, Leverage, Share Price, Asset value, diversification, NAV, and FFO). The local economy and real estate market circumstances are influenced by external variables that impact the operational environment. Various studies have suggested that insurance companies' real estate investment performance may be influenced by other variables not related to investments. Sipan et al.'s (2012) study found a significant relationship between geographical characteristics and insurance companies' real estate investment return, suggesting that other variables may influence return. Insurance firms' real estate investment return is significantly influenced by property revenue (Alias & Soi Tho, 2011). While research on the direct effects of operating environment factors on insurance companies' real estate investment return exists, it is important to note that these factors also have a significant impact on the income that insurance companies derive from their underlying assets, which in turn influences the return on their real estate investment. This section briefly covers Nigeria's insurance sector, types of insurance business, capitalization, regulation, housing deficit definition, Nigeria's housing crisis, and NHF decree no. 3 of 1992, Act 2004.

2.1 An Overview of Nigeria's Insurance Sector

Nigeria's insurance market has fifty-seven (57) registered firms, including two (2) reinsurance, two (2) takaful, twenty-eight (28) non-life, fourteen (14) life, and eleven (11) composite insurance companies (NIA Digest, 2019). Most businesses are incorporated under the Businesses and Allied Matters Act of 1990. Additional players include brokers, surveyors, agents, and third-party administrators. Insurance involves the collection of premiums for protection against unpredictable events (Samreena, 2018, Vaughan, and Vaughan, 2014).

2.1.1 Types of Insurance Business and Capitalisation

One of an insurance company's primary businesses is evaluating the risk a person, group, or corporate entity presents. For Section 2 of the Insurance Decree No. 2 of 1997, there are two primary classifications of insurance business in Nigeria as follows:

- i) Life insurance
- ii) General insurance or non-life

Table 1 displays the capital base growth rate for insurance businesses in Nigeria from 2005 to 2019.

Table 1: Overview of Nigeria's Insurance Sector Capital based growth rate from 2005 to 2019

Categories of Insurance	Capital Base 2003 (N, million)	Capital Base 2005 (N, billion)	Capital Base 2019 (N, billion)	Changes 2005 (%)	Changes 2019 (%)
Life	150	2	8	1,233.33	300.00
Non-Life	200	3	10	1,400.00	233.33
Composite	350	5	18	1,328.57	260.00
Reinsurance	350	10	20	2,757.14	100.00

Source: Author's Compilation from Etomi, 2019 and Hakeem & Tajudeen, 2010.

2.1.2 Regulation of the Insurance Business in Nigeria

The National Insurance Commission, or NAICOM, was founded by Decree No. 1 of 1997 to supervise the effective administration, monitoring, regulation, and control of the insurance sector in Nigeria. The National Insurance Commission Act, Cap. N53, Section 664, and the lengthy title make it very evident that NAICOM is a regulatory and supervisory organisation. Table 2 displays the rise in insurance companies' gross premiums in Nigeria as a result of NAICOM rules.

Table 2: Rising in Insurance Companies' Gross Premiums from the Period 2015 to 2019

Gross Premiums 2015	Gross Premiums 2016	Gross Premiums 2017	Gross Premiums 2018	Gross Premiums 2019
312.555 (677)	315.976 (685)	365.057 (791)	413.847 (897)	490.801 (1.064)

Source: Nigeria Insurer's Association Digest 2015-2019

2.2 Definition of Housing Deficit

The term "housing deficit" refers to two concepts: the quantitative housing deficit, which measures the number of housing units needed, and the qualitative housing deficit, which measures the percentage of households living in substandard housing. The quantitative housing shortfall is traditionally conceptualised as the discrepancy between the number of households and available homes. However, this study has broadened this definition to include multi-family dwellings, private housing, and precarious homes (Szalachman 2000; Habitat 2016; Olaya et al. 2017).

The qualitative housing deficit can be widely seen to include uninhabitable homes that fall short of fundamental quality requirements. However, there are many different definitions for these requirements, and studies rarely use the same definition and kind of adequacy criterion to include in their definitions. Numerous publications (Szalachman 2000; Cristini & Moya (2008) cited in Lora et al. 2010; Gupta, 2024) conceptualise the qualitative housing deficit to include homes with (some or all) infrastructure deficiencies (lack of electricity, water, and/or sanitation), houses that are built with inferior materials (roofs, floors, and walls), and overcrowded houses. Various literature broadens this concept by including elements like tenancy instability (Habitat 2016), phone coverage, location, and market access (Lora et al. 2010). (Isalou et al 2014; Acolin & Green 2017). Other studies use a single qualitative factor, such as access to drinking water, to partially offset the qualitative housing gap. (Eclac 1996; Gilbert 2001).

2.3 Nigeria's Present Housing Crisis

A recent study of the Nigerian housing market found that there are twenty-three (23) dwellings for

every one thousand (1000) residents. As of December 2022, the country was projected to have a twenty-eight (28) million units housing deficit, an increase of approximately 40% from December 2019. The deficit needs to be covered by around N109 trillion (CAHF, 2022). A nation with a population of around two hundred and sixteen (216) million and a deficit of about twenty-eight (28) million units of housing then, the current deficit is alarmingly large (UNDESf, 2022). In Nigeria, there is currently a twenty-eight (28) million units housing shortfall, up from seven (7) million units in 1991, twelve (12) million units in 2007, fourteen (14) million units in 2010, and twenty (20) million units in 2019 (IHRC 2022). In contrast, housing and rent prices have risen more quickly than total inflation. Table 3 below displays the housing deficit in six African nations.

Table 3: Housing Shortage in Six African Countries

Country	Population (2022) In Million	Housing Shortage 2019-2022 (Million)	Cost/Unit (USD)	Total Cost (USD)
Nigeria	216	22 – 28	8,531	238.868 billion
South Africa	60	2.5 – 3.7	41,374	153.084 billion
Kenya	54	2.0 – 2.0	11,000	22 billion
Ghana	33.5	2.6 – 1.8	1,389	2.5 billion
Ethiopia	114.9	1.2 – 1.0	470	472 million
Uganda	48	2.0 – 2.4	33,640	

Source: Bah et al, 2018

Based on the figures in Table 3 above, Nigeria urgently needs to improve its strategies for encouraging insurance companies to invest more in housing to reverse the rising trend of the housing shortage. National housing performance models for insurance firms' real estate investments have been produced under the NHF Act with varying degrees of adjustment, and they can be put into practice to match the nation's current political and economic circumstances. Table 4 give the trajectory representation of Nigeria's housing deficit from 1991 to 2022. It shows the estimated housing deficit

Table 4: Nigeria's housing deficit from 1991 to 2022.

Year	Housing Deficit (Million)	Population (Million)
1991 – 1993	4 – 7	107
2007	8 – 10	145
2013 – 2015	16 – 17	178
2017 – 2019	18 – 22	184
2021 – 2022	23 – 28	216

Source: Author's Compilation from Moore, 2019 and IHRC, 2022

Owing to the severe housing deficit, renters in rental apartments may pay up to 80% of their average disposable income, far higher than the 20–30% suggested by the United Nations. According to a World Bank analysis, it would cost N109 trillion to fill this twenty-eight (28) million housing gap, demonstrating the industry's enormous untapped investment potential.

Nigeria's housing and building industries contribute only 5.64% (N8.9 trillion) (USD 19.33) of Nigeria's rebased GDP (Punch, 2023), and the country currently develops only 100,000 homes annually. To address the housing shortage, at least 1,400,000 more houses must be constructed for the next 20 years, worth N5.46 trillion (USD 11.861 billion) annually (The Guardian, 2021). Despite government plans to construct millions of new low-income homes and homeowners, housing has not been a top legislative agenda due to economic challenges. The NHF Act No. 3 of 1992, which offers nominal single-digit interest rates, has not been fully implemented.

The lack of housing in Nigeria's urban centres results from the country's rapid population expansion, rural-to-urban migration, quick rates of urbanization, and economic growth (Bloch, R. et al. 2015). Issues with land tenure, continuous increase in construction material prices, insufficient house financing, problems with infrastructure accessibility, lengthy legal paperwork processing periods, and onerous mortgage lender loan conditions (Bah, E., M. et al. 2018). Another significant problem influencing the provision of housing in Nigeria is the underperformance of institutional investors like insurance firms due to poor government housing policy (Moore, E., A., 2019).

2.4 NHF Decree No. 3 of 1992; NHF Act 2004

The NHF Decree No. 3 of 1992 is a tool designed to boost housing provision in Nigeria. The idea is to provide inexpensive loans for rental housing and a steady flow of long-term funding for housing development. According to Section 3 of the NHF Act, the following will make up the fund's resources:

- a) Donations from Nigerians working in both the public and commercial sectors
- b) Commercial and merchant banks investing in the Fund.
- c) Insurance companies investing in the Fund that are licenced to do business under the Insurance Act; and
- d) Financial contributions from the Federal Government for long-term housing loans.

According to Section 5(2) of the decree, all registered insurance companies shall invest a minimum of 20% of their non-life funds and 40% of their life funds in real estate development, and at least 50% of such investment shall be channelled through the NAICOM to Federal Mortgage Bank of Nigeria at an interest rate that does not exceed 4% per annum. Also, the provisions of this Act are not affected by anything stated in the Insurance Act or about insurance firms' investments in real estate.

2.5 Factors Affecting the Real Estate Investment Performance of Insurance Companies

Real estate investments' operational success is influenced by both internal and external factors (Olanrele et al 2018). According to Marlina & Syarif (2013), insurance companies' returns are primarily derived from premiums, which diversify investments. Profitable real estate investments are found in the US, Australia, Asia, and Europe (Swiss Re 2024; Hoesli & Lizieri, 2007). Internal factors identified from previous studies, include such as net asset value, the fund from the operation, size, leverage, share price, asset value, and diversification, businesses' effectiveness and profitability (Deyganto & Alemu, 2019). Ahmeti & Iseni (2022) and Tsvetkova et al. (2021) also investigated internal factors affecting return in insurance companies and found that internal factors also include company age, size, leverage ratio, growth rate, liquidity ratio, and tangible assets. Macroeconomic factors affecting investment performance include operating profit margin, gross profit margin, return on invested capital, assets, and equity. Table 5 summarises the various formal or internal factors that affect real estate investment performance of insurance companies.

Table 5: Formal /Internal Factors Affecting the Real Estate Investment Performance of Insurance Companies

Factor	Summary of findings
Size of company	Insurance company size is determined by factors like workers, branches, and assets, with total assets performance being the most commonly used method (Aduloju & Akindipe, 2022). Aduloju & Akindipe, (2022), Burca & Batrinca, (2014), Omondi & Muturi (2013), Al-Shami (2013), Malik (2011), and Swiss Re (2008) stated that there is a significant connection between company size and financial success.
Fixed assets	The fixed asset to total asset ratio is a benchmark for insurance businesses, but studies show contradictory results (Pundey, R. & Diaz, J. F., 2019). Malik (2011) found a significant association between fixed assets and firm

	performance in Pakistan, while Yuqi (2007) found no significant relationship in the UK.
The Volume of capital	Capital Volume in insurance firms is measured by the difference between total assets and liabilities firms (Oluwaleye, et al, 2021). Al-Shami 2013; and Malik 2011, stated that there is a strong positive correlation between shareholder equity and total assets.
Liquidity	Liquidity refers to a company's future cash reserves (Dahiyat et al. 2021), relying on net premium cash flow, investment returns, and asset sales, with profitability and liquidity relationships varying.
Liabilities	Liabilities significantly impact insurance company performance (Malik 2011, Omondi and Muturi 2013, and Burca and Batrinca 2014), with high liabilities leading to lower ROA but higher ROE, as per capital structure theories (Harrington, 2005).
Growth Rate of the Company	According to studies in the insurance sector, insurance firms' growth rate, measured as the percentage change in signed premiums, is positively correlated with their performance (Clar et al. 2011, Malik 2011, and Yuqi 2007).
Age of the Company	Business age significantly impacts financial performance, with age enhancing efficiency but potentially leading to skill obsolescence and organizational deterioration (Agarwal and Gort, 2002; Loderer et al 2009; Malik 2011)
Gross Domestic Product (GDP)	The insurance industry's integration performance is influenced by GDP growth, foreign-owned enterprise market share, and macroeconomic factors (Kozak 2011), with a correlation between real GDP, insurance performance, and property rights strength (Burca & Batrinca 2014; Esho et al (2004).
Interest Rate	Interest rate risk significantly impacts the insurance industry, affecting asset value, claim costs, and insurer insolvency (Brewer et al 2007). Economic activity and interest rate influences insurance company growth, affecting investment income (Nissim, 2010),
Inflation	Inflation negatively impacts the insurance industry, affecting expenditures, technical provisions, and claims (Daykin et al 1994). Unanticipated inflation can strain insurers financially, causing an inverse correlation with performance (Shiu Y 2004).
Leverage	The debate surrounding the impact of financial structure on enterprise value, or leverage, is supported by empirical data suggesting that higher leverage may lead to higher stock prices.
Consumer Price Index	Anbar & Alper (2011) found a positive correlation between GDP and consumer price index profitability, while Hailegebreal (2016) found a significant positive correlation between consumer price index and insurance industry profitability.

Informal or external variables, such as infrastructure, investment behaviour, social security, and political risk, can impact insurance companies' real estate investment performance. These factors can be advantageous or problematic and can be influenced by the local economy and real estate market status (Indeed, 2023; Olanrele et al. 2018). The informal/external factors are shown in Table 6 below.

Table 6: Informal/External Factors Affecting the Real Estate Investment Performance of Insurance Companies

Factor	Result of the study in terms of the variables (factors)
Political Leadership	Political stability is crucial for a robust investment market as political risk can hinder capital in developing nations (Baum (2008). Nigeria's transparency and policy adequacy influence its global economic ranking.
The Attitude of Investors (Behaviour)	Institutional investors significantly influence insurance company success, impacting stock prices and performance (Hao et al., 2022; Chan et al., 2003). Individual investors may be limited. Negative perceptions of real estate

	investment hinder expansion (Clayton & Mackinnon, 2001; Ong et al., 2011).
Support Services (Infrastructure)	Regional characteristics significantly influence real estate investment returns, with rental revenue influencing returns (Daud et al. 2012). Addressing infrastructure funding challenges is crucial for global economic expansion (Adair et al., 2014).
Social Security	The ongoing terrorism threat poses a significant risk to risk-averse investors, especially in the real estate sector, hindering international diversification in the growing Dubai real estate market.
Management Approach (Advisor Puzzle)	Insurance businesses' success relies on their management style, which can be internal or external (Chan et al., 2003). Despite the Tax Reform Act allowing direct management, some companies still manage both (Ambrose & Linneman, 2001).
Environmental Factor	Insurance firm success is influenced by informal elements, including the local real estate market and economy, and operational environment elements, which may be beyond management's control (Baum, 2008)
Cultural & Social Aspects	Real estate investment is no longer appealing in the central belt of Nigeria due to the recent conflicts between herders and farmers. This poses a threat to global diversity in the real estate market.
Insurgency, Terrorism, and Banditry	The 9/11 terrorist attack and Boko Haram's threat to Nigeria's national security pose significant risks to risk-averse investors, hindering successful real estate investments in promising locations.
Civil Protest,	Civil protests have developed a variety of resentments and grievances (Nwazi, 2017). Due to its poor management, this has sometimes led to property destruction and even fatalities.
Disaster,	Over the past decade, significant natural catastrophes, including hailstorms, bushfires, and floods, have significantly impacted residential real estate markets in NSW and Australia, resulting in real correction expenditures of up to AUD\$1.5 billion (Njume & Krah, 2020)
Election Violence	Election-related concerns often impact candidates' prospects of winning, which has an impact on changes in the real estate market (Carnahan and Saiegh, 2021; Chavali et al., 2020; Arin et al., 2020).
Policy/Regulation,	Baum (2008) suggests policies may contribute to capital inflows into developing economies, but real estate investments offer a viable conduit for FDI, despite political risk and unfavourable transparency in many African nations.
Leadership focus	Nigeria's standing in the world economy is a direct outcome of its leadership focus. Nigeria was placed 170th out of 189 nations in the Doing Business report,
Transparency	Nigeria ranks 144th in the 2013 Corruption Perception Index and "Opaque" on the transparency scale in the Jones Lang Lasalle Global Real Estate Transparency Report (David, 2014).
Economic/Financial	The different financial and economic policies of a nation show how transparent that nation is, which may either be advantageous or disadvantageous to real estate investors.
Power	With the electrical system producing fewer than 4000MW for the projected 210 million people, it has almost completely collapsed. The problem of providing an alternate power source via expensive power generators drives up operating and service delivery costs in the real estate industry.
Accessibility (Road)	A new method of funding the development of road has been called for in response to the multiplier impact of the benefits of road investment in the economy, particularly in the creation of jobs and the expansion of the real estate industry (Adair et al., 2014).

Neighbourhood / Location	A prime location is correlated with multifamily property prices. Properties in well-liked communities with top-notch schools, easy access to the city centre, and close-by facilities often fetch higher purchase and rental costs (Sani et al, 2023)
Water supply and sanitation	Properties with regular water supply, from municipal sources or dependable outside sources, are often more valuable. The comfort and ease that come with having a steady supply of water add to a property's perceived worth (Clement, 2023)
Communication (Internet & Telephone),	The real estate industry relies heavily on information exchange between buyers, sellers, tenants, and landlords, with agents acting as intermediaries, and insufficient information can hinder transaction success (Olugbenga, et al, 2016)
Transportation	One of the problems in many African countries is inadequate transportation infrastructure. Nigeria's public transportation rail infrastructure is having difficulty recovering, and the country lacks a reliable road network.
Suitability of the Instrument	According to Ogu (1999), individual private property developers provide 54% of residential housing. As a result, acquiring or finishing a home may take longer if financing is unavailable. Regrettably, the private sector faces a host of issues that cause the supply to consistently fall well short of demand and result in lower-quality manufacturing (Nubi, 2008).
Readiness to Invest	In many countries today, real estate investments are viewed as the cornerstone of wealth creation and economic expansion; but, in Nigeria, a huge number of investors are shying away from real estate due to factors including high risk, a large initial outlay, and a long period to recover capital (Hamza, 2016)
Internal / Macroeconomic	Ansah-Adu et al. (2012) claim that internal factors interact to affect the investment performance of insurance companies. Internal factors concentrate on the insurance company's unique characteristics.

Based on extant literature on the factors that impact the real estate investment performance of insurance companies and the analysis of survey responses, the study concluded that further investigation was warranted to confirm the existence of the following twenty-four (24) elements and comprehend their impact on the real estate investment performance of insurance businesses operating in Nigeria. These elements include social security, cultural and social aspects, insurgency, terrorism, and banditry, civil protest, disaster, election violence, political leadership, policy and regulation, leadership focus, transparency, economic and financial, infrastructure, power, accessibility (road), neighbourhood and location, water supply and sanitation, communication (internet & telephone), transportation, investors' perception, suitability of the instrument, readiness to invest, internal and macroeconomic, environmental, and management approach (advisor puzzle).

3. RESEARCH METHODOLOGY

This study adopts the quantitative methodology, which is appropriate for systematically examination of the impact of various anticipated factors on real estate investment performance of insurance companies in Nigeria. The Factor Analysis and the Relative Importance Index (RII) were used for their effectiveness in reducing complex data and highlighting the most influential factors among many variables, thereby addressing the core research questions. Factor Analysis attempts to show the efficacy of each element under investigation while Principal Component Analysis was also used to reduce the elements into components for efficient management. By this, the study aims to isolate the underlying structure of the anticipated factors influencing investment decision are achieved. The relevance of each aspect to the real estate investment performance of insurance corporations in Nigeria is ascertained by using the Relative Importance Index (RII). This allows the study to quantify the relative

weight or influence of each factor, thus providing insights into which factors are most crucial to performance.

From the responses gathered through the questionnaire survey, the performance of real estate investments is evaluated using various sub-factors to gauge the impact of major external factors. The influence of the factors found on the real estate investment performance of insurance companies in Nigeria was evaluated using factor analysis. The relevance of these sub-factor influences was determined using a correlation matrix. Table 7 below presents the study profiles of the respondents.

Table 7: Profiles of Respondents

Type of Insurance Company	No. of Questionnaire administered	No. of Questionnaire Returned and completed correctly	Rate of Response (%)
Composite	14	12	85.71
General or Non-Life	28	23	82.14
Life	11	9	81.82
Takaful	2	0	0
Reinsurance	2	0	0
Total	57	44	77.19

From the purposive sampling among the fifty-seven insurance companies operating in Nigeria that form the study population, questionnaire surveys were distributed among them. As reinsurance businesses and Takaful companies have not started investing in real estate, their questionnaires are returned unfilled. Forty-eight (48) companies responded, and 4 were rejected due to incompleteness, leaving 44 left for analysis.

The data acquired from the survey was thus judged sufficient to make fair and trustworthy assessments as shown by previous researchers that had performed their investigations with smaller populations (Oloke et al., 2015, Heikens, 2009, Field, 2009; Hair et al., 2009; Tabachniks & Fidell, 2013).

4. RESULTS AND DISCUSSION

The structure and dimensions of the multiple variables influencing the performance of real estate investments were determined through factor analysis. The outcome of the factor analysis showed that each of the twenty-four (24) factors has an impact. The Keiser Meyer Olkin (KMO) had a value of 0.618 which is more than the accepted limit of 0.50. This proved that the data is fit for factor analysis (Chua, 2009). Bartlett's test of sphericity X^2 was less than 0.5 ($X^2 = 650.024$; $p=.000$) which signifies that the correlation between the items is adequately large to enable an initial analysis to determine the eigenvalues for each component in the data (Li and Zhang, 2011).

The findings of this study are shown in Table 8. This table shows the factors loaded which support past findings and confirm that the same determinants (internal factors) affect performance, regardless of whether real estate investment by insurance companies, real estate investment trusts, or developers (Alias & SoiTho 2011, Metamilola et al. 2017)

Table 8: Factor Loading Confirming the Factors

Construct	Items	Name of Variables	Factor loading
Infrastructure	inf3	Neighbourhood/Location	.837
	inf2	Accessibility (Road)	.808
	inf5	Communication (Internet & Telephone)	.800

	inf1	Power	.773
	inf4	Water supply and sanitation	.738
Environmental factors	env2	Infrastructure	.908
	env3	Political Leadership	.874
	env4	Perception/Suitability	.773
Social security factors	soc1	Cultural & Social aspects	.856
	soc5	Election Violence	.739
	soc2	Insurgency, Terrorism, & Banditry	.713
	soc3	Civil Protest	.692
Investors' perception	perc2	Readiness to Invest	.917
	perc1	Suitability of the Instrument	.773
Political leadership	pol4	Economic/Financial	.778
	pol2	Leadership focus	.724
	pol3	Transparency	.617
Management method	mg1	Internal/Macroeconomic	.869
	mg2	Environmental	.800
KMO			= .618
Bartlett's test of sphericity X^2			= 650.024; $p < .05$
Total Variance Explained			= 83.32%

Twenty-four (24) items were subjected to principal component analysis (PCA) using orthogonal rotation (varimax) to condense the twenty-four (24) items into a few manageable components without necessarily sacrificing important data (Tabachnick and Fidell, 2013). Six (6) components that were extracted as shown in Table 9, cumulatively explained 83.32% of the variance in the data. Since the correlation between the items is sufficiently high according to Bartlett's test of sphericity ($X^2 = 650.024$; $p = .000$), it is possible to conduct an initial analysis to determine the eigenvalues of each component of the data.

Table 9: Rotated Component Matrix^a showing the six components extracted

	Component					
	1	2	3	4	5	6
inf3	.837					
inf2	.808					
inf5	.800					
inf1	.773					
inf4	.738					
env2		.908				
env3		.874				
env4		.773				
soc1			.856			
soc5			.739			
soc2			.713			
soc3			.692			
perc2				.917		
perc1				.773		
pol4					.778	
pol2					.724	
pol3					.617	
mg1						.869
mg2						.800

The reliability and validity of the factors were established using reliability analysis after the twenty-four (24) items were condensed and organised into six (6) component factors as shown in Table 10. The Cronbach's Alpha technique, which considers 0.60 as the minimum threshold for determining the reliability of a given scale, was used to test the factors' reliability. The reliability analysis's findings are displayed in Table 10. The result of the reliability analysis using Cronbach's alpha revealed that five (5) of the components' values are above the 0.60 minimum thresholds (Chua 2009; Pallant, 2011), making them acceptable, except for one component, which has two items to scale with values above 0.40. According to Hair et al. (2010), it is impossible to scale the item using Cronbach's alpha; rather, the items should be reported separately, and the scale values must be 40 and above.

Table 10: Reliability Analysis of the Construct

Construct	Items	Variables	Items Cronbach's Alpha	Scale Cronbach's Alpha
Infrastructure	inf3	Neighbourhood/Location	.856	.891
	inf2	Accessibility (Road)	.857	
	inf5	Communication (Internet & Telephone)	.865	
	inf1	Power	.894	
	inf4	Water supply and sanitation	.867	
Environmental factors	env2	Infrastructure	.767	.894
	env3	Political Leadership	.865	
	env4	Perception/Suitability	.901	
Social security factors	soc1	Cultural & Social aspects	.676	.806
	soc5	Election Violence	.738	
	soc2	Insurgency, Terrorism, & Banditry	.763	
	soc3	Civil Protest	.839	
Investors' perception	perc2	Readiness to Invest	.718	.810
	perc1	Suitability of the Instrument	.718	
Political leadership	pol4	Economic/Financial	.782	.831
	pol2	Leadership focus	.710	
	pol3	Transparency	.817	
Management method	mg1	Internal/Macroeconomic	.527	.690
	mg2	Environmental	.527	

These dimensions collectively show that both internal and external factors shape the investment performance of insurance companies in real estate market

In assessing the degree to which each factor under study has an impact on insurance firms' real estate investment performance in Nigeria, the study employed the Relative Importance Index (RII). The analysis involved computing an index that shows the extent of the effect of a particular factor relative to other factors under investigation. The RII was computed using the formula:

$$RII = \sum \frac{wn}{pN}$$

Where:

w = the weight given to each item by the respondents, which ranges from 1 to 5; such that 1 is the least implying (highly unfavourable) and 5 is the highest implying (highly favourable).

n = number of respondents that select a particular option (i.e., Highly negative, ..., Highly positive)

p = the highest weight (5 in 5-point Likert scale)

N = Total number of respondents

To make sense of the RII analysis, decision criteria are normally used to interpret the result. The

decision rule for interpreting RII is presented in Table 11.

Table 11: Decision Parameters for RII Interpretation

RII value	Importance level
$0.8 \leq RII \leq 1$	High (H)
$0.6 \leq RII \leq 0.8$	High Medium (H-M)
$0.4 \leq RII \leq 0.6$	Medium (M)
$0.2 \leq RII \leq 0.4$	Medium-Low (M-L)
$0 \leq RII \leq 0.2$	Low (L)

Source: Akadiri, 2011

Table 12 shows the result of the RII analysis on the factors that influence the performance of insurance companies by the respondents' assessment. Following the decision criterion as presented in Table 11, it shows that the six factors and their respective constituents have a high-medium influence on the performance of insurance companies. The analysis indicated that Internal factors (formal factors) are the most influential factor (RII= .871), followed by Microeconomic (RII= .831), Management method (RII= .762), Infrastructure and Social security factors each with (RII= .755), Political leadership (RII= .749), Investors' perception (RII= .723) and lastly Environmental factors reported an RII value of .715. However, across the factors' constituents, Fixed Assets and Volume of Capital turned out to be the most influential factors that determine the performance of insurance companies. Fixed Asset, Volume of Capital, and Gross Profit Margin reported RII of .913, .890, and .882, respectively, greater than all RIIs of the other factors analysed.

This method of determination was based on Akadiri's (2011) assertion that the variable with the highest RII should have the most influence, followed by the subsequent factors. Given that all three of the factors are internal or microeconomic factors, this supports the idea that internal and macroeconomic elements account for the influence of return and function as performance indicators rather than forecasts (Ong et al., 2011; Clayton et al., 2007).

Table 12: The Result of The RII Analysis

Factors	N	Minimum	Maximum	Mean	Std. Deviation	RII
Infrastructure	44	2.00	5.00	3.5909	.97213	0.718
Political Leadership	44	1.00	5.00	3.4773	1.08881	0.695
Perception/Suitability	44	2.00	5.00	3.6591	.83369	0.732
External factors						0.715
Suitability of the Instrument	44	2.00	5.00	3.7727	.85898	0.755
Readiness to Invest	44	1.00	5.00	3.4545	1.19016	0.691
Investors' perception						0.723
Leadership focus	44	2.00	5.00	3.7045	.87815	0.741
Transparency	44	1.00	5.00	3.6591	1.14004	0.732
Economic/Financial	44	1.00	5.00	3.8636	.85156	0.773
Political leadership						0.749
Cultural & Social aspects	44	2.00	5.00	3.7727	.83146	0.755
Insurgency, Terrorism, & Banditry	44	2.00	5.00	3.7727	.77350	0.755
Civil Protest	44	2.00	5.00	3.8864	.94539	0.777
Election Violence	44	2.00	5.00	3.6591	.80531	0.732
Social security factors						0.755
Power	44	2.00	5.00	4.1818	.92190	0.836
Accessibility (Road)	44	2.00	5.00	4.1136	.75378	0.823

Neighbourhood/Location	44	2.00	5.00	3.8864	.89484	0.777
Water supply and sanitation	44	2.00	5.00	3.8864	.94539	0.777
Communication (Internet & Telephone)	44	1.00	5.00	3.7727	.98509	0.755
Infrastructure						0.755
Internal/Macroeconomic	44	2.00	5.00	3.7045	.97836	0.741
Environmental	44	2.00	5.00	3.9091	.98402	0.782
Management method						0.762
Company size	44	4.00	5.00	4.0909	.29080	0.818
Age of the Company	44	3.00	5.00	4.3636	.68509	0.872
Liquidity ratio	44	3.00	5.00	4.2500	.78132	0.850
Fixed Asset	44	3.00	5.00	4.5682	.54550	0.913
Volume of capital	44	3.00	5.00	4.4545	.62708	0.890
The growth rate of the company	44	3.00	5.00	4.3864	.61817	0.877
Liability ratio	44	3.00	5.00	4.3864	.65471	0.877
Internal factors						0.871
Inflation	44	3.00	5.00	4.2727	.75832	0.855
Interest Rate	44	2.00	5.00	3.6818	.80037	0.736
Gross Domestic Products	44	1.00	5.00	3.7955	1.00185	0.759
Consumer price index	44	3.00	5.00	4.2727	.65994	0.855
Economic Growth	44	3.00	5.00	4.2955	.73388	0.859
Gross Profit Margin	44	3.00	5.00	4.4091	.69276	0.882
Microeconomic factors						0.813

The ranking highlights the dominance of the internal operating factors and external factors in impacting investment outcome, with insight on the idea that while the external factors is significant, the internal factors remain the most impacted determinants of successful real estate investments. The results directly address the research problem by identifying the critical drivers that shape investment performance in the insurance sector's real estate portfolios. The findings highlight that internal capacity (capital structure, profit margins, company size) and economic stability (inflation, GDP, interest rates) are key to sustaining successful real estate investments. Moreover, infrastructure availability and security stability further facilitate performance, while investor confidence and transparent political leadership help reinforce it.

5. CONCLUSION

Considering every important variable that might be influencing how well insurance companies succeed in real estate investments in Nigeria, the research design and methodology involved a systematic literature search, data identification, collection, analysis, and interpretation. The issue of market transparency of insurance companies' transactions, as well as the percentages of real estate investment in the annual gross premium and the interest rate authorised by the NHF Act, must be positively addressed to increase the confidence of insurance companies in Nigeria in investing in real estate.

This research confirmed the relationship between fixed assets, capital volume, gross profit margin, and real estate investment performance. The analysis showed that internal and microeconomic factors, particularly fixed assets, capital volume, and gross profit margin, exert the strongest influence on performance, underscoring the centrality of financial strength and operational capacity. These findings directly address the research objectives by identifying and ranking the key determinants that explain variations in performance across insurance firms. Despite contradicting findings regarding the effects of various factors on the performance of real estate investments. As a result, real estate investments

made by insurance firms in Nigeria are comparable to those made in other real estate markets around the globe. The real estate investment committees of insurance companies, NAICOM, and the NHF act (Government) can address the fixed asset problem, which is the issue of what percentage of the annual gross premium should be allowed for real estate investment, by encouraging companies to develop or invest in residential properties that low-income earners can afford. Nearly 63% of Nigerians make less than \$1 per day. The state and municipal governments can step in by offering land to those corporations. Additionally, they can act as a guarantee for any government servant who wants to purchase a home using a mortgage after completion in exchange for a predetermined percentage deduction from the beneficiaries' monthly salaries.

While on the issues of the volume of capital, and gross profit margin problems, the government, NAICOM, and insurance providers can sit down at a table to resolve the issues surrounding the percentage from the gross annual premium for real estate investment and the interest charge permitted as required by the NHF act. The insurance companies should be informed that the Nigerian economy suggests that real estate investment has a bright future. Several factors could be to blame for the underperformance and inefficiency of the insurance firms' real estate investments. It should be made clear to insurance firms that the housing shortage is a national emergency and that, according to studies carried out in various REIT markets, real estate investments typically perform worse during crises. To resolve the issue, it is government policy to uphold the requirements of the NHF Act as a stated purpose that comes and goes, leaving aside hopes for significant returns for the time being.

The broader understanding of real estate investment performance in Nigeria by confirming that internal factors remain the dominant drivers of outcomes, consistent with international evidence from REITs and other institutional investors. At the same time, external influences such as infrastructure, governance, and social security conditions remain relevant, highlighting the need for supportive government policies and transparent regulatory frameworks. The insights generated here not only provide practical guidance for insurance firms in strengthening their investment strategies but also offer a basis for policymakers, regulators, and stakeholders to design interventions that enhance investment efficiency and help address Nigeria's housing deficit.

ACKNOWLEDGMENT

The authors would like to express their sincere gratitude to the Faculty of Built Environment, Universiti Malaya, for their invaluable support throughout the course of this research. They also wish to acknowledge the insurance companies in Nigeria for their cooperation and encouragement, which greatly contributed to the successful completion of this study

REFERENCES

1. Acolin, A., & Green, R. K. (2017). Measuring Housing Affordability in São Paulo Metropolitan Region: Incorporating Location. *Cities* 62, 41-49.
2. Adair, A., Haran, M., Berry, J., McGreal, S., & McCord, M. (2014). *Unlocking the Potential in the New Financial and Economic Paradigm*. Paper presented at the International Real Estate Research Symposium (IRERS), Kuala Lumpur.
3. Aduloju, S. A. & Akindipe, O. E., (2022) Asset Size and Profitability of Life Insurance Companies in Nigeria: A Panel Data Approach. *ACTA UNIVERSITATIS DANUBIUS Economica*, Vol 18, No 6, 2022

Agarwal S., Amromin G., Chomsisengphet S., Piskorski T., Seru A., & Yao V. (2015) Mortgage refinancing, consumer spending, and competition: Evidence from the home affordable refinancing program. NBER Working Paper 21512, 2015a.
4. Agarwal, and Gort., (2002), Firm and Product Life Cycles and Firm Survival American. *American Economic Review* 92(2):184-190 DOI:10.1257/000282802320189221
5. Ahmeti, Y. S. & Iseni, E., (2022) Factors Affecting Profitability of Insurance Companies. Evidence from Kosovo. *Academicus International Scientific Journal* 25(25): 122-142. DOI:10.7336/academicus.2022.25.08
6. Akadiri O.P., 2011, Development of a Multi-Criteria Approach for the Selection of Sustainable Materials for Building Projects, PhD Thesis, University of Wolverhampton, Wolverhampton, UK.
7. Alias, A., & Soi Tho, C. Y. (2011). Performance Analysis of REITS: Comparison between M-REITS and UK-REITS. *Journal of Surveying, Construction, and Property*, 2(Special issue), 38-61.
8. Al-Shami, H. A. (2013, Korrik 24). *Universiti Utara Malaysian Electronic Theses and Dissertation*. Tratto il giorno Maj 13, 2015 da Universiti Utara Malaysian: etd.uum.edu.my
9. Ambrose, B. W., & Linneman, P. D. (2001). REIT Organisational Structure and Operating Characteristics. *Journal of Real Estate Research*, 21(3), 141-162.
10. Amidu, A., Aluko, B. T., Nuhu, M. B., & Saibu, M. O. (2008). Real estate security and other investment assets. *Journal of property Investment and Finance*, 26(2), 151-161.
11. Anbar, A. & Alper, D. (2011). Bank specific and macroeconomic determinants of commercial bank profitability: Empirical evidence from Turkey. *Business and Economics Research Journal*, 2(2), 139-152.
12. Ansah-Adu, K., Andoh, C., & Abor, J. (2012). Evaluating the cost efficiency of insurance companies in Ghana. *The Journal of Risk Finance*, 13(1), 61–76. <https://doi.org/>

10.1108/1526594121119194910.1016/j.najef.2020.101217,

13. Apergis, N. & Poufinas, T., (2020) The role of insurance growth in economic growth: Fresh evidence from a panel of OECD countries. *The North American Journal of Economics & Finance* 53(1):101217 DOI: 10.1016/j.najef.2020.101217
14. Arin, K.P., Elmassah, S., Kaplan, S. and Spagnolo, N. (2020), "Price of a surprise", available at: https://www.academia.edu/download/66183545/Full_Version_1_.pdf (accessed 6 December 2021).
15. Bah, E. M., Faye, I., & Geh, Z. F. (2018) *Housing Market Dynamics in Africa*. Palgrave Macmillan, ISBN 978 – 1 – 349 – 95120 - 8 <http://doi.org/10.1057/978-1-137-59792-2>
16. 17. Baruti, B. H., (2022) The impact of the insurance market on economic growth: Evidence from developing countries. *Corporate & Business Strategy Review*. 3(1), 106-123. <https://doi.org/10.22495/cbsrv3ilart10>
17. Baum, A. (2008). *Unlisted Property Funds: Supplying Capital to Developing Property Markets?* Paper presented at the International Real Estate Research Symposium (IRERS 2008), Kuala Lumpur, Malaysia.
18. Baum, A., & Murray, C. (2010). *Understanding the Barriers to Real Estate Investments in Developing Economies*. Paper presented at the International Real Estate Research Symposium (IRERS 2010), Kuala Lumpur, Malaysia.
19. Bello, M.O. (2003). *A Comparative Analysis of the Performance of Residential Property in Lagos metropolis*, *Journal of the Nigerian Institution of Estate Surveyors and Valuers*, 21 (2) 9 – 19
20. Bloch, R., Monroy, J., Fox, S., & Ojo, A., (2015). *Urbanisation and Urban Expansion in Nigeria. Urbanisation Research Nigeria (URN) Research Report*. London: ICF International. Creative Commons Attribution-Non Commercial-Share Alike CC BY-NC-SA.
21. Bouillon, C. (2012). *Room for Development: Housing Markets in Latin America and the Caribbean*. Washington, DC: Inter-American Development Bank.
22. Brewer, E., Carson, M, Elysian, E, Mansur, I. & Scott. (2007). Interest rate risk and equity values of life insurance companies: A GARCH-M model. *The Journal of Risk and Insurance*, 74(2), 401-423.
23. Brounen, D., & Sjoerd, D. K. (2012). Review articles: 50 Years of Real Estate Investment Trusts: An International Examination of the Rise and Performance of Reits. *Journal of Real Estate Literature*, 20(2), 197- 223
24. Burca and Batrinca, (2014). The Determinants of Financial Performance in the Romanian Insurance Market, *International Journal of Academic Research in Accounting, Finance and Management Sciences*, Vol. 4, (1), pp.299-309

25. CAHF (2022). Centre for Affordable Housing Finance in Africa, 2022 Housing Finance in Africa Yearbook – 13th edition
26. Carnahan, D. and Saiegh, S. (2021), “Electoral uncertainty and financial volatility: evidence from two-round presidential races in emerging markets”, *Economics and Politics*, Vol. 33 No. 1, pp. 109-132.
27. CBN (2019). Statistical Bulletin, 2019
28. CBN (2019). Annual report
29. Chamberlain, D., Camargo, A., Coetzee, W., 2017. Funding the Frontier: The Link between Inclusive Insurance Market, Growth and Poverty Reduction in Africa Key points. Cape Town, South Africa.
30. Chavali, K., Alam, M. and Rosario, S. (2020), Stock market response to elections: an event study method, *The Journal of Asian Finance, Economics, and Business*, Vol. 7 No. 5, pp. 9-18
31. Chua, Y. P. (2009). *Advanced Research Statistics: Regression test, factor analysis, and SEM analysis*. Shah Alam, Selangor - Malaysia: McGraw-Hill Education.
32. Clayton, J., Eighholtz, P., Geltner, D. M., & Miller, N. G. (2007). *Commercial Real Estate Analysis and Investments*. International Student Edition (2nd Edition ed.). USA: SouthWestern
33. Clayton, J., Mackinnon, G., (2001) The Time Varying Nature of the Link between REIT, Real Estate & Financial Asset Returns, January 2001 *Journal of Real Estate Portfolio Management* 7(1) DOI: 10.1080/10835547.2001.12089632
34. Clement (2023). Investigating the impacts of drinking water quality on house prices: A household production function approach. *Journal of water resources and economics*, Volume 41, January, 2023, 100213. <https://doi.org/10.1016/j.wre.2022.100213>
35. Dahiyat, A., Weshah, S., & Al-dahiyat, M., (2021) Liquidity and Solvency Management and Its Impact on Financial Performance: Empirical Evidence from Jordan. January 2021, *Journal of Asian Finance Economics and Business* 8(5):135-0141 DOI: 10.13106/jafeb.2021.vol8.no5.0135
36. Daykin, C.D., Pentikäinen, T. & Pesonen, M. (1994). *Practical risk theory* edition. Chapman & Hall. U. K
37. Deyganto, K. O., & Alem, A. A., (2019) Factors Affecting Financial Performance of Insurance Companies Operating in Hawassa City Administration, Ethiopia. *Universal Journal of Accounting and Finance* 7(1): 1-10, 2019 <http://www.hrpub.org> DOI: 10.13189/ujaf.2019.070101
38. Dimeji-Ajayi, D. (2018). Real Estate Market Report 2018. <https://www.propertypro.ng/blog/real-estate-market-report-2018/>

39. Dubben N. & Sayce, S. (1991), "Property Portfolio Management: An Introduction" Routledge, London Nubi
40. Daud, S. Z., Mohd Ali, H., Sipan, I. A., & Wilson, A. J. (2012). The Impact of Location Attributes on REITs' Return. Paper presented at the 3rd International Conference on Business and Economic Research 2012, Bandung, Indonesia.
41. David, E. (2014). The Prospects and Shortcomings of Investing in Nigeria. Retrieved April 14, 2014, from <http://www.afresnet.net/the-prospects-shortcomings-of-investing-in-nigeria/#sthash.gPMwkGEM.dpuf>
42. ECLAC (1996). La Situación Latina y el Caribe. Document LC/R.1613. Santiago, Chile: Economic Commission for Latin America and the Caribbean.
43. Esho, N. A., Kirievsky, D. W., & Zurbruegg, R. (2004). Law and the Determinants of property-insurance. *Journal of Risk and Insurance*, 71(2), 265-283.
44. Etomi, (2019), Overview of The Recapitalisation. In *The Nigerian Insurance Industry*. Lexology, July 31, 2019
45. Federal Ministry of Housing & Urban Development, 2024, Dangiwa 2024.
46. Field, A. P. (2009). *Discovering Statistics Using SPSS* (3rd ed.). London: Sage Publications.
47. Gilbert, A. (2001). *Housing in Latin America*. IDB Publications (Working Papers) 4309. Washington D.C., Inter-American Development Bank.
48. Gov.uk 2015. Affordable Home Ownership Schemes. <https://www.gov.uk/affordablehome-ownership-schemes/help-to-buy-equity-loans> (accessed 12 December 2015).
49. Gupta, J. K., (2024) Role, Relevance Importance of Housing as a Critical Determinant of Making Living More Qualitative & Productive. July, 2024. Doi: 10.13140/RG.2.2.18611.64801.
50. Hailegebreal, D. (2016). Macroeconomic and firm specific determinants of profitability of insurance industry in ethiopia. *Global Journal of Management and Business Research*, 16(7).
51. Hair, J. R., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate Data Analysis: A Global Perspective* (7th ed.). Global Edition: Pearson Prentice Hall Inc.
52. Hakeem, Tajudeen Y (2010). "Regulation in an age of crisis" A paper for presentation at the 3rd ECPR Regulatory governance standing group conference, University College, Dublin 17-19 June
53. Hamza A. M., (2016). Determinant that affects the profitability of non- life insurance companies Evidence from Pakistan. *Recent research journal of science*, 5(4) Pp 6-11.
54. Hao F., Li B., & Yang, J., (2022) The Impact of Insurance Company Participation on The Capital Market's Sustainable Development Empirical Evidence Based on Investor Sentiment and Stock

Price Synchronicity. *Front. Environ. Sci.*, 25 November 2022 Sec. Environmental Economics and Management Volume 10 – 2022. <https://doi.org/10.3389/fenvs.2022.1072094>

55. Heikens, Saskia. (2009) Model to Assist Real Estate Investment Decision Making Process at a Large Academic Hospital in the Netherlands. Master's thesis, University of Twente, Industrial Engineering and Management
56. Hoesli, M., & Lizieri, C. (2007). Real Estate in the Investment Portfolio. A Report for the Investment Strategy Council (pp. 94-95). Norway: Ministry of Finance.
57. Harrington, (2005) Capital Adequacy in Insurance and Reinsurance, Edited version published in H. Scott, ed., *Capital Adequacy Beyond Basel: Banking, Securities, and Insurance*, Oxford University Press, 2005
58. Hwa, T. K., & Abdul Rahman, M. Y. (2007). Stability of Dividends and FFOs: The Case of REITs in Malaysia. Paper presented at the 13th Pacific Rim Real Estate Society Annual Conference, Perth, Australia.
59. IBM. (2021). IBM SPSS statistics base 28. https://www.ibm.com/docs/en/SSLVMB_28.0.0/pdf/IBM_SPSS_Statistics_Base.pdf
60. Indeed (2023) Nine External Environment Factors that Affect Business, indeed career guide, March 9 2023.
61. IHRC (2022) International Human Rights Commission 2022.
62. Isalou, A. A., Litman, T., & Shahmoradi, B., (2014). Testing the Housing and Transportation Affordability Index in a Developing World Context: A Sustainability Comparison of Central and Suburban Districts in Qom, Iran. *Transport Policy* 33, 33-39.
63. Ismail, N., Ishak, I., Manaf, N. A., & Husin, M. M., (2018) Macroeconomic Factors Affecting Performance of Insurance Companies in Malaysia. *Academy of Accounting and Financial Studies Journal*. Volume 22, Special Issues, 2018.
64. Jiboye, A. D. (2009) Evaluating Tenants' Satisfaction with Public Housing in Lagos, Nigeria *Urbanistikair architektūra Town Planning and Architecture*; 2009 33(4), p. 239-247
65. Jolaoso, B. A., Musa N.A. and Oriola, O. A (2012) National Housing Trust Fund and Low-Income Housing Delivery in Nigeria: A Discourse. *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)* 3(5):429-438 (ISSN:2141-7024) 429
66. Khan, T., Shamim, M., & Goyal, J. (2018). Panel data analysis of profitability determinants: Evidence from Indian telecom companies. *Theoretical Economics Letters*, 8(15), 3581-3594. <https://doi.org/10.4236/tel.2018.815220>
67. Kozak, S., (2011), Determinants of Profitability of Non-Life Insurance Companies in Poland During Integration with the European Financial System, *Electronic Journal of Polish Agricultural*

Universities, 14 (124), pp. 1-9

68. Lausberg, C., Lee, S., Muller, M., Oertel, C. and Schultheib, T. (2020). Risk Measures for Direct Real Estate Investment with non-normal or unknown return Distribution. *Zeitschrift für Immobilienökonomie (German Journal of Real Estate Research)*, Springer; Gesellschaft für Immobilienwirtschaftliche Forschung e. V., vol. 6(1), pages 3-27, April.
69. Li, V. J. (2016). *Housing Policies in Hong Kong, China and the People's Republic of China*. ADBI Working Paper 566. Tokyo: Asian Development Bank Institute. Available: <http://www.adb.org/publications/housing-policies-hong-kong-china-and-prc/>
70. Li, Y. and Zhang, Q., (2011). The Application of Principal Component Analysis on Financial Analysis in Real Estate Listed Company. December 2011, *Procedia Engineering* 15:4499-4503. DOI:10.1016/j.proeng.2011.08.845
71. Loderer, Claudio and Waelchli, Urs, (2010) Firm age and performance, University of Bern, ECGI European Corporate Governance Institute 10 April 2010 Online at <https://mpra.ub.uni-muenchen.de/26450/> MPRA Paper No. 26450, posted 07 Nov 2010 05:57 UTC
72. Lora, E., Powell, A., Praag, B. M. S., Sanguinetti, P. (2010). *The Quality of Life in Latin American Cities. Markets and Perception*. Washington, D.C.: Inter-American Development Bank.
73. Malik H (2011) Determinants of Insurance Companies Profitability: An Analysis of Insurance Sector of Pakistan, *Academic Research International*, 1 (3)
74. Marlina, L., & Syarif, A. (2013). Pengaruh Pendapatan Premi Terhadap Laba pada AJB Bumiputera 1912 Cabang Bandung Setiabudhi. BSI, 1.
75. Matemilola, A. N. Bany-Arifin, Annuar Md Nassir & W. N. W. Azman-Saini (2017) Moderating Effects of Firm Age on the Relationship between Debt and Stock Returns, *Journal of Asia-Pacific Business*, 18:1, 81-96, DOI: 10.1080/10599231.2017.1272999
76. Moore, E., A., (2019). Addressing Housing Deficit in Nigeria: Issues, Challenges and Prospects. *Central Bank of Nigeria Economic and Financial Review* Volume 57/4 December 2019.
77. Muchie, A. Z and Lijuan, S. (2021). The Micro Economic Determinants of Insurance Profitability in the Ethiopian Insurance Industry—Evidenced by Life and Non-Life Insurance Products. *Journal of Insurance and Financial Management*, Vol 5, No 1
78. National Bureau of Statistics (2022) Annual Report and Statistical Bulletin.
79. National Housing Policy 1991
80. Nigerian Insurers Association Digest, 2015 – 2019
81. Nissim, D. (2010). Implied cost of equity capital in the US insurance industry. Working Paper, Columbia Business School.

82. Njume, C. A., & Krah, C. Y. (2020). Consequences of Fire in Agricultural Sector in Banga Bakundu, Cameroon: A Review. *IOP Conference Series: Earth and Environmental Science*, 504, Article ID: 012011. <https://doi.org/10.1088/1755-1315/504/1/012011>
83. Nwazi, J. (2017). Assessing the efficacy of alternative dispute resolution in the settlement of environmental disputes in the Niger Delta Region of Nigeria. *Journal of Law and Conflict Resolution*, 9(3), 26-41.
84. Ogu, V.I. (1999). Housing enablement in a developing world city. The case study of Benin City, Nigeria, 23(2), 231–248.
85. Olaleye, A. (2000); “A Study of Property Portfolio Management Practice in Nigeria” Unpublished M.Sc Dissertation of the Department of Estate Management, Obafemi Awolowo University. Ile-Ife.
86. Olanrela, O. O., Said, R., Daud, M. N., & Majid, R. A., (2018). The Impact of Operating Environment Factors on Reits’ Development and Performance In Nigeria. *Journal of Surveying, Construction, and Property (JSCP) Volume 9, 2018 Issue 1 ISSN: 1985-7527* <http://ejournal.um.edu.my/publish/JSCP/32>
87. Olaya, Y., Vasquez, F., & Mueller, D. B. (2017). Dwelling Stock Dynamics for Addressing Housing Deficit. *Resources. Conservation and Recycling* 123, 187-199.
88. Olugbenga. A. Akande R. I., Etuk S. G., (2016) Factors Affecting the Performance of Insurance Companies in Nigeria. *International Journal of Marketing and Business Communications*, Vol. 17, No. 1, pp. 90-111.
89. Oluwaleye, T. O., Kolopo, F. T., & Ajayi, F., (2021) Impact of Capital Structure On the Performance of Quoted Insurance Firms in Nigeria. July 2021 *International Journal of Advanced Research* 9(07):324-334 DOI: 10.21474/IJAR01/13131
90. Omondi, M. M., & Muturi, W. (2013). Factors Affecting the Financial Performance of Listed Companies at the Nairobi Securities Exchange in Kenya. *Research Journal of Finance and Accounting*, 4, 99-105.
91. Ong, T. S., The, B. H., & Chong, M. P. (2011). A Study on the Performance of Malaysian Real Estate Investment Trusts from 2005-2010 by using Net Asset Value Approach. *International Journal of Economics Research*, 2(1), 1-15.
92. Orimisan, B., (2021). The Guardian “Insurance experts charge insurers on N59 trillion Real Estate Opportunities March 2021
93. Othman, K. N., & Alias, A. (2011). The effects of property laws and regulations towards sustainable property development in Malaysia: A preliminary review. Paper presented at the International Conference on Project and Facilities Management, Kuala Lumpur.

94. Pallant, J. (2011). *SPSS SURVIVAL MANUAL: A step-by-step guide to data analysis using SPSS* (4th ed.). Australia: Allen & Unwin
95. Pundey, R., & Diaz, J. F., (2019) Factors Affecting Return on Assets of us Technology and Financial Corporations. *JMK*, VOL. 21, NO. 2, September 2019, 134–144 DOI: 10.9744/JMK.21.2.134–144, ISSN 1411-1438 PRINT / ISSN 2338-8234 ONLINE
96. Sadhek, H. (2006). Life insurance and macro economy: Indian experience. *Economic and Political Weekly*, 41(11), 1108-1112.
97. Samreena, T. (2018) A Study of Customer Preference on Private Life Insurance Company with special reference to Srinagar City. *International Journal of Management, Technology and Engineering*, 8(8), 162-175. Retrieved from <http://ijamtes.org/gallery/20.aug%20ijmte%20%20-%20cw.pdf>
98. Sani A, Mohammed M. I, Usman H., (2023) Locational, Neighborhood and Physical Characteristics of Residential Rental Properties; Review. *ISAR J Mul Res Stud*; Vol-1, Iss-4 (October- 2023): 9-16
99. Shiu Y (2004) Determinants of United Kingdom General Insurance Company Performance, *British Actuarial Journal*, 2004, Vol. 10, No. 5 (2004), pp. 1079-1110 Published by: Cambridge University Press URL: <https://www.jstor.org/stable/41141665>
100. Shrestha, N. (2021). Factor analysis as a tool for survey analysis. *American Journal of Applied Mathematics and Statistics*, 9(1), 4–11. article.sciappliedmathematics.com/pdf/ajams-9-1-2.pdf
101. Swiss Re. (2008). Publications. Tratto il giorno Maj 23, 2015 da Insure Egypt: <http://www.insureegypt.com/publications.html>
102. Swiss Re. (2008). Publications. Tratto il giorno Maj 23, 2015 da Insure Egypt: <http://www.insureegypt.com/publications.html>
103. Swiss Re. (2024) Life Insurance the Higher Interest Rate Era. Asset Savvy is the New Asset Light
104. Szalachman, R. (2000). Perfil de déficit y políticas de vivienda de interés social: Situación de algunos países de la región en los noventa. Santiago de Chile: CEPAL.
105. Tabachnick, B. G., & Fidell, L. S. (2013). *Using Multivariate Statistics* (6th ed.). Boston, MA: Pearson.
106. The Gurdian (2021) Govt needs new policy framework for housing, says Aihie, by Chinedum Uwaegbulam, 7 January 2021
107. Tsvetkova, L., Bugaev, Y., Belousova, T., & Zhukova, O. (2021), “Factors Affecting the Performance of Insurance Companies in Russian Federation”, *Montenegrin Journal of Economics*, Vol. 17, No. 1, pp. 209-218.
108. Ugwunta, D. O., Ani, W. U., Ezeudu, I. J., & Ugwuanyi, G. O. (2012). An empirical assessment

of the determinants of bank profitability in Nigeria: Bank characteristics panel evidence. *Journal of Accounting and Taxation*, 4(3), 38-43.
https://academicjournals.org/article/article1379422336_Ani%2520et%2520al.pdf

- 109.** UNDESA (2022). The United Nations Department of Economic and Social Affairs. *World Population Prospects 2022*.
- 110.** United Nations Conference on Housing and Sustainable Urban Development (Habitat III) 2016. *Housing Policies*. Available at: <http://habitat3.org/wp-content/uploads/PU10-HABITATIII-POLICY-PAPER.pdf>
- 111.** United Nations Population Funds, 2024
- 112.** Vaughan, E. J., and Vaughan, T. M. (2014). *Fundamentals of risk and insurance*. Eleventh edition. John Wiley and Sons, Inc. Rivers Street, Hoboken, USA
- 113.** World Bank (2013). *Doing Business 2013, Nigeria Country profile*.
- 114.** Wozala E. Sirmans G.S. and Zietz E.N., (2000) "Risk and Return Perceptions of Institutional Investors." *Journal of Real Estate Portfolio Management*, April-June.
- 115.** Yuqi, L. (2007). *Determinants of Banks' Profitability and Its Implication on Risk Management Practices: Panel Evidence from the UK*. The University of Nottingham