https://doi.org/10.38124/ijisrt/25sep825

ISSN No:-2456-2165

# Assessment of Real Estate Development Financing Models in Lagos State, Nigeria

Tosin Adebowale Kadiri<sup>1</sup>; Igho Fayomi<sup>2</sup>

<sup>1,2</sup> Department of Estate Management, Lead City University, Ibadan, Nigeria Corresponding Author: Tosin Adebowale Kadiri

Publication Date: 2025/09/29

#### **Abstract:**

# > Background

Financing remains a critical challenge in Nigeria's real estate sector, where high capital intensity, macroeconomic instability, and weak institutional frameworks limit sustainable housing delivery. This study evaluates the financing models adopted by real estate developers in Lagos State and identifies the key factors influencing their adoption, contributing to the scarce empirical evidence on financing innovation in emerging markets.

# > Methods

Using the 2025 REDAN Lagos State directory, the study targeted 391 registered development firms. A sample size of 194 was determined with Yamane's (1967) formula, and 194 questionnaires were distributed. Of these, 146 valid responses were retrieved (75.26% response rate). Data analysis employed descriptive statistics and factor analysis to examine adoption patterns and underlying determinants.

#### > Results

The workforce was highly skilled, with 43.8% of respondents holding master's degrees, while architects (37.7%) and engineers (32.2%) dominated professional profiles. At the firm level, 43.2% had delivered over 20 projects, demonstrating substantial project capacity. Among financing models, Real Estate Investment Trusts (REITs) were most adopted (mean = 4.2466), followed by joint ventures (mean = 4.1575) and public-private partnerships (mean = 4.0959). Conventional mechanisms such as equity financing and commercial bank loans (mean = 4.0548 each) remained central, while crowdfunding (mean = 4.0411) and tokenization (mean = 3.8014) showed gradual but constrained adoption. Factor analysis revealed six components explaining 70.21% of variance, with project scale and duration (mean = 4.1233), high cost of finance (mean = 3.8082), and inflation (mean = 3.7329) as the most critical determinants.

#### > Conclusion

The study provides novel insights into the hybrid financing landscape of Lagos State, highlighting the dominance of traditional models but also the emerging role of technology-driven alternatives. It argues that stronger institutional credibility, policy consistency, and regulatory support for innovative models are essential for deepening capital flows and ensuring sustainable real estate development in Nigeria.

Keywords: Real Estate Financing, REITs, Financing Models, Innovation, Lagos State, Emerging Markets.

**How to Cite:** Tosin Adebowale Kadiri; Igho Fayomi (2025) Assessment of Real Estate Development Financing Models in Lagos State, Nigeria. *International Journal of Innovative Science and Research Technology*, 10(9), 1926-1936. https://doi.org/10.38124/ijisrt/25sep825

# I. INTRODUCTION

Real estate development plays a pivotal role in economic expansion and urban development, especially in rapidly growing cities like Lagos. However, securing adequate financing remains a formidable challenge for developers in Nigeria, where traditional funding mechanisms are often impeded by high interest rates, limited credit access,

and regulatory constraints (Gbonegun, 2025; thisdaylive, 2025). For instance, commercial bank rates have surged to between 23% and 38%, significantly diminishing developers' return on investment and discouraging reliance on conventional loans (Gbonegun, 2025).

To bridge this financing gap, developers have increasingly turned to a range of financial models beyond

traditional bank lending. Public-Private Partnerships (PPPs), for example, have been leveraged in landmark projects such as the Ilubirin Estate and Eko Atlantic, demonstrating their potential to combine public land or regulatory support with private capital and expertise (Wikipedia-Ilubirin Estate; Wikipedia-Eko Atlantic). Meanwhile, Real Estate Investment Trusts (REITs) are gaining traction in Nigeria, offering pooled, professionally managed portfolios of income-generating real estate assets regulated by the SEC (Chaman Law Firm, 2024). These instruments not only provide liquidity but also broaden investor participation without requiring direct property ownership.

Alternative financing strategies; such as cooperative societies, crowdfunding, and venture capital; have also emerged as practical avenues for developers. These approaches democratize investment, allowing small investors to participate and offering developers fresh capital avenues (Chaman Law Firm, 2024; Red Grapes Properties, 2025). Simultaneously, government-backed initiatives, including the National Housing Fund (NHF), the Family Homes Fund, and lending via the Nigeria Mortgage Refinance Company (NMRC), are intended to expand access to long-term, mortgage financing affordable (LinkedIn–Egbutu: Wikipedia-NMRC). Efforts like the Federal Government's N100 billion Real Estate Investment Fund further reflect policy-level responses to Nigeria's extensive housing deficit and high financing costs (The Nation, 2025).

Despite the growing palette of options, empirical understanding of how these models is adopted, especially among real estate developers in Lagos State; remains limited. This study seeks to fill that gap by assessing the relative adoption of various financing models, ranging from traditional bank loans and equity financing to PPPs, REITs, crowdfunding, and emerging digital mechanisms, among developers in Lagos. It also explores the contextual factors influencing these choices, such as economic volatility, regulatory environment, and institutional trust.

By illuminating financing preferences and underlying drivers, the study aims to support informed policymaking and strategic innovation in real estate finance, ultimately enhancing access to development funding and promoting sustainable urban growth in Lagos State.

#### II. LITERATURE REVIEW

Real estate development financing in Nigeria sits at the intersection of project specific risks, capital market imperfections, and institutional constraints that shape developers' capital structure decisions. Grounding this inquiry, classic financial theories provide explanatory frameworks: according to the tradeoff theory, developers balance the tax benefits of debt against the cost of financial distress (Kraus & Litzenberger, 1973); the pecking order theory suggests a hierarchy, internal funds, debt, then equity; driven by information asymmetry (Myers & Majluf, 1984); and agency theory underscores conflicts between equity holders and creditors that influence financing structures (Jensen & Meckling, 1976). These foundational concepts

help illuminate how Nigerian developers navigate financing amid external uncertainties and regulatory friction.

In Nigeria's volatile macroeconomic environment, marked by high inflation and restrictive interest rates, traditional debt financing remains accessible but costly. The Central Bank of Nigeria's Monetary Policy Rate reached 27.5% in 2025, while inflation hovered around 22% (CBN, 2025; Reuters, 2025), elevating borrowing costs and reducing the attractiveness of bank loans. In this constrained context, developers increasingly rely on equity, joint ventures, and presale arrangements to manage risk and liquidity. Joint ventures (JVs) and land for equity partnerships are instrumental in mitigating capital constraints, enabling developers to pool resources and access landowner equity in lieu of full upfront payment (ICRC, n.d.). Similarly, Public-Private Partnerships (PPPs) facilitate large scale housing and infrastructure projects by combining public sector enabling policies with private sector capital and management, albeit contingent on effective institutional coordination and contract enforcement (ICRC, n.d.).

Listed real estate vehicles such as Real Estate Investment Trusts (REITs) are gaining modest traction. The UPDC REIT on the Nigerian Exchange (NGX) distributes at least 90% of net income, offering liquidity and professional management (Stanbic IBTC Asset Management; UPDC filings, 2023–2024). The pioneering SFS REIT (established in 2008) along with UH REIT managed by SFS Capital underscores a nascent but promising REIT sector (SFS Capital, 2025). These instruments promote investment inclusivity and liquidity but remain shallow compared to developed markets.

financing Mortgage in Nigeria remains underdeveloped, constrained by short tenors, high credit risk, and affordability issues. The Nigeria Mortgage Refinance Company (NMRC) was established to intervene by providing long term liquidity to primary mortgage lenders via bond issuance, aiming to deepen the market infrastructure for housing finance (NMRC, n.d.). Nevertheless, demand side affordability challenges and titling difficulties continue to widespread uptake (CAHF, 2024). cooperatives and collective savings mechanisms serve as grassroots financing platforms, particularly for informal or incremental development. Such cooperative models help lower and middle income developers bridge capital gaps and access development finance when formal credit remains inaccessible (CAHF, 2024).

The rise of fintech enabled models, crowdfunding and tokenization, is observed globally and is beginning to take shape in Nigeria. With SEC's regulations for equity crowdfunding established in 2021 and an Accelerated Regulatory Incubation Programme (ARIP) launched in 2024, Nigeria is opening regulated access to fintech driven real asset fundraising (SEC Nigeria, 2021; SEC Nigeria, 2024). Yet, adoption remains cautious due to regulatory ambiguity, custody concerns, and limited investor awareness.

Rental based models, such as Build to Rent (BTR), remain embryonic, notwithstanding growing rental demand in dynamic urban centers like Lagos. Market reports show strong occupancy and rental growth in prime locations, but institutional BTR projects remain few due to financing complexity, exit uncertainties, and regulatory inertia (Knight Frank Nigeria, 2024; BusinessDay, 2025; Troloppe, 2024). Lagos, Nigeria's commercial and population hub, reflects these broader dynamics in microcosm. Demand drivers; population growth, commerce, and infrastructure corridors, create strong real estate fundamentals, while external exposures, currency fluctuations and import dependent construction; tilt financing toward resilient, blended structures like equity-plus-JV and presale strategies (Knight Frank Nigeria, 2024; Reuters, 2025).

The literature underscores a financing ecosystem where project complexity, macroeconomic risk, institutional capacity, and developer attributes converge to shape financing model choice. Traditional models; bank loans, equity, and JVs, are dominant. REITs, cooperative finance, and mortgage refinancing offer emerging institutional alternatives. Fintech solutions and BTR illustrate nascent innovation, albeit with adoption barriers. Critically, Lagos

represents a testing ground where theoretical frameworks and pragmatic constraints interact, warranting empirical investigation into developers' financing behaviors and the performance of adopted models.

#### III. METHODOLOGY

The study adopted a census based sampling approach targeting registered real estate development firms in Lagos State, based on the 2025 REDAN Lagos State directory, which lists 391 firms. To determine an appropriate sample size, the study applied the Yamane (1967) formula, which yielded a sample of 194 firms. Questionnaires were administered to all 194 selected firms, but only 146 were completed and returned, representing a response rate of 75.26%. A random sampling technique was employed to ensure that each firm had an equal probability of selection, minimizing potential bias and improving representativeness of the data. This approach provided a robust framework for analyzing the factors influencing the adoption of real estate development financing in Lagos State. The analysis was carried out using both descriptive and inferential statistical tools, and the results presented in tables for easy comprehension.

#### IV. DATA PRESENTATION AND ANALYSIS

Table 1: Profile of Real Estate Development Firms

Characteristics	Classification	Frequency	Percentage (%)
Gender	Male	81	55.5
	Female	65	44.5
	Total	146	100.0
Highest Academic Qualification	HND	7	4.8
	PGD	25	17.1
	Bsc/B.Tech/B.Eng	46	31.5
	M.Sc/M.Tech/MBA/M.Eng	64	43.8
	PhD	4	2.7
	Total	146	100.0
Years of Experience	1 – 5	37	25.3
	6-10	47	32.2
	11 – 15	35	24.0
	16 – 20	14	9.6
	Above 20	13	8.9
	Total	146	100.0
Age Range	25 - 35	35	24.0
	36 - 46	51	34.9
	47 – 57	26	17.8
	Above 57	34	23.3
	Total	146	100.0
Profession in the industry	Estate Surveyor and Valuer	19	13.0
	Architect	55	37.7
	Engineer	47	32.2
	Quantity Surveyor	18	12.3
	Builder	7	4.8
	Total	146	100.0
Staff Strength	1 - 5	7	4.8
	6 - 10	25	17.1
	11 – 15	25	17.1
	16 - 20	50	34.2

https://doi.org/10.38124/ijisrt/25sep825

	Above 20	39	26.7
	Total	146	100.0
Area of Coverage	Mainland	80	54.8
	Island	66	45.2
	Total	146	100.0
Marital Status	Single	10	6.8
	Married	127	87.0
	Divorced	8	5.5
	Widow/Widower	1	.7
	Total	146	100.0
Numbers of development done	1 - 5	1	.7
	6 – 10	41	28.1
	11 – 15	16	11.0
	16 – 20	25	17.1
	Above 20	63	43.2
	Total	146	100.0

Source: Author's Fieldwork, 2025

The study analyzed 146 valid responses to examine the demographic and professional characteristics of facility management practitioners in Lagos. Gender distribution showed 55.5% male and 44.5% female, reflecting slight male dominance but rising female participation. Educational attainment was high, with 43.8% holding Master's degrees, 31.5% Bachelor's, 17.1% Postgraduate Diplomas, and 2.7% doctorates, highlighting the knowledge driven nature of the sector. In terms of experience, 32.2% had 6-10 years, 25.3% had 1-5 years, and 24.0% had 11-15 years, indicating a strong base of midcareer professionals. The age distribution showed 34.9% between 36-46 years, 24.0% aged 25-35, and 23.3% above 57, pointing to a balance between innovation and experience. Professionally, architects (37.7%) and engineers (32.2%) dominated, followed by estate surveyors and valuers (13.0%), quantity surveyors (12.3%), and builders (4.8%), underscoring the sector's interdisciplinary nature. At firm level, staff strength was robust, with 34.2% employing 16-20 staff, 26.7% above 20, and only 4.8% with fewer than five employees. Geographically, 54.8% operated

on the Mainland and 45.2% on the Island, reflecting wide coverage across Lagos. Marital status showed that 87.0% were married, 6.8% single, and 5.5% divorced, suggesting workforce stability. Project delivery capacity was strong, with 43.2% completing over 20 projects, 28.1% completing 6–10, and only 0.7% fewer than 5. Overall, the sector is characterized by a highly educated, professionally diverse, midcareer workforce with substantial firm capacity and proven project experience.

# Real Estate Financial Models Adopted by Real Estate Developers

To identify real estate financial models adopted by real estate developers within the study area, data were collected and analyzed using a Likert scale to capture respondents' perceptions. The scale employed included the following options: Strongly Agree (5), Agree (4), Somewhat agree (3), Disagree (2), and Strongly Disagree (1). Table 2 presents and discusses the findings, highlighting real estate financial model adoption by real estate developers in the study area.

Table 2: Real Estate Financial Models Adopted By Real Estate Developers

14010 21 11041 2544						Mean		Ranking
Real Estate Adopted Model	SA (5)	A (4)	SWA (3)	D (2)	<b>SD</b> (1)	Score	Std. Deviation	
Real Estate Investment Trusts (REITs)	75	46	13	10	2	4.2466	.97246	1 <sup>st</sup>
Joint venture (land for equity, co-	64	59	8	12	3	4.1575	.99439	$2^{\text{nd}}$
development)								
Public-Private Partnerships (PPPs)	78	32	12	20	4	4.0959	1.18804	$3^{\rm rd}$
Equity Financing (Developer's Own Funds)	70	43	9	19	5	4.0548	1.17315	$4^{th}$
Commercial Bank Loans	57	64	4	18	3	4.0548	1.04901	5 <sup>th</sup>
Primary Mortgage Institutions (PMIs)	69	41	15	17	4	4.0548	1.13733	6 <sup>th</sup>
Public/Private Cooperative Savings Schemes	69	43	11	19	4	4.0548	1.14940	$7^{\rm th}$
Land Based Financing	69	41	14	18	4	4.0479	1.14670	8 <sup>th</sup>
Foreign Direct Investment (FDI)	70	41	11	20	4	4.0479	1.16461	9 <sup>th</sup>
Off-Plan Sales & Installment Payments	66	46	12	19	3	4.0479	1.11623	10 <sup>th</sup>
Housing Bonds	64	48	11	22	1	4.0411	1.08835	11 <sup>th</sup>
Crowdfunding	66	48	7	22	3	4.0411	1.13792	12 <sup>th</sup>
Buyer Savings Schemes & Subscription	64	48	9	21	4	4.0068	1.15368	13 <sup>th</sup>
Models								
Real estate tokenization / blockchain	56	47	11	22	10	3.8014	1.28450	14 <sup>th</sup>
financing								

Development Finance Institutions (DFIs)	50	46	22	25	3	3.7877	1.15196	15 <sup>th</sup>
Build-to-Rent (BTR) and Rental Yield	46	23	15	13	49	3.0274	1.69358	16 <sup>th</sup>
Financing								

Source: Author's Fieldwork, 2025

The analysis of Table 2 reveals a diverse financing landscape among real estate developers in Lagos State, combining conventional and innovative models. Real Estate Investment Trusts (REITs) were the most widely adopted (mean = 4.2466, SD = 0.97246), followed by joint ventures (mean = 4.1575, SD = 0.99439) and Public-Private Partnerships (PPPs) (mean = 4.0959, SD = 1.18804). These models reflect developers' growing reliance on collaborative and institutional financing mechanisms. Conventional approaches remain central: both equity financing and commercial bank loans recorded mean scores of 4.0548 (SD = 1.17315; 1.04901), while Primary Mortgage Institutions (PMIs) and cooperative savings schemes also scored 4.0548, highlighting the importance of collective and traditional capital sources despite challenges of high interest rates and collateral requirements. Emerging financing innovations are gradually gaining ground. Crowdfunding scored 4.0411 (SD = 1.13792), offering small scale investor participation, while real estate tokenization scored lower at 3.8014 (SD = 1.28450), constrained by regulatory and cultural barriers. By contrast, Build-to-Rent (BTR) and rental yield financing were

the least adopted (mean = 3.0274, SD = 1.69358), reflecting cultural preferences for homeownership and weak institutional support for rental markets in Nigeria. Overall, the findings point to a hybrid financing system, where traditional mechanisms dominate, innovative models like crowdfunding and tokenization are emerging, and rental based financing remains underutilized due to sociocultural and regulatory constraints.

# > Factors Influencing the Adoption of Real Estate Development Finance

To investigate the factors influencing the adoption of real estate development finance in the study area, data were collected and analyzed using a Likert scale to capture respondents' perceptions on the influence of the adoption of real estate development finance. The scale employed included the following options: highly influential (5), influential (4), somewhat influential (3), not influential (2), and highly not influential (1). Table 3 presents and discusses the findings, highlighting the factors influencing the adoption of the real estate development finance in the study area.

Table 3: Factors Influencing the Adoption of Real Estate Development Finance

	HI					Mean		Ranking
Factors Influencing	(5)	I (4)	<b>SWI (3)</b>	NI (2)	HNI (1)	Score	Std. Deviation	_
Project scale & duration	66	46	25	4	5	4.1233	1.01635	1 <sup>st</sup>
High cost of finance	58	34	24	28	2	3.8082	1.19375	$2^{\text{nd}}$
Inflation and currency volatility	49	39	35	16	7	3.7329	1.17615	3 <sup>rd</sup>
Expected Return on Investment (ROI)	48	46	25	19	8	3.7329	1.20511	4 <sup>th</sup>
Networking and business partnerships	47	46	23	22	8	3.6986	1.22260	5 <sup>th</sup>
Real estate market stability	45	38	41	18	4	3.6986	1.11646	6 <sup>th</sup>
Availability of Alternative Financing Models	51	33	29	27	6	3.6575	1.24534	$7^{\mathrm{th}}$
Competition in the housing market	43	52	19	20	12	3.6438	1.26349	8 <sup>th</sup>
Access to long term capital	30	53	40	19	4	3.5890	1.04169	9 <sup>th</sup>
Weak enforcement of financial regulations	34	40	52	17	3	3.5822	1.03562	10 <sup>th</sup>
Access to mortgage refinancing institutions	29	63	16	25	13	3.4795	1.23857	11 <sup>th</sup>
Fear of fraud and lack of transparency	27	57	32	16	14	3.4589	1.19266	12 <sup>th</sup>
Land tenure system & property rights	40	33	33	28	12	3.4178	1.29592	13 <sup>th</sup>
Previous experience with lenders	41	34	35	15	21	3.4041	1.37253	14 <sup>th</sup>
Nature of Property Rights and Title	31	44	37	20	14	3.3973	1.23445	15 <sup>th</sup>
Documentation								
Increase in exchange rate	32	34	48	24	8	3.3973	1.15954	16 <sup>th</sup>
Awareness of blockchain and tokenization	27	44	29	37	9	3.2945	1.21012	$17^{\rm th}$
Developers' credibility and track record	38	27	31	29	31	3.2192	1.40194	18 <sup>th</sup>
Housing affordability & demand	40	28	29	17	32	3.1849	1.50403	19 <sup>th</sup>
Government housing policies	34	34	19	35	24	3.1301	1.43486	20 <sup>th</sup>
High level of financial literacy influences	26	34	39	21	26	3.0890	1.34380	21 <sup>st</sup>

Source: Author's Fieldwork, 2025

Table 3 highlights the factors influencing the adoption of real estate development finance in Nigeria, showing that project specific characteristics, macroeconomic conditions, institutional frameworks, and market dynamics all play significant roles. Project scale and duration ranked the highest (Mean = 4.1233, SD = 1.01635), underscoring the need for

long term financing for larger, capital intensive projects. The high cost of finance was the second most critical factor (Mean = 3.8082, SD = 1.19375), reflecting constraints posed by expensive borrowing rates. Other important macroeconomic factors include inflation and currency volatility (Mean = 3.7329, SD = 1.17615) and expected ROI (Mean = 3.7329,

SD = 1.20511), both of which directly influence profitability and investment decisions. Networking and market dynamics also mattered, with business partnerships (Mean = 3.6986, SD = 1.22260) and real estate market stability (Mean = 3.6986, SD = 1.11646) ranked as key enablers of access to finance. Institutional issues, such as availability of alternative models (Mean = 3.6575), competition in the housing market (Mean = 3.6438), access to long term capital (Mean = 3.5890), and weak regulatory enforcement (Mean = 3.5822), reveal systemic inefficiencies that restrict financing.

Further challenges include limited mortgage refinancing access (Mean = 3.4795), fear of fraud and lack of

transparency (Mean = 3.4589), and land tenure/property rights issues (Mean = 3.4178), all of which undermine investor confidence. Lower-ranked but notable factors include experience with lenders (Mean = 3.4041), title documentation issues (Mean = 3.3973), and exchange rate (Mean 3.3973). fluctuations = Awareness blockchain/tokenization scored relatively low (Mean = 3.2945), reflecting limited adoption despite its global rise. Finally, developers' credibility and track record (Mean = 3.2192), housing affordability/demand (Mean = 3.1849), government housing policies (Mean = 3.1301), and financial literacy (Mean = 3.0890) ranked lowest but remain important long term levers for building a resilient financing framework.

Table 4: KMO and Bartlett's Test on Factors Influencing the Adoption of Real Estate Development Finance

Kaiser-Meyer-Olkin M	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.					
Bartlett's Test of Sphericity	Approx. Chi-Square	1579.495				
	Df	210				
	Sig.	.000				

Source: Author's Fieldwork, 2025

As seen in Table 4 above, the diagnostic results show that the dataset is suitable for factor analysis. The Kaiser-Meyer-Olkin (KMO) value was 0.830, which falls within the "meritorious" range (0.80–0.89), indicating strong sampling adequacy and compact correlations among variables. This suggests that respondents' views on factors influencing real estate financing adoption are consistent and interrelated. Bartlett's Test of Sphericity produced a Chi Square value of

1579.495 with 210 degrees of freedom, which was highly significant at p < 0.001, confirming that the correlation matrix is not an identity matrix and that the variables are sufficiently related for factor analysis. Together, these results provide robust evidence that the adoption of real estate financing in Lagos State is shaped by underlying latent dimensions, rather than isolated or random factors.

Table 5: Communalities on Factors Influencing the Adoption of Real Estate Development Finance

	Initial	Extraction
Access to long term capital	1.000	.767
High cost of finance	1.000	.740
Real estate market stability	1.000	.723
Expected Return on Investment (ROI)	1.000	.583
Housing affordability & demand	1.000	.619
Nature of Property right and title documentation	1.000	.628
Inflation and currency volatility	1.000	.715
Land tenure system & property rights	1.000	.540
Government housing policies	1.000	.861
Developers' credibility and track record	1.000	.919
Increase in exchange rate	1.000	.750
Weak enforcement of financial regulations	1.000	.715
Access to mortgage refinancing institutions	1.000	.752
Previous experience with lenders	1.000	.710
Awareness of blockchain and tokenization	1.000	.703
High level of financial literacy influences	1.000	.396
Fear of fraud and lack of transparency	1.000	.485
Project scale & duration	1.000	.430
Competition in the housing market	1.000	.460
Availability of Alternative Financing Models	1.000	.572
Networking and business partnerships	1.000	.552

Source: Author's Fieldwork, 2025

The communalities for factors influencing the adoption of real estate development finance presented in Table 5 above indicate the extent to which each variable is represented by the extracted factors. Variables with higher extraction values share substantial variance with others, reflecting stronger explanatory power. Developers' credibility and track record scored the highest communality at 0.919, highlighting the critical role of reputation and past performance in securing finance. Government housing policies (0.861), access to long term capital (0.767), access to mortgage refinancing institutions (0.752), fluctuations in exchange rate (0.750), and high cost of finance (0.740) also emerged as strongly explained factors, emphasizing the importance of institutional trust, regulatory frameworks, and financial accessibility. Moderately explained variables, with communalities between 0.55 and 0.70, include real estate market stability (0.723), inflation and currency volatility (0.715), property rights and title documentation (0.628), housing affordability and demand (0.619), networking and business partnerships

(0.552), and availability of alternative financing models (0.572). These findings highlight the influence of market conditions, macroeconomic stability, and collaborative or innovative financing strategies. Weaker communalities below 0.50 were recorded for financial literacy (0.396), project scale and duration (0.430), competition in the housing market (0.460), and fear of fraud and lack of transparency (0.485), suggesting these factors play a secondary or indirect role. Overall, the results confirm that factor analysis provides a meaningful reduction of the data, with dominant determinants clustering around institutional credibility, regulatory policies, and access to finance, which collectively shape real estate financing adoption in Lagos State.

Table 6: Total Variance Explained on Factors Influencing the Adoption of Real Estate Development Finance

		Initial Eigenvalues			on Sums of Sq	Rotation Sums of Squared Loadings <sup>a</sup>	
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	7.048	33.563	33.563	7.048	33.563	33.563	5.754
2	2.140	10.192	43.755	2.140	10.192	43.755	2.300
3	1.987	9.463	53.218	1.987	9.463	53.218	3.926
4	1.262	6.010	59.228	1.262	6.010	59.228	1.271
5	1.183	5.634	64.862	1.183	5.634	64.862	3.708
6	1.123	5.350	70.211				
7	.843	4.014	74.226				
8	.811	3.863	78.088				
9	.734	3.493	81.582				
10	.623	2.969	84.550				
11	.553	2.632	87.182				
12	.500	2.379	89.561				
13	.425	2.023	91.585				
14	.341	1.623	93.208				
15	.323	1.537	94.745				
16	.256	1.218	95.963				
17	.213	1.014	96.977				
18	.198	.942	97.919				
19	.181	.862	98.781				
20	.167	.794	99.575				
21	.089	.425	100.000				

Source: Author's Fieldwork, 2025

The factor analysis identified six components (eigenvalues > 1) from twenty-one variables, jointly explaining 70.211% of the total variance, well above the 60% benchmark for social science research. Component 1, with an eigenvalue of 7.048, accounted for 33.563% of the variance, making it the dominant factor, linked to systemic issues such as credibility, access to capital, and regulation. Component 2 explained 10.192% (eigenvalue 2.140), reflecting financial market stability and cost of capital. Components 3, 4, and 5 explained 9.463%, 6.010%, and 5.634% respectively, while Component 6 (eigenvalue 1.123) added 5.350%. After

rotation, variance was redistributed more evenly across the six components (e.g., 5.754, 2.300, 3.926, 1.271, and 3.708 units), clarifying the factor structure. The rotated solution highlights multiple clusters; institutional/regulatory frameworks, macroeconomic stability, financial accessibility, and innovative financing, jointly shaping financing adoption. The findings align with related Sub-Saharan African studies, underscoring that while systemic and institutional issues are central, complementary dimensions such as project specific factors and innovative financing also play significant roles.

Table 7: Pattern Matrix on Factors Influencing the Adoption of Real Estate Development Finance

	Component				
	1	2	3	4	5
Access to long-term capital	.831	.155	132	.115	.160
High cost of finance	.126	485	.582	184	.105
Real estate market stability	.384	387	.526	010	112

Expected Return on Investment (ROI)	.639	.184	.170	235	.033
Housing affordability & demand	.192	.202	.686	.108	053
Nature of Property right and title documentation	.677	320	.108	099	109
Inflation and currency volatility	.445	224	062	311	.487
Land tenure system & property rights	.308	307	.330	003	.244
Government housing policies	.181	.012	193	.015	.860
Developers' credibility and track record	137	.004	.080	004	.992
Increase in exchange rate	.609	.209	.182	.113	.302
Weak enforcement of financial regulations	.624	076	.277	003	.157
Access to mortgage refinancing institutions	.861	.132	026	.099	.026
Previous experience with lenders	.043	022	.646	.217	.381
Awareness of blockchain and tokenization	.250	.079	.639	.169	.179
High level of financial literacy influences	.316	253	039	.468	133
Fear of fraud and lack of transparency	104	580	032	.333	.150
Project scale & duration	185	.082	.661	106	146
Competition in the housing market	.031	.659	.050	.194	026
Availability of Alternative Financing Models	.121	.735	.092	094	.090
Networking and business partnerships	.092	089	063	739	046

Source: Author's Fieldwork, 2025

The pattern matrix (Table 7) identifies five interconnected components driving real estate development finance adoption, explaining financing decisions as a multidimensional process shaped by financial, market, project, institutional, and policy factors. Component 1 (Access to Capital & Macroeconomic Stability) shows strong loadings for access to long-term capital (.831), mortgage refinancing (.861), expected ROI (.639), exchange rate volatility (.609), and weak regulation enforcement (.624). This highlights sustainable finance, profitability, and macroeconomic stability as central to financing adoption. Component 2 (Market Dynamics & Competitive Environment) is defined by competition in the housing market (.659) and alternative financing models (.735), but tempered by concerns over fraud and transparency (-.580). This indicates that while competition drives financing innovation, trust issues constrain adoption.

Component 3 (Project Feasibility & Developer Experience) emphasizes housing affordability and demand (.686), project scale/duration (.661), and prior experience with lenders (.646), with blockchain/tokenization awareness (.639) reflecting emerging fintech influences. Together, these underscore the importance of project fundamentals and innovation in shaping creditworthiness. Component 4 (Institutional Trust & Partnerships) highlights negative effects of unreliable networking/partnerships (-.739), but shows that financial literacy (.468) enhances developers' ability to navigate financing complexities, pointing to the dual role of trust and knowledge in access to finance. Component 5 (Policy & Credibility Factors) is dominated by developers' credibility (.992) and government housing policies (.860), demonstrating that reputation and supportive policy frameworks are decisive in financing adoption.

Table 8: Component Correlation Matrix on Factors Influencing the Adoption of Real Estate Development Finance

Component	1	2	3	4	5
1 <b>FAS</b>	1.000	114	.352	.049	.372
2 MEIT	114	1.000	030	044	052
3 IDID	.352	030	1.000	027	.122
4 KRD	.049	044	027	1.000	.058
5 PCMC	.372	052	.122	.058	1.000

Source: Author's Fieldwork, 2025

The Component Correlation Matrix (Table 8) reveals how the five constructs interact in shaping real estate development finance adoption. Financial Accessibility and Stability (FAS) shows moderate positive correlations with Investment Demand and Innovation-Driven Finance (IDID) (.352) and Policy, Credibility, and Macroeconomic Conditions (PCMC) (.372), indicating that access to finance depends heavily on supportive policies, credibility, and housing demand/innovative mechanisms. By contrast, FAS has a weak negative correlation with Market Efficiency and

Institutional Trust (MEIT) (-.114), suggesting that even when finance is available, institutional weaknesses (fraud risks, high costs) undermine trust. MEIT also shows weak or negative links with other constructs (IDID = -.030, KRD = -.044, PCMC = -.052), reflecting that institutional inefficiencies often persist independently of policy or innovation. Knowledge and Relational Dynamics (KRD) shows very weak positive correlations (FAS = .049, IDID = .027, PCMC = .058), implying that financial literacy and networking alone exert minimal systemic impact unless

combined with stronger drivers like finance and policy. Finally, PCMC correlates positively with both FAS (.372) and IDID (.122), underscoring the reinforcing role of credible policies and stable macroeconomic conditions in expanding access to finance and stimulating demand. As seen from the analysis, the strongest associations (FAS–PCMC and FAS–IDID) highlight that financial accessibility is central, but most effective when reinforced by policy credibility and demand-driven innovation, while the weak or negative relationships involving MEIT expose the enduring challenge of institutional inefficiency and lack of trust.

#### V. DISCUSSION OF FINDINGS

The results from the analysis provide critical insights into the dynamics that shape the adoption of real estate development finance in Nigeria, particularly in Lagos, where the real estate sector has been both an engine of growth and a site of systemic constraints. The findings highlight a multidimensional but interrelated set of factors, suggesting that financing adoption cannot be reduced to a single determinant but is instead shaped by the interplay of financial depth, macroeconomic stability, institutional trust, project feasibility, and policy credibility.

A key outcome of the factor analysis is that six extracted components cumulatively explained 70.2% of the total variance, exceeding the 60% benchmark often cited for social science research (Hair et al., 2019). This confirms that the latent dimensions identified sufficiently capture the underlying structure of the data. The dominant role of Component 1, which alone explained 33.6% of the variance, underscores the primacy of access to long-term capital, mortgage refinancing, expected returns, and macroeconomic stability in financing adoption. This aligns with prior studies which emphasise that in emerging markets, access to sustainable credit remains the single greatest constraint to real estate development (Quigley, 2007; Gyourko, 2009). In Nigeria, where capital markets are shallow and mortgage refinancing institutions remain underdeveloped, the reliance on systemic financial depth is consistent with structural realities (Akinmoladun & Oluwoye, 2007).

The pattern matrix further highlights the salience of market dynamics and competition, represented by strong loadings on housing market competitiveness and alternative financing models. These findings resonate with research showing that competitive and vibrant property markets stimulate innovation in financing models such as joint ventures, private equity, and crowdfunding (Ling & Archer, 2013; Hargitay & Yu, 2012). However, the negative association of fraud and lack of transparency with financing adoption reflects a paradox typical of many Sub-Saharan African contexts, where innovation is often tempered by institutional weaknesses (Mwangi, 2019). This confirms the centrality of institutional trust in expanding real estate finance beyond traditional models.

Equally important are project feasibility and developer experience, where affordability, project scale, and past lender relationships were found to significantly influence financing adoption. These findings mirror earlier studies which argue that credit providers in developing economies prioritise project fundamentals and developer reputation to mitigate risk (Ogu & Ogbuozobe, 2001; Glaeser & Gyourko, 2005). Interestingly, the inclusion of blockchain awareness as a factor, though weak, suggests the growing relevance of fintech innovations in reshaping financing decisions. While still emerging in Nigeria, blockchain and tokenisation may gradually strengthen transparency and lower barriers to finance, a trend consistent with global shifts in property finance (Risius & Spohrer, 2017).

The role of institutional trust and partnerships also emerged as significant, although findings reveal a negative loading for weak or unreliable partnerships. This suggests that while partnerships are theoretically enablers of financing access, in practice they may exacerbate risks in contexts where opportunism and weak enforcement are prevalent (Obeng-Odoom, 2011). Nonetheless, financial literacy showed a positive contribution, reinforcing evidence that developer knowledge is key to navigating complex financing ecosystems (Oloke, Simon & Adesulu, 2013).

The final and arguably most decisive factor is the interplay of policy and credibility. The overwhelming factor loading on developer credibility (.992) and government housing policies (.860) highlights the reality that both reputation and supportive policy frameworks remain nonnegotiable prerequisites for finance adoption. This corroborates research that emphasises the role of state-led interventions; such as housing guarantees, mortgage refinancing schemes, and tax incentives, in reducing risks for financiers and stimulating private investment (Agbola & Alabi, 2000; UN-Habitat, 2011). Credibility, in this context, functions as a proxy for trustworthiness, with financiers placing heavy weight on the track record and perceived reliability of developers (Gyourko & Rybczynski, 2000).

The component correlation matrix further enriches this narrative by showing that financial accessibility and stability (FAS) are strongly associated with investment demand and innovation-driven finance (IDID) (.352) and policy, credibility, and macroeconomic conditions (PCMC) (.372). This interdependence suggests that finance is most effective when reinforced by demand-side drivers and credible policy environments. By contrast, the weak or negative associations of market efficiency and institutional trust (MEIT) with other components illustrate how institutional inefficiencies, fraud, opacity, and weak enforcement; can undermine adoption even when financial and policy conditions appear supportive. This finding echoes broader critiques of institutional fragility in Sub-Saharan Africa's housing finance markets (Tipple, 1994; Arku, 2006).

Taken together, the findings point to a layered but coherent framework for understanding real estate finance adoption in Nigeria. Systemic access to long-term, affordable finance is foundational; however, it is not self-sufficient. Its effectiveness is maximized only when reinforced by credible policies, demand-driven innovation, and developer credibility. At the same time, persistent challenges of

institutional inefficiency and trust deficits remain barriers that policy reform and institutional strengthening must urgently address. The synthesis suggests that interventions targeted at refinancing infrastructure, policy credibility, transparency, and financial literacy will provide the greatest leverage for expanding financing adoption in Nigeria's real estate sector.

# VI. CONCLUSION AND RECOMMENDATION

This study has shown that the adoption of real estate development finance in Lagos is shaped by a complex interaction of financial accessibility, macroeconomic stability, institutional trust, project feasibility, and policy credibility. The factor analysis confirmed that systemic access to long-term, affordable finance remains the most critical determinant, but its effectiveness depends heavily on supportive government policies, credible regulatory enforcement, and developers' reputational strength. Market dynamics, project viability, and emerging innovations such as crowdfunding and blockchain also contribute, though their impact is moderated by persistent challenges of weak institutional trust, high financing costs, and macroeconomic volatility. Together, these findings reveal that while Nigeria's real estate sector demonstrates capacity and innovation, its growth is constrained by structural inefficiencies that continue to undermine sustainable financing adoption.

In light of these insights, the study recommends a multipronged approach. First, government and financial regulators should strengthen mortgage refinancing institutions and promote long-tenor capital markets to ease access to stable development finance. Second, deliberate interventions, such as tax incentives, risk-sharing schemes, and housing guarantees, should be pursued to enhance market confidence and reduce lenders' exposure. Third, addressing institutional weaknesses through stricter enforcement of regulations, transparency measures, and anti-fraud mechanisms will be essential in building trust in innovative financing models. Fourth, professional associations and training institutions should prioritise financial literacy and capacity building for developers, enabling them to better navigate complex financing landscapes and leverage emerging financial technologies. Finally, developers themselves must invest in strengthening credibility and forging reliable partnerships, since reputation and trust remain decisive in securing finance. Taken together, these recommendations provide a pathway for creating a more inclusive, efficient, and resilient real estate financing ecosystem capable of supporting sustainable urban development in Nigeria.

#### **REFERENCES**

- [1]. Agbola, T., & Alabi, M. (2000). Sustainable housing delivery: Lessons from international experience. Journal of Environmental Studies, 2(1), 63–76.
- [2]. Akinmoladun, O. I., & Oluwoye, J. O. (2007). An assessment of why the problems of housing shortages persist in developing countries: A case of Lagos Metropolis, Nigeria. *Pakistan Journal of Social Sciences*, 4(4), 589–598.

- [3]. Arku, G. (2006). The housing and economic development debate revisited: Economic significance of housing in developing countries. *Journal of Housing and the Built Environment*, 21(4), 377–395.
- [4]. Glaeser, E. L., & Gyourko, J. (2005). Urban decline and durable housing. *Journal of Political Economy*, 113(2), 345–375.
- [5]. Gyourko, J. (2009). Housing supply. *Annual Review of Economics*, *I*(1), 295–318.
- [6]. Gyourko, J., & Rybczynski, W. (2000). Financing new urbanism projects: Obstacles and solutions. *Housing Policy Debate*, 11(3), 733–750.
- [7]. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage.
- [8]. Hargitay, S., & Yu, S. (2012). *Property investment decisions: A quantitative approach*. Routledge.
- [9]. Ling, D. C., & Archer, W. R. (2013). *Real estate principles: A value approach*. McGraw-Hill/Irwin.
- [10]. Mwangi, P. (2019). Financial innovations and challenges in real estate markets in Sub-Saharan Africa. *African Review of Economics and Finance*, 11(2), 141–163.
- [11]. Obeng-Odoom, F. (2011). The informal sector in Ghana under siege. *Journal of Developing Societies*, 27(3–4), 355–392.
- [12]. Oloke, O. C., Simon, R. F., & Adesulu, E. A. (2013). An examination of the factors affecting housing finance in Lagos State. *International Journal of Economy, Management and Social Sciences*, 2(6), 342–348.
- [13]. Ogu, V. I., & Ogbuozobe, J. E. (2001). Housing policy in Nigeria: Towards enablement of private housing development. *Habitat International*, 25(4), 473–492.
- [14]. Quigley, J. M. (2007). Regulation and property values in the United States: The high cost of monopoly. *Urban Studies*, 44(3), 591–604.
- [15]. Risius, M., & Spohrer, K. (2017). A blockchain research framework. *Business & Information Systems Engineering*, 59(6), 385–409.
- [16]. Tipple, G. (1994). The need for new urban housing in Sub-Saharan Africa: Problem or opportunity. *African Affairs*, 93(373), 587–608.
- [17]. UN-Habitat. (2011). Affordable land and housing in Africa. Nairobi: United Nations Human Settlements Programme.
- [18]. CBN (Central Bank of Nigeria). (2025). *Macro Economic Indicators*; *Inflation Rate Table*; *Economic Report (Jan 2025)*.
- [19]. CAHF (Centre for Affordable Housing Finance in Africa). (2024). Housing Finance in Africa Yearbook: Nigeria country profile.
- [20]. ICRC (Infrastructure Concession Regulatory Commission). (n.d.). *PPP framework in Nigeria* (overview pages and guidelines).
- [21]. Knight Frank Nigeria. (2024). Lagos Market Update H1/H2 2024.
- [22]. Reuters. (2024–2025). Nigeria monetary policy and inflation coverage (various): policy rate at 27.5%; inflation easing to ~21.9–22.2% mid-2025.

- [23]. SEC Nigeria. (2021). Crowdfunding Rules; (2024). Accelerated Regulatory Incubation Programme (ARIP) for fintech capital-market innovations.
- [24]. SFS Capital. (2025). SFS REIT Fund Rating / Overview; manager of SFS REIT and UH REIT; first listed Nigerian REIT (2008).
- [25]. Stanbic IBTC Asset Management / UPDC REIT. (2022–2024). UPDC REIT Fact Sheets and Reports (distribution policy of ≥90% of net income; NGX listing).
- [26]. UPDC REIT / NGX filings. (2023–2024). *Annual/quarterly reports and REIT profile.*
- [27]. BusinessDay. (2025). *Lagos short-let market turns gold on rising demand* (market dynamics).
- [28]. Troloppe Property Services. (2024). *Lagos City Report H2 2024* (pricing and rental trends).
- [29]. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics.
- [30]. Kraus, A., & Litzenberger, R. H. (1973). A state-preference model of optimal financial leverage. Journal of Finance.
- [31]. Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. Journal of Financial Economics.
- [32]. Chaman Law Firm. (2024, September 28). Affordable Housing Finance Models for Nigerian Real Estate Investors.
- [33]. Gbonegun, V. (2025, February 10). Developers explore alternative financing as bank rates deplete ROI. *The Guardian Nigeria*.
- [34]. Red Grapes Properties. (2025). Exploring Alternative Financing Options for Real Estate Projects in Nigeria.
- [35]. The Nation. (2025, February 10). FG launches N100bn real estate financing scheme to boost affordable housing.