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Analysis of the factors influencing access to mortgage finance in Lagos, Nigeria

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Abstract

Finance is the bedrock of real estate development. Its availability and accessibility are important for a successful investment. In most cases, investors don't have substantial finance to execute a project; instead, they resort to an external source through mortgage financing. However, there are difficulties in accessing mortgage finance particularly due to borrower's default, thereby hindering finance accessibility. This study investigates factors determining mortgage finance accessibility for providing real estate projects in Lagos State, Nigeria. The target populations are the Primary Mortgage Institutions and Real Estate Developers in Lagos State. The collected data were analysed using factor analysis and Mann-Whitney U test. The study revealed that income, nature of the occupation, type of collateral, years of the banking relationship, loan duration and loan sector are the major determinants of access to mortgage finance. These factors must be succinctly considered to ensure ease of access, adequate provision and utilisation for real estate development.

Keywords: Collateral, determinants, finance, investors, mortgage.

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1. Introduction

Real estate development contributes significantly to the social and economic performance of a nation. A well-functioning real estate development sector of an economy will create employment (Sandilands, 2002). Apart from providing shelter and security, real estate development plays a major role as an asset (Alhashimi & Dwyer, 2004; Poole, 2003). The sector plays a critical role in a nation's welfare, as it directly affects the citizenry and performance of other sectors of the economy (Odi, 2014). Despite the importance attached to real estate development, most urban populations in many developing countries live in a dehumanising environment, while those that have access to average houses do so at an inconvenience way. Most people respond to their housing need by building their houses as little financial resources flow in gradually while others are developed by various forms of real estate developers.

According to Boleat (2005), real estate finance has been recognised as an important and indispensable factor in the housing delivery mechanism. It is one of the major pillars of the housing delivery system and the mechanisms through which real estate development can be actualised. Without well-organised and efficient finance machinery, the goal of a housing development policy will be largely unattainable. This is because only a few people can afford to pay cash for a house. The earning capacity for the average Nigerian is generally low and makes it practically impossible to save towards owning a house (Ogedengbe & Adesopo, 2003). Therefore, most people resort to financing their house through loans, personal savings, assistance from relatives or friends and gifts. The majority of Nigerians fall into this latter category of informal housing finance. This housing finance system is prevalent among the low-income citizens, who relied on their meagre savings, borrowing from friends and family members, gifts and sometimes from cooperative societies to erect their own homes.

Bardhan and Edelstein (2008) noted that the major issue in real estate development is finance, and its provision depends on a well-functioning finance system. Baridoma and Ekenta (2013) acknowledged the importance of finance as the key factor that propels real property development. However, the complex and capital-intensive nature of real estate development demands proper and adequate funding to make the dream realisable. The terms and availability of the required funds determine the trend of its operation. The availability and accessibility of finance in sufficient quantity will accelerate the pace of property development added to the economy. In most parts of the world, most especially the developed countries, the sources of real estate finance are from government, individual savings, life insurance pension fund and mortgage institutions (Ayedun & Oluwatobi, 2011).

The increased demand for housing has created a hyper-competition among banking institutions. This problem has been created in that there has been confusion among the customers on choosing the best mortgage institution to deal with and the mortgage institutions have had to lower their lending rates to be able to cope with the competition. Ubom and Ubom (2014) stated that real estate buyers believe they will gain a profitable amount of return through rental income and capital growth as it is proven that buying a property is a good form of investment to hedge against inflation. Udoka and Owor (2017) noted that access to mortgage is a complicated process as it involves many procedures and often affected by several factors which include income levels, savings level, availability of collateral, interest rates among others. Based on the foregoing, this study assesses the determinants of access to mortgage finance for real estate development in Lagos, Nigeria.

2. Literature review

Housing finance is a basic requirement for economic growth, and it includes poverty reduction, financial organisations strengthening, promotion of social stability and improvement of people's lives. This finance can be obtained either through equity, debt or leveraging (a combination of equity and debt financing). The equity form of finance can be sourced through the accumulation of personal savings while debt financing is sourced externally. Though equity financing is significant in housing development, it is usually insufficient for real property development (Ogunba, 2009). This makes borrowing to finance real estate development unavoidable. Nevertheless, the debt financing which ought to complement the equity finance is usually inadequate and ineffective because of its unaffordability, high-interest rate and difficult mode of repayment (Emoh & Nwachuckwu, 2012).

Finance is a major factor determining the quality and tenure of housing consumption, the overall financial portfolio of the public and the stability and effectiveness of the financial system. A well-functioning mortgage market is considered by Dickerson (2009) to have large external benefits to the domiciled national economy like a contribution to economic growth and improved standards of living. With the absence of a well-functioning housing finance system, a market-based provision of housing would, therefore, be lacking (Quigley, 2000; Warnock & Warnock, 2008). In most of the developed economies, housing finance supply systems are considered operationally efficient in terms of intermediation. Most developers felt constrained in their access to credit (Ofei, 2001). Factors such as the household's financial status and future expectations will influence their decision on whether to rent or own their residence. In most cases, the decision to purchase often puts the household in a situation where he needs to borrow funds to complement his savings, most individuals take out a loan; mortgage. In a primary market, the lender extends a loan to a borrower for the purchase of a house. The loan is such that it takes the house as collateral. Accordingly, some of the factors that the lender takes into consideration include borrower's credit history, income, debt, assets and the value of the house to be purchased, access to finance by corporate real estate institution such as age, size in terms of number of employees, turnover, profitability, net worth and legal status. Bryx (2006) argues that periods of low inflation encourage the development of the real estate market, as interest rates on loans decrease. On the other hand, in the case of high inflation one may expect increased property prices, as they often constitute an investment protecting capital from losing value. Also, a lower frequency and severity of economic downturns make household income more stable and may contribute to a willingness to assume higher debt burdens and increased attractiveness of flexible mortgage rate (Akinwunmi, 2008).

The most important factor driving housing developments internationally has been the wave of deregulation and product innovation taking place in financial sectors in most countries. This has reduced interest margins on housing loans, lowering real interest rates paid by mortgage borrowers. According to Ellis's study, greater competition and product innovation have also encouraged lenders to make finance available to a wider range of potential borrowers than before. At the same time, declines in inflation in several countries over the past decade and a half have lowered nominal interest rates. According to Kabwogi (1997), 90% of housing tenants prefer owning a house rather than remaining tenants. The main driving force for many dwellers to struggle for homeownership is the difficulties and uncertainties in paying rents, unwarranted landlord intervention against quiet enjoyment of the demised lettings, low cost of building in informal areas around towns and the everlasting problem of overcrowding as landlords further construct additional rooms to the existing house. The main challenge to housing particularly for the urban poor is housing finance. Public funds are meagre and private funds are not accessible to the poor due to lack of collateral security and inability to service the loans (Adebamowo , Oduwaye & Oduwaye, 2012). Akereja (2004) study on property investment and Lagos capital market concluded that the availability of funds for property investment through financial institutions would pave way for the rapid social-economic development of Nigeria.

In a study on housing finance in South Africa, Rust (2006) found that almost without exception, private sector developers, as well as government officials and knowledgeable experts, cite the unavailability of reasonably priced and well-located serviced land as the major constraint to the rapid expansion of housing for low and moderate-income families. The servicing of outstanding mortgages, determined in part by the dynamics of house prices, has an impact on the financial health of lenders' ability and willingness to extend credit. The pessimistic view of many researchers is that house price has been overvalued in many countries and will face downward correction (Tsatsaronis & Zhu, 2004). Maren (2014) evaluated the determinants for access to subsidised mortgage housing in Jos, Nigeria. During the study, a survey was conducted among workers in 24 randomly selected organisations. A total of 543 questionnaires were thus administered and 410 were retrieved. The data were analysed using Pearson's chi-square which indicated a low level of participation and a lack of awareness about the National Housing Fund (NHF) scheme. The study also noted that there were negative feelings about the arrangement, and for the entire sample, gender and employment characteristics were found to have statistically significant relationships with participation in the NHF scheme. However, access to subsidised mortgage is influenced only by gender and tier of government employment. Kalui and Kenyanya (2015) investigated some selected factors hindering access to mortgage finance in Kenya. In this study, data were analysed using Pearson's Product Moment Correlation Coefficient as well as multiple regression analysis. The results showed that the most important factor affecting access to mortgage finance was credit risk which greatly affects access to mortgage finance as banks take caution when lending.

Ozdemir and Altinoz (2012) conducted a study on the role of regional factors in determining mortgage interest rates in the United States. The study developed a new technique to analyse determinants of retail interest rates that are exposed to the same monetary policy but different regional conditions. The results show that monetary policy was highly influential on mortgage rates in the bubble period, while regional factors were more significant in the post-bubble period. More importantly, the analysis demonstrates that there is a significant difference in the factors determining fixed-rate and adjustable-rate mortgages. Wanja (2015) also examined the determinants of mortgage uptake in Nairobi, Kenya. The study adopted a cross-sectional design of various mortgage lending institutions in Kenya and collected secondary data from financial statements and government policy papers. The results reveal that various determinants of mortgage uptake include property prices, interest rates, level of income, costs of operations, the mortgage process as well as the size of the bank. It is against this backdrop that this study seeks to investigate the determinants factors influencing borrower's accessibility to mortgage finance using Lagos state as a representative case study.

3. Materials and Methods

Lagos metropolis, one of the most important commercial cities in Nigeria, forms the base of the study area for this research. It is in the South-Western Coast of Nigeria along the Bight of Benin approximately between latitude 6°40′ North and 4°30′ South of Equator and between longitude 2°05′ West and 4°20′ East of Greenwich Meridian. Lagos is the hub where both national and international events are executed and the fastest growing urban area in Africa (Oladokun, Gbadegesin & Ogunba, 2010). The State harbours 60% of the nation's industrial and economic establishment and 80% of the nations of the total value added of manufacturing activities in the country (Omoogun, 2006). In the economic sense, the metropolis has grown from a small fishing settlement to become the most important centre of commerce, finance and maritime activities in Nigeria, housing headquarters of several banks, industries and commercial enterprises. Lagos state also has Nigeria's biggest housing market, which unsurprisingly makes it a prime target for mortgage financing institutions. Hence, there are dozens of mortgage banks and financial institutions offering mortgage services in Lagos. The target populations for the study include Primary Mortgage Institutions and Real Estate Developers (REDAN). The lists of the REDAN and that of the PMI's were sourced directly from the published directory of the association and the number of those domiciled in Lagos was extracted. The questionnaire survey was administered to 52 PMI's and 69 REDAN members within the study location. Two sets of questionnaires were 'Type A and Type B'. Type A was administered to the Heads of Credit Department of the PMI's while Type B was administered to members of REDAN. The collected data were analysed using factor analytical technique and the Mann Whitney U test to ascertain the critical factors that do influence the accessibility of stakeholders on the mortgage for housing development.

4. Results and discussion

Table 1 analyses the PMI's and REDAN opinion on the determinants of access to mortgage finance in Lagos State, Nigeria by employing the Mann Whitney U test to compare the response obtained from the weighted mean score. Fourteen (14) variables were used in the factors that influence access to mortgage finance.

Table 1. Mann Whitney U test of difference on the factors influencing access to mortgage finance

Factors	PMI's			REDAN			Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
	Mean	Std. Dev	Rank	Mean	Std. Dev	Rank				
Gender	3.2308	0.64521	13th	3.7391	1.15875	11th	1,197.000	2,575.000	−3.268	0.001
Age	3.7692	0.09572	11th	4.3333	.70014	8th	1,279.000	2,657.000	−2.870	0.004
Income	4.9038	0.64169	1st	4.6957	.55052	2nd	1,491.000	3,906.000	−2.328	0.020
Loan Size	4.1538	0.91576	8th	4.7971	.40510	1st	1,053.000	2,431.000	−4.572	0.000
Equity Contribution	4.0769	0.68158	9th	4.5652	.65256	6th	1,101.000	2,479.000	−3.990	0.000
Loan Duration	4.5385	0.50338	3rd	4.6522	.56428	4th	1,548.000	2,926.000	−1.528	0.126
History of Default	3.7692	0.89914	11th	3.7101	.70921	12th	1,690.000	4,105.000	−0.583	0.560
Loan Sector	4.5385	0.50338	3rd	4.5507	.65386	7th	1,688.000	3,066.000	−0.643	0.520
Years of banking relationship	4.5385	0.64051	3rd	4.1739	.87374	9th	1,392.000	3,807.000	−2.314	0.021
Type of collateral	4.5385	0.50338	3rd	4.6812	.55553	3rd	1,496.000	2,874.000	−1.870	0.061
Interest Rate	4.3846	0.49125	7th	4.5797	.49722	5th	1,444.000	2,822.000	−2.116	0.034
Occupation	4.8462	0.36432	2nd	4.1304	.74583	10th	840.000	3,255.000	−5.621	0.000
Education	3.8077	0.04859	10th	3.4348	.94679	13th	1,432.000	3,847.000	−1.973	0.049
Tribe	2.6538	0.68269	14th	2.8261	1.08406	14th	1,636.000	3,014.000	−0.878	0.380

The primary mortgage institutions opined to the major factor that influences the access to mortgage finance to include income which was ranked 1st with a mean score of 4.9038; the nature of occupation was ranked 2nd with a weighted mean score of 4.8462. Also, type of collateral, years of banking relationship, loan duration and loan sector were all ranked 3rd respectively with a mean score of 4.5385 while the interest rate was ranked 7th with a mean score of 4.500. From the Real Estate Developers perspective, the major factor that influences the access to mortgage finance includes the loan size which was ranked 1st with a mean score of 4.7971. The level of income (4.6957) ranked 2nd; type of collateral (4.6812) ranked 3rd; loan duration (4.6522) ranked 4th while interest rate ranked 5th with a mean score of 4.5797. According to the results of the Mann Whitney U test, factors such as gender (0.001), age (0.004), income (0.020) loan size (0.000), equity contribution (0.000), years of banking relationship (0.021), interest rate (0.034), occupation (0.000) and education (0.049) revealed significant differences in the opinion of both respondents with a significant level of lower than 0.05 ($p \leq 0.05$). This implies that the opinion of both groups of respondents differs on the factors that influence access to mortgage finance in Lagos as evidenced in Figure 1.

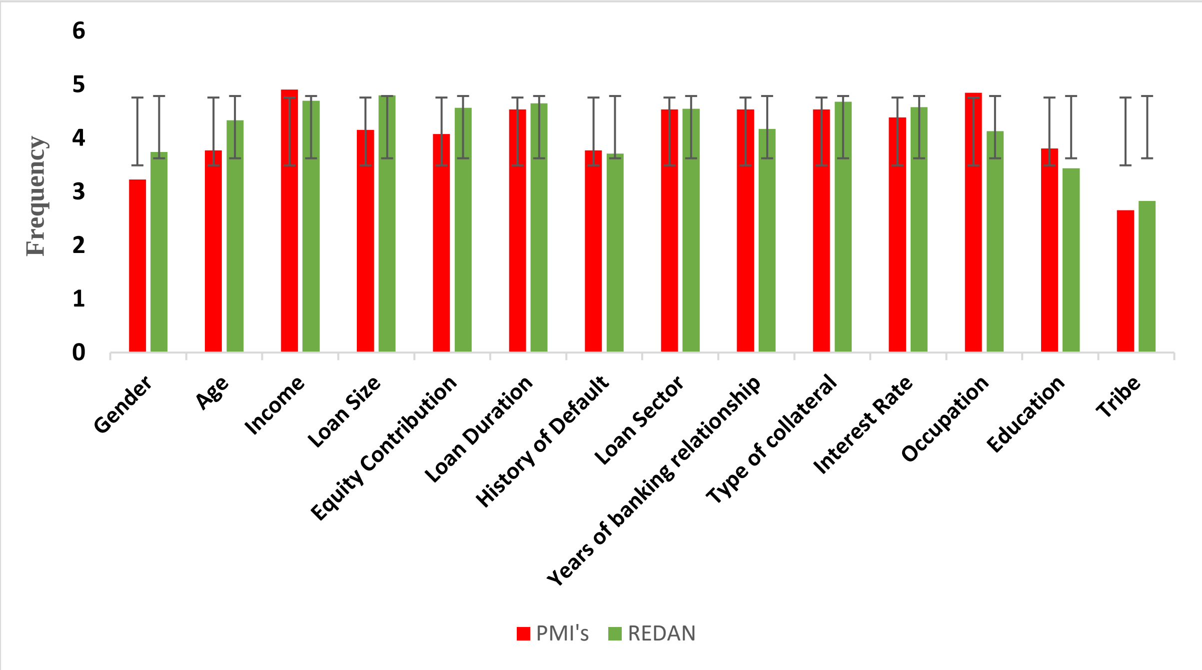

Figure 1. Difference in opinion of the respondents

Factor analysis was conducted to discern the determinants of access to mortgage finance in Lagos State, Nigeria. Hair, Anderson, Tathan and Black (1998) suggested that factor analysis is suitable for 20–50 variables, as the extraction of common factors becomes inaccurate if the number of variables exceeds this range. However, Ahadzie, Proverbs and Olomolaiye (2008) stated that less number of variables can be used. Hence, the variables chosen were considered adequate for the use of factor analysis. According to literature, identified factors on the determinants of access to mortgage finance were subjected to principal component analysis with varimax rotation. Kaiser-Meyer-Olkin's (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity were employed to test the factorability of the data gathered using the Statistical Package for Social Sciences (SPSS) version 23.0.

Table 2. KMO and Bartlett's test

Kaiser–Meyer–Olkin Measure of Sampling Adequacy		0.825
	Approx. Chi-Square	1703.095
Bartlett's Test of Sphericity	Df	91
	Sig.	0.000

The KMO index ranges from 0 to 1, with 0.6 suggested as the minimum value for good factor analysis (Eiselen, Uys & Potgieter, 2007; Tabachnick & Fidell, 2007). Also, Bartlett's Test of Sphericity shows whether the correlation matrix is an identity matrix. According to George and Mallery (2003), a $p < 0.05$ indicates that the data do not produce an identity matrix and are thus acceptable for factor analysis. Pallant (2005) suggests that Bartlett's Test of Sphericity should be significant ($p < 0.05$) for the factor analysis to be considered appropriate. The Kaiser–Meyer–Olkin (KMO) is another test of sample adequacy. Its value ranges from 0 to 1, for 'perfectly inadequate' to 'perfectly adequate' sample, respectively (Alese & Owoyemi, 2004). The KMO is 0.825 and indicates that the sample used is adequate. As shown in Table 2, the KMO obtained for this study was 0.825 at a significant level of 0.000. Bartlett's Test of Sphericity and sampling adequacy are presented in Table 2 and show that the chi-square of 1,703.095 is significant at $p < 0.000$ indicating that the sample used is adequate. The KMO is 0.825 and indicates that the sample used is adequate.

The availability of finance is a focal issue for any real estate development activity. It affects developers, contractors and the ultimate buyers of the property units. However, access to these major economic and financial resources is often affected by some determinants which guarantee access to finance. Thus, this study examined the determinants of access to finance for real estate development with a view to identifying the major determinants and the effects of such determinants to accessing finance for real estate development.

Table 3. Factors influencing access to mortgage finance in Lagos

Factors	Commonalities	Factor groupings	Cluster components Matrix		
Income	0.815	Loan accessibility characteristics	0.684		
Loan Size	0.555		0.626		
Equity Contribution	0.755		0.547		
Loan Duration	0.793		0.603		
Interest Rate	0.829		0.670		
Gender	0.680	Borrowers characteristics		0.675	
Age	0.803			0.820	
Occupation	0.609			0.748	
Education	0.822			0.898	
Tribe	0.646			0.792	
History of Default	0.826	Loan repayment characteristics			0.905
Loan Sector	0.776				0.612
Years of banking relationship	0.871				0.840
Type of collateral	0.772				0.622
Eigen Values			7.899	1.409	1.244
% of Variance			56.421	10.065	8.884

According to Jones and Maclennan (1987), there are various ways by which the lenders determine the ability of the borrower to repay and the suitability of the property as security. Such determinants include income, total sum and ability to repay back the loan. The results of the factor analysis revealed that chi-square of 1,703.095 is significant at $p < 0.000$, and the KMO is 0.825 and indicates that the sample used is adequate. The results further showed that three (3) components were extracted under 8.884 eigenvalue minimum which components generated normalised cumulative sums of squared loading of 75.370%. The three components have thus been named as '*loan accessibility characteristics factors*', '*borrowers characteristics factors*' and '*loan repayment characteristics factors*'.

5. Conclusion and recommendations

This paper has attempted to study the determinants of access to mortgage finance for real estate development. Factor analysis and Mann-Whitney U test were adopted for the study. It was discovered that the three major factors that can guarantee borrower's ability in successfully accessing mortgage finance are the characteristics of the loan to be accessed, the borrower's characteristics factors and the repayment characteristics of the accessed loan. It is pertinent to state that finance is the backbone for real estate development. It is again this foregoing that the paper recommends among others that mortgage institutions should periodically review the factors they considered in accessing finance to mitigate the bureaucracies and unfavourable conditions involved. Also, the enactment, implementation and monitoring of efficient financial policies geared towards the streamlining of real estate financing should be accorded the needed attention to enhance its growth and development.

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