FACTORS INFLUENCING THE CHOICE OF HOUSING FINANCING MODELS THAT ENHANCE DELIVERY OF HOUSING PROJECT IN NIGER STATE

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ABSTRACT

Focus on finance for housing projects has been more prominent due to huge financial resources that is required for provision of decent houses which is practically not at the disposal of low- income earners in Nigeria. Literature review revealed that Niger State Government, at all levels, accorded high priority to the provision of low-cost housing. Thus, the government adopted PPP as a procurement method for affordable housing development but it has not been fully realized. It is against this background that, this study aimed to identify the factors that influence choice of financial models for housing development in Niger state. Quantitative approach through questionnaire survey was used to collect data from Developers, Government representatives, Financial Institutions, Primary mortgage institution and Professionals in the build environment such as Architect, Quantity Surveyor and Builders. A total of 200 questionnaires were administered and 150 were retrieved and used for the analyses. The data collected were subjected to descriptive statistical analysis using mean score and data reduction techniques on SPSS. The results from quantitative analysis affirm the use of down payment grant financing model, Mortgage payment subside model, Mortgage interest deduction model and Credit enhancement as a viable alternative to financing model currently in use to finance affordable housing project by Niger State government. This study identifies factors such as: stringent condition, inadequate funding, research and development, Government programme and policies, and project to be financed. It concluded that stringent condition by primary Mortgage institutions, and inadequate funding are the most factors influencing the choice of financing model for successful delivery of housing projects in Niger State.
Keywords: Affordable housing, housing, financing models, housing construction,

INTRODUCTION

Housing is an integral element of a nation's economy and its backward and forward linkages with other parts of the economy closely bond people's needs, demands and social processes. These linkages allow housing to act as an important engine for sustainable development and poverty reduction in society and the economy. Without a functioning housing sector, urban centers cannot be established or developed. A functioning housing sector offers appropriate, affordable housing and sustainable patterns of urbanization which are critical for the future of the ever-urbanizing planet (Abdullahi, 2015). Housing has been universally recognized as one of the most essential necessities of human life and is a major economic asset in every nation. Adequate housing provides the foundation for stable communities and social inclusion (Lanrewaju & Oluronke, 2014) observed that there is a significant association between housing conditions, physical and mental health of an individual. People's right to shelter is thus a basic one and the provision of decent housing to all requiring them should be the hallmark of every civilized society and one of the criteria for gauging development. However, the provision of adequate housing in Nigeria and other developing nations alike still remains one of the most intractable challenges facing human and national development. Previous attempts by all stakeholders, including government agencies, planners and developers to provide necessary

recipe for solving the housing problem have yielded little or no success (Lanrewaju & Oluronke, 2014).

Public housing delivery for civil servants in Niger State started after the creation of the State in 1976 when some government quarters were constructed under the supervision of Niger State Ministry of Works, Transport and Housing. Later, Niger State Housing Corporation was created in 1979 for housing delivery in the state. However, between 1976 and 2007 less than 3,000 houses were developed by the public sector (Niger State Evolving Strategy for Sustainable Housing NSESSH, 2007). In order to improve on this, the government of Niger State in 2007 embraced the Public Private Partnership (PPP) as an alternative strategy for its housing delivery. This was in response to the 2ⁿᵈ United Nation (UN) Conference on Human settlement (HABITAT II) in Istanbul, in June, 1996 which advocated for the effective and affordable mass housing delivery through Public-Private Partnership (NSESSH, 2007).The goal of Sustainable Housing Development (SHD) initiative as contained in Goal 11 of The United Nations (UN) 2030 Agenda for Sustainable Development is to "increased access to sufficient, safe and low-cost housing for the world's poorest people residing in slums by the year 2030". Nigeria currently the most populous nation in Africa records the fastest urbanization as well the largest economy (Abdullahi, 2015).

Focus on housing finance has been more prominent because the provision of housing requires huge financial resources which most of the low-income earners in Nigeria are unable to afford (Sanusi, 2010). Omole (2010) corroborates that adverse legal, macroeconomic institutions and regulatory environment impact enormous effects in the provision of long-term finance for housing. However, various authors have studied challenges with housing financing in Nigerian, notable among them was that of Omirin (2007), Likewise Udoko *et al.* (2017) posit high interest rates as serious factor that discourages borrowers from accessing funds for housing development. Again, the low interest rate stipulated by the NHF, makes financial institutions especially banks reluctant to give out loan for housing development especially as it turns out to be an unprofitable investment. It is against this background that this study intends to identify the factors that influence choice of financial models for housing development in Niger state.

LITERATURE REVIEW

Overview of Sustainable and Affordable Housing Development
The concept of sustainable housing is synonymous with the sustainable growth and development of cities around the globe. Sustainable housing development (SHD) can be defined as the development and implementation of policies, programmes or initiatives designed to deliver safe, viable and affordable houses for individuals within a society. The concept typically adopts the tenets of sustainable social, economic and environmental factors in delivering national housing plans and policies for masses with minimal impacts on future generations and the environment (Ayedun & Oluwatobi, 2011).
The Working Group highlighted in its Issues Paper (Australian Bureau of statistic 2016) that there are multiple definitions of affordable housing. In their submissions to the Working Group, stakeholders generally referred to the concept of housing stress, which is often defined using either a ratio of the cost of rent to a household's income; or residual income measures that consider whether the cost of housing impedes a household's ability to meet other basic needs. Affordable housing reduces or eliminates housing stress for low-income and disadvantaged

families and individuals in order to assist them with meeting other essential basic needs on a sustainable basis, while balancing the need for housing to be of a minimum appropriate standard and accessible to employment and services. This definition combines the elements of a ratio approach and a residual income approach while seeking to capture broader issues around housing quality and household wellbeing. The Working Group notes that housing stress is not necessarily defined as a set proportion of a household's income and can at times be temporary. Responses are ideally prioritized to those facing enduring and severe housing stress (Australian Bureau of Statistic, 2016)

Factors influencing the choice of Housing Financing Models

Appropriate Collateral

The collateral such as titled land, government bonds, private shares, properties in urban or rural properties, and fixed deposit are collaterals often considered by financial institutions before granting loans to homeowners (Ojo 2005; Ojo and Ighalo, 2008; Kuma, 2015) For example, in Nigeria, issues related to land title remain a significant eligibility criterion applied by housing finance institutions for granting loans to prospective individuals who want to develop their properties. This is in line with Onyike (2009) assertion that the availability of collaterals and other vital inputs determine access to loan affordability. Thus, the decision of a household to finance housing development is dependent on the availability of collateral. According to Ojo (2005) issues related to land title in Nigeria remain a significant barrier to housing finance. In many cases, there are often legal impediments to the ability of a property owner to pledge residential property as collateral (Onuoha, 2011; Kuma, 2015).

Access and Affordability Criteria

Prospective homeowners feel reluctant to borrow loan from financial and mortgage institutions due to stringent conditions on access to loan and affordability. The decision to access loan for housing development in Nigeria and in particular Niger state is dependent on the income of the borrower, income security criteria viewed in terms of stability of employment and business, fixed annuity, method of repayment such as pensions and allowances, equity contribution of the borrower, cost of housing to be developed by individual (Ojo, 2005; Onyike, 2009; Onyike, 2007; Onuoha, 2011). When one's income is not even enough to meet one's immediate needs such as food, financing housing under stringent lenders requirements will not be included in the budget. Onuoha (2011) observed that affordability criteria of financial institutions in Niger are much hinged on the income profile of the applicants while accessibility is tied to the formal rules governing households' ability to obtain housing loan (Onyike, 2007).

Repayment Scheme and Criteria
Repayment criteria of a financial institution may well determine the propensity of prospective homeowners to apply for housing finance. As such, the repayment scheme has been observed to be one of the factors underlying a potential homeowner's perceived probability of securing a loan from banks. Applicants who do not agree for a stipulated amortization period for loan repayment are likely to have their application rejected. Ojo (2005) and Onuoha (2011) also found that the probability of homeowners securing housing finance is considerably higher if the repayment is to be made in a short or medium term. Besides, the preparation schedule for loan repayment

could have an input in the income of the borrower, interest rate, and loan amount (Ojo &Ighalo, 2008).

In Nigeria, amortization and repayment periods vary with the type and sources of housing finance. Onuoha (2011) observed that the payback period granted by banks is too short when one considers that housing development takes longer time to complete. While Ojo (2005) posits that long-term loan, agreement affords better opportunity for potential homeowners to complete their houses.

Formal Rules of Access

Studies have shown that experience of those who have attempted to borrow from financial institutions had their loan application rejected or suspended because of what Ojo (2005) and Onuoha (2011) described as formal rules of access. Some financial institutions give additional conditions for loan approval. These conditions are to be strictly observed by prospective loan applicants. These conditions include the age of account with a lending institution, approved building plan, current tax clearance certificate, and evidence of insurance of the property to be financed and bank service charges (Ojo, 2007; Onuoha, 2011). According to Ojo (2005), genuine applicants who wish to develop a house of their own are often denied access to loan due to the short period they have operated an account with banks. Most financial institutions believe that the age of account kept with them builds confidence and ensures quick repayment of the loan. On building plan and presentation of tax clearance, potential borrowers are expected to deposit the architectural plan of proposed building and present evidence of tax clearance to the bank. In some cases, banks require three to five years of tax clearance as a prerequisite for granting loan (Ojo, 2005).

Type of Loan Provided

Another commonly attractive motivation that determines the propensity of homeowners to initiate housing loan application is the type and nature of loan provided by the financial institutions. Most financial institutions provide short term, medium- and long-term finance for real estate development (Oke *et. al*., 2019). However, every potential homeowner intends to leverage on these categories of real estate finance options to achieve his objectives.

Type of Project Financed

Subjective evidence suggests that borrowers consider the type of project financed by financial institutions before seeking for a housing loan. Housing construction and development is complex and involves many skills and resources including huge financial commitments. As such, financial institutions hardly provide loans for all the categories of housing development. There is evidence that prospective borrowers may want to borrow a loan for different purposes. For example, a borrower may want a loan for constructing a house or for outright purchase, repairs/renovations and improvement purposes (Okey *et. al*., 2019) observe that the probability of borrowers securing loans depends to a large extent on the type of project the financial institution finances. It is for this reason that Ojo (2005) posit that a borrower is attracted to housing loan if such an arrangement helps him to achieve his purpose.

Location Factor

The site and location of the property such as neighborhood location, accessibility to popular places of employment, adequate availability of utilities and transportation as well as compliance with applicable federal, state or local land use law and zoning regulations improve the chances

of prospective borrowers to obtain housing loan (Okey *et al.*, 2019). According to (Okey *et. al.*, 2019), location determines accessibility while accessibility determines demand and consequently profitability. The implication is that financial institutions may be reluctant to finance any project; its location would not add any economic value to the property owner. Perhaps, this is why Ojo (2005) observed that properties located in urban and rural areas are rated differently by financial institutions. For example, banks prefer properties located in urban areas than the rural areas (Ojo, 2005). This is because pieces of property may have different values just because of the difference in location. Moreover, financial institutions perceive that there is general apathy among insurance firms to provide borrowers with mortgage indemnity guarantee insurance premium for properties located in rural areas (Okey *et. al.*, 2019). However, it has been argued that when the provision of housing loan is greatly and strictly hinged on location attributes, potential borrowers are often discouraged from accessing the loan (Okay, 2019). Specifically, those whose properties are located in rural areas or are not in good locations may have their loan application rejected (Okey *et al.*, 2019).

Housing Financing Models for Sustainable Development.

Below are potential models that could facilitate an increase in the finance available to housing providers to increase the supply of affordable housing.

Housing Loan/Bond Aggregators
A housing bond aggregator model provides a vehicle for affordable housing providers to aggregate their debt financing requirements, assisting them to obtain funding from the wholesale market at a better price and longer tenor than is available to them individually. The establishment of a housing bond aggregator would require the establishment of a specialist financing intermediary, whose function would be to liaise with affordable housing providers to determine the amount of debt they are seeking to raise. The intermediary, or entity acting on its behalf, would then source these funds in aggregate from wholesale markets by issuing bonds to investors. The funds generated would then be loaned to the relevant housing providers in return for ongoing interest payments. (Rowley & Ong, 2012).

Housing Trusts
Housing trusts have also been suggested as a means to overcome the current difficulties with scale and the geographic diversity of assets required to attract large scale investment into affordable housing. The creation of a housing trust would provide an additional vehicle for States and Territories to renew their existing public housing stock and boost the overall affordable housing stock. It would also provide a vehicle to develop sites that are currently underutilized by not-for-profit organizations. (Rowley & Ong, 2012).

Housing Co-operatives
Housing co-operatives are not-for-profit legal associations formed for the purpose of providing a housing product for members and are usually owned and controlled by members. Many housing co-operatives are organized and managed on principles of participatory democracy and a common purpose (Rowley & Ong, 2012).

Impact Investing Models Including Social Impact Bonds
Impact investing is an emerging form of finance aimed at addressing challenging social problems by harnessing private investors to back innovations in social service delivery that lead to proven reductions in government expenditure. Impact investing offers an opportunity to bring together capital and expertise from the public, private and not-for-profit sectors to deliver better outcomes for the community. Key features of an effective impact investment include robust measurement, value for money, a service likely to achieve social outcomes and appropriate sharing of risk and returns (Rowley & Ong, 2012).

Down payment grant
Down payment grant can be structured in a number of different ways, including grants and loans. Loans ideally result in the repayment of capital that is then re-used as a down payment loan for another borrower. These loans can be amortizing, but most often are designed as "silent" junior liens due at resale or refinance. Because these loans tend to be small, they must be monitored over many years and lose value with inflation. The costs of administering these loans are high relative to the loan amount. In addition, subsidies in the form of junior liens can limit owners from taking out additional loans. Instead of loans, some assistance programmes use down payment grants, which are administratively efficient but are strictly one-time in nature (Ergungor, 2010).

Mortgage payment subsidies
Mortgage payment subsidies are housing financing models that realistically lessen the interest rate and other periodic charges to be paid by an individual or organisation that has taken a loan for a housing project. According to Calomiris *et al.* (1994), Hui *et al.* (2009), Ergungor (2010) and Collins (2013), a mortgage payment subsidies programme is restricted to developers that do not have adequate initial capital to obtain housing loans and individuals that could not obtain private financing without this assistance, though in the case of a subsidy scheme, the recipients of mortgage subsidies apply for subsidy payment through developers or government agencies.

Credit enhancement
Credit enhancement is a financing model that does not provide direct financing for low-cost housing but can overcome financing barriers. It involves additional guarantees, insurance or collateral, to increase access to capital to finance a home. This housing financing model enhances the credit-worthiness of the person or entity seeking financing by reducing or eliminating some identified risk (Jaffee & Quigley, 2009).

Bundled Mortgage Finance System
Under a bundled mortgage finance system, a single actor/player performs roles in the mortgage process, acting as the loan originator, lender services provider and the risk manager, among others. As a sole investor, the portfolio lender has deposits as his major source of funding. The sole investor creates a close and long-term relationship with his clients. This gives him the opportunity to enter into transactions in other financial products. This model of mortgage financing however is characterized by liquidity and interest rates risks, as borrowers often expect long-term funding, but depository funds are traditionally short-term Central Bank of Nigeria (CBN, 2011).

Unbundled Mortgage Finance System
All the market players in this system play different roles in the execution of a mortgage process in contrast to the arrangements under the bundled mortgage finance system. Here, the borrower goes through a mortgage banker to source funds from investors, other depositories and the secondary market. The key benefit of this system is the assurance of specialization. Every loan goes through the necessary due diligence of underwriting, marketing, packaging, and risk management, among others. This procedure minimizes cost and promotes market discipline. However, where many entities/players are involved, there is the tendency for bureaucratic delays, which could add to cost as well (CBN, 2011).

Secondary Market Based Mortgage Finance System
The secondary market-based mortgage finance system is so far believed to be the system that best suits the long-term liquidity needs of the housing market. The market is regarded as an organized system that involves loan origination, ware-housing, securitization and sale to investors. Funds realized from sale of mortgages are ploughed back into the system to create more mortgages, thereby deepening the system and increasing the housing stock in the economy. The secondary market system begins with the borrower, who takes a decision to access a mortgage loan and approaches a mortgage institution (primary market) to express his intention (CBN, 2011).

PPP models
Under this model, the public authority provides land to the selected private developer. This would effectively constitute a state subsidy for the project. The private developer will be responsible and held accountable for designing, building and financing of affordable housing stock and associated services of predetermined standards, at a pre-determined cost and within a pre-determined time. The public authority will undertake to compensate the private developer for the housing stock on the satisfactory completion and handing over of the units, as per prescribed standards, cost and time (Abdullahi, 2015).

RESEARCH METHODOLOGY
Two set of data were identified as being relevant to effective conduct of this research namely primary and secondary. The population is restricted to professionals, Developers, stake holder and financial institutions in the build environment in Niger State. A randomly selected technique was adopted in selection of sample size. The adoption of selection is based on information obtained in Table 1, which shows that the population of Architect in Niger State is 27, Quantity Surveyors 110, Builder 72. The Developers and financial institutions are justified on non-availability of their total population in the study area. This study used a questionnaire as Primary tool of data collection and it is divided into two (2) sections. The section A was designed to obtain relevant information to the respondents such as organisation of the respondents, qualifications, years of experience, profession affiliation etc. Section B focus on the objectives. A quantitative questionnaire was developed and administered to housing developers and construction professionals who practice in Niger State. Two hundred (200) questionnaires were distributed, twenty (26) was given to Architect, forty-five (45) to quantity surveyor, forty-three (43) each to Builders, Developers, and Financial institutions and one hundred and fifty (150) retrieved and found suitable for the analysis.

Table 1: Profession of Respondents

Professionals	Population
Architect	26
Quantity Surveyor	110
Builder	72

Source: Niger state NIA, NIQS AND NIOB.

Method of Data Analysis

The descriptive statistic using mean scores of each variable were determined based on the 5-point Likert scale used to collect data to establish the significant factors in each of the constructs. Mean scores entail allocating a point to the respondent's ratings to the variables e.g. strongly agree equal to 5 point and strongly disagree equal to 1 point, etc. Mean scores have been used extensively in researches like that of Assaf, et al., (2010). That has similar types of variables. The mean score is calculated for each construct using SPSS based on the underlying formula;

$$Mean\ score = \frac{5n5 + 4n4 + 3n3 + 2n2 + 1n1}{n5 + n4 + n3 + n2 + n1} \quad \dots\dots\dots\dots\dots\dots\dots\ 5.1$$

Where; n_1 = number of respondents who answer is strongly disagree

n_2 = number of respondents who answer is disagree

n_3 = number of respondents who answer is neutral

n_4 = number of respondents who answer is Agree

n_5 = number of respondents who answer is strongly agree

RESULTS AND DISCUSSION

Present the result of analysis on data relating to the respondents. On the analysis of the position of respondents, the result of descriptive statistics shows that 21.3% of respondents were senior Q/S, 14.7% were site manager, 10.7% were project managers and 53.3% were others specified. The analysis of the type of organisation revealed the result as 31.3% were in public organisation, 18.7% were in private organisation, 15.3% were in financial institution, 26.0% were developers and 8.7% were cost consultant Q/S. The result shows that public organisation has the highest percentage of 31.3% of respondents. The respondent's education qualification indicates that out of 150 respondents, 10% were OND, 20.7% were HND, 36% were B.Sc/B.Tech,27.3% Msc/M.Tech/PhD and 6% were others specified. The result revealed that the majority of respondents were B.sc/B.Tech. Analysis on respondents working experience showed that 12% has a working experience ranging between 0 to 5 years, 40% have a working experience of 5 to 10 years, 26.7% have a working experience between 11 to 15 years, and 21.3% have a working experience above 15 years. These shows that a vast majority (88%) of respondents has practice for a range above 5 to 10 years and considered suitable for the analysis. On the professional affiliation of the respondents, the result revealed that 17.33% of the respondents were Architect, 24.67% were quantity surveyors, 21.33% were Builders, 18% were ICAN/ANA and 18.69% were Developers/ Estate surveyor. The analysis of the respondent on project handled revealed that 50% of the respondent handle between 0 to 5 projects, 36% of the respondent handle between 5 to 10 project, 12.7% handle between 11 to 15 project and 1.3% handle above 15 projects. The result shows that between 0 to 5 projects have the highest percentages of the respondents. This

result proves further that the respondents are qualified, competent and highly experienced and that they are expertise on sustainable and affordable housing development

Factor analysis on SPSS application package was used to analyse the data of factors influencing choice of housing financing model. According to Pallant, (2011), Kiser- Meyer Olkin (KMO) and Bartletts Test most be conducted to examine the sample adequacy and to ensure that the technique is appropriate for the variables, hence KMO and Bartletts analysis. The first step in PCA analysis is to test the appropriateness of a study's data for PCA analysis hence the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) a   ricity were used to identify the factors influencing the choice of housing financing model to the delivery of sustainable housing project. Table 1 shows the results of KMO and Bartlett's test of Sphericity. These tests provide the basis for measuring the minimum standard that the data must meet before being considered adequate for further analysis. The KMO index ranges from 0 to 1, with 0.6 suggested as the minimum value for a good factor analysis (Pallant, 2011; Tabachnick & Fidell, 2012). The Bartlett's test of Sphericity indicates the strength of the relationship among variables and it should be significant at $p<0.05$ for the PCA to be considered. However, the results in Table 1, display KMO value of 0.915 which is greater than 0.6 and less than 1, while the Bartlett's Sphericity value $p = 0.000$ (i.e. $p<0.05$). Therefore, the data is adequate and suitable to be used for PCA.

Table 2   KMO and Bartlett's Test for Factors Adequacy

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.915
Bartlett's Test of Sphericity	Approx. Chi-Square	1731.033
	df	171
	Sig.	.000

Principal Components Factors Influencing the Choices of Housing Financing Models

According to Pallant (2011), the next step after showing the appropriateness and suitability of the research data is component (factor) extraction. This is a process to ascertain the number of components to retain, based on their influence on the choice of the model, since not all factors a   (Tabachnick & Fidell, 2012). The "Kaiser's criterion using eigenvalues" was adopted to extract the components and varimax rotation was used to extract the variables that load on each identifiable variable. However, the significant factors, according to Kaiser's criterion, are those factors with eigenvalues above 1. In Table 4, five components with initial eigenvalues greater than 1 were extracted from the components to achieve factors influencing the choice of the model. The eigenvalues of the five variables are 7.461, 1.342, 1.290, 1.152 and 1.017; the result shows that the first component is capable of explaining 39.267% of the variance while the second component explained 7.06%, third explained 6.79% fourth explained 6.06 % and fifth explained 5.35% of the component. However, the five components combined to explain 64.54% of the total variance and considered to be highly significantly responsible factors affecting the choice of the models. While those below 1 were considered to be less significant factors.

Table 3   Communalities

Variables	Initial	Extraction
Appropriate Collateral	1.000	0.941
Stringent Condition	1.000	0.880
Repayment Criteria	1.000	0.672
Interest Rate	1.000	0.610
Accessing NHF	1.000	0.766
Type of Loan	1.000	0.683
Type of Project Financed	1.000	0.614
Site and Location of Project	1.000	0.642
In Adequate Funding	1.000	0.923
In effective Housing Finance	1.000	0.546
Financial Instrument	1.000	0.713
Govt. Programme Policies	1.000	0.686
Policy Instrument	1.000	0.397
Poor Research and Dev.	1.000	0.694
Lack of Effective Plan	1.000	0.423
Approval of Building Plan	1.000	0.538
Bureaucracies in Land Allocation	1.000	0.381
Difficulty in Obtain C of O	1.000	0.696
Weak Institutional Framework	1.000	0.459

Extraction Method: Principal Component Analysis.

Table 4   Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.461	39.267	39.267	7.461	39.267	39.267	7.412	39.009	39.009
2	1.342	7.064	46.331	1.342	7.064	46.331	1.362	7.169	46.178
3	1.290	6.788	53.119	1.290	6.788	53.119	1.236	6.505	52.683
4	1.152	6.063	59.182	1.152	6.063	59.182	1.139	5.997	58.680
5	1.017	5.352	64.535	1.017	5.352	64.535	1.112	5.854	64.535
6	.894	4.706	69.241						
7	.823	4.330	73.570						
8	.791	4.165	77.736						
9	.782	4.118	81.854						
10	.659	3.467	85.321						
11	.617	3.248	88.569						
12	.546	2.873	91.442						
13	.456	2.402	93.844						
14	.317	1.669	95.513						
15	.314	1.653	97.166						
16	.281	1.477	98.643						
17	.162	.853	99.496						
18	.074	.392	99.888						
19	.021	.112	100.000						

Extraction Method: Principal Component Analysis.

To further confirm the number of components to retain, Catell's scree test was performed on the variable and the results is shown in Figure 1. The (scree plot) shows that two components are retained. These components are the point, which is above the elbow on the scree plot shown in Figure 1. These components, however, contribute the most to the variance in the data set, and this agrees with the results displayed in Table 3
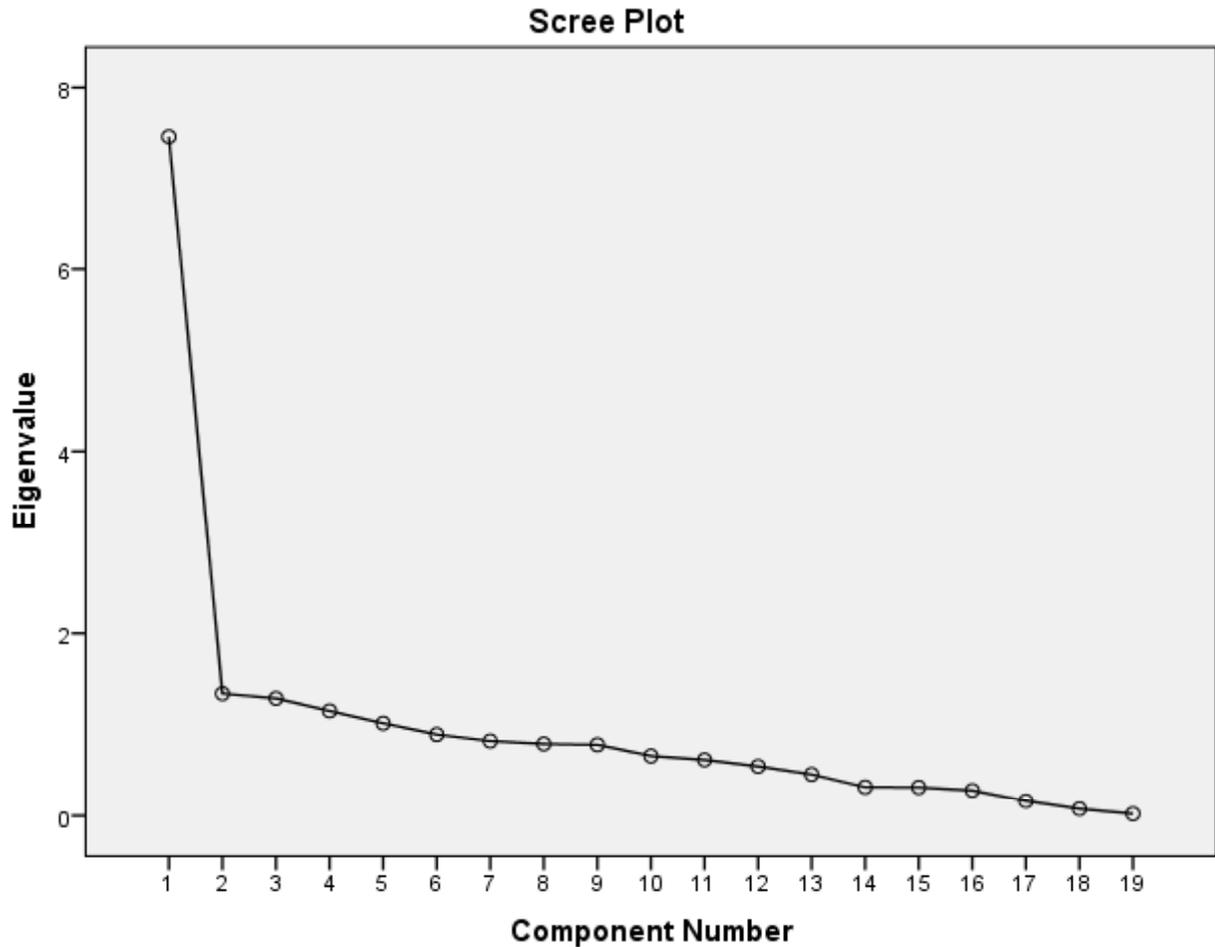
Figure 1: Catell's scree plot for factor influence the choice of housing financing model

CONCLUSION

The study has evaluated the various factors that affect the choice of housing financing models in Niger State. A total of Nineteen (19) factors were identified and classified into five major groups, stringent condition, inadequate funding, research and development, Government programme and policies and project to be financed. From the analysis it was concluded that appropriate collateral, stringent condition, repayment criteria, interest rate and access to National Housing Fund are the most important factors considered by the respondents that hinder the easy accessibility to housing financing. The identified factors have not been advantage to the building sector and its participants and proper measures should be taken to put stop to this factor. The study has therefore provided additional data base of factors affecting the choice of financing models to Developers, stakeholders' professionals and financial institutions that partake in housing provisions in making quality decisions as regards investment in housing development and to reduce the conditions upon which finances are obtained.

Recommendation

From the finding the following recommendation were made in order to implement the selection of best housing financing model to enhance delivery of sustainable housing projects.

1. Government, developers, housing providers, construction professional's and stakeholders in the building industries should make use of the result obtain from the analysis in the decision making and the selection of the best financing models that are effective and suitable for successful delivery of sustainable housing project.

2. The financial institutions should reduce the conditions attached to the procedures for obtaining housing loans by the prospective homeowners.

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