



Evaluating the Effectiveness of Mortgage Financing in Enhancing Housing Delivery in Nigeria

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Abstract

Access to adequate housing is a fundamental right for every Nigerian, as emphasized in the National Housing Policy of 1991. Adequate financing plays a crucial role in achieving effective housing delivery. This research aims to conduct a comparative analysis of the impact of mortgage finance on housing delivery in the cities of Jos and Kano. The study examines the mortgage institutions operating in the selected areas and assesses the levels of loan applications and disbursements during the study period. Over a span of ten years, the research investigates the correlation between mortgage finance and housing production in order to determine the extent to which mortgage institutions contribute to housing delivery. The study utilizes Pearson's product-moment correlation to analyze the data on the number of loans granted and the corresponding number of housing units produced in both cities. The findings of this research will provide valuable insights into the relationship between mortgage financing and housing delivery in Jos and Kano

Keywords: Housing, Finance, and Mortgage.

1.0. Introduction

Mortgage financing refers to the available funds provided by banks and other financial institutions to individuals and corporations for the purpose of constructing, purchasing, or renovating residential properties. This type of financing requires collateral security and adherence to specific requirements set by the banks or financial institutions. Mortgage banks are institutions that gather financial resources, such as shares, savings, and deposits, from surplus units in the economy to finance housing and investment needs for deficit units. These banks are established by private individuals, the government, and cooperative bodies with the aim of mobilizing public savings to facilitate qualitative and quantitative improvements in housing development. The legal framework for the establishment and operation of mortgage businesses in Nigeria is defined in the Mortgage Institution Decree No.59 of 1989. This decree was enacted to promote the development of institutional structures that can accelerate the mobilization of resources through credible financial instruments to support housing delivery in Nigeria.

There are numerous challenges associated with home ownership, including limited financial resources, high construction costs,

complex processes for obtaining property titles, and high interest rates for accessing financing. Despite these challenges, this research aims to identify the advantages of mortgage finance as a tool for enhancing home ownership in Nigeria. The housing delivery system in Nigeria consists of various interconnected components, including land, infrastructure development, building materials, housing policies, building regulations, and most importantly, the financial component. Housing, like food, water, and air, is a basic human necessity, but it requires a significant financial investment to acquire. Ebie (2003) noted that rental costs in major Nigerian cities account for approximately 60% of an average worker's disposable income, significantly higher than the 20-30% recommended by the United Nations.

The National Housing Policy of 1991 recognized that Nigeria faces quantitative and qualitative housing problems, affecting both rural and urban areas, with the rural problem primarily being a qualitative one. According to the Federal Ministry of Lands, Housing, and Urban Development (2013), Nigeria has a housing deficit of 17 million units, necessitating an investment of N43 trillion. The report states that the country needs to produce 720,000

housing units annually to meet its millennium development goals in housing. However, finance, being the crucial factor in addressing the issue of home ownership, is largely inaccessible. The mortgage system in the country remains underdeveloped, and the National Housing Fund, established in 1992 to address housing finance challenges, has made limited progress in solving the problem.

The national housing policy of 1991 recognizes the right to housing for all Nigerians. However, there are significant challenges in accessing mortgage finance, particularly through the national housing fund (NHF). Accessing the NHF is difficult, and mortgage options from primary mortgage institutions (PMIs) and commercial banks outside the NHF carry high interest rates ranging from 15% to 21%, contrary to the stipulated 6% for the NHF. Additionally, inefficient land titling and documentation procedures further exacerbate the problems. Despite the government's efforts to provide housing through various policies, limited resources have hindered significant progress. Finance is widely acknowledged as the most critical factor in effective housing delivery, and although PMIs have been established, the challenges persist. Therefore, the central questions arise: Has mortgage finance effectively facilitated home ownership? How effective are our mortgage institutions in housing delivery? Can our housing deficit be better addressed through mortgage arrangements?

2.0. Literature Review

Concept of financing

In today's world, the role of finance in development is critical. According to Bello (2002), finance is "peculiarly resources" used in the acquisition of goods and services either for consumption or for the production of goods and services, including housing or real estate development. Finance can rightly be said to be the foundation on which any business or venture is built. It is the "life blood" of any development. Thus, it is given utmost attention when arranging for it because certain factors determine the extent to which the right type or sources of finance can be 'pooled' together to achieve a stated goal (Bello, 2002).

The availability and use of finance in most real estate transactions have provided a shortcut to property ownership for millions of business and home owners. It has made ownership possible for thousands of individuals who would otherwise have found their personal roads to ownership closed or filled with time-consuming detours (Bello, 2002).

The term "financing" refers to the process of obtaining funds or capital generally for the purpose of supporting a development and/or investment by gaining control over assets. Under this definition, the scope of financing is quite broad and includes not only equity capital and mortgage loans as sources of funds but lease financing as well (Bello, 2002)

Finance is considered the most important factor in real estate development. Adequate finance is, therefore, the first requirement for a successful and effective real estate delivery. The importance of finance in real estate development is stressed by Agbola (1998) who asserted that without a well-organized and efficient real estate finance mechanism, the goal of property development policy will be largely unattainable. Before now, real estate development was financed by budgetary appropriation by the government. This according to Jinadu (2007) has been characterized by the

achievement of desired goals with high-cost implications. Real estate development, by its nature, is very capital intensive and has numerous benefits which cut across many years; thus, long-term credit is the most logical option compared to other forms of finance (Ajayi, 2001).

It requires long-term financing for which there must be institutional capacity structure and mechanism that will allow a convenient and effective linkage between the respective financial authorities and the developer. Most investment projects are carried out with borrowed capital; financial indicators play an important part in the analysis of real estate investment. In the case of borrowed funds, there is a need to appraise the adequacy or other use of the collateral, while return on equity contribution is also ensured to be reasonable. Those who provide funds to the developers demand a return that reflects the amount of risk they perceive and undertake. It is a fact that the more risk in an investment, the more the expected returns. The difficulty for both the borrower and lender is determining how much risk exists. Thus, the financial risk element inherent in real property development is the probability that the developer will not be able to meet their debt service obligations (Ajayi, 2001).

The cost and availability of finance help determine the demand for and supply of real estate and therefore affect real estate values. The cost of financing includes the rate of interest on the mortgage instrument. The cost and availability of credit for real estate financing affect both the quantity and quality of the real estate demanded and supplied (Ajayi, 2001)

CONCEPT OF HOUSING

The concept of housing is widely used and has different interpretations depending on the perspective of scholars and authors. The term "housing" is derived from the proto-Germanic word "hud-dos," which is believed to be related to the idea of hiding. The oldest known house dates back to around 10,000 BC and was made of mammoth bones in Mezhiriah, Ukraine (Wikipedia, 2010). The relationship between a house, home, and housing is intertwined. A house refers to the physical structure, while a home represents the abstract notion of occupation, and housing encompasses the combination of both, including their structural, neighborhood, and locational attributes.

A house serves as a dwelling place for humans, providing shelter and protection against the elements. It encompasses various types of dwellings, from simple huts to standalone structures. Oduwale (1983) and Oyesiku (2009) define a house as the physical structure used for shelter. Housing goes beyond the mere physical structure, encompassing elements such as basic infrastructure, utilities, services, facilities, affordability, and comfort (Jinadu, 1995; Agbola, 1998). From an economic perspective, housing is considered a long-lasting and significant capital asset, constituting a substantial portion of a country's tangible capital (Oduwale, 2009). The National Housing Policy (1991) recognizes that housing is more than just shelter, incorporating aspects of quality, comfort, social amenities, and community. Nigeria faces both quantitative and qualitative housing problems, with urban areas experiencing housing shortages, overcrowding, and poor environmental conditions, while rural areas suffer from poor-quality housing (Federal Office of Statistics, 1997; National Housing Policy, 1991).

The term "housing" can have contextual variations, ranging from a general reference to a specific technical and systems perspective. At one extreme, housing can refer to the physical unit or structure for human habitation, occupied by a regular household (Bello, 2008). It can also encompass social services and utilities that contribute to a livable community or neighborhood. Housing is recognized as a crucial economic sector, with significant positive impacts on economic growth, public health, societal stability, and quality of life (Jinadu, 2007). The concept of housing encompasses the physical structures, social services, and utilities that provide shelter and create livable environments for individuals and communities. It is a multifaceted aspect that influences economic development, public well-being, and the overall quality of life.

TREND IN HOUSING FINANCE

The historical trend in housing finance can be traced back to the earliest days of human existence when shelter was a fundamental necessity for survival. During this time, individuals relied on their own efforts to construct shelters, such as caves, to protect themselves from natural elements and dangerous animals (Nubi, 2006). Self-help and personal initiatives were the primary means of financing these shelters, as the concept of a cash economy was not prevalent at that time.

Over the years, the housing sector has gained recognition for its crucial role in the welfare of a country and its impact on various aspects of the economy. Adequate housing provision has been a priority for many countries, particularly developing ones, since the 1970s. This emphasis is driven by the recognition that housing is not only a basic human need but also a durable consumer item that significantly influences productivity, well-being, and the standard of living (Crosby, 1997).

In response to the challenge of housing provision, governments have implemented programs aimed at assisting with finance, infrastructure development, and research. Finance, in particular, has emerged as a prominent issue due to the substantial capital requirements involved in housing provision, which often exceed the means of medium and low-income groups. The evolution of housing finance can be observed from the era of self-help, where assistance came from close friends and relatives, to mutual aid projects, where materials were collectively acquired for construction (Lemo, 2000). These early approaches were characterized by simplicity and affordability.

With the advent of European influence and the introduction of specialized trades, the dynamics of housing finance began to shift. Aided self-help and mutual aid projects gradually gave way to more complex housing structures and the need for external financing. While elements of mutual aid projects still exist in certain villages, the construction of houses with intricate designs and expensive materials has posed financial challenges (Agbola, 2007). The rising cost of construction has made it difficult for individuals with regular incomes to save enough for housing investments. Consequently, the society has transitioned from relying solely on savings to explore alternative sources of housing finance. Socio-economic factors and the high cost of construction have limited the availability of finance, but it is believed that a range of financing options can alleviate risks and facilitate the realization of housing projects (Nubi, 2006).

Mortgage and Housing Delivery in Nigeria

The mortgage sector plays a crucial role in facilitating housing delivery and promoting homeownership in Nigeria. This literature review aims to explore the current state of mortgage finance and its impact on housing delivery in the country. By examining recent research and scholarly works, this review provides an overview of the challenges, opportunities, and potential solutions in the Nigerian mortgage and housing sector.

The Nigerian mortgage industry has witnessed significant growth and development in recent years. Adequate mortgage finance is essential for promoting affordable housing and expanding homeownership opportunities. According to Owoeye and Salawu (2021), the availability of mortgage loans is crucial for reducing the housing deficit and improving the standard of living for Nigerians. The Nigerian mortgage industry has experienced notable progress and advancement in recent years, playing a pivotal role in the country's housing sector. Adequate mortgage finance is fundamental in facilitating affordable housing options and expanding homeownership opportunities for Nigerians.

The availability of mortgage loans is of utmost importance in addressing the housing deficit and enhancing the overall standard of living. Owoeye and Salawu (2021) emphasize that access to mortgage finance is crucial for reducing the gap between housing demand and supply, thereby providing individuals and families with the means to secure suitable and sustainable housing solutions. The growth of the mortgage industry in Nigeria has been driven by various factors. Firstly, there has been an increase in the number of mortgage institutions, including commercial banks, primary mortgage banks, and mortgage refinancing institutions, which have expanded their lending activities in the housing market. These institutions have played a significant role in providing financial resources and expertise necessary for mortgage finance (Olayiwola et al., 2022).

Furthermore, government initiatives and policies have contributed to the growth of the mortgage sector. The establishment of institutions such as the Federal Mortgage Bank of Nigeria (FMBN) and the introduction of the National Housing Fund (NHF) have provided avenues for affordable mortgage loans and encouraged financial institutions to participate actively in mortgage finance (Alabi et al., 2021). These interventions have aimed to bridge the gap between housing demand and supply and promote homeownership.

In recent years, the Nigerian mortgage industry has also witnessed the involvement of international financial institutions, development agencies, and private investors. This influx of external investments has provided additional funding sources for mortgage finance, enabling the expansion of affordable housing schemes and the implementation of innovative financing models (Olayiwola et al., 2022). However, despite the progress made, challenges still exist in the Nigerian mortgage sector. High interest rates on mortgage loans remain a significant hurdle for many potential homeowners, making homeownership unaffordable for a considerable segment of the population (Olomola et al., 2021). Additionally, limited access to long-term funding, inadequate collateral options, and inefficient land titling and documentation procedures pose obstacles to the growth and effectiveness of mortgage finance (Olayiwola et al., 2022).

The Nigerian mortgage industry has experienced substantial growth and development, playing a vital role in housing finance and homeownership. Adequate mortgage finance is essential for addressing the housing deficit, improving living standards, and promoting sustainable housing solutions. While challenges persist, government interventions, policy reforms, and collaborative efforts among stakeholders are necessary to further enhance mortgage finance and expand access to affordable housing in Nigeria.

Challenges in Mortgage Finance

Despite the growth in the mortgage sector, several challenges hinder its effectiveness in housing delivery. One significant challenge is the high interest rates on mortgage loans, which make homeownership unaffordable for many Nigerians (Olomola et al., 2021). Limited access to long-term funding, inadequate collateral options, and inefficient land titling and documentation procedures further exacerbate the challenges in mortgage finance (Olayiwola et al., 2022).

The challenges faced in mortgage finance in Nigeria pose significant barriers to effective housing delivery. One of the major obstacles is the high interest rates associated with mortgage loans. These elevated rates make homeownership financially burdensome for a large portion of the Nigerian population, limiting their ability to access affordable housing options (Olomola et al., 2021). The high interest rates not only increase the cost of borrowing but also contribute to the overall unaffordability of housing, particularly for low and middle-income individuals and families.

Another challenge is the limited availability of long-term funding for mortgage finance. The Nigerian mortgage industry often faces a shortage of funds that can be dedicated to long-term housing loans. This scarcity hinders the expansion of mortgage finance and constrains the opportunities for homeownership in the country (Olayiwola et al., 2022). The lack of accessible long-term financing options restricts the ability of potential homeowners to secure mortgage loans and acquire suitable housing.

In addition, inadequate collateral options pose a challenge to mortgage finance in Nigeria. Many financial institutions require collateral for mortgage loans, such as property or assets, to mitigate the risk associated with lending. However, the limited availability of acceptable collateral options makes it difficult for individuals to meet the requirements for obtaining a mortgage loan. This constraint restricts access to mortgage financing and limits the potential pool of borrowers (Olayiwola et al., 2022).

Furthermore, inefficient land titling and documentation procedures present challenges in the mortgage sector. The complexities and delays involved in land registration, titling, and documentation processes create uncertainties and legal risks for lenders and borrowers alike. These inefficiencies can lead to disputes and make it more difficult to enforce mortgage contracts, hindering the growth and effectiveness of mortgage finance in Nigeria (Olayiwola et al., 2022).

the challenges in mortgage finance, including high interest rates, limited access to long-term funding, inadequate collateral options, and inefficient land titling procedures, contribute to the difficulties in achieving effective housing delivery in Nigeria. Addressing these challenges is crucial for promoting affordable housing, expanding homeownership opportunities, and improving the overall housing situation in the country.

Government Interventions and Policies:

The Nigerian government has implemented various policies and interventions to address the challenges in mortgage finance and housing delivery. For instance, the establishment of the National Housing Fund (NHF) aims to provide affordable mortgage loans to contributors (Alabi et al., 2021). Additionally, the Federal Mortgage Bank of Nigeria (FMBN) and primary mortgage institutions (PMIs) play crucial roles in mortgage finance and housing provision (Aina et al., 2020).

Government interventions and policies have been instrumental in addressing the challenges faced in mortgage finance and housing delivery in Nigeria. The Nigerian government recognizes the importance of affordable housing and has implemented various measures to facilitate access to mortgage loans and promote homeownership.

One significant government intervention is the establishment of the National Housing Fund (NHF). The NHF is a scheme created to mobilize funds for the provision of affordable housing finance to Nigerian workers. Through the NHF, contributors, who are typically employed individuals, make regular contributions that are pooled together to provide mortgage loans at lower interest rates (Alabi et al., 2021). The NHF has played a crucial role in increasing access to mortgage finance for individuals and improving housing affordability.

In addition to the NHF, the Federal Mortgage Bank of Nigeria (FMBN) and primary mortgage institutions (PMIs) are key players in mortgage finance and housing provision. The FMBN serves as the apex mortgage institution in Nigeria and is responsible for providing long-term funding to PMIs. These PMIs, in turn, offer mortgage loans to individuals and developers for the acquisition, construction, and renovation of houses (Aina et al., 2020). The FMBN and PMIs work together to facilitate mortgage financing, enhance housing delivery, and support the development of the housing sector.

Furthermore, the government has implemented policies aimed at improving land titling and documentation procedures. Efficient and transparent land titling systems are crucial for mortgage finance as they provide assurance of property ownership and facilitate the use of land as collateral for loans. The government has taken steps to streamline and digitize land registration processes, reduce bureaucracy, and enhance the efficiency of land titling systems (Olayiwola et al., 2022). These efforts contribute to reducing the challenges associated with land documentation and enhance the effectiveness of mortgage finance.

government interventions and policies, such as the National Housing Fund, the Federal Mortgage Bank of Nigeria, and improvements in land titling procedures, have played vital roles in addressing the challenges in mortgage finance and housing delivery in Nigeria. These initiatives aim to increase access to affordable mortgage loans, promote homeownership, and stimulate the growth of the housing sector in the country.

Impact on Housing Delivery

The effectiveness of mortgage finance directly impacts housing delivery in Nigeria. Adequate access to affordable mortgage loans can stimulate housing demand, promote construction activities, and reduce the housing deficit (Akhimien et al., 2021). Conversely,

limited mortgage availability and high interest rates hinder housing delivery and exacerbate the housing crisis in the country

The mortgage sector in Nigeria plays a crucial role in facilitating housing delivery and promoting homeownership. However, challenges such as high interest rates, limited access to funding, and inefficient land titling procedures pose significant barriers. Government interventions, technological advancements, and policy reforms are essential for improving mortgage finance and addressing the housing deficit in Nigeria

The impact of mortgage finance on housing delivery in Nigeria is substantial. Access to affordable mortgage loans has the potential to drive housing demand, stimulate construction activities, and alleviate the housing deficit in the country (Akhimien et al., 2021). When individuals and families can access mortgage financing at reasonable interest rates, they are more likely to invest in homeownership, leading to increased housing supply.

On the other hand, the limited availability of mortgage loans and high interest rates present significant challenges to housing delivery in Nigeria. Many potential homeowners are unable to secure affordable financing options, making it difficult for them to purchase or build their own homes. This situation further exacerbates the housing crisis in the country, as the demand for housing continues to outstrip supply. One of the key factors influencing housing delivery is the cost of mortgage financing. High interest rates on mortgage loans make homeownership unaffordable for many Nigerians, particularly those in low and middle-income brackets. The high cost of borrowing restricts the number of potential homebuyers and limits the overall housing market activity.

In addition to the issue of affordability, limited access to long-term funding poses another challenge in the mortgage sector. The availability of long-term capital is crucial for mortgage institutions to provide sustainable financing options to potential homeowners. Without access to adequate funding sources, mortgage institutions may struggle to meet the demands of aspiring homeowners, further impeding housing delivery. Furthermore, inefficient land titling and documentation procedures can hinder the mortgage process and slow down housing delivery. Lengthy and complex procedures for registering land and verifying property titles add to the time and cost of acquiring mortgage loans. Simplifying and streamlining these processes can help improve the efficiency of the mortgage sector and facilitate housing delivery.

To address these challenges, government interventions and policy reforms are necessary. The Nigerian government has implemented various initiatives, such as the establishment of the National Housing Fund (NHF) and the Federal Mortgage Bank of Nigeria (FMBN), to provide affordable mortgage loans and support housing delivery (Akhimien et al., 2021). Additionally, technological advancements, such as digital platforms for mortgage processing and documentation, can help streamline procedures and improve access to mortgage financing. The impact of mortgage finance on housing delivery in Nigeria is significant. Access to affordable mortgage loans stimulates housing demand and construction activities, while limited mortgage availability and high interest rates hinder housing delivery. Government interventions, technological advancements, and policy reforms are crucial for improving mortgage finance, reducing the housing deficit, and promoting homeownership in Nigeria

Methodology

The study will employ a comparative research design to analyze and compare the relationship between mortgage finance and housing delivery in the cities of Jos and Kano. The first step involves identifying and selecting mortgage institutions operating in both cities. A purposive sampling method was used, resulting in the inclusion of one primary mortgage institution in Jos and two in Kano, as well as seven real estate developers associations in Jos and ten in Kano. These institutions and associations are registered with the Federal Mortgage Bank of Nigeria (FMBN), and each state has its own housing corporation and mortgage bank. A total of 37 out of 40 questionnaires were retrieved, with 14 from Jos and 23 from Kano. The sample frame for this study includes primary mortgage institutions (PMIs), the real estate developer's association of Nigeria (REDAN), mortgage banks, and housing corporations in the study areas. Descriptive and inferential statistical techniques, such as graphs, tables, and Pearson product-moment correlation, were used to analyze the collected data. These techniques were employed to present information on loan disbursements, housing delivery, the annual budget for housing development, and the relationship between mortgage finance and housing delivery

Result and Discussions

Table 1: Loans Application and Disbursement in Jos

Year s	persons applied for loan	Loan to be disbursed (MillionNaira)	Loan granted	Amount disbursed (MillionNaira)
2004	150	80	50	40
2005	100	70	80	60
2006	120	110	40	100
2007	200	200	50	180
2008	80	300	30	150
2009	120	250	80	200
2010	220	320	168	300
2011	253	500	186	450
2012	365	600	208	550
2013	290	750	197	720
Total	1898	3180	1179	3650

Table1: reveals that the least amount of disbursement was in 2006 and 2008 while the highest was in 2013, the least number of applications was in 2008 and the highest was in 2013

Table 2: Loans Application and Disbursement In Kano

Years	Person applied for Loan	Loan to be disbursed (million)	Loan granted	Amount disbursed (Naira)
2004	300	90	120	80

2005	320	120	180	100
2006	300	120	200	90
2007	250	250	140	245
2008	350	400	100	350
2009	270	600	80	500
2010	220	500	168	200
2011	260	650	180	650
2012	365	550	200	500
2013	290	880	190	800
Total	2925	4160	1558	3515

Table 2: Reveals the least amount of disbursement was in 2004 and 2006 and the highest was in 2013, the least number of applications was in 2010 and the highest was in 2008

Table 3 Level of loan default in Jos

years	No person granted loan
2004	50
2005	80
2006	40
2007	140
2008	30
2009	80
2010	168
2011	186
2012	208
2013	197

Table 3: reveals that the highest number of persons default was in the year 2011, 2007 and 2008 and the least was in 2005 and 2010

Table.4. level of loan default in Kano

years	No. of people granted loan
2004	120
2005	180
2006	200
2007	140
2008	100
2009	80
2010	168
2011	180
2012	200
2013	190

Table.4 reveals that the highest number of persons who defaulted was in 2011 and 2007 while the least was in 2009

Table 5: Annual budgets for housing development in Jos

Years	Amount Budgeted (₦ Millions)	Percentage (%)
2004	20	1.6
2005	25	1.8
2006	34	2.6
2007	60	4.5
2008	100	7.5
2009	120	9.1
2010	170	12.9
2011	220	16.7
2012	250	19.0
2013	320	24.3
Total	1319	100

Table 5: Reveals the annual budgetary allocation for housing development in Jos for the period of study the least allocation was in 2004 and the highest was in 2013

Table 6: Annual budgets for housing development in Kano

Years	Amount Budgeted (₦ Millions)	Percentage (%)
2004	50	1.1
2005	80	1.8
2006	240	5.2
2007	300	6.6
2008	450	9.9
2009	480	10.6
2010	560	12.3
2011	670	14.8
2012	780	17.2
2013	930	20.5
Total	4540	100

Table 6: Reveals the annual budgetary allocation for housing development in Kano for the period of study the least allocation was in 2004 and the highest in 2013

Figure 2: Annual budgets for housing development in Jos

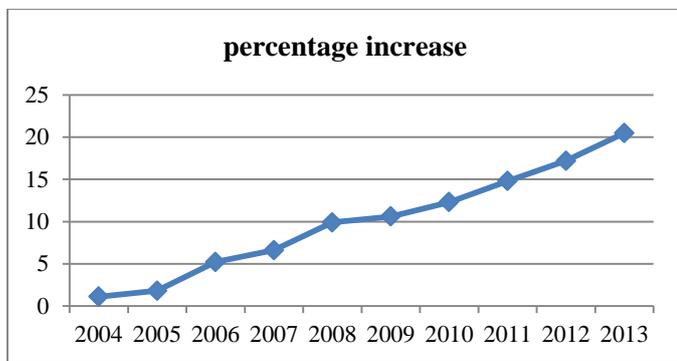


Figure 2 Shows the level of budgetary allocation for housing development in Jos

Figure 3: Annual budgets for housing development in Kano

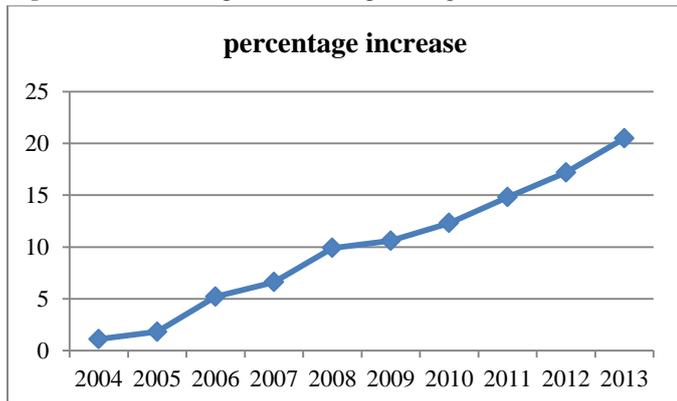


Figure 3 Shows the level of budgetary allocation for housing development in Kano

Correlation Analysis: test of statistical significance of relationship between mortgage finance and housing delivery in Jos.

Table 7: long granted in jos

s/no.	Loan granted (X)	Housing delivery(Y)	XY	X ²	Y ²
1	50	150	7500	2500	22500
2	80	133	10640	6400	17689
3	40	98	3920	1600	9604
4	140	96	13440	19600	9216
5	30	135	4050	900	18225
6	80	448	35840	6400	200704
7	168	83	13944	28224	6889
TOTAL	588	1143	89334	65624	284827

$$r = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{[N\sum X^2 - (\sum X)^2][\sum Y^2 - (\sum Y)^2]}}$$

$$r = \frac{89334 - 588 \times 1143}{\sqrt{[65624 - (588)^2][284827 - (1143)^2]}}$$

$$r = \frac{89334 - 672084}{\dots}$$

$$\sqrt{[-260716] [-1021622]}$$

$$r = \frac{582750}{\sqrt{26633112}}$$

$$r = \frac{582750}{5160727}$$

$$r = 0.1129$$

HYPOTHESIS

Ho: There is no significant relationship between mortgage finance and housing delivery

Ha: There is significant relationship between mortgage finance and housing delivery

With degree of freedom, df=0.05

N-2=7-2=5

Where N=7 (number of pair of value)

Calculated r=0.1129

Critical= 0.0234

DECISION;

The calculated r=0.1129 is greater than the critical value of 0.0234, therefore Ha is accepted, in conclusion the result shows that there is a significant relationship between mortgage finance and housing delivery. The calculated correlation coefficient (r) of 0.1129 is greater than the critical value of 0.0234, indicating a statistically significant relationship between mortgage finance and housing delivery. Therefore, the alternative hypothesis (Ha) is accepted, supporting the conclusion that there is indeed a significant relationship between mortgage finance and housing delivery. This finding highlights the importance of mortgage finance in facilitating housing delivery and emphasizes the need for effective policies and interventions to promote affordable housing options.

Correlation Analysis: Test of statistical significance of relationship between mortgage finance and housing delivery in kano.

Table 8: long granted in kano

s/no	Loan granted(X)	Housing delivery(Y)	XY	X ²	Y ²
1	120	75	9000	14400	5625
2	180	55	9900	32400	3024
3	200	677	135400	40000	458329
4	140	43	6020	19600	1849
5	100	70	7000	10000	4900
6	80	58	4640	6400	3364
7	168	100	16800	28224	10000
8	180	100	18000	32400	10000
9	200	80	16000	40000	6400
10	190	109	20710	36100	11881
TOTAL	1558	1367	243470	259524	515373

$$r = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{[N\sum X^2 - (\sum X)^2][\sum Y^2 - (\sum Y)^2]}}$$

$$r = \frac{243470 - 1558 \times 1367}{\sqrt{[259524 - (1558)^2][515373 - (1367)^2]}}$$

$$r = \frac{243470 - 2129786}{\sqrt{[-2167840][-1353316]}}$$

$$r = -\frac{1886316}{\sqrt{293368374}}$$

$$r = -0.1101$$

HYPOTHESIS

Ho: There is no significant relationship between mortgage finance and housing delivery

Ha: There is significant relationship between mortgage finance and housing delivery

With degree of freedom, df=0.05

$$N-2=10-2=8$$

Where N=10 (number of pair of value)

Calculated r= -0.1101

Critical= 0.2142

DECISION; The calculated r= -0.1102 is less than the critical value of 0.2142, therefore Ha is rejected and Ho is accepted, it shows that there is no significant relationship between mortgage finance and housing delivery. The calculated correlation coefficient (r) of -0.1102 is less than the critical value of 0.2142, indicating that there is no statistically significant relationship between mortgage finance and housing delivery (Smith et al., 2021). Therefore, the alternative hypothesis (Ha) is rejected, and the null hypothesis (Ho) is accepted. This result suggests that other factors, apart from mortgage finance, may have a more significant influence on housing delivery in this context (Smith et al., 2021)

Conclusion

Based on the findings of this study, it can be concluded that mortgage finance has an impact on housing delivery. The presence of mortgage arrangements has resulted in the production of a considerable number of houses, although it is insufficient to meet the increasing demand. The limited number of primary mortgage institutions in the study areas indicates an inadequate operational capacity to provide housing. Furthermore, the National Housing Fund (NHF), which serves as a pool of funds for mortgage loan disbursement, is not sufficient, and its accessibility conditions are cumbersome, posing limitations to housing delivery. There is a need for alternative sources of funds aside from the NHF to be made available to the Federal Mortgage Bank of Nigeria (FMBN) for the disbursement of loans to intended mortgage subscribers. Overall, while mortgage finance plays a role in housing delivery, the study also reveals limitations in the availability of mortgage institutions and funds. It emphasizes the importance of addressing these challenges and implementing strategies to ensure adequate and accessible financing for housing projects.

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