

**HOMEOWNERS' PERCEPTION ON MORTGAGE FINANCING: A CASE OF
BAUCHI METROPOLIS NIGERIA**

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DEDICATION

I dedicate this work to my parents- the family of Alhaji Usman D. Aliyu, my lovely wife, Atika Adamu and my recently born daughter Fatima (Suhailah).



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ABSTRACT

Mortgage for financing house construction is essential for the attainment of homeownership in Nigeria. This research evaluated the perceptions of potential homeowners on mortgage financing in terms of attitude towards it, subjective norm, perceived behavioral control, religiosity and knowledge of mortgage financing and determined how these perceptions influence intention of using mortgage in financing house construction in Bauchi metropolis, Nigeria, using the Theory of Planned Behavior (TPB). Quantitative research approach using survey design was adopted. Data was collected using closed-ended questionnaires randomly distributed to a sample of 300 potential homeowners out of which 235 were considered valid for the analysis. Both descriptive and inferential statistical tools such as factor analysis and Partial Least Square-Structural Equation Modeling (PLS-SEM) were used to analyze the data using SPSS21 and SmartPLS2 software. Overall, the research found that perceptions on mortgage financing was significant in predicting intention of using mortgage in financing housing construction because the model predict 77.6 percent ($R^2=0.776$) of the variance. Thus, potential homeowner' perception on mortgage have significant effect on their intention of using mortgage in financing homeownership in Bauchi metropolis, Nigeria. Religiosity was found to be the most significant determinant ($\beta=0.409$; t-value=7.3662) of intention of using mortgage in financing house construction followed by subjective norm ($\beta=0.267$; t-value=3.144) and perceived behavioral control ($\beta=2.06$; t-value=2.393). However, attitude and knowledge of mortgage were found not to have significant effect on intention of using mortgage financing.

ABSTRAK

Gadai janji untuk pembiayaan pembinaan rumah adalah penting bagi pemilikan rumah di Nigeria. Kajian ini menilai persepsi bakal pemilik rumah ke atas pembiayaan gadai janji dari segi sikap, norma subjektif, tanggapan kawalan tingkah laku, keagamaan dan pengetahuan pembiayaan gadai janji bagi menentukan bagaimana persepsi ini mempengaruhi niat untuk menggunakan gadai janji dalam pembiayaan pembinaan rumah dalam metropolis Bauchi, Nigeria, dengan merujuk kepada Teori kelaku dirancang (TPB). Pendekatan kajian melalui kaedah kuantitatif telah digunakan. Data diperolehi melalui penggunaan borang soal selidik yang diedarkan secara rawak kepada 300 bakal pemilik rumah di mana 235 telah dianggap sah untuk analisis. Kedua-dua kaedah statistik; deskriptif dan inferensi seperti analisis faktor dan Partial Least Square-Structural Equation Modeling (PLS-SEM) telah digunakan untuk menganalisis data menggunakan SPSS21 dan perisian SmartPLS2. Secara keseluruhan, kajian ini mendapati bahawa persepsi ke atas pembiayaan gadai janji adalah penting dalam meramalkan niat untuk menggunakan gadai janji dalam membiayai pembinaan rumah kerana model meramalkan 77.6 peratus ($R^2 = 0.776$) daripada varians. Oleh itu, potensi persepsi pemilik rumah terhadap gadai janji mempunyai kesan yang besar ke atas niat mereka untuk menggunakan gadai janji bagi membiayai pemilikan rumah di metropolis Bauchi, Nigeria. Keagamaan didapati penentu yang paling penting ($\beta = 0.409$; $t\text{-value} = 7.3662$) daripada niat untuk menggunakan gadai janji dalam membiaya pembinaan rumah diikuti oleh norma subjektif ($\beta = 0.267$; $t\text{-value} = 3.144$) dan kawalan tingkahlaku ($\beta = 2.06$; $t\text{-value} = 2.393$). Walau bagaimanapun, sikap dan pengetahuan gadai janji didapati tidak mempunyai kesan yang besar ke atas hasrat untuk menggunakan pembiayaan gadai janji.

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LIST OF SYMBOLS AND ABBREVIATIONS

ABCP	- Asset-backed commercial paper
ABS CDO	- Asset-backed security collateralized-debt obligation
ABS	- Asset-backed securities
AMCON	- Asset Management Corporation of Nigeria
ARMs	- Adjustable Rate Mortgages
ATBU	- Abubakar Tafawa Balewa University, Bauchi.
ATT	- Attitude toward mortgage financing
AVE	- Average Variance Extracted
C.R.	- Composite Reliability
Cagamas	- National Mortgage Corporation of Malaysia
CBN	- Central Bank of Nigeria
CMBS	- Commercial Mortgage-Backed Securities
CofO	- Certificate of Occupancy
CP	- Commercial papers
EFA	- Exploratory Factor Analysis
FHA	- Federal Housing Authority
FKM	-Familiarity/Knowledge of Mortgage
FMBN	- Federal Mortgage Banks of Nigeria
FMFL	- Federal Mortgage Finance Limited
FMLHUD	- Federal Ministry of Lands, housing and Urban Development
FRMs	- Fixed Rate Mortgage
GDP	- Gross Domestic Product
GSEs	- Government-Sponsored Enterprises
IDA	- International Development Association
IMF	- International Monetary Fund

KMO	- Kaiser-Meyer-Olkin
LTV	- Loan-to-value
MBS	- Mortgage Backed Securities
MDBs	- Money Deposit Banks
MFB	- Micro-Finance Banks
MLF	- Mortgage Liquidity Financing
MRA	- Multiple Regression Analysis
NAV	- Net Asset Value
NBS	- National Bureau of Statistics
NBS	- Nigerian Building Societies
NHF	- National Housing Fund
NMRC	- Nigerian Mortgage Refinancing Company
NPHUD	- National Policy on Housing and Urban Development
OLS	- Ordinary Least Squares
OPM	- Ordered Probit Model
OTH	- Originate-to-hold
PBC	- Perceived Behavioral Control
PCA	- Principal Component Analysis
PDS	- Private Debt Securities
PLS	- Partial Least Square
PMIs	- Primary Mortgage Institutions
Repo	- Repurchase agreement
RMBS	- Residential Mortgage Backed Securities
RPM	- Religiosity
SAP	- Structural Adjustment Program
SEM	- Structural Equation Modeling
SMM	- Secondary mortgage market
SN	- Subjective Norm
SPSS	- Statistical Package for Social Sciences
SPV	- Special Purpose Vehicle
TAM	- Technology Acceptance Model

TDT	- Technology Diffusion Theory
TPB	- Theory of Planned Behavior
TPB	- Theory of Planned Behavior
UK	- United Kingdom
US	- United States
VAR	- Vector Auto Regression



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CHAPTER 1

INTRODUCTION

Mortgage financing has been instrumental in the attainment of homeownership status in most countries of the world. In most countries of the world, particularly the advanced countries, homeownership is mostly achieved through mortgage financing. However, in Nigeria, the attainment of homeownership is through individual housing construction where potential homeowners either through using their personal saving or mortgage arrangement construct their houses incrementally. This accounts for over 80-90 percent of housing provision in Nigeria (Wapwera, 2011). The other sources of housing provision in Nigeria are public housing, institution housing and the private developments. These accounted for only a fraction of housing provision in Nigeria. The Nigerian National Housing Policy (NHP, 1991) makes provision for mortgage to potential homeowners for the construction of their houses.

There are broadly two forms of mortgage for housing construction in Nigeria. They are the conventional mortgage and the Islamic mortgages. The Islamic financing is still at its infancy level in Nigeria. The First and only Islamic Bank in Nigeria is Ja'iz Bank Plc which officially started operations in 2012 and it is not yet operating nationally but rather regionally (CBN, 2015; Ja'iz Bank, 2015). This research focuses only on the perception of potential homeowners on conventional mortgages for financing individual house construction.

The remainder of the chapter discussed the general motivation behind the research, termed research background, the problem that necessitated the research. Subsequently, the aim of the research is specified as well as the research questions that the research answered. The research objectives were formulated to achieve the research

aim. The research hypotheses were presented. The scope of the research as well as the significance of the research is presented in this chapter. Finally, the structure of the thesis was also presented in this chapter.

1.1 Research background

Over the years housing has been considered amongst the most pressing needs of mankind; the most important asset of man; and an important determinant of quality of life (Adedokun *et al*, 2012; Nkyi & Dinye, 2013; Sandhu, 2013; Afrane *et al.*, 2014). In specific terms, the provision of housing is achieved by the interaction of different but related crucial factors in the economy comprising land, building material, finance and labour. The interaction of these factors creates series of social and economic opportunities. Socially, housing provides accommodation and shelter to mankind thereby facilitating his wellbeing. Owning a house imposes civic and social commitment on the owner (Campbell, 2012). Housing ownership is achieved through mortgage financing. Afrane *et al.* (2014) noted that mortgage is the most effective source of housing finance. He argued that even in developed countries mortgage finance remains inevitable in housing development and acquisition.

Mortgage financing is a form of home financing involving the granting of long term loan for housing construction. Ukpai *et al.* (2013) defined mortgage as an arrangement under which an individual borrow money from a lender to construct a house and pledge same property, such that the lender foreclose the said property in case of default by the borrower. Mortgage finance comes in various forms depending on a country's regulatory frame works, institutional sophistication and the general macro-economic setting. For instance, Campbell (2012) classified mortgage systems into three categories: the deposit-finance lending mortgage, the securitized mortgage system and the covered bond mortgage system. The former falls under primary mortgage market and the latter two fall within the secondary mortgage market. The first category involves the direct mortgage transaction between the lender and the borrower where the lender, who is the originator of the loan, holds the loan and issue deposit to finance it.

Both securitized mortgage system and covered bond mortgage system fall within the confine of secondary mortgage market, which is a market where existing mortgages are transacted. The market plays a significant role in the provision of sustainable housing finance in the advanced economies and some emerging economies. For instance, the economies of US, UK, Australia and many advanced nations thrive on vibrant secondary mortgage market. On the emerging economies side, the success of Malaysian secondary mortgage, through Cagamas, is worthy of emulation by other developing economies (Pryce & Springis, 2009; Islam *et al*, 2011; Leong, 2013).

On the other hand, mortgage system is less developed in developing countries (Afrane *et al.*, 2014). Warnock & Warnok (2008) attributed this disparity to differing level of development and standardization of secondary mortgage market. Nigeria is an example of developing country without a robust secondary mortgage market (Ukpai, *et al.*, 2013). The source of mortgage finance is essentially the primary mortgage market through Primary Mortgage Institutions (PMIs), and Money Deposit Banks (Commercial banks). Studies found that these sources of mortgage financing have not provided the much needed finance to meet the housing needs of Nigerians (Ajibola, Oloyede & Oni, 2009). Several studies, such as Afrane *et al.* (2014), Windapo & Cattel (2013), Folurunso, Khan & Olowoyo (2012); attributed the failure of mortgage financing to high interest rate, inaccessibility, non-affordability, short-term repayment period, cumbersome loan requirement and the macro-economic environment.

The situation is not different in Bauchi state, Nigeria, as potential home owners experience difficulties which shape their perception on mortgage negatively (Aliyu, Usman & Alhaji, 2015). Considering the cultural and ethno-religious setting of Nigeria, and Bauchi in particular, the perception of potential homeowners on mortgage financing might be shaped by their attitude toward mortgage, perceived ease or difficulty of obtaining mortgage, their subjective norm, religiosity, knowledge of mortgage; and ultimately these may determine their intention to use mortgage in financing house construction. Thus, this research seeks to evaluate the perception of potential homeowners on mortgage in financing homeownership in Bauchi metropolis, Nigeria.

1.2 Research problem

The need for residential housing construction is certain, because population never stop changing. This is true of Nigeria with an estimated population of about 170 million people growing at a rate of 3.2 percent and urbanization rate of 50 percent which are projected to reach 203.7 million and 60 percent by 2025 respectively (Federal Ministry of Lands, housing and Urban Development 'FMLHUD', 2014a). Such changes require an inevitable change in residential development to provide the housing need of the nation. However, there seems to be an imbalance in the pattern of changes in these related but conflicting variables. While population seems to change in geometric order, residential development changes in arithmetic proportion. This is evidenced in the Nigeria housing deficit figure which is estimated to stand at about 17-23 million housing units (FMLHUD, 2014a).

To balance this conflicting scenario, huge capital is required to finance the deficit. Nigeria currently requires ₦10trillion (RM212 billion) annually over the next five years to meet the housing needs of Nigerians (Chike-Obi, 2013). It is quite evident that these mega sum cannot be realized using the traditional source of finance considering the low income earning of most Nigerians (Oganba, 2009), traditional setting, and complex macro-economic situation (Ajibola *et al.*, 2009), as well as the general poverty level which is estimated to be above 50 percent (National Bureau of Statistics 'NBS', 2012a).

The mortgage system which proved successful in other countries in addressing the housing needs could not achieve the expected success in Nigeria. Furthermore, there appears to be a relationship between the rate of mortgage finance and homeownership rate in many countries of the world especially the advanced nations. For instance, in U.S., UK, and Australia, mortgage rate to GDP was put at 67, 83 and 74 percent with homeownership rate at 67, above 70, and 70 percent respectively (Pryce & Springis, 2009; Calza, Monacelli & Stracca, 2009; Swindler, 2011). However, the situation in Nigeria is completely different, with mortgage rate to GDP estimated at only 0.76 percent (FMLHUD, 2014b) while the homeownership rate of existing dwellings is 68 percent (NBS, 2013). This indicated that the bulk of the housing units are not provided

through mortgage but rather through traditional means of using hard earned equity to incrementally develop the houses.

Wapwera *et al.* (2011) noted that unlike developed nations who have well organized mortgage system, Nigerian Mortgage system is weak. This necessitated potential homeowners to finance their housing development through the traditional informal method of self-help, because most of them could not afford or access the formal mortgage system, either due to cumbersome procedures and their perception towards mortgage in financing homeownership (Aliyu *et al.*, 2015).

The perception on mortgage determines its demand which is low in Nigeria. A CBN (2014b) credit condition survey revealed that there is a negative change in household's demand for mortgage in the second quarter of 2013 at -1.4 percent and a mild positive change in the fourth quarter of the same year at 1.4 percent. This indicated a low demand for mortgage among Nigerian households and explained why there is no viable secondary mortgage market in Nigeria, because it only thrives where there is significant demand for mortgage (Ojo, 2009).

However, despite these glaring problems and evidences, there is limited empirical research to ascertain the influence of perception on mortgage in determining the intention to use mortgage in financing housing construction. Most, if not all, researches focus on supply of mortgage giving little emphasis on the demand side which is equally important (Opoku & Abdul-muhmin, 2013). For instance, Udeokanem (2012) studied the performance of mortgage institutions in Nigeria; Ibuoye (2009) investigated the performance of mortgage assets against other investment media using total return and mean variance deviation model; Ezimou *et al.* (2014) examined mortgage institutions as source of finance using descriptive statistics. They however asked bankers about the borrowers' perception on their performance. Anyochuku (2011) examined the operation of mortgage institutions in Nigeria. Even though these studies and many others found some of the problems affecting mortgage financing, the perceptions of potential homeowners on those constraints and how they affect their intention to use mortgage have not been empirically evaluated

Similarly, religious perception on mortgage is negative due to interest (usury) that is against the tenets of religion (Abdul Razak & Taib, 2011; Amin, Abdulrahman &

Abdulrazak, 2014). The two major religions in Nigeria-Islam and Christianity both forbade borrowing with interest and consider such abominable. There had been much call for the introduction of non-interest based mortgages in Nigeria (Funmilola, 2011). However, past research effort did not evaluate the religious perceptions of potential homeowners on conventional mortgages that warrant the call for its alternative.

Also, the subjective norms do not always favour mortgage financing because borrowing is sometimes seen as weakness and has social stigma attached to it (Aliyu *et al.*, 2015; Karlan & Zirman, 2007). Pirinsky (2012) found that people who are likely to borrow are mostly who are likely to deviate from social norm. Also, the perceived ability of potential home owners to overcome the constraints of mortgage financing is also poor in Nigeria (Aliyu, Kassim & Martins, 2011). Similarly, knowledge of mortgage financing among Nigerians is also low (Ezimou, Onyejiaka & Emoh, 2014). Aliyu *et al.* (2015) postulated the influence of perception on mortgage financing but did not empirically ascertain how it influences intention and willingness of using mortgage in financing house construction.

The Theory of Planned Behavior (TPB) which has assume broad applications and proved effective in predicting financial behaviors (Xiao, 2008) has not been explored in mortgage financing in Nigeria. According to Ajzen (2002), Theory of Planned Behavior (TPB) held that human actions or inactions are guided by three considerations: 'behavioral belief', 'normative belief' and 'control beliefs'. These considerations produce either favorable or unfavorable 'attitude', 'subjective norm', and 'behavioral control' respectively; and lead to the formation of behavioral intention. Therefore these norms and other factors influence potential homeowners' perception on mortgage and ultimately affect their intention to borrow in financing their home construction. As pointed out by Ukpai *et al.* (2013), attitude toward mortgage financing is poor in Nigeria.

From the foregoing discussion therefore, there is a gap in knowledge and research pertaining to perception on mortgage and intention to use mortgage in financing house construction. Therefore, this research will attempt to fill this gap within the context of the Theory of Planned Behavior (TPB) by evaluating how perception on

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PTTA UTHM
PERPUSTAKAAN TUNKU TUN AMINAH

VITA

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