

MORTGAGE INDUSTRY FINANCIAL RISK TOLERANCE AND MORTGAGE BANKS CREDIT DELIVERY IN NIGERIA

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ABSTRACT

The study examined the effect of financial risk tolerance on the performance of Mortgage Banks. The ordinary least square (OLS) and correlation methods were adopted in analyzing the data for the study period, 1992 to 2018. The finding shows that the mortgage products offered in the market are: Individual loans, Estate development loans, and the National Housing Fund (NHF) loans. All the independent variables have no significant impact on LOG (THL) at a 95 percent level of confidence, although LOGSV was significant at 90 percent. The Coefficient of LOGTR is negative, which connotes that a unit increase in LOGTR can lead to 0.017531 decreases in the magnitude of LOGTHL in Nigeria. The level of financial risk tolerance of the mortgage industry is insignificant; hence the loans granted by mortgage banks are small when compared to the savings and other income received by Mortgage Banks. The study recommends, among others, the introduction of additional mortgage products and the creation of an enabling

environment to attract more investors into the industry.

Keywords: Corporate finance, National housing fund, Primary mortgage bank, Financial risk tolerance, Housing finance market

INTRODUCTION

The mortgage industry is regarded as a significant sector in many countries due to its ability to accelerate economic growth. Elile, Akpan, and Raju (2019) posit that real estate investment possesses enormous potential for the economic growth of the nation; hence efforts have been shown toward developing this vital sector for optimal productivity in Nigeria. While Anidobu, Okolie, and Ugwuanyi (2018), opines that a comprehensive housing system will transform both rural and urban communities and increase the level of social activities. It means that access to decent and affordable housing is a right of every citizen and sign of a developed economy.

Arguably, the mortgage industry's ability to accelerate economic growth is dependent on its level of financial risk-tolerant. On the contrary, financial risk tolerance refers to the level of risk an entity is ready and willing to undertake in the course of a business transaction. Amin, Sanusi, Kusairi, and Abdallah (2014), stated that financial performance and risk are two inter dependent concepts that could either enable banks to survive or course their failure. It has been observed that vast business opportunities exist in the Nigerian housing finance industry. Given the level of opportunities in the industry, the study examines why Mortgage Bankers fail to take advantage of the opportunities available in the housing sector of the economy. The study further seeks to know whether their level of risk tolerance influences the action of the bankers. Sulaiman (2012) defines financial risk tolerance as the maximum level of volatility an individual or business entity is willing to accept when making a financial decision.

Mortgage banks are specialized banking institutions set up to finance the renovation, purchase, or construction of a new house. Yinusa, Ilo, and Elumah (2017) posits that housing is essential in the life of any nation; hence the colonial government set up a mortgage institution in 1956 for housing delivery. The institution was known as the Nigerian Building Society (NBS). The establishment of the NBS was the beginning of mortgage banking in Nigeria.

The Nigerian Building Society was jointly owned by the Colonial Development Corporation (CDC) Federal Government of Nigeria (FGN) and the Eastern Regional Government. At inception, NBS had an authorized share capital of £1.125m (One Million, One Hundred and Twenty Five Thousand Pounds), or its equivalent N2.25m (Two Million, Two Hundred and Fifty Thousand Naira). The shareholding is made up as follows:

Colonial Development Corporation	60%
Federal Government of Nigeria	31%
Eastern Region Government	09%

Another vital institution as at that time was the African Staff Housing Scheme. A scheme that was set up by the colonial government to provide housing for the senior African staff who were in the civil service. By 1977, the NBS was re-constituted, and the name changed to the Federal Mortgage Bank of Nigeria (FMBN). The share capital was increased from 2.25 Million Naira to 150 Million Naira. The ownership structure equally changed as follows: Federal Government of Nigeria 60% and Central Bank of Nigeria 40%. As at present, the FMBN is the apex mortgage regulatory institution in Nigeria. She supervises the activities and operations of primary mortgage banks. A primary objective of the FMBN has been savings mobilization from both private and public sector workers who earn N3,000 (Three thousand Naira) and above monthly as of 1977. The savings realized are then made available to the Primary Mortgage Banks for onward disbursement to workers who apply for mortgage loans through the PMBs.

To enhance housing delivery and chart a way forward for the mortgage banks, the federal government established the National Housing Policy (NHP) in 1991 (Anidiobu, Okelie & Ugwuanyi, 2018; Elile, Akpan & Raju, 2019). Similarly, the National Housing Fund (NHF) was established in 1992 to ensure the continuous mobilization of funds into housing delivery. Every worker earning N3,000.00 (Three Thousand Naira Only) and above monthly was expected to contribute 2.5% of the earning into the fund. Segun (2019) posits that the NHF is charged with the responsibility of ensuring the continuous flow of funds for housing construction and delivery. On the contrary, Udoka and Owor (2017), argues that the problem of inadequate housing delivery in Nigeria stems from the inability of the NHF to fund housing development. Adetiloye (2013) puts it thus: the National Housing Fund (NHF), sometimes referred to as the fund, is the vehicle through which the government intended that funds can be aggregated correctly

for housing development and construction by Nigerians and firms developing housing units for accommodation purposes. He opines that these critical government initiatives have remained obscure for two decades after its establishment.

The main objective of this study is to examine the effect of financial risk tolerance on the management of mortgage bank finances in Nigeria. While the specific goals are to: (i) ascertain the different mortgage products available in the housing finance market. (ii) analyze the rate of interest obtainable in the mortgage market (iii) evaluate the level of financial risk tolerance of the mortgage banks on credit allocation to the housing sector. Poopola and Alamu (2016) posit that finance is an essential aspect of any form of progressive development, unfortunately, if this is not well taken care of, it can also be a clog in housing construction. This implies that the implementation of housing development is contingent mainly on the availability of mortgage finance (Ifesanya, 2012). Most of the previous studies on mortgage banking have been on: Social housing for the poor, housing contribution to poverty alleviation, and the impact of housing on economic growth of nations. To the best of the Researchers' knowledge and information, non has examined why primary mortgage banks in Nigeria are operating at a loss despite the vast business opportunities in the housing finance market. This is the gap in the literature which this study seeks to fill.

LITERATURE REVIEW

Anidiobu, Okolie, and Ugwuanyi (2018) examined the effect of mortgage finance on housing delivery in Nigeria. The authors opine that mortgage banks have not been useful in granting loans to the housing sector. A well-organized housing system is capable of transforming the rural communities and urban centres of any country, they argued. Accordingly, one of the indices of a developed economy is the ability of the citizens to own and acquire a decent and affordable housing unit. In developed countries such as the United Kingdom, France, Denmark, Canada, and the United States of America, the acquisition of a housing unit is through mortgage finance. It is to achieve financial inclusiveness for the housing finance market, that the Federal Government of Nigeria established the Primary Mortgage Banks (PMB). Despite the various reforms introduced in the mortgage industry, the performance of the PMB has been judged to be inadequate for sufficient housing growth. From the result of the ordinary least square analysis, it was noticed that mortgage loans granted by

PMB to potential homeowners have a negative and non-significant effect on housing delivery. Conversely, they conclude that the housing sector is critical, and it can transform the Nigerian economy. However, the inadequate supply of needed funds by PMBs in the housing sector has hindered its growth and overall economic benefits.

Wieczorek-Kosmala (2019) argued that the concept of risk capital is relatively new in financial literature. The author further argued that the idea has mainly been adopted in the management of finance and finance-related entities, such as banks and insurance firms. Risk capital is a system that allows for sustainable corporate development. Therefore its application should not be restricted to finance only, but should be extended to non-financial entities, the author asserted. One of the main thrusts of the study is its attempt to show the importance of risk capital as a process of risk management in corporate organizations. Thus "the execution of well-designed risk management process, with adequate implemented risk treatment strategies, is essential to the ability of an entity to resist shocks, as well as to respond properly." Arguably, risk capital is the smallest amount that can be invested to ensure the value of the firm's net assets against loss in value relative to the risk-free investment of those net assets'. Simply put, it refers to the financial preparedness of a firm to face the consequence of unexpected loss in the course of business operation. From the above analysis, it is reasonable to conclude that risk capital is one of the primary determinants of the level of risk an entity is ready to take.

Similarly, Elile, Akpan, and Raju (2019) conducted a study on real estate investment performance and macroeconomic dynamics in Nigeria. They asserted that investment in real estate attracts much attention all over the world due to its ability to contribute maximally to the economic growth of nations. Areas, where real estate business have been found impacting positively to the economics of countries, includes: "job creation and employment generation, housing provision, income enhancement and redistribution as well as poverty alleviation." Furthermore, real estate is classified as a capital intensive venture, an asset with relatively limited liquidity. Given the enormous benefits associated with real estate investment, the Nigerian government has introduced various reforms aimed at the optimal performance of the sector. Despite these efforts towards boosting housing production, the demand for housing has out weight supply. Hence it is argued that the large size of the real estate market makes it a profitable and attractive area of investment. However, both the Nigerian housing

finance market and the real estate market has been rated as urban-developed. This explains why local and foreign investors have not taken advantage of the opportunities available in the market.

Wanjohi, Wanjohi, and Ndambiri (2017) did a study on the effect of financial risk management on the financial performance of commercial banks in Kenya. The authors opine that financial risk is a concept that embraces different types of risk connected with financings, such as financial transactions and loans granted by the entity to risky ventures. Other examples of risk covered by the term include credit risk, market or price risk, interest rate risk, liquidity risk, and foreign exchange risk. Conversely, financial risk is a product of the probability of losses in the financial market as a result of transactions in financial instruments.

Similarly, the research defines financial risk management as "a set of financial activities that maximizes the performance of a bank by reducing the cost associated with the cash flow volatility." It has been observed that a sound risk management system will reduce the level of banks' exposure to risk while brightening their chances to compete in the money market. Generally, most commercial banks in Kenya are faced with different forms of financial risk, such as market risk, liquidity risk, interest rate risk, foreign exchange risk, and credit risk. Hence financial risk management is considered one of the essential functions in the banking business. The study concludes that financial risk management and financing of banks move in the same direction. In other words, return and risk are directly related to each other. It implies that an increase in one will lead to a rise in the other.

Yinusa, Ilo, and Elumah (2017), in their study titled: "mortgage financing and housing development in Nigeria," opined that government is saddled with the responsibility of providing a conducive environment for business to thrive. Some of the companies are Real Estate Development and mortgage banking. However, the effect of mortgage banking is almost not felt in the housing industry in Nigeria. Loans granted by mortgage banks to the housing sector is so negligible as to make any meaningful impact on housing development. The findings revealed that microfinance banks loan to the housing finance market hurts housing development. In contrast, mortgage bank loans to the housing industry have a positive and significant impact on housing growth and development (Gunarathana 2016).

Fuster, Polsser, Schenabl, and Vickery (2018) observed the role of technology in the process of mortgage origination in the US residential mortgage market. The US mortgage industry is among the largest in the world, hence activity in the market could be regarded as what is obtainable in other markets. Among the market participants are "FinTech lenders," who could be described as lenders who introduced the technology loan application process. FinTech has become a dependable source of mortgage financing to the average US households after the financial crisis, which lasted between 2007 and 2010. Consequently, their lending has grown annually by 30 percent from \$34 billion of total new loans in 2010, which translates to 2 percent of full market share to \$ 161 billion in 2016, amounted to 8 percent of the market share. Products offered to the market were primarily mortgage refinances and social mortgage, a product meant to share the low-income group. The finding revealed that FinTech lenders were faster in loan documentation than traditional lenders, due to the centralization and automation of online loan application. Also, there was a reduced risk of human error. Another finding revealed application processing time was reduced by about ten days or 20 percent of the average processing time.

METHODOLOGY

The ex-post facto research design method was adopted in this study, using data spanning 27 years, i.e., 1992-2018. Time series data that were sourced from the Central Bank of Nigeria (CBN, 2018) Statistical bulletin, volume 29, were employed in the study. The data were considered appropriate because CBN, which collated them, is the apex financial regulatory institution in Nigeria. All the financial institutions submit records of their business transactions monthly to CBN. The data set was classified and analyzed using the ordinary least square method (OLS). In the model specification, two models were formulated for the study, model one from table one and model two from table two. This is due to changes in the reporting pattern of CBN, which occurred in 2014. A typical reporting patter was adopted from 1992 to 2013, while another design was selected from 2014 to 2018. In model one, total housing loans (THL) were proxy for the dependent variable, which represents the level of Mortgage banks' credit delivery. While savings (SV), fixed deposits (FD), Balance held for other institutions (BOF), and total receipt (TR) were proxies for independent variables. In model 2, the correlation was adopted in the analysis of data instead of OLS. As a result of the five years period, which is too short to allow the use of regression.

Model Specification

Model 1:

The model is implicitly specified as:

PRESENTATION AND ANALYSIS OF DATA

Table 1: AGGREGATE INCOME AND TOTAL HOUSING LOANS BY MORTGAGE BANKS IN NIGERIA, 1992-2013 (N' BILLION)

Year	THL	SV	FD	BOF	TR	PTLTR
1992	0.21	0.29	0.63	0.34	1.26	16.67
1993	0.33	0.33	1.25	0.57	2.15	15.35
1994	0.56	0.41	0.65	0.21	1.26	44.44
1995	0.39	0.44	0.67	0.14	1.25	31.2
1996	0.75	0.47	2.02	0.43	2.92	25.68
1997	0.74	0.56	3.61	0.37	4.54	16.29
1998	0.79	0.63	3.71	0.3	4.64	17.03
1999	0.92	0.68	3.91	0.4	4.99	18.44
2000	0.86	0.66	3.81	0.4	4.87	17.66
2001	1.02	0.73	0.63	0.37	1.73	58.96
2002	6.6	5.06	29.43	3.05	37.54	17.58
2003	12.9	3.34	32.8	2.01	38.15	33.81
2004	6	48.28	16.3	9.4	73.98	8.11
2005	2.1	64.84	13.2	11.8	89.84	2.34
2006	7.56	8.72	74.21	5.26	88.19	8.57
2007	40.76	0.001	155.91	8.68	164.59	24.76
2008	108.53	0.001	166.23	46.77	213	50.95
2009	118.59	0.001	148.1	44.42	192.52	61.6
2010	132.88	0.001	186.95	49.6	236.55	56.17
2011	122.81	0.001	163.2	54.33	217.53	56.46
2012	120.91	0.001	171.08	47.6	218.68	55.29
2013	132.29	0.001	163.93	53.96	218.89	60.44

Source: CBN (2018) Statistical bulletin 29: 38 - 39.
 Author's computation in 2019.

Table 2: AGGREGATE INCOME AND TOTAL HOUSING LOANS BY MORTGAGE

BANKS IN NIGERIA, 2014-2018 (N' BILLION)

Year	THL	POL	FD	BOF	LTL	NHF	TR	PTLTR
2014	47.68	-1.16	51.55	2.14	5.45	21.96	81.1	58.8
2015	74.23	-1.15	73.72	2.8	4.31	29.45	110.28	67.31
2016	81.89	-0.96	66.04	3.42	4.12	29.16	102.74	79.71
2017	107.95	-7.64	103.06	7.84	17.88	33.07	161.85	66.7
2018	105.78	-8.08	98.2	3.96	19.24	41.99	163.39	64.74

Source: CBN (2018) Statistical bulletin 29: 38 -39.

Author's computation in 2019.

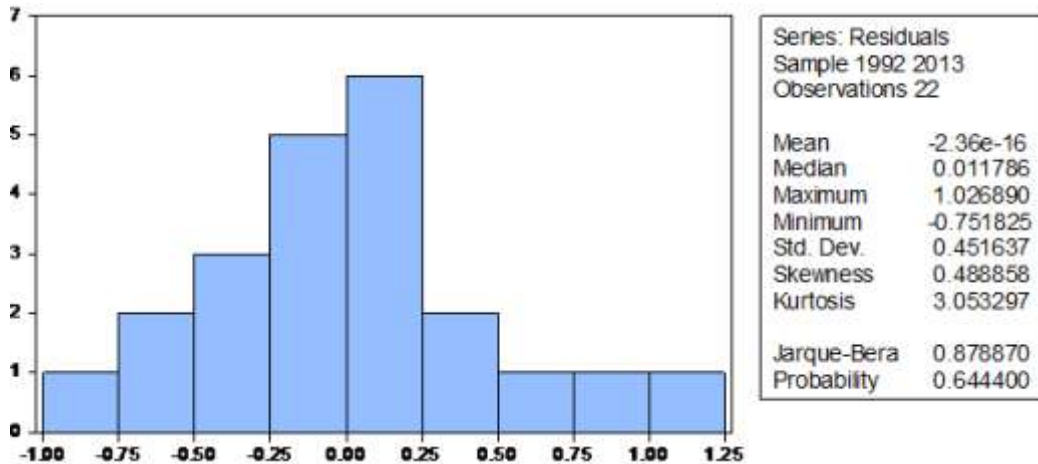


Figure 1: Normality Test

Source: Author's Computation using E-view 9.0 (2019)

The series distribution is normal as the p-value associated with JB (Jarque-Bera) statistics is 0.6444, which is higher than the critical value of 0.05.

Unit Root Test

Table 3. Unit root test for LOGTHL

Null Hypothesis: LOGTHL has a unit root

Exogenous: Constant

Lag Length: 2 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-0.142511	0.9309
Test critical values:		
1% level	-3.831511	
5% level	-3.029970	
10% level	-2.655194	

*MacKinnon (1996) one-sided p-values.

Source: Author's Computation using E-view 9.0 (2019)

The Augmented Dicker Fuller test (ADF) at second difference 1(2) for LOGTHL is 0.9309, which is higher than -3.029970 at 0.05 level of significance; this shows no unit root and that the series is stationary.

Table 4: Unit root test for LOGBOF

Null Hypothesis: LOGBOF has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-	0.8695
Test critical values:		
1% level	3.788030	
5% level	3.012363	
10% level	2.646119	

*MacKinnon (1996) one-sided p-values.

Source: Author's Computation using E-view 9.0 (2019)

Source: Author's Computation using E-view 9.0 (2019)

The Augmented Dicker Fuller test (ADF) at second difference 1(2) for LOGBOF is 0.8695, which is greater than -3.012363 at 0.05 level of significance; this shows no unit root and that the series is stationary.

Table 5: Unit root test for LOGFD

Null Hypothesis: LOGFD has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=4)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-	
		1.272879	0.6220
Test critical values:		-	
	1% level	3.788030	
		-	
	5% level	3.012363	
	10% level	-	
		2.646119	

*MacKinnon (1996) one-sided p-values.

Source: Author's Computation using E-view 9.0 (2019)

The Augmented Dicker Fuller test (ADF) at second difference 1(2) for LOGFD is 0.6220, which is greater than -3.012363 at 0.05 level of significance, this shows no unit root and that the series is stationary.

Table 6: Unit root test for LOGSV

Null Hypothesis: LOGSV has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=4)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-	
		0.971321	0.7438

Test critical values:	1% level	- 3.788030
	5% level	- 3.012363
	10% level	- 2.646119

*MacKinnon (1996) one-sided p-values.

Source: Author's Computation using E-view 9.0 (2019)

The Augmented Dicker Fuller test (ADF) at second difference 1(2) for LOGSV is 0.7438 which is greater than -3.012363 at 0.05 level of significance, this shows no unit root and that the series is stationary.

Table 7: Unit root test for LOGTR

Null Hypothesis: LOGTR has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	- 1.016757	0.7275
Test critical values:	1% level	- 3.788030
	5% level	- 3.012363
	10% level	- 2.646119

*MacKinnon (1996) one-sided p-values.

Source: Author's Computation using E-view 9.0 (2019)

The Augmented Dicker Fuller test (ADF) at second difference 1(2) for LOGTR is 0.7438, which is greater than -3.012363 at 0.05 level of significance, this shows no unit root and that the series is stationary.

Ordinary Least Square (OLS) Result

Dependent Variable: LOG(THL)

Method: Least Squares

Date: 11/12/19 Time: 10:33

Sample: 1 22

Included observations: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.413564	0.816335	-0.506611	0.6189
LOG(BOF)	0.354307	0.312178	1.134953	0.2721
LOG(FD)	0.586417	0.409402	1.432375	0.1702
LOG(SV)	-0.124884	0.062947	-1.983967	0.0636***
LOG(TR)	-0.017531	0.641653	-0.027322	0.9785
R-squared	0.962933	Mean dependent var	1.650988	
Adjusted R-squared	0.954211	SD dependent var	2.345818	
SE of regression	0.501966	Akaike info criterion	1.656148	
Sum squared resid	4.283489	Schwarz criterion	1.904112	
Log likelihood	-13.21763	Hannan-Quinn criter.	1.714561	
F-statistic	110.4066	Durbin-Watson stat	1.447063	
Prob(F-statistic)	0.000000			

*** significant at 0.1

Source: Author's Computation using E-view 9.0 (2019)

Correlation Results

Table 9: Correlation of Independent Variables Against THL

Dependent Variable: THL

Method: Correlations

Date: 11/12/19 Time: 11:23

Sample: 2014 2018

Included observations: 5

Variable	Coefficient
BOG	0.773501
FD	0.957030
LTL	0.819497
NHF	0.879466
POL	-0.848856
TR	0.953773

Source: Author's Computation using E-view 9.0 (2019)

INTERPRETATION OF RESULTS AND DISCUSSIONS OF FINDINGS

OLS Result Interpretation

Table 3 shows the result of the ordinary least square. All the independent variables have no significant impact on LOG (THL) in Nigeria at a 95 percent level of confidence, although LOGSV was significant at 90 percent.

The Coefficient of LOGTR is negative, which connotes that a unit increase in LOGTR can lead to 0.017531 decreases (and vice versa) in the magnitude of LOGTHL in Nigeria. Coefficient of LOGSV is negative and signifies that a unit increase in LOGSV can lead to 0.124884 decrease in LOGTHL in Nigeria. Coefficient of LOGFD is positive, suggesting that a unit increase in LOGFD can lead to 0.586417 increase in LOGTHL. Coefficient LOGBOF is implying that a unit increase in LOGBOF can lead to 0.354307 increase and LOGTHL in Nigeria. From the result of the OLS regression, it can be seen that all the independent variables were found to have no significant impact on the LOGTHL at 95% level of confidence.

In comparison, the coefficient of LOGSV with a p-value of 0.0636 was significant at 90% level of significance. It could be argued that the result of the OLS is a true reflection of the ongoing in the mortgage industry in Nigeria. There is a lot of leakages and unethical practices in the sector. A higher percentage of savings mobilized by the mortgage banks does not translate into mortgage loans. For instance, 1992, N1.26 billion was mobilized as savings, whereas only N0.21 billion was given out as loans. Likewise 1993, N2.15 billion was mobilized as savings while N0.33 billion was granted as loans.

It could be argued that the result of the OLS is a true reflection of the ongoing in the mortgage industry in Nigeria. There are a lot of leakages and unethical practices in the sector. A higher percentage of savings mobilized by mortgage banks does not translate into a mortgage loan. For instance, in 1992, N1.26b was mobilized as savings, whereas only N0.21b was given out as loans. Likewise, in 1993, N2.15b was mobilized as savings while N0.33b was granted as loans.

Most mortgage banks get loanable funds from the Federal Mortgage Bank of Nigeria (FMBN). However, on reaching the funds, instead of loaning it to prospective borrowers, the fund is diverted to other areas not meant for the fund.

The Nigerian mortgage industry lack transparency in its operations.

Correlations Result Interpretation

The table above shows the result of the correlation tests. All the independent variables (except POL which is negatively correlated) are positively correlated to the dependent variable THL in Nigeria. All the Correlation Coefficients show a strong correlation with the least being BOF with a value of over 77% (or 0.773501).

Re-Statement of Objectives

- (1) To ascertain the different mortgage products available in the Housing Finance market. The finding shows that the mortgage products offered by the Nigerian mortgage banks to the Nigerian Housing Finance market are: Individual loan, Estate development loan and National Housing Fund (NHF) loan. This finding corresponds with the results of Daniel, Wapwera, Omogor and Olutunde (2016), Segun (2019). From the findings above, we conclude that objective one has been achieved.
- (2) To analyze the rate of interest obtainable in the mortgage market. The findings show that the following rate of interest is offered in the mortgage market
 - i. Individual primary mortgage loan attracts interest at act 18% lending rate.
 - ii. Individual NHF loan attracts 6% interest lending rate. It has been observed that the NHF loan, which is a source of funding to the mortgage industry, has not been beneficial. So many states and institutions have refused to key into this laudable programme of the Federal government of Nigeria.
 - iii. Federal Mortgage Bank grants estate development loan and it attracts interest at a lending rate of 10% per annum. This finding is line with the results of the following previous researchers: Udoka and Kpataene (2017), Daniel Wapweva, Omogor and Olutunde (2016), Omogor and Anigbogu (2015). Given the correlation between the result of this study and the stated corresponding previous studies, we conclude that objective two has been achieved.
- (3) To evaluate the level of financial risk tolerance of the mortgage banks. In

table 1, the percentage rate of Total Housing loan (THL) to Total Receipt (TR) is meagre. From 1992 to 2013, it averages 31.72 percent. It implies that for every one hundred dollars (\$100) received by the mortgage banks, only thirty-one dollar, 72 cents was given out as loan by the mortgage banks. The above illustration is evidence of low financial risk tolerance on the part of the mortgage bank for a significant portion of the period under study. On the contrary, table 2 showed a higher level of risk tolerance by the mortgage banks. The level of risk tolerance increased from 31.72 percent average to 67 percent during the last quarter of 2014 to 2018. However, the increase in the level of financial risk tolerance did not manifest into profit in the industry. Column 2 on table 2, profit or loss (POL) revealed that the industry made loses throughout the period under review. Some reasons which could be adduced for the non-profitable of the mortgage industry in Nigeria include:

- (a) The inability of the industry to mobilize enough savings as a result of the low interest rate paid to depositors within the industry.
- (b) Weak property laws. The lack of foreclosing law has resulted in the use of arbitrary methods to reduce risk by mortgage bankers
- (c) Cost of registration of title to land (C of O). One of the acceptable collateral securities required for obtaining a mortgage loan in Nigeria is the title to a property known as certificate of occupancy (C of O). the cost of getting C of O is prohibitive and the process cumbersome.
- (d) Down payment of 30% of the property value. Another stringent condition is the one that requires prospective loan seekers to make a down payment of 30 percent of the property value. In Nigeria, where the average wage pay is low, it is not easy for a mortgagor to save up to 30 percent of the property he/she wants to acquire.

These findings are in tandem with the results of Chiang and Zhang (2018), Wanjohi and Ndambiri (2017), Daniel, Wapwera, Oniogor and Olutunde (2016), Amin, Sanusi, Kusairi and Abdallah (2014). In light of the above analysis, we conclude that objective three has been achieved.

CONCLUSION AND RECOMMENDATIONS

Mortgage bank has not been able to take advantage of the vast opportunities in the housing finance market due to their low level of risk tolerance. Hence they are always operating at a loss. The mortgage industry in Nigeria is characterized by limited products offered by mortgage banks to the housing finance market.

Available products are individual primary mortgage loan, Estate development loan and National housing fund loans. The industry is unable to meet up with loan demand due to the limited source of funding. Also, the level of financial risk tolerance of the mortgage banks is deficient, which implies they are not willing to invest more funds into the industry. All the corporate entities operating in the sector are indigenous firms with limited capital.

Other challenges preventing the industry from operating optimally includes the inability of the mortgage banks to mobilize enough saving from the public, weak property laws, high cost of registration of land title and a down payment of 30 percent of the property level.

In line with the objectives of the study, we make the following recommendations:

1. More mortgage products should be introduced in the market. Products such as mortgage-backed securities (MBS) to be traded in the stock market should be added.
2. Contributions to the National Housing Fund by the worker should be made compulsory in all the state of the federation and all establishment
3. Both the Federal and State governments should create an enabling environment to attract foreign investors since the indigenous firms with low financial risk tolerance are unable to utilize the opportunities available in the industry.

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