# Investigation of Mortgage Lending: An Overview of Nigerian Practice

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### Abstract

There has been a growing concern on the rate of default in residential mortgages of lending institutions in Nigeria. The need to salvage the undesirable situation has led to serious research efforts on factors causing default in residential mortgages. The paper therefore assesses the lending practice of lending institutions as possible cause of residential mortgage default. One (1) set of questionnaire was administered on Primary Mortgage Institutions (PMIs) across the Lagos metropolis with the intent of eliciting relevant information. Out of Sixty-five (65) questionnaires administered, only Thirty-six (36) were returned and found good for analysis. Data analysis was done using weighted mean score and rank correlation analysis. It was found that statistical based credit models are seldom used by the lenders while the evolving role of information technology in mortgage lending is yet to be given due attention.

Keywords: default, finance, mortgage, practice, residential.

## 1. Introduction

The mortgage lending process involves conveyance of interest in landed property by the owner (mortgagor) to the lender (mortgage) for a certain amount of money (loan) with the promise of repayment according to a specified amortization after which the property reverts to the owner without further encumbrance (Ojo, 2009). According to Clayton (2007), the classical form of real estate debt finance is the mortgage, a loan secured by real property. Mortgage is important due to the need of prospective investors to meet up with the ever inadequate finance for real property development. However, the success of lending process has been fraught with high rate of default. According to Okpara (2009), default occurs when a borrower breaches the mortgage conditions resulting into additional cost to the lenders and is usually a major challenge and risk issue in the mortgage lending process. Perhaps the most important concern of the lending institutions is how they will achieve reduced level of default in their mortgage dealings.

In the recent past many default factors have been identified in literature which include lender, borrower, loan, collateral and macro-economic related factors. It an obvious fact that the precision with which mortgage default risk is evaluated affects the default rate among the borrowers which suggests that lenders can contribute to rate of default (Lee and Liu, 2002). As noted by Keys et al. (2008), the steady declining credit standards, widespread securitization and changing economic conditions are responsible for the high rate of default in the mortgage sector. Therefore, in order to facilitate an effective mortgage lending system characterized with low level of default, the lending practice must be such that ensure an effective loan monitoring system according to Odufuye (2007) must include measures to monitor compliance with established covenants, assess collateral coverage, identify contractual payment delinquencies and classify potential credits on a timely basis and direct actions at solving problems promptly for remedial management. It is expected that a good loan evaluation process should be cost effective, consistent, methodological, systematic and capable of achieving high level of performance on the part of credit officers.

The study has two basic objectives which are to: investigate the lending practice of the Nigerian Primary Mortgage Institutions (PMIs) and assess the effect of lending practice on residential mortgage default. This will be achieved through a careful examination of the lending institutions' loan origination requirements, appreciation of the evolving role of information technology in mortgage lending, the allowable default period, the strategies for inducing timely repayment, the nature of valuers employed for mortgage valuation and the various loan evaluation techniques being used by the PMIs. The only hypothesis of the study which says that "there is no significant relationship between allowable default period and default rate of the PMIs", shall be tested through correlation analysis. The paper has been systematically structured to include a section devoted to review of current literatures which follows the introductory section. Next to literature review is the methodology which covers such things as population, data requirement, collection and analysis. The basic findings of the studies are discussed in the penultimate section while the last section contains conclusion and policy implications.

## 2. Literature Review

Literatures have identified areas considered most germane to the effectiveness of lending process which include loan origination criteria, application of information technology, allowable default period, strategies adopted to enhance timely repayment of loan, the type and nature of valuers engaged in mortgage valuation and the loan evaluation technique. Even though much has not been done with respect to lender's related factors as possible default triggers, it has been discovered that lenders also play important role in borrowers' inability to fulfill their loan repayment obligation. Loan underwriting which is the process of initiating a mortgage through careful determination of creditworthiness of the prospective borrower is the central activity that characterized the lending practice (Canner, Gabriel and Woolley, 1991). There are general loan underwriting guidelines applied in the analysis of loan variables, even though individual lenders can fashion them to suite their organizational culture and policies while also working towards keeping the level of expected risk as low as possible (Lee and Liu, 2002).

In assessing default risk, lenders consider the size of the proposed down payment, the value of the collateral and the capacity of the prospective borrower to meet scheduled debt payments (Quercia and Stegman, 1992). In addition, lenders evaluate the credit history of prospective borrowers as an indicator of their financial stability, ability to manage credit and willingness to make timely payments. Baeck and DeVaney (2003) establish that a borrower's creditworthiness is measured by the household's credit turndown history and tendency towards delinquency. The fact that borrower's credit history and economic status are germane in loan underwriting was emphasized in Pennington-Cross, Yezer and Nicholas (2000). Credit histories contain such items as the number and age of credit accounts of different types owned by the prospective borrower, the number of recent inquiries to the credit file, account activity patterns, the incidence and severity of payment problems and the length of time since any payment problem occurred.

There are general requirements for loan origination depending on the lending institution and the country of operation. In Nigeria for instance, the requirements for loan origination are stipulated in the guidelines for PMIs and other financial institutions designed by the Central Bank of Nigeria issued in 2003; which states that financial institutions, must request for some documents for proper loan origination such as Certificate of Occupancy or Deed of Conveyance, valuation report on collateral property, fire insurance policy, survey plan, building plan approval, down-payment, income tax clearance and credit report from other banks among other things. Also, the monthly debt service (payment-to-income) must not be more than one-third of the borrower's income while the maximum loan to any borrower must not be more than two-third of the collateral value.

Hartarska and Gonzalez-Vega (2001) focus on the effect of credit counseling on mortgage loan default by rural and urban low-income households. Using data on 392 observations, with 278 counseled and 114 noncounseled loans drawn from the database of 1,338 mortgage loans originated between 1992 and 2000 in selected institutions across some states in the US, the study presented empirical evidence to support the hypothesis that when properly designed, the innovation of credit counseling has the prospect to reduce the incidence of default on low-income mortgage loans confirming that both lenders and borrowers can benefit from cost-efficient lending technologies that better address the difficulties of low-income housing finance. One byproduct of the counseling program as identified in the study is a better measurement of the borrowers' repayment capacity through careful examination and empirical measurement of their characteristics.

LaCour-Little (2000) in a United States (US) based study focuses on the evolving role of technology in mortgage finance with a view to discovering whether the application of information technology has significant impact on the entire lending process or not. The study discovered that improvements in processor speeds, data storage media, telecommunications and networking have significantly reduced information cost, accelerated implementation of new risk management and valuation techniques, increased productivity while also allowing development of an entirely new origination channel, the internet, for the case study institutions over the period under review (1990-2000). It was confirmed in the study that greater efficiency in the lending industry may translate into increased housing affordability and homeownership rates through effective mortgage system and efficient credit management framework.

Mills (1993) examines community reinvestment loan targeted at low and medium income households and communities and found that underwriting practices, bank's willingness to restructure loans, commitment to the property on the part of the borrower and knowledge of the borrower are fundamental factors of mortgage default as identified by the interviewed lending institutions. It that banks with sound loan underwriting strategies, sound credit management styles and good debt recovery measures, are likely to aid borrowers not to default. Pollio and Obuobie (2010) found that repayment is affected mainly by frequency of loan monitoring among Ghanaian profit-making microfinance institutions. Using data on about one thousand (1000) randomly selected loans approved between 2002 and 2007, it was discovered that monitoring surprisingly increased the likelihood of default by forty-eight (48) percent. This was attributed to excessive pressure from the institutions' agents encouraging borrowers to invest in high-risk projects in order to generate higher cash flows to repay the loan. Moreover, the unexpected finding reflected 'collusion' between loan officers and borrowers or possibility of outright fraud.

Default risk according to Baku and Smith (2009) responds rapidly to variation in the lending and underwriting strategies of lending institutions with respect to their risk tolerances and preferences as well as their information-gathering and processing capabilities. Other lender's actions include the underwriting process prior to making a loan, counseling and follow-up after a loan is made, collection practices and loan recovery strategies. The study identified three important dimensions from the lender's direction that can affect the rate of loan default which are the business culture and mission, structural elements and policies, tools and processes. It was found that low-default lenders have a virile credit management system through creation of a strong lender-borrower relationship. This they achieve through provision of additional counseling and means of solving any problem arising during the loan period which according to Hirad and Zorn (2002) has the potential to reduce mortgage default. Low-default lenders have effective loan collection mechanism comprising the use of phone call and e-mail to serve as reminder within two weeks a payment's past due date. Furthermore, low-default lenders were found to have a very effective way of identifying and reporting past due loans and are generally ahead of those with high default occurrence in the overall application of computing technology. In order to have an effective credit management system, there is the need for application of technology in line with global best practice.

Zhu (1998) studied the influence of foreclosure delays on borrower's default behavior and found a result that is consistent with the predictions of Ambrose et al. (1997) theoretical model. Foreclosure delay represents the duration between the first missed payment date and the actual date foreclosure is carried out. During this period, the defaulting borrower can legally stay in the mortgaged property without making payments and enjoy free rent. When mortgage borrowers miss their monthly payments for a certain time period, typically after three complete missing payments lenders may initiate the foreclosure process the conclusion of which is sale of property. It is therefore obvious that when a borrower expects a relatively long default grace period default might persist which implies that borrowers who expect longer foreclosure time have a higher propensity to default.

The role of valuation in loan underwriting cannot be over-emphasized. It is the process of determining the monetary worth of collateral so as to arrive at a reliable loan-to-value ratio. The choice of a valuer, vis-à-vis his professional competence is of paramount importance. The relationship between the client and the valuer as it affects valuation bias was the focus of the study by Zhu (1995). Expectedly, the result of the study shows that the client-employed valuers give more valuations that favour clients who are their employers while the lender-employed also exhibit biases in favour of the lenders. This implies that client pressure might exist during the valuation process.

Loan evaluation techniques are the various methods lenders use to determine the credit worthiness of the prospective borrowers which range from the crude subjective reasoning to highly sophisticated and statistical based scoring techniques. In order to facilitate the mortgage underwriting process, reduce costs and promote consistency, credit scoring models have been developed to numerically score all the factors considered in the underwriting process and provide an indication of the relative risk posed by each application (Canner et al., 1991). In principle, a well-constructed credit scoring system holds the promise of increasing the speed, accuracy and consistency of the credit evaluation process (Aremu et al, 2010). Credit scores represent the estimated relationship between information obtained from credit bureau reports (if available) or loan applications and the likelihood of poor loan performance, most often measured by delinquency or default (Myra, 2000). According to Emel et al. (2003), the potential borrower's credit risk level is often evaluated by bank's internal credit scoring models with aim of determining whether a loan applicant has the capacity to repay or not.

In Nigeria, the Central Bank maintained that the credit framework of banks should be designed to serve as a tool for monitoring and controlling risk inherent in individual credits due to inadequacies of the expert and rating systems of loan processing which engendered the need for a new approach referred to as 'credit scoring' (Aremu et al, 2010). Credit scoring is statistical in nature and used mainly for predicting the probability that a borrower will default (Loretta, 1997). This model assigns scores for potential borrower by estimating the probability of default of their loans based on borrower and loan characteristic data (Myra, 2000). Borrower-specific information to be used include applicant's monthly income, outstanding debt, financial assets, nature and duration on the job, lending history of the customer, collateral owned and type of bank accounts among others. The aforementioned are potential factors that may relate to loan performance and they may be used in the scoring. According to Aremu et al. (2010), the non-establishment of a credit bureau, where borrowers' credit history and other relevant information can be got, has been a source of concern when it comes to good credit rating in Nigeria.

Hand and Henley (1997) describes credit scoring as the formal process of determining how likely applicants are to default on their debt service. The statistical models make use of predictor variables extracted from application forms and other sources. Credit scoring techniques constitute an empirical or statistical

approach of loan default prediction which allows detection of relationship between the default and the characteristics of a borrower directly from the data. These credit scoring techniques include discriminant analysis, logistic regression, classification trees and artificial neural networks among others.

## 3. Methodology

The research design applied is survey which involves the administration of questionnaires to the target populations so as to extract necessary information for the study. The study aims to assess the effect of lending practice of Primary Mortgage Institutions (PMIs) in Lagos on residential mortgage default. The target population is Primary Mortgage Institutions (PMIs) in Lagos metropolis. These are institutions established through the Mortgage Institutions Decree No 53 of 1989 and are registered by the Central Bank of Nigeria (CBN) to grant loans or advances to any person for the purchase, building, improvement or extension of a dwelling or commercial house. The sampling frame of the target population of Primary Mortgage Institutions (PMIs) was based on the CBN's Directory of all registered PMIs which have operated within Lagos metropolis for over five years. Given this sampling frame, there are 65 PMIs in Lagos metropolis. The basis of setting time frame (above 5years) was to ensure that the respondents have adequate experience on the focus of this study. The sample size of the study is the total population of the PMIs in Lagos metropolis which according to CBN's directory of registered financial institutions is sixty-five (65). Total enumeration was adopted since the population of the PMIs is below hundred and can still be conveniently handled within the time and budget frame of the study.

Only one set of structured questionnaire was prepared and employed to extract necessary information from the target population. The questionnaire, which was administered on the PMIs, contained questions on level of default, requirement for loan origination, level of information technology application in mortgage lending, allowable default period, strategies employed to enhance timely repayment, type of valuer employed for mortgage valuation and loan evaluation techniques. Both the descriptive and inferential Statistical methods were adopted for the analysis. The descriptive statistics such as frequency distribution, mean and weighted mean score were used mainly for presentation of population characteristics while the Spearman's correlation as form of inferential statistics was used to establish nature and degree of relationship between two variables of interest (level of default and allowable default period).

For illustration, the weighted mean of a 5-point scale with 5, 4, 3, 2 and 1 denoting Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree respectively will be computed using the formula stated in Equation I.

$$WM = \frac{5n_5 + 4n_4 + 3n_3 + 2n_2 + n_1}{N} - Equation I$$

Where WM = Weighted Mean,  $n_5$  = number of responses for Strongly Agree,  $n_4$  = number of responses for Agree,  $n_3$  = number of responses for Undecided,  $n_2$  = number of responses for Disagree,  $n_1$  = number of responses for Strongly Disagree, N = total population of the respondents.

Also, the correlation coefficient (r) can be computed using the formula stated in Equation II.

1 1 5 1 6 1

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Rank Correlation Coefficient (r) = 
$$1 - \frac{6\sum D^2}{n(n^2-1)}$$
 ------ Equation II

Where  $\sum D^2$  = summation of the squares of the differences between ranks, n = number of pairs of scores. The coefficient (r) ranges from (-1) to (+1). The higher the positive value of coefficient, the stronger the direct (positive) relationship while an increasing negative value indicates increasing inverse relationship between the two variables being correlated. A coefficient around zero (0) indicates little or no relationship. The Spearman's correlation is applied when the variables under consideration are in rank form as used in this study.

Table 1: Number of Existing and Sampled PMIs						
Ownership	Existing	Questionnaire retrieved				
Private ownership	43	24				
Government ownership	8	1				
Commercial bank ownership	10	8				
Insurance company ownership	2	2				
Others	2	1				
Total	65	36				

## 4. Result and Discussion

# Source: Field Survey (2012)

Table 1 presents the number of PMIs, the target population, in Lagos metropolis according to form of ownership. There are Sixty-five (65) PMIs in the study area all of which were administered questionnaires but only Thirty-six (36) questionnaires were retrieved and found good for analysis. The credit officers of the PMIs responded to the questionnaires. The table shows that PMIs in private ownership are more in number than any other forms of PMIs, followed by those in ownership of commercial banks.

## Table 2: Default rate of the PMIs

Default rate	Frequency	Percentage
0 - 5%	0	0.00
6 - 10%	0	0.00
11 - 15%	2	5.60
16 - 20%	19	52.80
21 - 25%	6	16.70
26 - 30%	4	11.10
Above 30%	5	13.90
Total	36	100.00

## Source: Field Survey (2012)

Table 2 presents the frequency distribution of the current default rate among the PMIs. It shows that just Two (2) of the PMIs (representing 5.60%) have default rate ranging from 11-15% while there is none with default rate 10% and below. Nineteen (19) of the sampled PMIs (representing 52.80%) have default rate ranging from 16 - 20% to emerge as the mode. From the table, there is relatively high rate of mortgage default among the PMIs with the dominant category between 16 and 20%. This is an indication of persisting high level of default among the financial institutions (PMIs) in line with the EFInA Report (2010) which also implies that the current lending practice cannot be rated to be optimally performing as it could be. The major reason for this abysmal performance cannot be unconnected with the current practices among the lending institutions which are being investigated in this paper.

**Table 3: Requirements for Loan Origination** 

Requirement	Very	Important	Less	Not	Weighted	Rank
	Important	(3)	Important	Important	Mean	
	(4)		(2)	(1)		
Valuation report	34	2	0	0	3.94	1
Title document	33	3	0	0	3.92	2
Survey plan	27	9	0	0	3.75	3
Evidence of account	26	10	0	0	3.72	4
Search report on title	29	4	3	0	3.72	4
Building plan	27	8	1	0	3.72	4
Recent bank statement	27	6	3	0	3.67	7
Bill of Quantities	24	10	2	0	3.61	8
Reference letter from guarantor	25	7	4	0	3.58	9
Undertaking for regular payment	26	4	6	0	3.56	10
Fire insurance on collateral	17	17	0	2	3.36	11
Down-payment	18	11	7	0	3.31	12
Income tax clearance	15	19	0	2	3.31	12
Credit report from other banks	17	8	8	3	3.08	14
Information on other bankers	11	14	2	9	2.75	15

## Source: Field Survey (2012)

Table 3 shows the basic requirements for obtaining loan from the PMIs. The weighted mean represents the degree of importance that the PMIs attach to the loan origination requirements with ordinal scale ranging from 1 to 4 for "Not Important", "Less Important", "Important" and "Very Important" respectively. "Valuation report" on real property used for collateral emerged as the most important criteria while "information on other bankers" emerged as the least important criteria. Using the weighted averages as reported in the table, virtually all the listed requirements are held with utmost importance by the banks when originating new loans. This is normal to a great extent because it will give the borrowers a sense of commitment to the repayment of the loan. Also, the quality of the prospective borrowers can be validated from the various requirements or documents submitted. However, on the general ranking, "credit history" and "information on other bankers of the borrower" were rated low.

#### Table 4: Loan Evaluation Techniques

Technique	Always (4)	Sometimes (3)	Seldom (2)	Not used (1)	Weighted mean	Rank
Use of borrower repayment ability	29	7	0	0	3.81	1
Use of loan requirement checklist	28	6	0	2	3.67	2
Use of credit score	25	7	2	2	3.53	3
Use of credit officer's personal opinion	22	12	0	2	3.50	4
Use of Discriminant Score	7	12	4	13	2.36	5
Use of Logit Model	5	13	6	12	2.31	6
Use of Neural Network	4	3	15	14	1.92	7

#### Source: Field Survey (2012)

Table 4 shows the responses of the PMIs on the techniques they use for loan evaluation. The ordinal scale ranges from 1 to 4 for "Not in use", "Seldom", "Sometimes" and "Always" respectively. Loan evaluation strictly based on "borrower repayment ability", "loan requirement checklist", "credit score" and "credit officer's personal opinion" emerged 1st, 2nd, 3rd and 4th respectively as mostly used techniques while "discriminant score", "logit regression" and "neural network" ranks 5th, 6th and 7th respectively as the least used techniques. This implies that loan evaluation based on "borrower repayment ability", "loan requirement checklist", "credit score" and "credit officer's personal opinion" emerged as mostly used techniques while "discriminant score", "logistic regression" and "neural network" are the least used techniques.

The ranking for "use of credit score" is controversial, especially when up till now Nigeria is yet to establish a Credit Bureau. However, this may be accepted on the ground that there are private credit scoring organizations that can produce credit scores and sometimes the credit officer can also undertake scoring. Aremu et al. (2010) reiterated that the non-establishment of a credit bureau, where borrowers' credit history and other relevant information can be got, has been a source of concern when it comes to good credit rating in Nigeria. The implication of the foregoing is that the lending institutions are yet to adopt the use of the statistical based credit scoring models as against the CBN's recommendation, emphasized by Aremu et al. (2010). The result revealed a low level of application of statistical based loan scoring techniques as compared to other techniques for loan evaluation which was found by Hand and Henley (1997) as the formal process of determining how likely applicants are to default on their debt service. It can therefore be said that the PMIs' loan evaluation technique is still subjective in nature and relies heavily on borrower's ability to make down-payment, adequate collateral value and borrower's current income.

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Operation	Always (4)	Sometimes (3)	Seldom (2)	Not applied	Weighted Mean	Rank
				(1)		
Loan repayment scheduling	29	7	0	0	3.81	1
Credit management database	30	4	2	0	3.78	2
Detection of defaulted loans	27	9	0	0	3.75	3
Generation of borrower's credit	21	8	2	5	3.25	4
history						
Screening of application	12	12	9	3	2.92	5
Identify borrowers liable to default	12	5	10	9	2.56	6

#### **Table 5: Level of Application of Information Technology**

## Source: Field Survey (2012)

In order to assess the level of application of information technology in mortgage lending in line with global best practice, the PMIs were asked how often they use computer for the listed operations. Table 5 shows the PMIs responses to the application of information technology. The ordinal scale ranges from 1 to 4 for "Not applied", "Seldom", "Sometimes" and "Always" respectively. Use of computer for "loan repayment scheduling", "credit management database", "detection of defaulted loans" and "generation of borrower's credit history" emerged 1st, 2nd, 3rd and 4th on the final ranking which implies that they are the operations usually carried out with computers. The last two operations from the bottom of the table are seldom undertaken with the aid of computer. The analysis revealed important information that is germane to this study with respect to application of information technology in mortgage lending. Operations such as "generation of credit history", "application of information technology in mortgage lending. Operations such as "generation of credit history", "application screening" and "identification of potential defaulters" are of paramount importance to a virile lending process and yet, the PMIs have not developed a sound information technology framework to carry out the operations against LaCour-Little (2000) and Baku and Smith (2009) which found that low-default lenders have a very effective way of identifying and reporting past due loans and are generally ahead of those with high default

occurrence in the overall application of computing technology. LaCour-Little (2000) confirmed that greater efficiency in the lending industry may translate into increased housing affordability and homeownership rates through effective mortgage system and efficient credit management framework.

#### **Table 6: Strategies to Enhance Timely Repayment**

Strategy	Always (4)	Sometimes (3)	Seldom (2)	Not applied (%)	Weighted Mean	Rank
Counseling	19	14	3	0	3.44	1
Extension of repayment period	9	18	9	0	3.00	2
Reduction in debt	1	23	3	9	2.44	3
Additional charge for late payment	4	3	23	6	2.14	4
Reduction in interest rate	0	11	14	11	2.00	5

## Source: Field Survey (2012)

Table 6 presents the PMIs' responses when they were asked how often they use the listed strategies to enhance timely repayment of loans with ordinal scale ranging from 1 to 4 for "Not applied", "Seldom", "Sometimes" and "Always" respectively. The use of "counseling" and "extension of repayment period" emerged as the mostly used strategies while "reduction in debt", "additional charge for late payment" and "reduction in interest rate" are the least used strategies in that order. This result is in line with Hirad and Zorn (2002) and Baku and Smith (2009) which discovered that low-default lenders provided for additional counseling and means of solving any problem arising during the loan period. Hartarska and Gonzalez-Vega (2001) confirmed that the innovation of credit counseling has the prospect to reduce the incidence of default on low-income mortgage loans and that both lenders and borrowers can benefit from cost-efficient lending technologies that better address the difficulties of low-income housing finance.

Table 7: Types of Valuers Employed for Mortgage Valuation

Type of Valuer	Always (4)	Sometimes (3)	Seldom (2)	Not applied (1)	Weighted mean	Rank
Estate Surveyor on retainership	17	8	2	9	2.92	1
Independent Estate Surveyor	18	6	0	12	2.83	2
In-house registered Estate						
Surveyor	6	6	3	21	1.92	3
Estate Surveyor used by borrower	3	0	3	30	1.33	4

## Source: Field Survey (2012)

Table 7 shows the responses of the PMIs on the type of valuers they employ for valuation of collateral property during loan underwriting with ordinal scale ranging from 1 to 4 for "Not applied", "Seldom", "Sometimes" and "Always" respectively. The mean ordinal rankings of "Estate Surveyor on retainership" and "Independent Estate Surveyor" indicate that they are the mostly employed while "Estate Surveyor used by borrower" is almost not used. The use of "Estate Surveyor and Valuer on retainership" was rated 1st (in the range "always in use") by the PMIs while use of borrower's valuer was rated last (in the range "not applied"). The gap in the ranking of "Estate Surveyor and Valuer on retainership" and "borrower's valuer" should not be too wide to ensure check and balance because Zhu (1995) discovered that the client-employed valuers give more valuations that favour clients who are their employers but it is expected that the bias will be neutralized by the valuations of the borrowers' valuers.

#### Table 8: Allowable Default Period of the PMIs

Default Period	Frequency	Percentage
1 month	0	0.00
2 months	5	13.90
3 months	6	16.70
Above 3 months	25	69.40
Total	36	100.00

## Source: Field Survey (2012)

Table 8 shows the allowable default period of the PMIs. "Default period" is the maximum time lag between default and when recovery action is taken. None of the PMIs indicated default period of 1 month while the frequency of other categories increases with default period with "above 3 months" category taking the highest frequency of twenty-five (25) PMIs representing 69.4% of the sampled institutions. This result is at variance with Baku and Smith (2009) in which low-default lenders were discovered to have effective loan collection mechanism comprising the use of phone call and e-mail to serve as reminder within two weeks a

payment's past due date.

#### Table 9: Correlation between default rate and default period

	Default rate
Default period	0.21
Sig. (2-tailed)	0.23

Table 9 shows the result of the Spearman's rank correlation analysis between the allowable default period (presented in Table 8) and the default rate (presented in Table 2) of the PMIs. The correlation coefficient is 0.21 which is very weak, indicating little or no relationship between the two variables (default rate and allowable default period). The null hypothesis which states that "there is no significant relationship between allowable default period and default rate of the PMIs" is accepted since the level of significance (0.23) attained is greater than 0.05 (at 95% confidence level) to disregard the alternative hypothesis, though the nature of relationship, which is positive is expected in compliance with many mortgage default literatures such as with Kung et al. (2010).

### 5. Conclusion

The study investigated the lending practice of the Nigerian Primary Mortgage Institutions (PMIs) as it affects residential mortgage default. It was established that the current mortgage lending practice has the potential to contribute to the borrowers' inability to meet up with their mortgage obligations resulting into mortgage default. The allowable default period of the PMIs together with their current loan evaluation process is a reflection of the fact that lenders' practices can also act as mortgage default triggers. The potential role of information technology in mortgage lending is reiterated in the study which if enhanced can improve the lending process and the entire mortgage system. Lending practices should be improved in the areas of allowable default period, information technology application in credit management and adoption of sound borrower-responsive lending culture.

#### References

- Ambrose, B. W., R. J. Buttimer Jr., and C. A. Capone (1997). Pricing mortgage default and foreclosure delay. *Journal of Money, Credit and Banking*. 29(3), 314 - 325.
- Aremu, O. S., Suberu, O. J. and Oke, J. A. (2010). Effective Credit Processing and Administration as a Panacea for Non-performing Assets in the Nigerian Banking System. *Journal of Economics*, 1(1), 53-56
- Baeck, S. and DeVaney, S. A. (2003). Determinants of the Type of Mortgage: Conventional or Federally Guaranted Mortgage (FHA or VA). *Financial Counseling and Planning*, 14(2), 53 62
- Baku, E. and Smith, M. (2009). Loan Delinquency in Community Lending Organizations: Case Studies of Neighbor-Works Organizations. *Housing Policy Debate*, Vol. 9(1), 151-175
- Canner, G. B., Gabriel, S. A., and Woolley, J. M. (1991). Race, Default Risk and Mortgage Lending: A Study of the FHA and Conventional Loan Markets. *Southern Economic Journal*, 58(1), 249-262.
- Clayton, J. (2007). Commercial Real Estate Derivates: The Developing US Market. Real Estate Issues, (Fall, 2007), 33-40
- Emel, A. B., Oralb, M., Reismanb, A. and Yolalana, R. (2003). A Credit Scoring Approach for the Commercial Banking Sector. Socio-Economic Planning Sciences, 37 (1), 103–123
- Enhancing Financial Innovation and Access National Survey (2010). Overview of the Housing Finance Sector in Nigeria. Access to Financial Services in Nigeria.
- Hand, D.J. and Henley, W.E. (1997). Statistical Classification Methods in Consumer Credit Scoring. *Journal of the Royal Statistical Society*. Series A (Statistics in Society), 160, 523-541.
- Hartarska, V. and Gonzalez-Vega, C. (2001). *Credit Counseling and Mortgage Loan Default by Rural and Urban Low-Income Households*. Selected paper for presentation at the annual meeting of the American Agricultural Economics Association in Chicago, Illinois, August 5-8, 2001.
- Hirad, A. and Zorn, P. (2002). A Little Knowledge is a Good Thing: Empirical Evidence of the Effectiveness of Pre-Purchase Homeownership Counseling. In *Low-income Homeownership: Examining the Unexamined Goal*, eds. Nicolas Retsinas, Eric Belsky, 146- 174. Cambridge, Mass.; Washington, D.C.: Joint Center for Housing Studies; Brookings Institution Press.
- Keys, B.J., Mukherjee, T.K., Seru, A. and Vig, V. (2008). Did securitization lead to lax screening? Evidence from subprime loans. EPA 2008 Athens Meetings Paper. http://ssrn.com/abstract=1093137.
- Kung, J. Y., Wu, S. Y., Hsu, S. S., Lee, W. and Yang, C. W (2010). Application of Logistic Regression Analysis of Home Mortgage Loan Prepayment and Default Risk. *ICIC Express Letters*, 4(2), 325-331.
- LaCour-Little, M. (2000). The evolving role of technology in mortgage finance. *Journal of Housing Research*, 11(2), 173-206
- Lee, S. and Liu, D. (2002). Determinants of Defaults in Residential Mortgage Payments: A Statistical Analysis.

International Journal of Management.

- Loretta, M. (1997). What's the Point of Credit Scoring? Business Review, Federal Reserve Bank of Philadelphia, September/October Issue.
- Mills, E. (1993). Sound Loans for Communities: An Analysis of the Performance of Community Reinvestment Loans. Woodstock Institute and National Association of Affordable Housing Lenders.
- Myra, R. (2000). Development in the Banking Industry: Implications for the Future of Bank Lending to Small Businesses. *Undergraduate Journal of Economics*, 1(6)
- Nubi, T. O. (2000). Housing Finance in Nigeria Need for Reengineering. Retrieved from http://www.housingfinance.org/pdfstorage/Africa on 13th November, 2010.
- Odufuye, B.M. (2007). Imperatives for Effective and Efficient Credit Administration in the Banking Sector. *Nigerian Banker, July to September, 2007.*
- Ojo, A. O. (2009). The role of secondary mortgage facility in expanding the availability of funds for mortgage finance in Nigeria. An MSc Thesis Submitted to the Department of Real Estate and Construction Management, KTH Architecture and the Built Environment, Stockholm.
- Okpara, G. C., (2009). A Synthesis of the Critical Factors Affecting Performance of the Nigerian Banking System. *European Journal of Economics, Finance and Administrative Sciences*, (17), 34 44.
- Onyike, J. A. (2007). An Assessment of the Affordability of Housing by Public Servants in Owerri, Nigeria. Journal of Land Use and Development Studies, 3(1), 21-34
- Pennington-Cross A., Yezer A. and Nicholas J. (2000). Credit Risk and Mortgage Lending: Who Uses Subprime and Why? Research Institute for Housing America Working Paper No. 00-03.
- Pollio, G. and Obuobie, J. (2010). Microfinance Default Rates in Ghana: Evidence from Individual-Liability Credit Contracts. *Microbanking Bulletin*, Issue 20, 8-14
- Quercia, R. G. and Stegman, M. A. (1992). Residential Mortgage Default: A Review of the Literature. *Journal of Housing Research*, 3(2), 341–379.
- Zhu, S. (1995). *Distressed Properties: Valuation Bias and Accuracy*. Being one of the three essays in a dissertation submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy. (Retrieved online).
- Zhu, S. (1998). *The influence of foreclosure delays on borrower's default behavior*. Being one of the three essays in a dissertation submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy. (Retrieved online).

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