# An Examination of the Factors Influencing Commercial Banks' Acceptance of Real Property as Collateral for Loans in North-Central Nigeria

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## Abstract

Real property has been adjudged as financial institutions' preferred collateral type, despite challenges attendant to its use. This leads to borrower self-exclusion from the credit market, a situation that is detrimental to economic growth. This study, therefore, examined the factors influencing commercial banks' acceptance of real property as loan collateral, with a view to providing information that will enhance access to finance. A structured questionnaire was administered to credit officers of commercial banks in Makurdi and Minna, North-Central Nigeria based on purposive sampling. A total of sixteen (16) commercial banks were adopted for each location based on their presence, and this amounted to thirty-two (32) credit officers from whom data was obtained and analysed using descriptive statistics. The study revealed that frequently used loan collaterals include receivables, insurance policy, guarantee, cash deposit and real property, in proportions of 10%, 7.4%, 17.4%, 17.7% and 24.5%, respectively; and there is a strong positive correlation between the frequency of collateral used and the proportion of loans secured ($r$ = .881, $p$ (< .001) < 0.05). Furthermore, with a Relative Importance Index (RII) of 0.90 value stability is the most dominant real property collateral acceptance factor. The study findings imply that while there are alternative commercial banks' frequently used collaterals that prospective borrowers can use to access loans, stakeholder sensitization programmes and policy interventions in the secured lending space is imperative to enabling convenience and increased loan volumes, toward poverty alleviating productive activities in Nigeria.

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## Introduction

It is generally believed and indeed several authors have documented that real property is traditionally the most preferred and widely used collateral for securing loans by financial institutions (Atogenzoya, Nyeadi and Atiga, 2014; Domeher and Abdulai, 2012; Feder, Onchan and Raparla, 1988; Nagarajan and Meyer, 1995; Nwuba, Egwuatu and Salawu, 2013; Osuji, 2017). Banks and bank examiners are said to prefer real property to other collateral types as security for loans (Fleisig, 1996). This may not be unconnected with the physical fixity of real property, its durability and dependability as a store of value in real terms, as well as issues with moveable property as loan collateral (Atogenzoya *et al*., 2014; Fleisig, 1996; Nwuba, Egwuatu and Salawu, 2013).

However, it has been widely acknowledged that the use of real property as security for loans, especially in emerging or developing economies like Nigeria is riddled with issues, challenges and risks, all of which can be summed up as issues in the creation, perfection and enforcement of security interest in real property (Atogenzoya *et al*., 2014; Bruce-Twum and Adu- Darko, 2013; Domeher and Abdulai, 2012; Nwuba *et al*., 2013; Nwuba, Egwuatu and Salawu, 2015; Udo, 2001).

From the foregoing, a question that comes to mind is this: How is it possible that financial institutions would prefer real property to other types of collateral in securing the loans that they grant despite the inherent challenges? In other words, despite the numerous issues and challenges, financial institutions still accept and use real property as collateral for loans. Meanwhile, the belief that financial institutions would always prefer or require real property as loan collateral has been a source of negative perception and discouragement to prospective borrowers, such as entrepreneurs, micro, small and medium scale enterprises (MSMEs), groups and individuals all of who on account of lack of real property or the inability to meet up with financial institutions' real property collateral requirement are unable to access loans to finance productive activities within a developing economy like Nigeria, because they are either credit rationed or they self-select themselves out of the credit market (Blazy and Weill, 2007; Domeher and Abdulai, 2012; Morsy, El-Shal and Woldemichael, 2019; Nagarajan and Meyer, 1995; Osuji, 2017), and this constitutes a clog in the wheel of economic growth and development given the importance of finance (Okpukpara, 2009).

Furthermore, several experts, economists and researchers have acknowledged the role of finance in economic development. They believe that financial intermediation provided by the banking system is critical for economic growth and development (Ajibola, 2015; Akujuobi and Nwezeaku, 2015; Imoughele and Ismaila, 2013; Ogar, Nkamare and Effiong, 2014). This was alluded to succinctly by Bello (2018), who stated that lending by banks is what keeps a country's private enterprise up and running. In fact, according to the Central Bank of Nigeria (CBN) report on Financial System Strategy 2020, commercial banks provide about 90% of the financial system credit by loan value in Nigeria. Consequently, the credit rationing of prospective borrowers or self-selection out of the credit market for lack of real property, which has been branded the most preferred collateral type, breeds financial and economic exclusion, which is detrimental to economic growth (Osuji, 2017). It is therefore imperative to examine the factors influencing commercial banks' acceptance of real property as loan collateral so that all stakeholders in the financial intermediation industry will be well informed, guided and spurred toward taking steps to enhance easy, convenient and increased access to commercial banks' loans, in the interest of national economic development.

Consequently, the study's research objectives are to:

i. Identify the different types of collaterals used to secure commercial bank loans in North-Central Nigeria
ii. Evaluate the extent to which real property is used compared to other types of collateral to secure commercial bank loans in the study area.
iii. Assess the challenges that accompany the use of the different collateral types acceptable to commercial banks for loan security in the study area
iv. Determine the association between the challenges that accompany the use of acceptable collaterals, the frequency of their use and the proportion of the loans that they secure.
v. Assess the factors that influence commercial banks' acceptance of real property as collateral for loans in the study area.

**The Study Area**

North-Central Nigeria, also known as the Middle Belt region is the largest geopolitical zone in Nigeria, with a landmass of about 300,000 square km and an estimated population of about 45 million (Mailafia, 2020; Middle-Belt, n.d.); and made up of the following states: Plateau, Niger, Kogi, Benue, Nasarawa, Kwara, and the Federal Capital Territory, Abuja (Olawale, 2020). With abundant arable and fertile land, and agricultural production of numerous products, Benue and Niger states in North-Central Nigeria are considered the ‘food basket’ of the nation. Furthermore, with a focus on agribusiness and solid minerals exploration, entrepreneurs and micro, small and medium scale enterprises (MSMEs) are embarking on farming and mining at levels beyond the subsistence and artisanal mining levels (Nigerian Investment Promotion Commission, n.d.). This is expected to generate wealth and commercial banks in Nigeria are expected to contribute substantially to this effort by way of finance.

## Literature Review

### *The Concept of Secured Lending*

Secured lending usually involve borrower default risk, therefore lenders make effort to reduce the risk and minimize losses that could be incurred due to a default, by taking collateral as security for a loan (Domeher and Abdulai, 2012; Feder, Onchan and Raparla, 1988). It has been acknowledged that the rationale for secured lending is because of the inefficiencies in the credit market that present as problems of loan enforcement as well as information asymmetry about borrower quality, in terms of adverse selection and moral hazards which pervade the credit market, and for which collateral is used as a tool to resolve (Boot, Thakor and Udell, 1991; Broccardo and Bazzana, 2012; Chen, Guo and Huang, 2008; Coco, 2000; Siebrasse, 1997; Hanedar). Meanwhile, according to Kozolchyk (2006), secured lending has proven to be effective in improving the gross domestic product (GDP) and reducing the poverty level of a country.

### *An Overview of Secured Lending Related Laws in Nigeria*

Nigeria’s secured transactions law was said to be highly fragmented, lacked predictability and comprehensiveness and with several issues (Iheme, 2016). However, in the book titled Personal Property Law in Nigeria, Ozekhome (2019) submitted that the Secured Transactions in Movable Assets Act, 2017 (hereinafter called STMA) has unified the pre-existing Nigerian security devices into a single statute, albeit personal property biased, that encourages borrowing and lending. While the STMA is the extant law with respect to secured transactions in movable property, the Land Use Act, *Chapter 202, LFN, 1990 (hereinafter called the LUA) is the extant law for secured transactions in real property.*

The LUA, which vests all lands comprised in the territory of each state of the Federation in the Governor of the state, was necessitated by the issues in the pre-LUA land laws. However, according to (Nelson, 2013), while the pre-LUA land laws were considered not suitable because of their challenges, the LUA though had some positive impacts on land administration, has issues such as uncertainty of title, the requirement of consent and its attendant challenges, revocation and the issue of compensation, as well as discrimination against a lender or mortgagee among others, that have hampered the effectiveness of the mortgage of land as security for loan transactions in Nigeria. Meanwhile, the Federal Government of Nigeria’s drive to expand access to credit for businesses, particularly micro, small and medium enterprises (MSMEs), gave rise to the enactment of the STMA. This is because restricted access to finance, occasioned by a lack of immovable properties for collateral, is a key limitation to the growth of MSMEs in Sub-Saharan Africa (Bruhn *et al*., 2017). The objects of the STMA are to enhance financial inclusion in Nigeria, stimulate responsible lending to MSMEs, facilitate access to credit secured with movable assets, facilitate perfection of security interest in movable assets, facilitate the realization of security interest in movable assets, and establish a collateral registry and provide for its operations. While it may not be a perfect law, the STMA is already being used to facilitate the perfection of security interest in movable assets, and this is expected to improve with time (Osuji, 2017; CBN, 2019).

***The Nature of Commercial Bank Loans in Nigeria***

In Nigeria, commercial banks have numerous loan products designed to meet their customers' needs and convenience, and they ascribe various names and descriptions to such loan types. However, according to Akujuobi and Nwezeaku (2015), commercial bank lending is often guided by each bank's credit risk management and policy, which must be adhered to before loans are granted. From a study of commercial bank' annual reports, coupled with the views of the CBN, loans are generally classified based on loan security (secured and unsecured); loan limit (open-end or closed-end); loan tenor (short term, about 1year; medium-term, about 1 to 5 years; and long term, about 3 to 30 years); borrower type (Consumer or Retail, Commercial, Corporate and Public Sector); or based on the purpose of the loan (auto finance for car purchase, import finance, education, and Agric loans among others).

***Collaterals Used as Security for Commercial Bank Loans***

The views of Brealey, Myers and Allen (1991), Ellis-Christensen (2012), Note (1990), and Pritchard (2008) about collaterals used to secure loans, are hereby consolidated with those of Okafor, Okafor and Okolie (2020) thus: Real property, Tangible movable property, Financial instruments such as Stocks, Shares and Bonds of quoted blue-chip companies, certificates of deposits, treasury certificates and other similar marketable securities, Claims and receivables, Cash deposits, Endorser, Intellectual property such as patents, copyright, trademarks, and designs, and Guarantee, all of which depends on the various commercial banks' credit risk management and collateral policies.

***The Use of Real Property as Collateral for Loans***

Several authors have written about the use of real property as collateral for securing loans granted by financial institutions. Authors whose work were reviewed, including Atogenzoya *et al*. (2014), Bruce-Twum and Adu- Darko (2013), Feder *et al*. (1988), Nagarajan and Meyer (1995), and Nwuba *et al*. (2013) believe that because of its unique characteristics, such as having a hedge against inflation and durability among others, real property is the most preferred type of collateral used by financial institutions for securing loans and reducing loan losses, though with impediments such as stringent land documentation processes, extra loan application costs, longer loan processing periods, difficulty in producing legally enforceable title, as well as difficulty and long procedure involved in realizing the security, among others, and all of which need to be mitigated as a precondition for the successful use of real property as collateral (Feder *et al*., 1988; Menkhoff *et al*., 2012); and that lack of real property restricts access to credit (Atogenzoya *et al*., 2014; Domeher and Abdulai, 2012; Menkhoff *et al*., 2012; Nagarajan and Meyer, 1995). Nwuba *et al*. (2013) specifically stated that two-thirds of loans granted by commercial banks in Nigeria are secured by real property. However, while a number of the authors agree with the preference for real property assertion and lack of real property collateral being the reason for access restriction to formal credit in developing countries, there are those with divergent views. Calomiris *et al*. (2016) stated that the absence of effective and legal means of collateralizing movable assets can shape bank loan supply and that differences across countries in their legal systems' ability to support the use of movable assets as collateral for bank loans substantially affect the ability of borrowers to gain access to credit. This view was emphasized by Fleisig (1996), who believes that legal and regulatory barriers concerning the creation, perfection and enforcement of security interest in movable property are what limits access to credit in developing countries. Even Nwuba *et al*. (2013) had stated in their study that the unreformed collateral system coupled with the poor documentation of titles to assets in the developing countries was a reason for the preference for real property.

Furthermore, while movable assets such as inventory and accounts receivable, investments instruments such as shares, cash, bonds, deposit accounts, household assets and motor vehicles are progressively being accepted as collateral (Bruce-Twum and Adu- Darko, 2013), collateral substitutes such as loan size reduction and interest rate hike; or guarantees and relationship lending make for easier access to finance when lending to poor households and entrepreneurs in emerging markets (Menkhoff *et al*., 2012). Domeher and Abdulai (2012) believe that collateral is not necessarily a compulsory and sufficient requirement for obtaining credit because there are more important factors that lenders consider when granting credit, such as financial position, cash flow, profitability and credit history, but that however, lenders would sometimes require collateral alternatives or substitutes rather than real property due to the impediments to the use of real property. Also, Nagarajan and Meyer (1995) believe that the social, economic and legal environment within which the banks operate frequently influences the acceptability and value of assets used as collateral, and that there is a positive correlation between formal loans on one hand and security of land titles in Thailand and official granting of certificates of occupancy in Nigeria on the other, but that several collateral substitutes are being used in rural formal financial markets despite the continued reliance on conventional collateral by formal lenders.

From the foregoing, while it has been documented that movable properties and several other collateral substitutes exist and that lack of reform and legal backing for which constitutes a hindrance to credit access, it would appear that lack of real property or inability to present real property as collateral is majorly responsible for credit access restriction in developing countries like Nigeria. The literature review, therefore, highlights the need for research to examine the factors influencing commercial banks' acceptance of real property as collateral to secure loans in Nigeria. This is expected to provide information about real property as loan collateral that would guide stakeholders in the financial intermediation industry, especially prospective borrowers in making credit decisions that would meet household needs and entrepreneurial productive activities, for the enhancement of Nigeria's economic growth and development.

**Research Method**

A descriptive research design was employed for the study. The study population and sample frame include the Twenty-Two (22) Central Bank of Nigeria (CBN) licensed commercial banks. The purposive sampling technique was used to select credit officers from a total of sixteen (16) commercial banks with a presence in Makurdi and Minna each, amounting to a total of Thirty-Two (32) credit officers who are involved in the process of loan administration. Data was gathered through the use of a questionnaire developed with close-ended questions for measurement of ordinal data with the aid of the Likert scale, as well as nominal and interval data with the aid of a contingency table. Thirty-one (31) out of the Thirty-two (32) questionnaires administered were correctly filled, retrieved and considered adequate for analysis. Table 1 provides details of questionnaire administration and responses obtained.

The questionnaire items and data collected were tested for reliability in terms of internal consistency, to determine if the questionnaire items could reliably measure the latent variables consistently. Consequently, Cronbach's Alpha was determined for the items in the research questionnaire, using SPSS and Two Factor ANOVA without replication (Hussain, 2019; Kothari, 2004; Rai and Thapa, 2015). The Cronbach's Alpha obtained for each of the questionnaire items include 0.794 (Acceptable collateral types and usage frequency), 0.905 (Proportion of loans secured by acceptable collateral types), 0.781 (Challenges that accompany the use of acceptable collateral types by commercial banks) and 0.753 (Factors influencing commercial banks' acceptance of real property as collateral), all of which are at acceptable levels, which indicate good internal consistency of data collated for the study.

**Table 1.** Analysis of questionnaire administration and response rate

| Location of commercial banks surveyed | Number of selected commercial banks with a presence in the location | Number of questionnaires administered on credit officers of the banks | Number of questionnaires completed and returned | Response rate |
|---|---|---|---|---|
| Makurdi | 16 | 16 | 15 | 93.75% |
| Minna | 16 | 16 | 16 | 100.00% |
| Total | 32 | 32 | 31 | 96.88% |

*Source: Field survey (2021)*

Data collected were analyzed and presented with the aid of SPSS software version 28, Microsoft Excel and tables, as well as descriptive statistics such as Percentage, Mean Item Score (MIS), Relative Importance Index (RII) and Spearman's rank correlation coefficient.

The equations used for the calculation of the MIS and the RII are presented as:

$$\text{MIS} = (\sum W) \div N = (5n_5 + 4n_4 + 3n_3 + 2n_2 + 1n_1) \div N$$
$$\text{RII} = (\sum W) \div (A * N) = (5n_5 + 4n_4 + 3n_3 + 2n_2 + 1n_1) \div 5N$$

Where in both cases $\Sigma W$ represents the sum of the weighted responses as applied to each point option based on the Likert scale category; N represents the total number of sampling units that responded; and A represents the highest weight or number of response categories of Likert scale used, which is 5 points in this case. Consequently, the Likert point or weighting value attached to each of the number of responses range from point 1 to point 5. Therefore, $n_1$ represents the number of responses assigned to point 1, $n_2$ represents the number of responses assigned to point 2, $n_3$ represents the number of responses assigned to point 3, $n_4$ represents the number of responses assigned to point 4, $n_5$ represents the number of responses assigned to point 5 (Ankeli, Nuhu, Saheed, Akinremi, and Tinufa, 2021; Umeh, 2018).

The cut-off points for the interpretation of the MIS with respect to the types of acceptable collaterals and the frequency of their usage by commercial banks include: Always (4.50 – 5.00); Very frequently (3.50 – 4.49); Frequently (2.50 – 3.49); Sometimes (1.50 – 2.49); and Rarely (1.00 – 1.49). Also, the cut-off points for the interpretation of the MIS for the factors that influence commercial banks acceptance of real property as loan collateral are Very positive influence (4.50 – 5.00); Positive influence (3.50 – 4.49); Neutral influence (2.50 – 3.49); Negative influence (1.50 – 2.49); and Very negative influence (1.00 – 1.49). Meanwhile, the interpretation of the RII with respect to the factors that influence commercial banks acceptance of real property as loan collateral is based on a range of 0 to 1, and described as being the least influential factor to the most influential factor (Morse, 2018; Pornel, Balinas, and Saldaña, 2011; Pornel and Saldaña, 2013; Udoekanem, Olatunji, and Oko, 2015). Furthermore, the correlation coefficient interpretation rule enunciated by Schober, Boer, and Schwarte (2018), and adopted in this study include 0.00 to 0.10 or 0.00 to −0.10 (negligible positive or negative correlation), 0.10 to 0.39 or −0.10 to −0.39 (Weak positive or negative correlation), 0.40 to 0.69 or −0.40 to −0.69 (Moderate positive or negative correlation), 0.70 to 0.89 or −0.70 to −0.89 (Strong positive or negative correlation), 0.90 to 1.00 or −0.90 to −1.00 (Very strong positive or negative correlation).

**Data Analysis and Presentation**

Acceptable collateral types used by commercial banks to secure loans, the frequency of their usage and ranking based on the frequency's MIS are presented in Table 2.

**Table 2.** Acceptable collateral types and usage frequency based on Likert scale

| Acceptable Collateral Types | | 1 | 2 | 3 | 4 | 5 | N | ΣW | MIS | SD | Usage | Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Real property | n | - | - | 22 | 7 | 2 | 31 | 104 | 3.35 | 0.608 | Frequently | 1st |
| | % | - | - | 71.0 | 22.6 | 6.4 | | | | | | |
| Receivables | n | - | 4 | 20 | 7 | - | 31 | 96 | 3.10 | 0.597 | Frequently | 2nd |
| | % | - | 12.9 | 64.5 | 22.6 | - | | | | | | |
| Guarantee | n | - | 4 | 23 | 3 | 1 | 31 | 94 | 3.03 | 0.605 | Frequently | 3rd |
| | % | - | 12.9 | 74.2 | 9.7 | 3.2 | | | | | | |
| Cash deposit | n | - | 5 | 22 | 3 | 1 | 31 | 93 | 3.00 | 0.632 | Frequently | 4th |
| | % | - | 16.1 | 71.0 | 9.7 | 3.2 | | | | | | |
| Insurance policy | n | 2 | 9 | 20 | - | - | 31 | 80 | 2.58 | 0.620 | Frequently | 5th |
| | % | 6.5 | 29.0 | 64.5 | - | - | | | | | | |
| Moveable property | n | 4 | 10 | 17 | - | - | 31 | 75 | 2.42 | 0.720 | Sometimes | 6th |
| | % | 12.9 | 32.3 | 54.8 | - | - | | | | | | |
| Treasury bill | n | 4 | 14 | 13 | - | - | 31 | 71 | 2.29 | 0.693 | Sometimes | 7th |
| | % | 12.9 | 45.2 | 41.9 | - | - | | | | | | |
| Bonds | n | 4 | 16 | 11 | - | - | 31 | 69 | 2.23 | 0.669 | Sometimes | 8th |
| | % | 12.9 | 51.6 | 35.5 | - | - | | | | | | |
| Shares | n | 4 | 22 | 5 | - | - | 31 | 63 | 2.03 | 0.547 | Sometimes | 9th |
| | % | 12.9 | 71.0 | 16.1 | - | - | | | | | | |
| Intellectual property | n | 26 | 5 | - | - | - | 31 | 36 | 1.16 | 0.374 | Rarely | 10th |
| | % | 83.9 | 16.1 | - | - | - | | | | | | |

*Source: Field survey (2021)*

Table 2 shows that acceptable collateral types that are frequently used to secure commercial bank loans in the study area include a guarantee, real property, cash deposit, receivables and insurance policy as indicated by the Mean Item Scores (MISs) of 3.03, 3.35, 3.00, 3.10, and 2.58 respectively. On other hand, moveable property, treasury bills, bonds and shares are only used sometimes. While real property, with an MIS of 3.35 is the highest-ranked collateral type that is frequently used to secure commercial bank loans, intellectual property with an MIS of 1.16 is the lowest-ranked collateral type that is rarely used to secure commercial bank loans. While this finding is congruous with the views of Domeher and Abdulai (2012) who argued that real property is not necessarily a compulsory and sufficient requirement for obtaining credit where the borrower has alternative collateral, the study has provided scarce empirical data on the same.

The proportion of loans secured by acceptable collateral types and their ranking based on the loan proportions' mean are presented in Table 3. Table 3 shows that real property and guarantee secured loans in proportions that range of between 10% to 70%, while other acceptable collateral types secured loans that are concentrated and spread around 0% to 40%, indicating that the total volume of loans that commercial banks within the study area grant are secured by and spread among the different acceptable collateral types in varying proportions. Furthermore, and on average, 24.5% of the loans granted by commercial banks are secured by real property, while 17.7%, 17.4%, 10.0% and 7.4% of the loans are secured by cash deposit, guarantee, receivables, and insurance policy respectively. The intellectual property secures the least proportion of loans at 1%. It should be noted that with a loan proportion MIS of 24.5%, real property is the highest-ranked acceptable collateral type, and this is a pointer to the assertion by a number of authors that real property is the most widely used and preferred collateral type (Atogenzoya *et al.*, 2014; Domeher & Abdulai, 2012; Feder *et al.*, 1988; Fleisig, 1996; Nagarajan & Meyer, 1995; Nwuba *et al.*, 2013; Osuji, 2017), though their studies differ either with respect to the study area, the methodology, or the details provided.

**Table 3.** Proportion of loans secured by acceptable collateral types and ranking

| Acceptable Collateral Types | | 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | N | ΣW | Mean | Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Real property | n | - | 9 | 7 | 9 | 5 | - | 1 | - | 31 | 760 | 24.5% | 1st |
| | % | - | 29.0 | 22.6 | 29.0 | 16.2 | - | 3.2 | - | | | | |
| Cash deposit | n | 2 | 9 | 14 | 6 | - | - | - | - | 31 | 550 | 17.7% | 2nd |
| | % | 6.5 | 29.0 | 45.2 | 19.3 | - | - | - | - | | | | |
| Guarantee | n | - | 16 | 12 | 1 | 1 | - | - | 1 | 31 | 540 | 17.4% | 3rd |
| | % | - | 51.5 | 38.8 | 3.2 | 3.2 | - | - | 3.2 | | | | |
| Receivables | n | 4 | 24 | 2 | 1 | - | - | - | - | 31 | 310 | 10.0% | 4th |
| | % | 12.9 | 77.4 | 6.5 | 3.2 | - | - | - | - | | | | |
| Moveable property | n | 7 | 22 | 1 | 1 | - | - | - | - | 31 | 270 | 8.7% | 5th |
| | % | 22.6 | 71.0 | 3.2 | 3.2 | - | - | - | - | | | | |
| Bonds | n | 9 | 19 | 3 | - | - | - | - | - | 31 | 250 | 8.1% | 6th |
| | % | 29.0 | 61.3 | 9.7 | - | - | - | - | - | | | | |
| Insurance policy | n | 9 | 21 | 1 | - | - | - | - | - | 31 | 230 | 7.4% | 7$^{th}$ |
| | % | 29.0 | 67.8 | 3.2 | - | - | - | - | - | | | | |
| Shares | n | 23 | 8 | - | - | - | - | - | - | 31 | 80 | 2.6% | 8$^{th}$ |
| | % | 74.2 | 25.8 | - | - | - | - | - | - | | | | |
| Treasury bill | n | 23 | 8 | - | - | - | - | - | - | 31 | 80 | 2.6% | 9$^{th}$ |
| | % | 74.2 | 25.8 | - | - | - | - | - | - | | | | |
| Intellectual property | n | 28 | 3 | - | - | - | - | - | - | 31 | 30 | 1.0% | 10th |
| | % | 90.3 | 9.7 | - | - | - | - | - | - | | | | |

*Source: Field survey (2021)*

The challenges that accompany the use of collateral types acceptable to commercial banks for securing loans are presented in Table 4. Table 4 shows that value instability is the most dominant challenge that was raised across all the collateral types, as indicated by the respondents 104 times (29.2%), and the impact of which is greatest on moveable property, shares, bonds and treasury bills at 52.8%, 67.5%, 53.8% and 53.2% respectively. Furthermore, real property has the highest number of challenges compared to the other collateral types, as issues were pointed out 117 times, which represents 32.9% of all the issues indicated by the respondents, and this can be attributed mainly to the challenges of tedious documentation process (14.6%), high processing cost (7.7%), long processing duration (15.4%), illiquidity (22.2%) and Governor's consent (11.1%). While this is consistent with numerous existing literature that the use of real property as security for loans, especially in emerging or developing economies like Nigeria is riddled with issues and challenges (Atogenzoya *et al.*, 2014; Bruce-Twum & Adu- Darko, 2013; Domeher & Abdulai, 2012; Nwuba *et al.*, 2013; Nwuba *et al.*, 2015; Udo, 2001), this study has provided empirical data on the same together with a comparative analysis.

In a bid to determine the relationship and statistical dependence, if any among the study variables, a number of the outputs of the data analyses, including the MISs with respect to the frequency of use of acceptable collateral types and proportion of loans that they secure, as well as the number of challenges that accompany the use of the various acceptable collateral types were analysed using the Spearman's rank correlation coefficient, given the monotonic and non-linear nature of the variables, and the result presented in Table 5.

**Table 4.** Challenges that accompany the use of collateral types acceptable to commercial banks

| Acceptable Collateral Types | Real Property N (%) | Moveable Property N (%) | Intellectual Property N (%) | Shares N (%) | Bonds N (%) | T-Bills N (%) | Insurance Policy N (%) | Receivables N (%) | Cash Deposit N (%) | Guarantee N (%) | Total N (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Title and ownership issues | 10(8.5) | 9(17.0) | 4(10.3) | 1(2.5) | 1(7.7) | 1(6.7) | 1(4.2) | - | - | 1(4.5) | 28(7.9) |
| Tedious documentation process | 17(14.6) | 1(1.9) | - | 1(2.5) | 1(7.7) | - | - | 1(4.8) | - | 1(4.5) | 22(6.2) |
| High processing cost | 9(7.7) | 1(1.9) | - | - | - | 1(6.7) | - | - | - | - | 11(3.1) |
| Long processing duration | 18(15.4) | 1(1.9) | - | 1(2.5) | - | 1(6.7) | - | - | - | - | 21(5.9) |
| Encumbrances | 9(7.7) | 1(1.9) | 9(23.1) | 5(12.5) | 1(7.7) | 3(20.0) | 1(4.2) | 6(28.6) | 4(33.3) | 6(27.3) | 45(12.6) |
| Legal issues | 9(7.7) | 1(1.9) | 12(30.8) | - | 3(23.1) | 1(6.7) | 8(33.2) | 7(33.3) | 3(25.0) | 3(13.6) | 47(13.2) |
| Governor's consent | 13(11.1) | 1(1.9) | - | - | - | - | - | - | - | - | 14(3.9) |
| Illiquidity | 26(22.2) | 10(18.8) | 7(17.9) | 5(12.5) | - | - | 7(29.2) | 4(19.0) | 3(25.0) | 2(9.1) | 64(18.0) |
| Value instability | 6(5.1) | 28(52.8) | 7(17.9) | 27(67.5) | 7(53.8) | 8(53.2) | 7(29.2) | 3(14.3) | 2(16.7) | 9(41.0) | 104(29.2) |
| Total | 117(32.9) | 53(14.9) | 39(11.0) | 40(11.2) | 13(3.7) | 15(4.2) | 24(6.7) | 21(5.9) | 12(3.4) | 22(6.2) | 356(100) |

*Source: Field survey (2021)*

Table 5 shows that the challenges that accompany the use of acceptable collateral types have a weak negative correlation with the proportion of loans secured by acceptable collateral types (r = -0.036, *p* (0.920) > 0.05). What this means is that when the challenges that accompany the use of acceptable collateral types reduces, the proportion of loans secured by the said collateral types increases, and vice versa. Also, the frequency of use of acceptable collateral types has a statistically significant, strong positive correlation with the proportion of loans secured by acceptable collateral types (r = 0.881, *p* (<0.001) < 0.05). This result implies that when the frequency of use of an acceptable collateral type is increased, there will be a corresponding increase in the proportion of loans that will be granted. Therefore, a prospective borrower who does not have real property to present as collateral can have access to higher loan proportions, if or when they present alternative frequently used collateral types, and the frequency of use of the said alternative collateral types are increased by the commercial banks.

**Table 5.** Spearman's rank correlation coefficient report

| | | Challenges that accompany the use of acceptable collaterals | Frequency of use of acceptable collaterals | Proportion of loans secured by acceptable collateral types |
|---|---|---|---|---|
| Challenges that accompany the use of acceptable collaterals | Correlation Coefficient | 1 | 0.030 | -0.036 |
| | Sig. (2-tailed) | . | 0.934 | 0.920 |
| | N | 10 | 10 | 10 |
| Frequency of use of acceptable collaterals | Correlation Coefficient | 0.03 | 1 | .881** |
| | Sig. (2-tailed) | 0.934 | . | <.001 |
| | N | 10 | 10 | 10 |
| Proportion of loans secured by acceptable collateral types | Correlation Coefficient | -0.036 | .881** | 1 |
| | Sig. (2-tailed) | 0.920 | <.001 | . |
| | N | 10 | 10 | 10 |

**. Correlation is significant at the 0.01 level (2-tailed).

*Source: Field survey (2021)*

The factors that influence commercial banks' acceptance of real property as collateral to secure the loans that they grant and the ranking of the said factors in terms of the extent of the influence and dominance are presented in Table 6. Table 6 shows that value stability, with an RII of 0.90 and an MIS of 4.52 is the highest-ranked and most dominant factor with 'very positive influence' on commercial banks' acceptance of real property as loan collateral in the study area. This is followed closely by other factors with 'positive influence' as revealed thus: durability of property, long term loan tenor, bank collateral policy, urban location of property, the statutory title of property, large loan amount, as well as corporate and commercial loan types. This result is somewhat consistent with existing literature, such as Atogenzoya *et al.* (2014) who believe that value stability and durability are the main reasons why financial institutions prefer real property to other collateral types in securing the loans that they grant; and Bruce-Twum and Adu-Darko (2013), who opined that banks' securitization policies determine the collateral type that they consider acceptable.

## Conclusion

In conclusion, while the use of real property as loan collateral, despite the numerous impediments, enhances greater access to commercial bank loans in North-Central Nigeria, an equivalent amount of access to commercial bank loans can be enhanced by alternative collateral types such as receivables, guarantee, insurance policy and cash deposit, all of which are frequently used at levels equivalent to real property, and which are expected to exhibit equivalent levels of value stability, which is the most positively influential real property collateral acceptance factor.

**Table 6.** Factors that influence commercial banks' acceptance of real property as collateral for loans based on Likert scale, and ranking based on RII

| | 1 | | 2 | | 3 | | 4 | | 5 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Factor | n | % | n | % | n | % | n | % | n | % | ΣW | MIS | SD | RII | Rank |
| Value stability of property | - | - | - | - | - | - | 15 | (48.4) | 16 | (51.6) | 140 | 4.52 | 0.508 | 0.90 | 1st |
| Durability of property | - | - | - | - | 2 | (6.5) | 14 | (45.2) | 15 | (48.3) | 137 | 4.42 | 0.620 | 0.88 | 2nd |
| Long term loan tenor | - | - | - | - | 6 | (19.4) | 9 | (29.0) | 16 | (51.6) | 134 | 4.32 | 0.791 | 0.86 | 3rd |
| Bank collateral policy | - | - | - | - | 4 | (12.9) | 14 | (45.2) | 13 | (41.9) | 133 | 4.29 | 0.693 | 0.86 | 4th |
| Urban location of property | - | - | - | - | 2 | (6.5) | 18 | (58.1) | 11 | (35.4) | 133 | 4.29 | 0.588 | 0.86 | 5th |
| Statutory title of property | - | - | - | - | 1 | (3.2) | 23 | (74.2) | 7 | (22.6) | 130 | 4.19 | 0.477 | 0.84 | 6th |
| Large loan amount | - | - | - | - | 7 | (22.6) | 18 | (58.1) | 6 | (19.3) | 123 | 3.97 | 0.657 | 0.79 | 7th |
| Corporate loan type | - | - | - | - | 6 | (19.4) | 21 | (67.7) | 4 | (12.9) | 122 | 3.94 | 0.574 | 0.79 | 8th |
| Commercial loan type | - | - | - | - | 13 | (41.9) | 18 | (58.1) | - | - | 111 | 3.58 | 0.502 | 0.72 | 9th |
| Borrower credit history | - | - | - | - | 19 | (61.3) | 11 | (35.5) | 1 | (3.2) | 106 | 3.42 | 0.564 | 0.68 | 10th |
| Minimum Interest rate | - | - | - | - | 20 | (64.5) | 11 | (35.5) | - | - | 104 | 3.35 | 0.486 | 0.67 | 11th |
| Legal environment | - | - | 2 | 6.5 | 22 | (71.0) | 7 | (22.5) | - | - | 98 | 3.16 | 0.523 | 0.63 | 12th |
| Borrower capacity | - | - | - | - | 28 | (90.3) | 3 | (9.7) | - | - | 96 | 3.10 | 0.301 | 0.62 | 13th |
| Short term loan tenor | - | - | 1 | (3.2) | 26 | (83.9) | 4 | (12.9) | - | - | 96 | 3.10 | 0.396 | 0.62 | 14th |
| Socio-economic environment | - | - | - | - | 28 | (90.3) | 3 | (9.7) | - | - | 96 | 3.10 | 0.301 | 0.62 | 15th |
| Maximum Interest rate | - | - | - | - | 29 | (93.5) | 2 | (6.5) | - | - | 95 | 3.06 | 0.250 | 0.61 | 16th |
| Retail loan type | 1 | (3.2) | 2 | (6.5) | 28 | (90.3) | - | - | - | - | 89 | 2.87 | 0.428 | 0.57 | 17th |
| Security of the environment | 1 | (3.2) | 7 | (22.6) | 19 | (61.3) | 4 | (12.9) | - | - | 88 | 2.84 | 0.688 | 0.57 | 18th |
| Alternative collateral | - | - | 8 | (25.8) | 21 | (67.7) | 1 | (3.2) | 1 | (3.2) | 88 | 2.84 | 0.638 | 0.57 | 19th |
| Processing duration of loan | 1 | (3.2) | 8 | (25.8) | 18 | (58.1) | 4 | (12.9) | - | - | 87 | 2.81 | 0.703 | 0.56 | 20th |
| Medium term loan tenor | 1 | (3.2) | 6 | (19.4) | 23 | (74.2) | 1 | (3.2) | - | - | 85 | 2.74 | 0.560 | 0.55 | 21st |
| Small loan amount | 1 | (3.2) | 7 | (22.6) | 22 | (71.0) | 1 | (3.2) | - | - | 86 | 2.77 | 0.575 | 0.55 | 22nd |
| Marketability of property | 1 | (3.2) | 11 | (35.5) | 15 | (48.4) | 4 | (12.9) | - | - | 84 | 2.71 | 0.739 | 0.54 | 23rd |
| Processing cost of loan | 1 | (3.2) | 9 | (29.0) | 19 | (61.3) | 2 | (6.5) | - | - | 84 | 2.71 | 0.643 | 0.54 | 24th |
| Moderate loan amount | 1 | (3.2) | 10 | (32.3) | 18 | (58.1) | 2 | (6.4) | - | - | 83 | 2.68 | 0.653 | 0.54 | 25th |
| Public sector loan type | 1 | (3.2) | 10 | (32.3) | 19 | (61.3) | 1 | (3.2) | - | - | 82 | 2.65 | 0.608 | 0.53 | 26th |
| Documentation process of loan | - | - | 18 | (58.1) | 12 | (38.7) | 1 | (3.2) | - | - | 76 | 2.45 | 0.568 | 0.49 | 27th |
| Customary title of property | 4 | (12.9) | 18 | (58.1) | 8 | (25.8) | 1 | (3.2) | - | - | 68 | 2.19 | 0.703 | 0.44 | 28th |
| Foreclosure process of loan | 13 | (41.9) | 7 | (22.6) | 11 | (35.5) | - | - | - | - | 60 | 1.94 | 0.892 | 0.39 | 29th |
| Rural location of property | 11 | (35.5) | 16 | (51.6) | 3 | (9.7) | 1 | (3.2) | - | - | 56 | 1.81 | 0.749 | 0.36 | 30th |

*Source: Field survey (2021)*

Consequently, prospective borrowers are called upon not to self-select themselves out of the credit market, but rather take advantage of other commercial banks' frequently used collateral types, to access loans to meet various needs, including poverty alleviating productive activities within the Nigerian economy.

It is recommended that commercial banks engage in sensitization programmes that will better equip prospective borrowers on collateral options and acceptance factors, towards making them willing to effectively access loans; Estate surveyors and valuers should be innovative and show leadership with respect to the movable properties market so that inefficiencies that lead to value disparity and instability can be resolved to favour higher uptake of movable properties as collaterals since the STMA is already helping in the same direction; and the government and other stakeholders in the financial intermediation industry should make interventions in the secured lending space, with the aim of substantially reducing the numerous challenges that bedevil the utilization of the various collateral types. These will enable convenience, and increased loan proportions and volumes toward productive activities within the economy of Nigeria.

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