

# Digital Credit in Nigeria: A Focus on Nano-Loans, Bridging the Existing Gaps

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*Abstract - Signifying an important stage in digital innovation, digital credit represents a sharp turn from traditional credit systems as it instantiates and increases the use of smart technology and feature digital origination media to register, score, approve, and disburse loans and credit to borrowers. However, in the context of a developing country such as Nigeria, digital credit as a novelty inevitably leaves a double-edged and gradually narrowing gap in which both the lenders and borrowers are faced with a new type of challenge being the cost of data (where it is available) and its protection. These come in the forms of digital address, data privacy, underwriting, repayment channels etc., as all of these factors impact the cost of loans, among other risk-based challenges. Although digital credit effectively and significantly reduces the inclusivity gaps (especially in hybrid case scenarios where field agents implore digital means to onboard customers without digital footprints), the complexity of these attending challenges cannot be understated. This paper, therefore, aims to identify the very nature and complexity of problems which loan providers and borrowers face in the age of digital innovation in the context of financial services in Nigeria. The study identifies the opportunities, the technological bridge or innovative solutions as well as potential complications. The database of critical players such as the unbanked and the underbanked in both the formal and informal sectors constitutes the data for analysis in the study. Using the financial inclusion theory, the paper examines the peculiarity of nano-loans operations in the Nigerian digital financial market and draws important conclusions from findings. Critical among such potential findings is the reasoning that, if the challenge of data is tackled, loan products are likely to be better and more attractive to existing and potential borrowers who have digital footprints.*

*Index Terms- Digital Credit; Nano-Loan; Nigeria; Data; Innovation*

## I. INTRODUCTION

As the global financial ecosystem rapidly evolves, so also is digital credit in Africa and, indeed, Nigeria. Traditionally, credit systems require client engagement, risk assessment and financial history to determine credit-worthiness. The process comes with its bureaucracy (though effective especially in terms of collections and repayments), eventually reducing turn-around time. With the evolving disruptive innovation in the financial sector, digital credit is a sharp turn from traditional credit systems using available channels such as Unstructured Supplementary Service Data (USSD), mobile applications and alternative data sources to determine the credibility and capacity of potential borrowers thereby improving the lending experience and allowing first-time borrowers to build credible financial history. These sources and channels are largely dependent on available data such as phone-call records, credit bureau data, geolocation, credit questionnaires and psychometric analysis, which are used to predict ability to pay (some are also trying predict willingness to pay as well) thereby improving credit decision process and improving disbursement time. Although the innovation has brought about far-reaching solutions in gradually bridging gaps in the financial sector, there is however a persistent and growing concern occasioned by the cost of origination, quality of the data, efficiency of digital underwriting, identity theft and the eventual pricing of loans. Given that credit is gradually becoming more readily accessible digitally for some consumers, they tend to be more fixated on this accessibility than the prices they incur thus making them slide further into debts, poor profiles of credit rating, among other attendant costs. This on the side of the lender is because the cost of originating and processing credit is also a growing

concern, as the data is not readily available and where it available its expensive; so also, the technology used to distribute these loans especially USSD channels where in some cases session costs are borne by the lender, thereby increasing the cost of acquiring the data as well as processing it. As such, the pricing of loans and the fears about data privacy and confidentiality continue to be on the rise. The investigation of critical players such as the unbanked and the underbanked in both the formal and informal sectors constitutes the data for analysis in the study. Using the financial inclusion theory, the paper examines the peculiarity of nano-loans operations in the Nigerian digital financial market and draws important conclusions from findings. Critical among such potential findings is the reasoning that, if the challenge of data is tackled, loan products are likely to be better and more attractive to existing and potential borrowers.

## II. A SYNOPSIS OF EXTANT CRITICAL LITERATURE

Financial inclusion is said to be ‘the provision of access to financial services to all members of population particularly the poor and the other excluded members of the population’ (Ozili, 2018). While it remains agreeable that digital credit and nano-loan facilitation encourage financial inclusion in any financial ecosystem, many scholars, critics and financial experts believe that Nigeria remains faced with a critical challenge in this respect. In the view of Adesanya (2017), for instance, financial inclusion has remained a great challenge across the world, and particularly in Africa. This is in spite of the fact that great opportunities for financial services continue to exist on the micro level. Hence, to translate those opportunities into reality, there is need to create a genuine and realistic or practicable framework through regulations. This will include innovative approaches that meet and surpass market’s expectation, as well as returns or compensation that encourage all stakeholders.

Adesanya further expanded the view that the greatest challenge tends to begin with the definition that gives the wrong perspective on the unbanked/underbanked population as though these demographics are currently financial handicap. The trust is that everyone is

currently undergoing financial transactions in one way or the other. The difference, however, is that the recognized population (banked population or the financially included) are only those who have relationship with the regulated financial players, such as the commercial banks, microfinance banks and mobile money operators.

With this argument in view, and in fact with Nigeria as a case study, it becomes imperative that key players in the financial industry, including researchers, highlight the critical areas that could enable the facilitation of significant ‘increase and expansion in financial inclusion to all stakeholders and to present the importance and the implications of promoting financial inclusion for monetary policy and financial stability in terms of regulation of banking industry and payment systems’ (Adesanya, 2017). Interestingly, Iwedi (2020) later offered some useful complementary perspectives by noting that:

The Nigerian Government in 2012 launched the Nigerian National Financial Inclusion Strategy (NFIS) with the sole aim of reducing the millions of people excluded from formal financial services from 46.3% to 20% by the year 2020 (NFIS, 2012). By including the numbers of Nigeria [sic] without access to financial services have the potential of accumulating and mobilizing bulk of deposits or saving outside the banking system which will form part of investible funds that will promote productive activity as well as leads to inclusive growth (2020: 1).

Following this, therefore, there is a growing concern in the Nigerian economic context that the gap between the financially reached and the unreached (that is, the banked and the unbanked) remains significant despite the introduction of the Nigeria National Financial Inclusion Strategy. It is clearly noted that the bulk of the adult population still remains financially excluded. While earlier data showed that the financial exclusion rate had decreased from 46.3% in 2010 to 34.5% in 2018, more recent figures show steady improvement. The A2F 2023 Survey Report indicates that financial inclusion in Nigeria has further increased by 6 percentage points, from 68% in 2020 to 74% in 2023. Consequently, the proportion of Nigerian adults remaining financially excluded has dropped from 32% in 2020 to 26% in 2023, reflecting an ongoing trend of

expanding financial access across the country. These figures provide a picture of Nigeria as an economic space which still actively operates large volumes of physical cash for financial transaction and despite the positive developments, there are still significant challenges to overcome. Approximately 47% of Nigerian adults remain unbanked, indicating a persistent gap in financial access. This explains the need for continued efforts to reach underserved populations, address barriers to financial inclusion, and develop innovative solutions to bring financial services to all segments of society.

Opinions therefore tend to support the understanding that the importance of financially including the numbers of Nigerians without access to financial services is the consequence of the potential of accumulating and mobilizing bulk of deposits or saving outside the banking system which will form part of investible funds that will promote productive activity as well as leads to inclusive growth. In a more recent article, Thathsarani, Wei and Samaraweera (2021) have shared the opinion that there is actually, at both local and global levels, the need for financial inclusion systems improvement with the view to promoting sustainable development. This is against the view that financial inclusion continues to be a global challenge, especially for developing economies. At the same time, it is a common topic for developed economies.

#### *Digital Credit Solutions through Innovative Technologies*

Existing literature has extensively addressed the fundamental idea that digital credit and nano-loan businesses represent the fact of an emerging market made possible through creative and technological innovation. According to the Evans School of Public Policy and Governance, digital credit products clearly and significantly vary from traditional forms of credit, especially for its potential to use smart and feature phone technology or web platforms to register, score, approve, and dispense loans to borrowers. The scientific nature of the intervening innovation in the transformation of digital economy, in this case nano loan or digital credit, has been recognized by some researchers to include to engagement of photonics and microelectronics (see Gigler, Casorati & Verbeek, 2018). While these technologies may be unknown to

many people in the financial world, a very large population of participants in digital credit and nano loan transactions engage them on a daily basis to drive their businesses, including borrowing and lending.

Furthermore, it has been established that these high-technology fields are important 'enablers' for consumer goods, the automotive and defense sectors, and renewable energy, among other industries. They form the building-blocks for developing and evolving the next digital revolution which are said to be based on 'deep technologies' that are differentiated from ICT-based innovation because they are founded upon engineering innovation and/or scientific developments, which often tend to make them inherently riskier. Gigler, Casorati and Verbeek also show that, as the first digital revolution, built around platforms and apps, digital credit technologies fuelled the innovation and growth of the last decade.

Fortunately, many agree that the innovation potential of these technologies, at the present time, seems incremental, rather than disruptive. As such, many investors and businesses looking for the next big thing now tend to focus more on enabling technologies based on deep tech. Accordingly, investors also believe that this new digital revolution has the inherent potentialities to drive economic growth for years to come by improving current products and services, thus evolving new markets, and solving major societal and environmental issues. Therefore, as noted by the Evans School of Public Policy and Governance, digital credit products are fast emerging in the digital financial services or DFS market as a new, innovative form of accessing electronic money.

Some of the distinctive features which differentiate digital credit products from other DFS or loan services have also been identified to include the facts that digital credit loans can be applied for, approved, and disbursed remotely, many times without any brick-and-mortar structure or infrastructure. Another distinctive and differentiating feature of digital credit products is that approval is automatic, a fact that shows its capacity to minimize the time and number of steps between registration and the distribution of loans. Third, is the fact that, with digital credit, approval is instant, often happening in less than 72 hours or three days and sometimes in minutes.

With these new innovative developments, digital credit by its operation potentially and increasingly embraces and maximizes non-traditional or alternative data garnered from traditional financial systems like the *àjò* with the objective of determining creditworthiness, besides traditional financial information like credit scores and bank account information. For these laudable reasons, digital credit seems to be receiving a very resounding acceptance in Africa. Kaffenberger, Totolo and Soursourian (2018), for instance, provide the examples of Kenya and Tanzania in East Africa, where borrowers are seen to continue to offer insights in diverse areas, including data on their primary income sources of digital credit and the distribution of their demographics, as well as transparency of fees and loan terms, among other databases.

#### *Appreciating the Context through Theories of Financial Inclusion*

The numerous views and positions perhaps have informed the idea of evolving theories of financial inclusion to account for demographic representations and participation in the financial ecosystem (Ozil, 2020). There is no doubt that financial inclusion is acknowledged as having the potential to increase the ability to acquire economic resources and ensure the livelihood of all people in different economic systems. Increasing the accessibility of financial infrastructure often holds the propensity to increase the economic power of people. Because the idea of financial inclusion necessarily brings to the fore questions bordering class and status, it seems to be hard to get a one-size-fits-all kind of financial inclusion theory to account for this reality.

Hence, there is a greater likelihood of a plurality of theories of financial inclusion. Ozil (2020) identifies some of the possible theories to include, and are divided into, theories of financial inclusion beneficiaries, theories of financial inclusion funding, and theories of financial inclusion delivery. These theories possibly take into cognizance the fact that there are millions of people who are omitted from the formal financial sector as a result of inadequate earnings and facilities in developing regions. As such, financial exclusion tends to lead to reduced funds available for investment, which leads to low capital accumulation.

Peterson Ozil further breaks down his idea of workable theories of financial inclusion into more precise types, including (a) the community echelon theory which states that financial inclusion should be delivered to the financially-excluded population through their communal leaders, (b) the public service theory of financial inclusion which explains that financial inclusion is a public responsibility which the government owes its citizens, and the citizens expect the government to promote financial inclusion for its citizens, (c) the special agent theory of financial inclusion which argues that the delivery of financial inclusion to the excluded population can be hampered by complex issues and technicalities relating to the nature of the community, its people or the geography; therefore, recognizing the need for specialized agents to deliver financial inclusion to members of the excluded communities, (d) the collaborative intervention theory which states that financial inclusion should be achieved through collaborative intervention from multiple stakeholders, and (e) the financial literacy theory of financial inclusion which argues that financial inclusion should be achieved through education that increases the financial literacy of citizens. This paper, therefore, takes along all these theoretical perspectives in its literature, data gathering and discussion.

### III. METHOD AND DATA

This paper explores extant sources of data on digital credit products and stakeholder performances and market feedbacks to identify the very nature and complexity of problems which loans providers and borrowers face in the age of digital innovation in the context of financial services in Nigeria. The methodology allows the researcher to identify the opportunities or lack of it, the real and potential technological bridge or innovative solutions as well as potential complications. For its data, the paper relies significantly on on-the-field interactions with emic data (participant interactions and experience) with Liberty Assure Limited, a digital credit company with operations headquarters based in Lagos, Nigeria. From this firm, the present researcher was able to gauge and analyze customer behaviour and credit reports systems of the Nigerian nano loan market, among other information constituting data for analysis.

## IV. ANALYSIS AND DISCUSSION

While it is already established that the innovation that produced the advent of digital credit truly brought significant solution to the financial market in Nigeria and Africa, the fact cannot be ignored that this disruptive innovation also brought with it inadvertent challenges. The following sections therefore discuss the researcher's observations of the Nigerian nano loan market, its distinct impact, development, solutions and the unavoidable challenges, based on available data.

*Market Participation in the Nigerian Financial Ecosystem: Practicality and Implications on Nano-Loan Creditors and Borrowers*

The digital credit innovation, no doubt, has created an important *bridge* to close the gaps in the Nigerian financial market. The advent of digital credit innovation has seen more and more participation in the nano loan market in Nigeria. Indeed, sections of stakeholders in the telecommunication sector have been seen to show active interest in the digital finance and payment market and have floated own products accordingly. A typical example in this respect is MTN which has branched out from its primary telecommunication offerings into digital payments by floating the Momo Agent service. Other competitors in the Nigerian digital credit market include Carbon, FairMoney, Branch, Vulte, Opay, among other sectoral players.

These players and competitors now account for significant market share of the global, African and Nigerian financial subsector. For example, according to the *State of the Industry Report on Mobile Money 2021*, Nigeria is the fourth country in the world and second in Africa (after Kenya and Mozambique which jointly share the first position) on the percentage index of customers that started saving due to COVID-19, with an 11% figure (Andersson-Manjang & Naghavi, 2021). In 2012, the Nigerian duo of Chijioke Dozie and Ngozi Dozie founded Carbon, a digital credit company that started out as a niche company in the digital lending market, but later expanded more service offerings ranging from savings to payments and investments. In addition to this, Carbon is reported to be a \$15.8 million VC-backed company, according to *Tech Crunch* (Kene-Okafor, 2021).

As a good example of an active player in the Nigeria digital credit ecosystem, Carbon's annual reports show numbers on gross earnings, profit-and-loss before and after-tax, as well as net impairment loss, total assets, liabilities and equity, among other details. With respect to Carbon, report further shows that:

For the fiscal year 2020, the company, which has about 659,000 customers, said it processed ₦96.54 billion (~\$241.35 million), up 89% compared to the same period a year ago. For its lending arm, disbursement volume was ₦25.21 billion (~\$63 million), up 9.1% from FY2019. Also, ₦13.02 billion (~\$32.55 million) worth of investments was made on the platform, representing a 365% increase from the previous year. According to the company, factors that influenced these numbers last year included launching an iOS app that drove customer acquisition, introducing its USSD banking feature for lower-income customers and a social chat feature to enable faster transactions (Kene-Okafor, 2021a).

Also, it is reported that in 2019, over 100,000 retailers had applied for MoMo, the MTN Nigeria Mobile Money transfer services platform. At that point, MTN Nigeria was reported to be targeting about 36.6 million Nigerian adults, representing about 36.8% of the nation's adult population who do not have access to formal financial services. As of 2023, the *State of the Industry Report on Mobile Money 2024* reports that MoMo PSB had grown significantly with around 20 million registered customers. According to Nairametrics, a statistical platform providing multisectoral analysis of the Nigerian economy, 'With the cardless cash withdrawal service, MoMo Agents' sustained innovation aligns with the Central Bank of Nigeria's (CBN) financial inclusion target of 95% by 2024.' It is also reported that the cardless cash withdrawal service of MoMo Agent has been expanded to over 40 banks and other financial institutions nationwide, providing seamless financial solutions to more people. Once exclusive to Access Bank, the service has now been extended to include First Bank of Nigeria, Zenith Bank, GTBank Plc, United Bank of Africa, and other tier-one commercial banks (Nairametrics Partners, 2021).

By the same token, FairMoney represents an archetypal example of a top-level player in the

Nigerian digital credit market. By 2021 and with over 1.3 million users, FairMoney has expressed the intention to replicate its growth in the subcontinent of India (Kene-Okafor, 2021). It is crucial to note that, prior to this move, FairMoney had recorded exponential growth in Nigeria in terms of loans disbursement. In 2020, it disbursed a total loan volume of \$93 million. This figure represents a 128% increase from 2019 and a staggering 3,189% growth rate from its first year of operation in 2018. Today, FairMoney is projecting a \$300 million loan disbursement volume by the end of 2021, according to *Tech Crunch*. This also implies that the company has been able to disburse 25-30% more than some of its competitors. Compared with traditional banks, this was reported to be the seventh-largest digital financial services provider in that area. Adding further details, Kene-Okafor stated that:

FairMoney has come a long way since its Nigeria launch in 2017. In its first year of operation, the company had little over 100,000 users. Now, it claims to have 1.3 million unique users who have made more than 6.5 million loan applications. FairMoney offers loans from ₦1,500 (\$3.30) to ₦500,000 (\$1,110.00), with its longest loan facility standing at 12 months. Annual percentage rates fall within 30% to 260%...

The illustrative examples of MoMo Agent and FairMoney (and those of the participating top-tier banks in Nigeria) are perhaps sufficed to establish the expanding context of digital credit and nano loan services in Nigeria and the potentialities for opportunities and further growth in the sector. Nevertheless, as this field of opportunities in the Nigerian financial sector expands, so do the attendant real and potential challenges.

In this paper, the author identified a number of real and potential challenges that attend the widening context of opportunities in the Nigerian financial sector. These are carefully discussed in this section, while the author also proposes possible solutions accordingly.

#### *The Challenge of Data and Databases*

One highly burdensome data-related challenge in the context of this data crisis is the cost of data. The agency primarily concerned with this issue is the Nigerian Credit Bureau. The Bureau's role is to collect

and manage credit information on individuals and businesses to facilitate easier access to credit by providing reliable credit histories. However, the absence of real-time data or information on customers has continued to complicate the process of customer creditworthiness. Despite the Central Bank of Nigeria (CBN), in collaboration with the Nigeria Inter-Bank Settlement System (NIBSS) working to address these challenges through various initiatives, including the Bank Verification Number (BVN) system, the high cost of data acquisition, storage, and analysis remains a significant hurdle for many financial institutions, especially smaller ones and fintech startups. The National Identity Management Commission (NIMC) tasked with creating a comprehensive national identity database which could potentially alleviate some of these data-related challenges. However, the process has been slow and fraught with logistical issues, leaving many Nigerians without a unified identity that could facilitate easier credit assessments. To complicate this challenge further, where such data/information seem to be available, it often may not be reliable. This is because, often, when booking loans, lenders do not have dependable retrieval systems to carry out the prerequisite checks on customers' biodata (stored personal information relating to a particular person and his or her financial) in order to make informed decision based on correct details of customers' credit history and current status of worthiness of loans. This challenge, in fact, can be attributed to the existing practice in which lenders do not carry out their expected monthly submission of the credit portfolios of customers to the credit bureau.

Indeed, with available and reliable data, nano credit companies can make decisions at macro levels as may pertain to favourable demographics to target i.e. whether it will be more favorable to target big market players who have the wherewithal but account for a not-too-high percentage of the market share, or to target small players whose demographic accounts for a significant market share in the digital credit market. Only the availability and dependability of data as well as its practicable real-time call-up can make this possible to drive the necessary market growth. Hence, the question of data challenge affects and implicates the two sizes of investors, namely the large-scale investors and the small-scale investors.

Therefore, to address this challenge, there must be intentional efforts to develop a proprietary technology to analyse meta-data. This important step is required in order to ensure that customers' credit profiles maintain up-to-date status so that customers themselves are not overburdened. This indeed should form the basis on which customers are granted loans, or alternatively are offered advisory useful to them in view of their credit history. Also, meta-data is required in order to sign up new subscribers to the nano credit loan system. However, a possible and major slow-down to this step is the very huge cost of developing the proprietary technology for generating meta-data. Consequently, in the absence of this technology, lenders in the Nigerian context of digital credit and nano loan operations tend to rely on arbitrary premises to determine customers' (borrowers') status prior to or at the point of accessing loans. This arbitrariness has its shortcoming as it is likely to increase the possibility of upsurging the debt profile of the customer.

The Nigerian polity in general is plagued with the challenge of data and database architecture and upgrading. For Nigeria, this is an irony of situation. According to Akanbi (2016), the World Bank's Statistical Capacity Indicator showed that Nigeria recorded a 67.8% in terms of statistical capacity (World Bank, 2016). While this score is reported to be higher than the average figure for sub-Saharan Africa and other international development association (IDA) eligible countries, data collection and processing in Nigeria over the post-independence period has remained blighted with enormous challenges in terms of its use in achieving developmental objectives.

It is important to highlight this problem because, the data collected by the financial institutions from customers is always the starting point in addressing the challenges that they confront with data quality. There is a perpetual need gap which requires financial institutions to educate the customers on how important it is to make available accurate information on themselves, highlighting the benefits they could enjoy in the long run with this simple yet imperative act (see *The Guardian*, 15 October 2020). Besides, financial institutions are also faced with the challenge of overhauling mechanisms for improving due diligence to ascertain the level of correctness of the information provided to nano loan lenders by their own customers.

According to *The Guardian* editorial:

Data submission to the credit bureaus is regulated with the use of the Common Data Template (CDT), which was designed by the Central Bank of Nigeria (CBN) and International Finance Corporation (IFC). It is vital that all credit information providers adhere to the use of the CDT, which is a unification document in the custody of the providers to supply information to the credit bureaus. Internal and regular orientation on its use and importance by the financial institutions is key to the effective and sustainable use of the CDT.

In essence, the data ecosystem of Nigeria has been undermined with inadequate financial and institutional resources thus weakening the data value chain ranging from production, management, dissemination, archiving and use. While some of these challenges have been tackled, many still persist and remain the major hindrances to the way data is being mined, harnessed and engaged to impact on development decision-making, especially with respect to the impact of this challenge on the development of digital credit and nano loan financial economy.

There are myriads of potential solution to the challenge of data and database management. One of such possibilities to evolve an on-time information cookies and pop-ups that provide prompts – at the point of loan request – about borrowers/customers who have not done well with their loan history. This has the propensity of bringing about a data revolution that can change the landscape of digital credit in Nigeria and solidify and stabilize the solvency data of digital credit customers through innovative financial technologies.

Certainly, if the challenge of data and data management is tackled, loan products are likely to become better in the interest of both nano loan creditors and lenders and, as such become more attractive to existing and potential borrowers.

*Lack or Absence of Effective Credit Reporting Systems*  
Basically, credit reporting 'is the act of gathering information about the behaviour of borrowers and making such information available whenever a decision is to be made regarding a borrower's application for new credit' (Monye, Nwafor & Mukoro, 2020). In Nigeria and as typical of any

financial sector, the credit bureau (also known a credit reporting company or credit reporting agency), is supposed to be seen as responsible for the collection and researching of individual credit information which it sells to creditors for a fee, so they can make decisions about granting loans. Indeed, it is through credit bureaus that borrowers credit-worthiness is effectively determined. In Nigeria, the use of data including credit history/behaviour remains the bedrock of determining consumer's creditworthiness but this comes with a crisis of database authenticity and reliability. In the absence of a fully effective national credit bureau, private companies like FirstCentral Credit Bureau - described as the country's first and independent private credit bureau - have gradually emerged to fill the gap. FirstCentral claims to provide independent and reliable credit reporting services, helping financial institutions assess the creditworthiness of individuals and businesses.

However, and more significantly, there are bureau data-focused challenges that cannot be overlooked. For instance, while it is the responsibility of the credit bureau and financial institutions to reconcile information management between themselves, it is observed that financial institutions in the digital credit sector have established a trajectory of practice in which they simply submit one-time requisite information to the credit bureau without taking future steps to update such information. This scenario has created a critical and sensitive gap in the operations of nano loan credit management system occasioned by a data and information crisis.

Therefore, the major challenges in this respect relate to the responsibilities of credit bureaus in assuring reliable data collection, matching, and dissemination. Indeed, the value of having a Common Data Template (CDT) to effectively send accurate and current credit records cannot be overstated. Digital lenders grapple with the challenges of optimum performing of the CDT as a robust tool for unifying the Individual Borrower Template, Corporate Borrower Template, Principal Officers' Template, Credit Information Template, Guarantors' Information Template, and Catalogue Values. Nigeria has much mileage to cover in respect of developing effective credit-reporting systems and institutions.

A credible solution to this challenge includes but not limited to credit bureaus in the Nigerian financial sector making determined and concerted efforts to build efficient credit report systems that allow them seamlessly assign credit scores to individuals based on the credit history that they assemble as well as maintain and keep this history for functional use. In the short-term. Mid-term and long-term references. This is necessary and imperative especially as credit scores have been found to be critical and important predictors in determining whether a customer will qualify for credit or not at any given point in time. With this important fact in mind, digital and nano loan creditors in Nigeria, with the collaboration and cooperation of credit must establish efficient processes and system for collection and for synthesizing information regarding customers' credit risk and the expectations of lending institutions within this paradigm of operations.

#### *Customer/Consumer Protection Gaps/Identity theft*

Very closely related to the challenge of a lack or absence of effective credit reporting systems is the problem of consumer protection and identity theft. In the Nigerian scenario, what is found is that the market appears to be highly loan-attractive. Therefore, customers cannot help themselves by resisting the temptation of over-borrowing. Customer protection in this sense, therefore, ensures that efforts of government, public-interest organizations, individuals, and businesses are in place to establish, protect, and enforce the rights of people who access credit products and access nano loan services within the financial ecosystem of the country. Thus, the basic rights of consumers may often include the right to safety nets against over-borrowing, the right to be informed, the right to choose, and the right to be heard. With respect to digital credit and nano loan services in Nigeria, the challenge of consumer protection manifest in the form of uncontrolled, reckless and sometimes irresponsible and unchecked loan borrowings. As apprehended by this researcher, nano loan takers in Nigeria, noticeably due to the ease and swiftness of access to instant credits – the quickness with which loan credits are released to debtors – these borrowers tend to accumulate loan debts unnecessarily to their own upset and eventual undoing.



In essence, borrowers are not protected against themselves or against their own possible self-inflicted over-borrowings. This challenge creates a peculiar problem and disruption to the Nigerian digital credit market. This challenge is further compounded by the co-occurring factors of poverty and poor or lack of fundamental education.

Compounding this issue is the matter of fraud and identity theft where compromised identity data is used to source for loans from unsuspecting lenders as validations of the datasets are provided at the time of underwriting by these fraudulent entities thereby causing unforeseen debts for their victims. In some other cases where its not exactly identity theft, we see either illiteracy or ignorance come to play where victims willingly give out their data with the promise of grants or palliative sums from government meanwhile these acquired data is used for loan application from digital lenders. Putting in place effective and workable financial policies can ameliorate this challenge, especially if provisions can be made to cover the statutory roles of both digital credit lenders and customers in the ecosystem of nano loan operation in Nigeria. Complementary legal frameworks can make policy arrangements like these more workable especially in terms of implementation and enforcement. More importantly, such consumer protection policies must make provisions that allow borrowers/customers of nano loans to be protected from themselves.

#### *Challenges of Complications in Digital Loan Pricing*

As with any credit market, loan pricing also enables lenders/creditors in the digital credit market to determine the interest rate for granting an instant (nano) loan. This is typically as an interest spread (margin) over the base rate, conducted by the bookrunners i.e. the parties/people who have the primary role in introducing a security offering to the market. Also, generally, the pricing of syndicated loans requires arrangers to evaluate the credit risk inherent in the loans and to gauge lender appetite for that risk.

Both the investor and the borrower bear the brunt of this very challenge. In real term, there exist typical scenarios in which the cost of data for nano loans influences the pricing of loans. An illustrative

instance, for example, is one in which a creditor may access his loan ticket at a certain price/cost but spends more than 70% of that amount to check the credit bureau. The costs incurred by the digital credit company in this process are, more often than not, transferred to the customer per transaction. The cumulative percentage of debts incurred by borrowers in the space of once calendar year in this sense has always remained unimaginable.

In Nigeria, the complications of credit ratings both for persons and for lending institutions tend to foster a seeming culture of arbitrariness in creditors' offering of nano loans. This practice has produced unhealthy condition in the digital credit system in Nigeria. Unfortunately, in spite of the unfavourability of interest rates on debtors, many Nigerian borrowers continue to request instant loans without any initial due diligence. At other times, borrowers proceed to access loans in spite of their awareness of the high interest rates, simply because the process of getting loans comes as seamless. Hence, borrowers pile up loans with accumulating interest rates. Sometimes, customers are lured into borrowings because of incentives that come in the forms of provisional allowances that permit them to ask for new loans when old ones have not been fully offset. This scenario further creates a challenge of sustainability. In the observation of Bernhardt et al:

In Nigeria, there seems to be a general perception that the interest rates on microloans are very high. This is important as responsible pricing is a core determinant of the sectors' sustainability, growth and outreach. Yet there is virtually no knowledge on how expensive loans really are throughout the country and which factors are responsible for the charges. However, even if such data were available, measures must be found to analyze the drivers for the costs imposed and moreover it must be assessed whether such pricing strategies are responsible and sustainable (Bernhardt et al, 2015).

For nano loan pricing, therefore, credit institutions are generally supposed to incorporate credit default spreads as a measure of borrowers' credit risks. The practice as observed in Nigeria however seems arbitrary in spite of the standard procedure in loan pricing which compels creditors to benchmark a loan against recent comparable transactions and select the

base rate on which the financing costs are pegged. This prevalent loan-pricing practice has untoward short-term and long-term negative impacts on both the lender and the borrower. Consequently, credit institutions are badly affected by borrowers' inability or lack of capacity to pay back accessed loan credits while debtors, for allied reasons leave on creditor to apply freshly to another, thereby leading to loan losses in many instances.

Because high interest rates present significant issues to both nano credit lending institutions and their customers, this tends to exclude a broad range of people from financial services because, so long as the prices of loans remain in a range of about 100%, all investments with an annual return below 100% cannot be continuously financed through microloans (Bernhardt et al, 2015). The implication is that this tends to also affect the digital credit company as its growth potential is restricted thereby narrowing the client base to individuals working in high yielding activities such as trading. Also, high interest rates may play a crucial part in explaining why about 40% of the population is still financially excluded. In the words of Bernhardt and colleagues, 'It must be stressed that we are far from being able to precisely estimate the 'responsible price' of microloans in Nigeria.'

To tackle this challenge, stable, secure and implementable sectoral regulations and data production are required to create stability and equilibrium for the Nigerian digital credit market. Such equilibrium-creating regulatory measures must take into consideration rules to guide and check the difference between what nano loan creditors must charge in order to cover their cost and what they should charge, if they operated satisfactorily. In order to do this, however, availability of market and subscribers database must be guaranteed.

#### CONCLUSION

If and when the challenge of financial exclusion is adequately tackled, institutional exclusion and the poor's financial behaviour of nano loan customers are likely to be eliminated, or reduced significantly. These challenges are identified and noted to be responsible for the shallow depth of financial inclusion in Nigeria. If Nigeria must take seriously the challenge of growing

its economy more productively, digital credit systems indeed offer the country the opportunity to expand its financial sector to achieve this aim. In addition to this, both the enabling and inhibiting factors affecting how digital lenders price loans must be adequately addressed in order to effectively bridge the gaps of financial exclusion/inclusion, or at the least to address the fact of a perceived borrower recklessness in view of loan over-pricing. However, with digital credit technological innovation still evolving, the future of nano loans in Nigeria is still open to much growth and expansion both at the levels of financial inclusion and incentive restructuring. It is also a possibility that borrowers' condition in the market could improve greatly if and when the condition of the digital credit lending institutions improve better.

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