Community-as-trust Infrastructure in Nigeria's Digital Credit Ecosystem: An Institutional Analysis and Development Perspective

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Abstract

Access to credit in emerging economies is often constrained by weak formal institutions and limited trust in digital financial systems. This paper employs the Institutional Analysis and Development (IAD) framework to examine how community-based structures function as trust infrastructures within Nigeria's digital credit ecosystem. Drawing on case evidence, it highlights how informal norms, local intermediaries, and community sanctioning mechanisms mitigate information asymmetries, lower default risks, and expand access to credit for underserved populations. The analysis shows that while these community mechanisms enhance financial inclusion by complementing underdeveloped formal governance structures, they also reproduce exclusionary practices and unequal power relations. The paper argues that the prevailing "community capitalism" model, which leverages social ties for market-driven incentives, often leads to predatory practices such as exorbitant interest rates, lack of transparency, algorithmic extortion (debt-shaming), and data misuse. These practices erode trust, foster a "data crisis," and contribute to a widespread aversion to formal credit, pushing many Nigerians toward less regulated channels. In contrast, the paper proposes "community-as-trust infrastructure" as an alternative, drawing empirical evidence from the enduring success of Nigeria's informal financial systems like *esusu*. These systems demonstrate how inherent community trust, shared social values, and collective risk-sharing lead to high repayment rates and effective financial intermediation without formal collateral. The study therefore contributes to development scholarship by advancing an institutional perspective on digital financial ecosystems in the Global South, thereby demonstrating how hybrid arrangements of formal and informal rules shape access to financial services. Policy implications point to the need for inclusive digital credit regulation that acknowledges community-based trust infrastructures as integral to building resilient and equitable financial systems in developing contexts.

Keywords: Trust, Community, Credit, Inclusion

Introduction

In recent years, digital credit has emerged as one of the fastest-growing segments of financial technology in developing economies (Telukdarie and Mungar, 2023). Promoted as a scalable solution to financial exclusion, digital credit platforms leverage mobile phones, digital identities, and alternative data to extend loans to previously underserved populations. Yet, despite their promise, their adoption and sustainability remain uneven. Trust deficits, information asymmetries, and weak institutional protections often constrain the ability of digital credit to deliver inclusive development outcomes. These challenges highlight the need to move beyond technological solutionism toward an understanding of how digital credit systems are embedded in—and mediated by—local institutional and social contexts.

This paper examines Nigeria's digital credit ecosystem through the lens of the Institutional Analysis and Development (IAD) framework, focusing on the role of community-based structures as trust infrastructures. In the absence of strong consumer protection, credit bureaus, and formal enforcement mechanisms, communities often provide the social guarantees that underpin borrower and lender confidence. Local intermediaries, social norms, and sanctioning practices not only mitigate risks of default and fraud but also shape who is included or excluded from digital financial systems. By unpacking these dynamics, the paper contributes to development scholarship by showing how technology adoption in financial services is mediated by hybrid arrangements of formal and informal rules.

The study advances two central arguments. First, digital credit cannot be understood—or governed—without accounting for the institutional context in which it operates, particularly the informal mechanisms that substitute for weak formal institutions. Second, while community trust infrastructures expand credit access and help build confidence in digital platforms, they can also reproduce exclusionary practices and unequal power relations. These insights point to the importance of embedding digital credit regulation and design within the realities of local institutional frameworks. For policymakers, practitioners, and platform developers, this means treating communities not merely as end-users but also as integral actors in shaping inclusive and sustainable digital ecosystems.

Historically, traditional markets and regulatory provisions in addressing credit expansion constraints often do not optimally serve financial services customers at the bottom of the pyramid, as they most times possess only limited capacity to meet the institutional standard transaction requirements such as collateral, Know Your Customer (KYC) identification, and verifiable credit history. This institutional void generates product innovation opportunities for emerging financial technology (fintech) companies for the provision of financial inclusion products and services to address the unmet demand within these contexts (Che, 2018). As an opportunity, digital lenders such as fintechs are expected to offer lower lending rates for credit due to a higher level of automation with respect to financial operations. In bridging the relatively higher credit risk, these fintech companies leverage alternative service infrastructures to cater for the underserved markets to bypass the extant institutional constraints for profit maximization (see Aicha, 2023; Allen, 2024). An emerging alternate service infrastructure in this respect is the user's interpersonal community with its normative levels of trust among members—a requisite for novel product offerings (Gundlach and Cannon, 2010). Nonetheless, this "commons" infrastructure, while bridging institutional innovation gaps in serving underserved markets, can become manipulative and coercive, in particular with respect to user data. While these users have to trust that the digital operators will handle their identity data in a privacy-respecting and secure manner (Mayer, Davis and Schoorman, 1995), this is not always the case (Molla and Biru, 2023).

Trust is a fundamental element in implementing governance within any financial

ecosystem (Rodima-Taylor and Grimes, 2019). Historically, every human-based ecosystem consists of smaller close-knit societies which facilitates trust via community member identification. This community-based trust structure has since continually been reconfigured as ongoing processes shaped by multiple waves of transformation. From a financial and market systems evolutionary perspective, the rise of capitalist economies in the 19th and 20th Centuries facilitated trust through institutional intermediaries: e.g., banks, credit bureaus, regulatory agencies (Braithwaite, 2008; Johnson, 2010). Community-driven financial models such as rotating savings and credit associations (ROSCAs) coexisted with formal financial systems, reflecting a hybrid approach to trust. While these shifts had already begun by then, digitalization and platform economies have significantly accelerated the scaling of trust beyond localized communities (Acquier, Carbone and Massé, 2019; Tim, Cui and Sheng, 2021). Digital identities, algorithmic decision-making, and blockchain technologies have redefined trust, allowing transactions among strangers in a way that was previously impossible without intermediaries.

In contemporary societies, digital systems have therefore enabled external interactions among people, organizations, and platforms beyond the close ties of historical communities. Nevertheless, some of these emerging digital systems continue to leverage the local community as a trust infrastructure by targeting local representatives with corresponding member identification capabilities in determining transactions with the external ecosystem members who use their digital systems (Ruff, 2018). Nevertheless, this normative interpersonal trust within communities is inherent with significant distrust vulnerabilities, even within a local context (see Rodima-Taylor, 2014; Omeihe et al., 2023; Agnihotri, Callahan and Bhattacharya, 2024). Digital credit platforms, mobile money services, and fintech startups integrate local representatives such as community leaders, cooperative heads, or informal savings group coordinators who act as intermediaries for financial transactions. In Nigeria, for example, platforms like AjoCard and Esusu Africa partner with market leaders to assess and onboard informal traders who lack formal credit histories. The community acts as a collective enforcement mechanism. Trust is maintained because social ties discourage defaulting on loans or financial obligations. But, despite the trust-building potential, these same community-based mechanisms introduce vulnerabilities, including local representatives exploiting their position by charging unofficial fees, favoring specific members, or excluding certain individuals, or even identitying fraud or misrepresentation, where intermediaries falsely verify individuals for financial gain. The trust dynamic within communities is hence not static—economic hardship can strain relationships, leading to loan defaults, broken informal agreements, or disputes over financial obligations.

Participating in cooperative peer production economies therefore presents a frustrating contradiction: the significant disconnection between the principles of cooperative culture and the organizational structures necessary to support it and enhance societal wellbeing (Conaty and Bollier, 2014). This contradiction lies in the misalignment between the principles of cooperative peer production—which emphasize shared ownership, mutual aid, and decentralized governance—and the organizational structures required to sustain them in contemporary urban economies. This tension is especially pronounced in societies where informal community trust networks exist, but the institutional and regulatory mechanisms needed to scale them into robust, sustainable systems are often lacking. Cooperative peer production relies on strong social capital and a sense of collective identity. In traditional settings such as *Esusu* (rotating savings groups) and trade cooperatives, trust is reinforced through physical proximity and long-term relationships. Nonetheless, a city like Lagos, as a hyper-urbanized, highly individualistic commercial hub, is characterized by rapid migration, economic precarity, and fragmented social ties. These factors erode the deep-rooted trust necessary for cooperative systems to function effectively at scale. More so, peer production

economies ideally operate through decentralized governance, whereby participants have equal say in decision-making and benefit-sharing. But, sustaining these structures over time often requires centralized coordination, rule enforcement, and financial management, which can inadvertently reintroduce hierarchies, power imbalances, and elite control—the very dynamics that cooperative principles seek to avoid. In some Lagos-based digital lending cooperatives, members initially participate on equal terms; but as they scale, leadership roles emerge that mirror traditional corporate hierarchies, leading to conflicts over decision-making and resource distribution. Some Lagos-based fintech platforms attempting community-driven credit models have faced regulatory pushback due to concerns about consumer protection, data security, and informal governance mechanisms. Without formal institutional support, peer production economies are vulnerable to elite capture, fraud, and mismanagement.

The aforementioned situation engenders a trust deficit in Nigeria's digital financial services ecosystem that arises from several interrelated factors that shape how users perceive and interact with financial institutions, particularly in the context of digital credit. This deficit can be understood as a lack of confidence in the reliability, fairness, and accountability of these services. Many Nigerians, especially in low-income and informal sectors, have historically relied on informal savings groups (*Esusu*, *Ajo*) and local credit schemes due to skepticism toward banks and financial institutions. This skepticism stems from past experiences of financial instability, hidden fees, or exploitative lending practices, generating a trust gap between users and formal financial service providers. Users often lack clear information on loan terms, interest rates, and repayment structures, leading to uncertainty and distrust. Some digital lenders engage in aggressive debt collection practices, further eroding user trust in these services. Many fintechs require extensive personal data for credit assessment, including access to contacts, Small Message Srrvice (SMS) history, and transaction records. Without strong regulatory oversight, users worry about how their data are being used, particularly regarding cases of unauthorized debt-shaming tactics by some digital lenders.

To bridge this trust deficit bottom-up, digital financial services providers such as fintechs empower community-localized agents, who receive commission for transactions, to facilitate direct access to user services and support such as loan recovery. Local agents provide face-to-face interactions that help demystify digital financial services, addressing literacy gaps, and explaining loan terms in local languages and cultural contexts. For example, in rural Nigeria, fintechs often employ market leaders and cooperative heads to introduce digital savings and credit products. Users are more likely to trust someone from their community than a faceless digital platform. Local agents have established social capital—their reputation within the community acts as a guarantee of fairness and accountability. Since users often lack direct access to fintech offices, local agents provide on-the-ground support, facilitating transactions and resolving complaints. In loan recovery, instead of impersonal or predatory collection tactics, agents use social pressure and mediation, ensuring community-based accountability rather than coercion.

Nonetheless, information asymmetries and moral hazards may engender user data compliance tensions in the delivery of the intermediary role of these localized agents, making them even challenging to supervise (Molla and Biru, 2023). This paper seeks to unravel the context-specific challenges that perpetuate the preceding practice and constrain the capacity of these digital operators to comply with extant data security and privacy regulations within the Nigerian digital financial services ecosystem, and what the imperatives of this situation are for financial inclusion. Following the inquiry lines of Ostrom (1990), how do we address the question of enhancing the capabilities of stakeholders involved to revise the constraining rules of the game to realize outcomes other than remorseless tragedies? Within this purview,

how can a group of principals leverage the interpersonal community to engineer trust for the provision of inclusive digital financial services despite the inherent temptations to engage in opportunistic behavior? What policy governance arrangements can adequately account for the behavioral and trust dynamics among user communities, financial service providers, and agent intermediaries in the design and delivery of inclusive digital credit products and services? And how then can fintechs optimally build out the interpersonal community as a trust infrastructure? The paper argues that, in the face of persisting institutional voids that constrain product innovation, the commons paradigm can help fintechs to imagine, leverage and build out the interpersonal community as a trust infrastructure in the provision of inclusive digital financial services.

Within the preceding purview, the paper advances the idea of the community as a trust infrastructure, as an alternative to *community capitalism* that can nurture the common and address the challenges of distributed economic systems. *Community capitalism* in this context refers to a market-driven approach to economic organization whereby financial and economic activities are embedded within local community structures. While community capitalism leverages social ties to advance market-driven incentives such as profit-making or commission structures, *community-as-trust infrastructure* reimagines community as a foundation for trust and cooperative governance. The former treats community as an instrument of capitalism, while the latter positions trust and reciprocity as the central organizing principles of economic life. This alternative shifts the organizing logic from profit to cooperation, thereby positioning community trust as the central mechanism for sustaining inclusive and equitable financial systems.

The alternative also suggests a model in which capitalist principles such as profit maximization, investment, and competition are mediated through community-based networks rather than large-scale corporate or state institutions. In the context of Nigeria's digital credit ecosystem, community capitalism manifests in models where financial services are extended through social ties: for example, lending practices based on social capital, peer guarantees, and collective risk-sharing rather than purely institutional creditworthiness assessments. While this approach can enhance financial inclusion, it still operates within the logic of market-driven incentives such as commission-based agent networks or profit-seeking community-based lenders. The paper proposes an alternative model whereby a community is not just a conduit for capitalism but also a foundational infrastructure for trust and cooperative economic governance. This means moving beyond merely using local networks for financial transactions and instead reimagining communities as collective governance structures for economic systems. This alternative approach aligns with commons-based economic principles whereby communities actively shape the rules, norms and trust mechanisms that guide financial interactions, rather than merely serving as intermediaries within a market-driven system. Practical implications of the proposed model have imperatives for peer-to-peer cooperative credit models whereby financial risk and decision-making are collectively managed, digital financial ecosystems are governed by local community norms, rather than dictated by external fintechs or corporate actors, and trust mechanisms are based on shared social values, rather than purely on financial incentives like commissions for agents.

Commons-based Peer Production and Trust

This section does not aim to provide a comprehensive review of the existing literature on the Commons paradigm. Instead, it seeks to highlight the key themes most pertinent to understanding the paper's objectives. The following paragraphs offer further theoretical perspectives on the intersectionality between commons-based peer production and trust.

Commons-based peer production is an economic model that is underpinned by the commons paradigm of collective action, characterized by inclusive ownership of a community resource (Ostrom, 1990; Schlager and Ostrom, 1992). Within this purview, some characteristics of data, such as its non-rivalrousness and non-exclusivity, cause us to view it as a "public good" rather than a "pure private good" or a typical "economic good," in turn making it a fundamental candidate for substantial nonmarket peer production (Benkler, 2006; Birkinbine, 2018; O'Neil, Toupin and Pentzold, 2020). The idea of data as a "public good" aligns closely with the concept of commons-based peer production, whereby resources are collectively managed and shared by a community. This perspective is reinforced when considering the dynamics of trust and collaboration within socioeconomic networks. Specifically, the theory of the firm's principal-agent model, which often assumes agents act solely in their self-interest, can be expanded by recognizing that agents, when embedded within a community, are motivated by a mix of personal and communal interests. This shift in perspective highlights the importance of trust, which is essential for ensuring cooperation in the management of common resources like data. The governance of such resources through clear rights and usage rules helps mitigate challenges such as the so-called "tragedy of the commons," otherwise referred to as the "fallacy of collective action" (Hardin, 1968; O'Neil et al., 2020), ensuring that data can be accessed and used sustainably by all stakeholders involved.

Trust, a concept extensively studied across disciplines such as Philosophy, Psychology and Sociology, is a cornerstone of this collaboration, enabling individuals to balance personal interests with communal interdependence (Edenhofer et al., 2016). It remains central to human societies, where individuals are inherently concerned with their personal interests but navigate these within the broader context of social interdependence. While the dominant perspective of principal-agency within the theory of the firm is that "agents are autonomous and are prone to maximizing their own interest at the expense of principals," their location within socio-economic community networks "imputes them with mixed rather than plainly self-serving motives" in order to engender trust within the communities they serve (Sharma, 1997, 759). This trust is underpinned by the bundle of rights and rules codified within the common-property resource, in particular with respect to access and withdrawal or usage by either the principal (proprietor), agent or authorized users in overcoming the so-called "tragedy of the commons" (Schlager and Ostrom, 1992; Benkler, 2006; Coriat and Leyronas, 2023). In particular with respect to the data rights of common-property community members, privacy protection typically views collective interests as a compilation of individual concerns (Van Staden and Bidwell, 2024). Nevertheless, when one person's information is disclosed, it can inadvertently shed light on others who share similar attributes. This flow of information breaks down the markers of social boundaries in social groups, thereby diminishing trust (Dourish and Anderson, 2006).

Solidarity-based Credit Financing and Trust

Solidarity-based credit financing has its historical roots in the Ibn Khaldun's Social Solidarity School of Thought (*Asabiyyah*), which subordinates personal interests to group interest on the basis of social capital (Obaidullah and Latiff, 2008). Solidarity-based credit financing refers to financial arrangements that prioritize collective wellbeing over individual profit operating on social capital, mutual responsibility, and community-driven trust mechanisms. This approach challenges the conventional market logic by embedding financial transactions within shared social obligations rather than purely contractual agreements. In this context, Ibn Khaldun's Social Solidarity School of Thought provides a foundational philosophical framework. Ibn Khaldun (1332–1406) argued that strong communal bonds—based on

kinship, shared values, and trust—are essential for the stability and success of economic and social institutions. Although Ibn Khaldun theorized within a pre-capitalist context, his emphasis on social solidarity (*asabiyyah*) remains analytically useful for contemporary debates. The concern here is not to transpose medieval institutions onto digital finance, but to draw on a philosophical tradition that foregrounds the role of communal trust and shared obligation in sustaining economic systems. In this way, Khaldun's insights complement modern analyses by illuminating how solidarity-based logics can offer alternatives to the dominant market-driven models of digital credit. Within financial systems, this translates into models whereby credit is extended based on interpersonal trust rather than collateral, with repayment ensured through social cohesion and collective accountability.

While the model has been influential, especially in the design of microfinance, cooperative lending, and Islamic finance frameworks, it is not without its critiques. Some scholars argue that solidarity-based systems are vulnerable to power imbalances within communities (e.g., Fleischmann et al., 2022). For instance, elite capture can emerge, whereby local power brokers exploit communal trust structures for personal gain. For example, in some microcredit schemes, group lending mechanisms place an unfair burden on poorer, less influential members when wealthier individuals default. Critics also challenge the idealistic assumption that individuals will always prioritize group interest over personal survival (Pensky, 2009). In reality, economic pressures, competition, and changing social dynamics can weaken collective trust. For example, in rapidly urbanizing areas like Lagos, traditional community bonds are increasingly fragmented, making it difficult to sustain long-term solidarity-based credit arrangements. Unlike formal financial institutions, which have legal frameworks to enforce contracts, solidarity-based systems often rely on social pressure, reputation, and informal dispute resolution, which can break down under stress. For example, during economic downturns, peer pressure may not be enough to ensure repayments, leading to defaults and distrust within communities.

In acknowledging the preceding critiques, this paper does not present solidarity-based credit financing as a flawless alternative to conventional finance, but rather as a historically significant model that continues to evolve. The key challenge, then, is how to adapt these traditional trust mechanisms to contemporary financial ecosystems, particularly digital credit systems. A crucial question the paper seeks to address is about how digital financial providers can integrate solidarity-based trust mechanisms while addressing vulnerabilities such as elite capture, power asymmetries, and shifting social structures. This is where technological design, policy interventions, and adaptive governance mechanisms become critical. By learning from both the strengths and weaknesses of historical solidarity-based finance, digital financial ecosystems can design more inclusive, trust-sensitive credit models that account for the realities of modern economic life.

Emerging financial services providers such as fintechs would do well to operationalize this concept in providing digital credit to the bottom-of-the-pyramid segment of the financial market. By incorporating a community-based lending approach that leverages social capital as collateral, these innovative players may offer digital credit products and services without compromising on the issue of institutional viability and long-term sustainability (Dusuki, 2008). A key historical reference in this respect is the Grameen Bank in Bangladesh (see https://grameenbank.org.bd/), the world's most renowned microcredit institution, where the founder, Dr Muhammad Yunus, was first the guarantor of microcredit to bottom-of-the-pyramid borrowers within the country's highly successful financial system, with a loan recovery rate of 97 percent (Hossain, 2013). The Grameen credit model thrived on trust on the basis of social capital that is built on interpersonal community relationship networks and intermediation. A key characteristic of community-based credit is leveraging peer pressure as trust-based social collateral, as an alternative to traditional collateral, by

primarily relying on peer monitoring and guarantee mechanisms in the presence of costly information (Stiglitz, 1990; Besley and Coate, 1995; Dusuki, 2008; Hossain, 2013). As a trust infrastructure, this interpersonal community validates and guarantees the identity and creditworthiness of these borrowers in consistency with the principles of solidarity-based financing within the ambits of platform cooperativism and beyond capitalist efficiency and self-interest (Martin, Upham and Klapper, 2017). Like Ibn Khaldun's *asabiyyah,* the Grameen model has not been without criticisms as well. Some scholars have noted risks of borrower over-indebtedness, the potential for coercive social pressure, and the mixed evidence on its long-term poverty alleviation impact (e.g., Bateman and Chang, 2012). Nevertheless, its enduring significance lies in demonstrating how trust and social capital can serve as viable mechanisms for credit intermediation outside conventional collateral-based systems, thereby offering important lessons for digital credit provision today.

Research Methodology

Leveraging Ostrom's 2007 Institutional Analysis and Development (IAD) framework, the study analyzes from a multilevel perspective the action arena and situations of cooperative interdependence among community stakeholders in Nigeria's digital credit ecosystem whose potential actions jointly produce trust implications for financial inclusion. In particular, the ecosystem action interrogated is the mechanisms of user data collection, processing and usage with respect to knowledge contingencies, and selection of particular courses of action in relation to information acquired.

Within the aforementioned socioecological system (SES), Nigeria's digital credit market is interrogated as a resource ecosystem, with consumer data as resource units, the relevant institutional regulatory policy frameworks as the governance system with the users as part of the community ecosystem (see Figure 1).

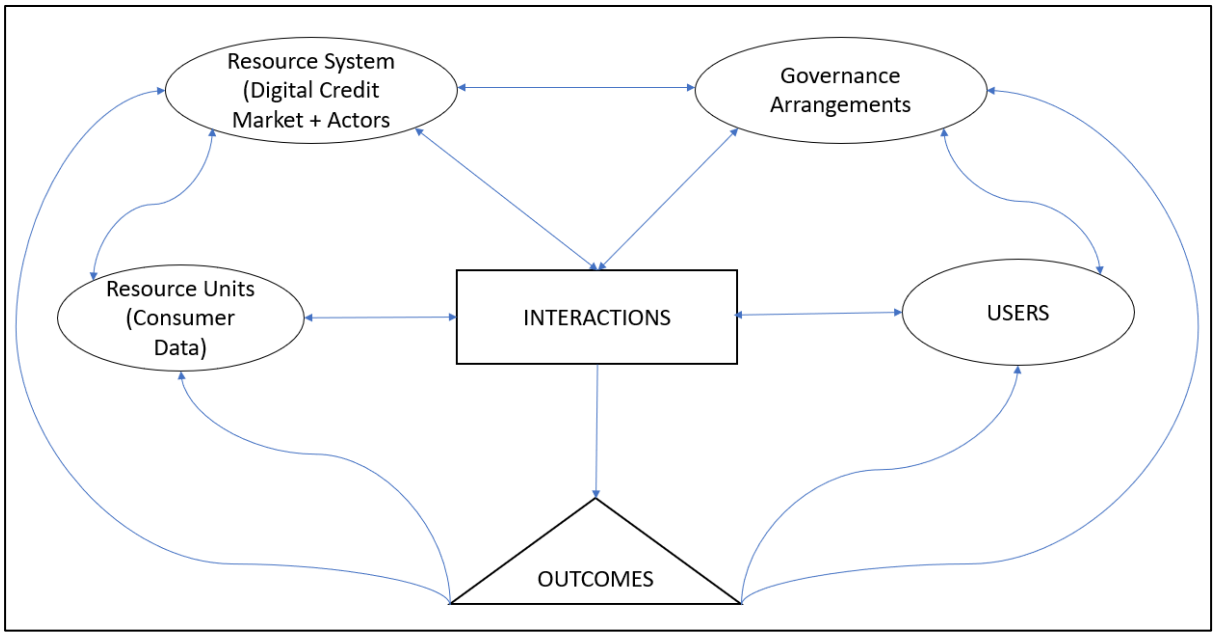

Figure 1: Nigeria's Digital Credit Ecosystem as an SES
Source: Self-generated by the Author

The IAD framework is useful in providing a common set of relevant constructs to use in the design and the analysis of the empirical findings (see Ostrom, 2009). Within the ambit

of the framework, a case study approach is leveraged to analyze a variety of market and institutional reports, including data practices and governance documents, and regulatory policy documents, owing to the exploratory nature of this research. The ensuing subsection provides details.

Research Context: Nigeria's Digital Credit Ecosystem

As of 2024, Nigeria's digital credit market has been experiencing significant growth, driven by the increasing adoption of alternative lending platforms and fintech innovations. The market is projected to expand from approximately $171.3 million in 2023 to $542.1 million by 2028, reflecting a compound annual growth rate (CAGR) of 23.8% during this period (see https://www.globenewswire.com/news-release/2024/09/13/2945803/28124/en/Nigeria-Alternative-Lending-Market-Business-Report-2024-Product-Launches-and-Innovations-Key-Developments-Mergers-and-Acquisitions-Regulatory-Changes-Investment-Opportunities-to-20.html?utm_source=chatgpt.com).

In addition, the rise of digital credit solutions is enhancing financial inclusion by providing accessible financing options to individuals and small businesses that may lack access to traditional banking services. Key players within this digital credit ecosystem include AjoCard, Fairmoney, RenMoney, Carbon, Opay, Vulte, Lydia, Aella, Eazy Credit, Sokoloan, Social Lender, AgriFin, and Moni Africa. With the evolving disruptive innovation in Nigeria's financial services sector, digital credit is emerging as a sharp turn from the bureaucracy of traditional credit institutions (Oboma, 2024). These new-breed lenders leverage alternative data sources (such as mobile phone and social media data) other than traditional sources of financial history for risk assessment, determination of credit-worthiness and client engagement (in terms of collections and repayments). Bottom-of-the-pyramid borrowers in Nigeria continue to increasingly adopt the services of these new-breed providers even though the credit access convenience offered by them come at significantly higher interest rates than the traditional market. In this respect, there is limited knowledge about how expensive these loans really are or the factors that determine their pricing (Oritsetinmeyin, 2024). Nevertheless, behavioral patterns indicate that many of these borrowers rely on social reputation that is based on their interpersonal mobile and social community platforms as credit collateral (see Gatabaki, 2022; Aideyan, 2023).

Unlike traditional financial institutions, which assess creditworthiness through formal credit scores, collateral, and income verification, many digital lenders in Nigeria leverage alternative data sources, particularly as social reputation signals from mobile and online platforms. This means that a borrower's trustworthiness is inferred from the person's digital footprint and online social interactions, which can serve as a substitute for conventional financial records. Some digital lenders scrape data from borrowers' social media profiles (e.g., WhatsApp, Facebook, and Instagram) to assess consistency, stability, and social standing. Factors such as the frequency of interactions, professional networks, and even public recommendations or testimonials can play a role in determining creditworthiness. Certain fintech platforms integrate peer verification mechanisms, where borrowers can list contacts who vouch for them. These contacts act as reputation guarantors, even if they do not provide financial backing. Some group lending models, inspired by microfinance principles, rely on peer accountability within WhatsApp or Telegram community lending groups, where failure to repay affects the group's collective access to credit. In cases of default, some lenders publicly expose defaulters on social media, tagging their friends and family to pressure repayment. This controversial practice exploits social reputation as a negative reinforcement mechanism: an aspect that raises ethical concerns. Borrowers therefore self-regulate their behavior to maintain their standing within these networks.

The significance of the aforementioned practice is that it reshapes the concept of collateral. Instead of physical assets, borrowers' digital credibility and community reputation become determinants of access to credit. It also highlights financial inclusion challenges in-context. Many Nigerians without formal financial records turn to these lenders because their social and mobile footprint serves as their only credit asset. It also further underscores privacy risks and ethical dilemmas. The monetization of social reputation raises questions about data privacy, digital surveillance, and borrower protection. Thus, this paper argues that while social reputation on mobile and community platforms enables financial access, it also introduces new risks, such as privacy invasion, misinformation-driven lending decisions, and reputational blackmail. Therefore, the challenge is how an optimized regulatory framework can ensure ethical and responsible use of social reputation in digital lending. What safeguards should exist to prevent exploitative practices, such as public shaming and coercive recovery tactics? Accordingly, the analysis that follows is mostly qualitative (i.e. words are emphasized as opposed to numerical values), augmented by descriptive statistical discussions where necessary.

Analysis

Due to the enormous amount of the findings from the research, this section is segmented into many subsections and tertiary sections. This is to enhance cohesiveness and ease of reading for the reader.

Nigeria's Digital Credit Market as a Resource Ecosystem

The digital credit market in Nigeria presents a complex and dynamic landscape, best understood as a multifaceted "resource ecosystem." This conceptualization highlights the intricate interplay of diverse formal and informal actors, technological innovations, regulatory frameworks, and deeply ingrained sociocultural practices. Within this ecosystem, various critical resources—including financial capital, data, technology, human networks, and, crucially, trust—are leveraged, transformed, and exchanged to facilitate access to credit. The inherent complexity of this system gives rise to both significant opportunities for advancing financial inclusion and profound challenges that often impede its equitable and sustainable development. The term "resource units," while originally used in a different context—socioecological systems (SES) (see Schlager and Cox, 2018), provides a useful conceptual parallel for viewing the market as a system of interconnected components that contribute to or detract from its overall functioning.

The purpose of this subsection is therefore to analyze the intricate interplay of formal and informal resources, existing challenges, and emergent opportunities within this ecosystem. This analysis critically assesses how current market dynamics, particularly those driven by profit motives, align with "community capitalism" and underscore the imperative for a shift toward a "community-as-trust infrastructure" to achieve genuine and equitable financial inclusion.

Formal Digital Credit: Resources, Players, and Market-Driven Structures

Nigeria's formal digital credit landscape is characterized by a diverse array of actors, each contributing unique resources and services to the financial ecosystem. These include innovative fintech companies, established traditional banks, and specialized microfinance banks, all operating within an evolving regulatory environment.

Key Actors and Digital Financial Services (DFS) Offerings

Fintech companies are at the forefront of the digital credit market, applying technology to financial services to transform or disrupt traditional processes. These entities are instrumental in addressing existing gaps in the financial market, particularly in obtaining comprehensive customer information and determining the suitability of products for diverse customer segments. They deploy advanced technological solutions such as Artificial Intelligence (AI), Distributed Ledgers, Application Programming Interfaces (APIs), and digital identification. Big data analytics are extensively utilized to compute credit scores from credit history for loan applications.

Prominent Nigerian fintech companies include Flutterwave, Paystack, Accelerex, PiggyVest, Remita, and Kuda Bank. Specific digital lending platforms that have gained traction include Renmoney, Paylater, Menacred, and Quickcheck. Companies like Credpal, Onefi, and Social Lender (developed by Sterling Bank) leverage AI to personalize services, assess risk, and determine credit scores. Branch, a mobile financial services provider, offers lending services by employing machine learning algorithms to analyze smartphone data (such as call logs and SMS history), verify customer identity, and determine loan eligibility and credit scoring without requiring traditional paperwork or guarantors from clients lacking credit history. Similarly, PiggyVest, an investment platform, utilizes data from an expense tracker to offer advisory investment services to its users. KiaKia, a licensed lender, integrates machine learning, big data, and AI to facilitate peer-to-peer lending, while Fint provides borrowing options for specific needs like rent, medical expenses, and school fees without requiring collateral.

Peer-to-Peer (P2P) lending platforms represent a significant segment within the digital credit space, operating through various models. The information intermediation model directly matches lenders and borrowers, allowing them to trade under agreed terms and incur any arising credit risks. The guarantee model extends beyond mere matching by providing guarantees for both principal and borrowed interests. A third model, asset securitization, involves repackaging standard form securities from partitioned cash-generating assets for sale to investors. Lastly, the debt assignment model assists lenders and P2P platforms in delivering loans to clients and subsequently selling the claims from these loans to platform investors. P2P lending is often driven by advanced credit analytics, which can lead to lower default risk and, consequently, reduced interest rates and overall costs of extending credit compared to traditional brick-and-mortar establishments. Cost savings also accrue from lower operating expenses and reduced regulatory compliance burdens. P2P platforms enable lenders and borrowers to identify one another and agree to personalized terms, thereby bypassing intermediary intrusions. This approach also facilitates low-cost lender and borrower acquisition and provides access to cheaper funds. Proponents suggest that online lending humanizes the lending process by drawing on a public sense of community and transparency, further encouraging repayment due to the awareness that individuals, rather than large banks, will bear the consequences of defaults. P2P lending holds potential in the Nigerian financial market by generating opportunities for individuals to lend outside their immediate social circles, which are often limited in capacity. This can also enhance the privacy of financial transactions, particularly for women, who are often among the most financially excluded segments.

Traditional commercial banks are also significant players in this industry, offering digital loan products that provide instant access to credit without the arduous documentation procedures typically associated with conventional bank loans. Popular offerings include Quick Credit by GT Bank, Click Credit by UBA, and Access Bank's Quick Bucks. Banks are increasingly engaging in collaborations with fintech companies; for instance, Access Bank

launched PayWithCapture, a mobile payment app, and Zenith Bank partnered with Reach fintech to develop a group savings tool.

Microfinance Banks (MFBs) are another crucial component. The Central Bank of Nigeria (CBN) has actively encouraged investments in tailored products and supports MFBs as a means to deepen financial inclusion. The NIRSAL microfinance bank, for example, was established to facilitate financial access by leveraging NIPOST offices located across all 774 local government areas in Nigeria. MFBs are licensed by the CBN to undertake activities such as deposit-taking, loan provision, savings facilities, and acting as agents for mobile banking and micro-insurance for their clients. They are categorized based on their capital requirements and operational areas, ranging from Tier 1 and Tier 2 Unit MFBs operating in urban/high-density or rural/underbanked areas, to State and National MFBs with broader operational scope. Table 1 provides an overview of the digital credit market players in Nigeria.

Table 1: Overview of Formal Digital Credit Providers and Services

Category	**Key Players**	**Digital Financial Services Offered**	**Operational Model/Key Features**
Fintech Companies	Flutterwave, Paystack, Accelerex, PiggyVest, Remita, Kuda Bank, Renmoney, Paylater, Menacred, Quickcheck, Credpal, Onefi, Social Lender (Sterling Bank), Branch, KiaKia, Fint	Mobile payments, group savings, personal/business loans, investment services, P2P lending, advisory services	AI/ML for credit scoring & risk assessment (smartphone data analysis), instant access to credit, often "zero collateral" loans, digitally accessible platforms, peer-to-peer matching (various models)
Traditional Banks	Access Bank, Zenith Bank, GT Bank, UBA	Mobile payment apps (PayWithCapture), group savings tools, digital loan products (Quick Credit, Click Credit, Quick Bucks)	Collaboration with fintechs, digital channels for loan access, simplified documentation compared to conventional loans
Microfinance Banks (MFBs)	NIRSAL Microfinance Bank	Deposits, loans, savings, mobile banking agency, micro-insurance	Facilitate financial access, operate in urban/rural areas, cater to MSMEs, use networks like NIPOST offices

Source: Self-generated by the Author

The integration of digital innovation within Nigeria's financial sector presents a notable duality: while it significantly enhances efficiency and expands financial reach, it also carries the potential for ethical compromise. Fintechs, by leveraging advanced technologies like AI, machine learning, and big data, are able to offer instant, collateral-free loans, effectively addressing substantial accessibility gaps that persist in traditional banking systems. This technological advancement undeniably represents a gain in efficiency and broadens the scope of financial inclusion. Nonetheless, these very technological capabilities,

particularly the pervasive access to smartphone data, including call logs and SMS history, are subsequently utilized for coercive debt recovery practices such as debt-shaming. The drive for efficiency and simplified access in the formal digital credit market, often presented as a solution to financial exclusion, can paradoxically lead to unethical practices when profit maximization becomes the overriding objective. The perceived benefits of low acquisition costs and simplified processes (e.g., no collateral, minimal paperwork) are attractive to both lenders and borrowers. Yet, the absence of robust credit assessment mechanisms, often due to data challenges, combined with the inherently high-risk nature of these loans, compels lenders to manage this risk through aggressive and privacy-violating means. This reveals a direct connection between the pursuit of rapid, low-friction lending and the subsequent adoption of problematic recovery methods. This tension is inherent in the manifestation of "community capitalism" within the digital sphere: while it employs technology to embed financial services within social networks (e.g., by accessing contact lists), its underlying profit motive can transform these networks into instruments for exploitation rather than genuine financial inclusion. The notion of P2P lending "humanizing" the lending process, as suggested in some contexts (see Larrimore et al., 2011), is starkly contradicted by the "dehumanizing" effects of widespread debt-shaming practices observed in the Nigerian market.

Regulatory and Infrastructural Resources

The regulatory landscape governing Nigeria's digital credit market is shaped primarily by the CBN, which serves as the apex regulator for financial services with the mandate to oversee banks and other financial institutions. The CBN is committed to fostering an innovative environment to deepen financial inclusion through Digital Financial Services (DFS) and microfinance. Its strategic focus includes encouraging investments in tailored products, digitizing government payments, and promoting digital literacy. Historic initiatives like the Tradermoni scheme and the Agri-Business Small and Medium Enterprise Investment Scheme (AGSMEIS) launched in 2018 exemplify efforts to offer graduated loan and credit facilities to traders and micro, small and medium enterprises (MSMEs).

Significant advancements have been made in strengthening Nigeria's financial infrastructure in recent years. The CBN has systematically worked to build a modern credit risk management framework since the early 1990s. This effort culminated in the issuance of guidelines for the licensing, operations and regulation of credit bureaus in 2008, which were subsequently reviewed and reissued in 2013. These guidelines led to the licensing of prominent privately-owned credit bureaus, including XDS Credit Bureau (now First Central Credit Bureau), CR Services Credit Bureau, and CRC Credit Bureau. Further foundational reforms include the establishment of a National Collateral Registry (NCR) in 2016 and the enactment of the Secured Transaction in Movable Asset Act (STMA Act) and the Credit Reporting Act (CRA) in 2017. The NCR, an online registry, facilitates the use of movable assets such as inventory, receivables, and equipment as collaterals for loans. The CRA 2017 expanded credit information access to a broader range of providers, including utilities, retailers, telecommunication companies (telcos), and landlords, thereby enabling credit bureaus to issue comprehensive reports, scores, and portfolio monitoring analyses. Additionally, recent amendments under the Banks and Other Financial Institutions Act (BOFIA 2020) provide for the establishment of a special credit tribunal dedicated to the enforcement and recovery of eligible loans and the speedy resolution of loan-related matters.

Data protection and consumer rights are critical components of the regulatory framework. The Nigeria Data Protection Act (NDPA) 2023 stands as Nigeria’s comprehensive framework for personal data protection, governing the storage and processing

of personal data for all Nigerian citizens and residents. It stipulates conditions for lawful data processing, requiring data subject consent, necessity for contract performance, or compliance with legal obligations, alongside explicit purpose disclosure and robust security measures. The Constitution of the Federal Republic of Nigeria (Section 37) also guarantees citizens' privacy. Sector-specific provisions reinforce these protections; the CBN Consumer Protection Framework (CPF) of 2016 prohibits disclosure of customer personal information by CBN-regulated financial institutions without prior written consent, mandating appropriate data protection measures and staff training. The Cybercrimes (Prohibition, Prevention Etc.) Act of 2015 outlines data retention and protection requirements and criminalizes electronic communication interception. The Code of Conduct in the Nigerian Banking Industry imposes confidentiality obligations. The Credit Reporting Act of 2017 grants data subjects rights to privacy and protection of their credit information. The National Identity Management Commission (NIMC) Act of 2007 restricts access to its database of registered individuals. The Federal Competition and Consumer Protection Act (FCCPA) of 2018 established the FCCPC to promote consumer welfare, encompassing consumer rights and their enforcement. The CBN's Consumer Protection Regulations of 2019 further detail requirements for fair customer treatment, disclosure, responsible business conduct, and complaints handling.

Enforcement efforts have also been observed. The National Information Technology Development Agency (NITDA), as the apex information technology (IT) regulator, has actively sanctioned online lending platforms for privacy invasion and other violations. For instance, Soko Lending Company Limited was fined N10 million and subjected to other directives for unauthorized disclosures, failure to protect customer data, and defamation, particularly for sending privacy-invading messages to the contacts of loan defaulters. This action highlights that such practices are common among many loan applications. In a broader move, Google introduced new guidelines in November of 2022 to block loan applications from accessing users' private data via its Play Store in Nigeria and Kenya. Furthermore, in August of 2022, the Nigerian government introduced a digital-lending regulatory framework, which has since approved the operations of over 70 digital lenders.

Despite the existence of a seemingly robust and evolving legal and regulatory framework for digital credit, encompassing financial inclusion, credit infrastructure, data protection, and consumer rights, a significant disconnection persists between *de jure* regulation and *de facto* enforcement. While authorities like the CBN and NITDA demonstrate a clear intent to foster a safe and inclusive digital financial environment, the same sources detail widespread violations, including exorbitant interest rates, a pervasive lack of transparency, and egregious debt-shaming practices by digital lenders. NITDA's sanctioning of Soko Loans, although a positive step, simultaneously underscores that such predatory practices are prevalent among most loan applications and micro-lending companies. This scenario reveals that the mere presence of comprehensive laws does not automatically translate into consistent market compliance. This gap between regulation and practice is likely attributable to many factors, including the rapid proliferation of fintech companies, the high cost associated with effective monitoring and enforcement, potential regulatory arbitrage (where digital lenders might exploit differences between state-level money lending laws and federal digital lending regulations), and the sheer volume and velocity of digital financial transactions. This regulatory inefficiency inadvertently leads to an environment where predatory "community capitalism" can flourish, as firms exploit loopholes or weak enforcement mechanisms to maximize profits, often at the direct expense of consumer welfare and the erosion of public trust. The current regulatory approach, while well-intentioned, appears insufficient to curb the negative externalities of a purely market-driven digital credit system. This suggests that relying solely on top-down regulation may not be enough to foster genuine financial inclusion and adequately protect vulnerable populations,

thereby strengthening the argument for alternative, potentially more embedded, trust-based governance mechanisms.

Informal Financial Systems: Community as an Embedded Resource

Beyond the formal structures, Nigeria's financial ecosystem is significantly shaped by a robust and enduring informal sector, particularly in the rural areas. These informal financial systems represent a powerful manifestation of community as an embedded resource leveraging social ties and shared values to facilitate financial transactions.

Characteristics and Operational Models

Informal financial services are remarkably prevalent in rural Nigeria, constituting, according to the CBN, a substantial 85% of rural savings systems. This segment includes a variety of actors such as money lenders, daily collectors, traders, and indigenous credit institutions like *esusu* and *ajo*. A key characteristic that contributes to their widespread adoption is their perceived convenience, flexibility, simplicity, and ease of engagement, making them better suited to meet the specific needs of local communities compared to more formal institutions.

The longevity and effectiveness of these informal systems are notable. *Esusu* and *ajo*, for instance, have stood the test of time, providing a longstanding source of capital, loans, savings facilities, and opportunities for individuals to build credit history, particularly in rural areas. A distinguishing feature is their high rate of loan repayment and remarkably low default rates (Phil-Ugochukwu, 2024). This stands in stark contrast to the higher default risks and loan losses sometimes observed within formal digital lending platforms.

Many individuals actively rely on local savings groups for obtaining loans rather than approaching conventional banks. The ease of getting a loan from *esusu* is frequently cited as a primary reason for this preference (Peter and Orser, 2024). These informal clubs are known for their quick response to loan requests, enabling members to meet urgent financial needs without the cumbersome formal application processes demanded by banks and cooperative societies. In communities where formal banking services are sparse or entirely absent, traditional savings clubs like *esusu* serve as essential coping strategies, helping users to save, access loans, build credit history, and even earn interest on their saved amounts.

Trust Mechanisms and Social Capital

The operational success of informal financial systems is deeply rooted in community-based trust and the leveraging of social capital. The strong preference among Nigerians for borrowing from family and friends, followed by local savings groups, underscores a profound reliance on established social trust networks. Within these informal structures, personal relationships and reputation serve as the primary forms of collateral and the fundamental mechanisms for ensuring repayment and enforcing financial obligations.

A defining feature of these systems is the minimal formality associated with loan access. Members of savings clubs can typically apply for loans during periodic meetings without the need to furnish any formal collateral. Documentation is minimal, often limited to a simple recording of the loaned amount and interest by a secretary. Even non-members can access loans if introduced by an existing member who then provides a guarantee for repayment. This reliance on social guarantees rather than physical assets or extensive paperwork highlights the embedded nature of trust within these communities. To further safeguard funds, *esusu* groups often adopt measures such as loaning out to all contributed moneys, maintaining a defined lending limit, and insisting on securing registered members as

sureties for loans.

The consistent demonstration that informal systems like *esusu* remain dominant in rural areas, owing to their convenience, flexibility, and high repayment rates, reveals a profound resilience of embedded trust in the face of formal financial exclusion. These systems effectively address fundamental financial needs in contexts where formal institutions often fall short. The very reasons cited for formal exclusion—such as negative perceptions of the poor's creditworthiness, the notion that the poor lack funds to save, and the burden of Know Your Customer (KYC) regulations—are precisely the areas where informal systems excel by effectively leveraging social ties as a form of "social collateral." This suggests a direct connection between strong community ties and effective risk management, even in the absence of formal legal or institutional mechanisms. The observed "aversion to formal credit" and the pronounced preference for borrowing from family and friends are direct consequences of the perceived barriers and the pervasive lack of trust associated with formal financial institutions. This underscores the profound value of community as an existing, robust trust infrastructure. It provides empirical evidence that trust, when deeply embedded in social structures and shared values, can effectively facilitate financial transactions and manage risk, offering a powerful counter-narrative to purely market-driven credit models. This forms a critical foundation for the paper's argument advocating for "community-as-trust infrastructure." Table 2 provides a comparative comparative synopsis of formal and informal lending models.

Challenges and Limitations: The Manifestations of Community Capitalism

Despite the technological advancements and regulatory efforts, Nigeria's digital credit market is fraught with significant challenges that largely stem from the inherent logic of "community capitalism." These challenges manifest as predatory market practices, deep-seated data and infrastructural deficiencies, and a pervasive erosion of trust, collectively hindering genuine financial inclusion.

Predatory Market Practices

A primary concern within the digital credit market is the prevalence of exorbitant interest rates and arbitrary pricing. Digital loans in Nigeria frequently carry extremely high interest rates, sometimes reaching 100% annually or even 36.6% for a mere 12-day loan. This pricing is often arbitrary, lacking benchmarking against comparable transactions, and critically lacks transparency, with the full terms and associated charges frequently revealed only after a loan has been disbursed. Such practices generate significant issues for both lenders, who face borrowers' inability to repay and subsequent loan losses, and borrowers, who risk over-indebtedness and exclusion from financial services if their investments cannot yield returns exceeding these high rates. These high interest rates are identified as a substantial contributor to Nigeria's 40% financial exclusion rate.

A pervasive and highly unethical practice observed is algorithmic extortion, manifesting as debt-shaming. Online lending platforms frequently resort to privacy invasion as a coercive tactic to compel loan repayments. This involves sending privacy-invading messages to borrowers' phone contacts, even to individuals who are not involved in the loan transaction, and engaging in character defamation. As mentioned earlier, Soko Loans, for example, was sanctioned by NITDA for unauthorized disclosures and defamation stemming from these very practices. These messages often deliberately omit the actual amount owed or the exorbitant interest, falsely implying significant fraud on the part of the borrower. Users have reported experiencing "character assassination," humiliation, disgrace, and profound

regret, which severely impact their relationships and daily living. Such tactics are facilitated by fintech companies' access to user data, which are then misused for coercive purposes, effectively transforming algorithmic governance into "algorithmic extortion." This form of coercion can also take on a gendered dimension, with female customer representatives strategically targeting female contacts of male users to maximize feelings of "guilt."

Table 2: Comparative Analysis: Formal vs. Informal Lending Models

Feature	**Formal Digital Lending (**Fintechs, Banks**)**	**Informal Community-Based Systems (***Esusu, Ajo***)**
Collateral Requirements	Often "zero collateral" (but with privacy invasion for recovery); preference for immovable security; movable assets with NCR	Minimal to none; social collateral (community ties, member guarantees)
Documentation	Aims for instant access, "no onerous documentation"; relies on BVN, smartphone data	Minimal; often just secretary's record; no formal paperwork
Accessibility	High in urban areas; targets unbanked/underbanked; mobile phone penetration enables access	High in rural areas; deeply embedded in local communities; accessible due to simplicity and flexibility
Trust Mechanisms	Relies on credit scores, data analytics, legal frameworks; often undermined by lack of transparency, predatory practices, and data misuse (debt-shaming)	Built on personal relationships, social capital, community accountability, shared values; high inherent trust within the group
Interest Rates	Often exorbitant (e.g., 36.6% for 12 days, up to 100% annually); lack of upfront transparency	Varying (e.g., 3-10%); terms agreed within the community; often perceived as "better than bank" due to ease
Risk Management	Data-driven credit assessment (often flawed due to data crisis); legal enforcement (often slow/ineffective); aggressive recovery tactics	Social pressure, collective risk-sharing, member sureties, lending limits, high repayment rates
Regulatory Oversight	Regulated by CBN, NITDA, FCCPC; subject to data protection and consumer protection laws (NDPR, CPF)	Largely unregulated by CBN; self-governed by community norms; savers at peril if managers abscond

Source: Self-generated by the Author

The digital credit market is also vulnerable to fraud and identity theft. Instances have been documented whereby compromised identity data are utilized by fraudulent entities to obtain loans from unsuspecting lenders, resulting in unforeseen debts for the victims. In other cases, individuals, often due to illiteracy or ignorance, willingly provide their personal data under false promises such as government grants or palliative sums only for this acquired data to be subsequently used for loan applications from digital lenders.

The detailed accounts of how digital lenders, driven by profit, impose exorbitant interest rates and resort to extreme debt recovery tactics like "algorithmic extortion" highlight the darker side of financialization and algorithmic control. This is not merely an isolated market inefficiency; it represents a systemic problem whereby technology, ostensibly

designed for efficiency, is weaponized for coercion. The "financializing tendencies" of fintech, as framed by the paper's context, are clearly evident here, illustrating how financial capital can exert an "insidious and relatively unremarked-upon assault" upon poorer and disadvantaged groups. The high interest rates and the observed lack of robust due diligence, often a consequence of systemic data issues, generate a high-risk environment for lenders. To mitigate this perceived risk and ensure profit maximization, these lenders resort to aggressive, unethical collection methods. This leads to a vicious cycle: high rates contribute to defaults, which in turn trigger debt-shaming, further eroding trust and perpetuating financial distress and exclusion. The ease of digital access to personal data, combined with a profit-first mentality, directly enables these predatory practices. This serves as a stark manifestation of "community capitalism," whereby social ties such as contact lists are leveraged not for mutual benefit or collective support, but for coercive profit extraction. These practices fundamentally undermine the very goal of financial inclusion, transforming it into a mechanism for "financialised inclusion" on "highly adverse terms." It exposes the profound vulnerability of individuals within distributed economic systems when trust is commodified and exploited for profit, thereby building a strong case for alternative governance structures rooted in genuine community trust.

Data and Infrastructural Deficiencies

Nigeria faces a significant "data crisis" that profoundly impacts its digital credit market. This crisis is characterized by the high cost of data acquisition, storage, and analysis. The Nigerian Credit Bureau, tasked with collecting and managing credit information, struggles with the absence of real-time and reliable data on customers, which severely complicates accurate creditworthiness assessments.

Despite various initiatives, challenges in data management persist. Efforts by the CBN, in collaboration with the Nigeria Inter-Bank Settlement System (NIBSS), through initiatives like the Bank Verification Number (BVN) system, and the National Identity Management Commission (NIMC) working on a comprehensive national identity database, have been slow and fraught with logistical issues. This leaves many Nigerians without a unified identity that could facilitate easier credit assessments. In addition, even when data are available, their reliability is questionable because lenders often lack dependable retrieval systems for prerequisite checks on customer biodata and credit history. This problem is compounded by the observed practice of financial institutions submitting one-time information to credit bureaus without subsequent updates, leading to a critical data and information crisis within the nano loan credit management system.

The impact of the data deficiencies on lending decisions is substantial. The absence of proprietary technology for analyzing metadata, largely due to its prohibitive cost, compels lenders to rely on arbitrary premises for loan decisions. This increases the likelihood of overburdening customers with debt. The broader data ecosystem is undermined by inadequate financial and institutional resources, which weakens the entire data value chain, from production and management to dissemination, archiving, and use. Consequently, Nigeria has "much mileage to cover" in developing truly effective credit-reporting systems and institutions. There is also a perpetual need for financial institutions to educate customers on the critical importance of providing accurate information about themselves.

The consistent highlighting of a "data crisis" as a core impediment to Nigeria's digital credit market reveals a foundational flaw. This issue extends beyond merely missing information; it encompasses the cost, reliability, and dynamic updating of data. While initiatives like BVN and NIMC are in place, their slow progress in yielding comprehensive, real-time, and reliable data directly impacts the accuracy of creditworthiness assessments.

This, in turn, forces lenders to rely on "arbitrary premises" for loan decisions, which contributes to the prevalence of high interest rates as lenders factor in a risk premium for unknown creditworthiness and leads to the misallocation of credit and increased over-indebtedness. The inability to accurately assess risk due to these pervasive data gaps is a direct driver of predatory lending practices, as lenders compensate for uncertainty by charging higher rates and resorting to aggressive collection methods. This also significantly hampers the ability of regulatory bodies to effectively monitor and intervene in the market. Data are an indispensable resource in any digital ecosystem, and their deficiency and poor management mean that Nigeria's formal digital credit market is built on a shaky foundation. This instability undermines trust, perpetuates a cycle of debt, and restricts the market's growth potential to only high-yielding activities. For a "community-as-trust infrastructure" to emerge and thrive, a robust and trustworthy data infrastructure, potentially one that is community-governed or transparently-managed would be essential to complement and reinforce social trust.

Erosion of Trust and Aversion to Formal Credit

A significant challenge within the Nigerian digital credit ecosystem is the pervasive erosion of trust, exacerbated by historical experiences and current market practices. Nigeria has experienced a fair share of ponzi schemes disguised as lending platforms such as Ezubo, which was hailed by media and government officials before being exposed as a massive fraud. These past incidents have made the public deeply wary about new financial offerings contributing to a general lack of trust in relatively new concepts like digital lending.

The historical context is compounded by a deep-seated cultural preference for informal channels. Nigerians exhibit a strong inclination toward savings but a notable aversion to formal credit, consistently favoring borrowing from family and friends over formal financial institutions such as banks. This aversion stems from various factors, including the perception of prohibitively high interest rates, the belief that they do not possess sufficient funds to qualify, the absence of collateral or guarantors, and a general pessimism about the feasibility of obtaining bank loans.

The widespread practice of debt-shaming by digital lenders has severely exacerbated this erosion of public trust. Borrowers subjected to these tactics report profound feelings of humiliation, disgrace, and regret, which significantly impact their relationships and daily living. The severity of these experiences has led to a counter-movement, with Nigerians actively using social media platforms such as Facebook to share tactics to avoid debt-shaming and, in some instances, even to devise methods to defraud lenders in retaliation.

The aversion to formal credit is not merely a cultural preference; it is a rational response shaped by a history of negative experiences. Historical ponzi schemes established a baseline of public skepticism. Modern digital lending practices, characterized by exorbitant interest rates and aggressive debt-shaming, actively reinforce and deepen this existing distrust. The emergence of online communities where "victims" share avoidance tactics or even strategies to defraud lenders is a direct consequence of this profound breakdown of trust in the formal digital credit sector. The failures of "community capitalism" in the digital sphere—driven by profit-seeking exploitation and the misuse of personal data—directly feed into and exacerbate pre-existing public distrust. This leads to a detrimental feedback loop: a lack of trust leads to avoidance of formal channels, which perpetuates reliance on unregulated informal systems. When formal digital lenders fail to build trust, they often resort to more coercive measures, which further deepens public distrust. This vicious cycle significantly hinders genuine financial inclusion and undermines the stability of the broader financial system. Trust is a critical, yet fragile, resource within any financial ecosystem. Its erosion,

driven by predatory practices, poses a significant barrier to the sustainable growth of digital credit and the achievement of financial inclusion goals. This underscores the urgent need for a paradigmatic shift from a system that exploits trust, as is often the case under "community capitalism," to one that actively nurtures it as a foundational infrastructure, as envisioned by "community-as-trust infrastructure."

Rule Configurations within Nigeria's Digital Credit Market: An IAD Framework Approach

Nigeria's digital credit market stands as a dynamic ecosystem, characterized by rapid technological innovation and the proliferation of digital financial services (DFS), which presents both immense opportunities and complex challenges. While fintech companies and traditional banks increasingly leverage digital platforms to extend credit, the market's efficacy and equitable reach are profoundly shaped by an intricate web of formal regulations and deeply ingrained informal practices. Thus, the analysis in this section employs the Institutional Analysis and Development (IAD) Framework as a robust analytical lens to systematically dissect these "rule configurations." The primary purpose is to examine how these rules influence the actions and interactions of various participants—digital lenders, traditional banks, microfinance institutions, informal community groups, and borrowers—and the resulting outcomes, particularly concerning trust and financial inclusion. By applying the IAD framework, this section aims to uncover the underlying institutional logic that either fosters or impedes the development of a resilient "community-as-trust infrastructure" within Nigeria's digital credit ecosystem.

The IAD Framework: Understanding Rule Configurations

The IAD framework provides a structured approach to analyzing how rules affect human behavior in various action situations. It posits that a set of "working rules"—those rules actually used by participants to order their relationships—constitutes a minimal yet necessary set for explaining actions and results. Nevertheless, working rules alone are insufficient; the action situation is also influenced by a diversity of biophysical variables as well as by the structure of a community in which it operates.

The IAD framework identifies seven types of working rules that cumulatively affect the elements of an action situation (Ostrom, 2005; Ostrom, 2011; Schlager and Villamayor-Tomas, 2023): they are as follows: (1) Boundary Rules**:** these rules affect the number of participants, their attributes and resources, whether they can enter freely, and the conditions they face for leaving; (2) Position Rules**:** these rules establish the various roles or positions participants can hold within a given situation; (3) Scope Rules**:** these rules delimit the potential outcomes that can be affected and, working backward, the actions linked to specific outcomes; (4) Choice Rules**:** these rules assign sets of actions that actors in particular positions at specific nodes may, must, or must not take; (5) Aggregation Rules**:** these rules affect the level of control that a participant in a position exercises in the selection of an action at a node; (6) Information Rules**:** these rules affect the knowledge-contingent information sets available to participants; and (7) Payoff Rules**:** these rules affect the benefits and costs that will be assigned to particular combinations of actions and outcomes, and they establish the incentives and deterrents for action.

These working rules form a "configuration," implying that the effect of a change in one rule may depend upon the other rules-in-use. Beyond operational rules, the IAD framework also emphasizes multiple levels of analysis, whereby rules are nested within another set of rules that define how the first set of rules can be changed (Schlager and

Villamayor-Tomas, 2023). Thus, (8) Operational Rules**:** these rules directly affect the day-to-day decisions made by the participants in any setting; (9) Collective-Choice Rules**:** these rules affect operational activities and results through their effects in determining who is eligible and the specific rules to be used in changing operational rules; and, policymaking regarding operational-level choices is usually carried out in one or more collective-choice arenas; and (10) Constitutional-Choice Rules**:** these rules affect collective-choice rules and operational activities by determining who is eligible and the rules to be used in crafting the set of collective-choice rules.

A "metaconstitutional" level underlies all others, although less frequently analyzed. The nesting above implies that changes at higher levels are usually more difficult and costly to accomplish, thus contributing to increased stability in the mutual expectations of individuals interacting according to a set of rules. The IAD framework thus provides a general language for understanding how rules, physical and material conditions, and attributes of community affect the structure of action arenas, the incentives that individuals face, and the resulting outcomes as summarized in Table 3.

Table 3: IAD Framework: Seven Types of Working Rules and Their Impact

Rule Type	**Definition (from IAD)**	**Impact on Action Situation Elements**
Boundary Rules	Affect the number of participants, their attributes and resources, whether they can enter freely, and the conditions they face for leaving.	Determines who is included or excluded from the action situation, shaping the pool of potential actors and their initial endowments.
Position Rules	Establish positions in the situation.	Defines the roles, responsibilities, and authority of participants within the action situation.
Scope Rules	Delimit the potential outcomes that can be affected and, working backward, the actions linked to specific outcomes.	Specifies the range of issues or goods that can be addressed, and the set of actions available to achieve particular results.
Choice Rules	Assign sets of actions that actors in particular positions at particular nodes may, must, or must not take.	Directly dictates the permissible, obligatory, or prohibited behaviors of participants in their assigned positions.
Aggregation Rules	Affect the level of control that a participant in a position exercises in the selection of an action at a node.	Determines how individual choices are combined to produce collective decisions or outcomes, influencing the power dynamics among participants.
Information Rules	Affect the knowledge-contingent information sets of participants.	Shapes what participants know, when they know it, and the reliability of that knowledge, influencing their decision-making capacity.
Payoff Rules	Affect the benefits and costs that will be assigned to particular combinations of actions and outcomes, and they establish the incentives and deterrents for action.	Directly impacts the motivations of participants by defining the rewards and penalties associated with different actions and results.

Source: Self-generated by the Author

Operational Rules in Nigeria's Digital Credit Market: Formal and Informal Dimensions

Operational rules directly govern the day-to-day decisions and interactions of participants within the Nigerian digital credit ecosystem. An analysis of these rules reveals a stark contrast between the formal digital lending sector, driven by technological innovation and regulatory frameworks, and the enduring informal financial systems, which operate on community-based trust.

Boundary Rules

In the formal digital credit market, boundary rules significantly dictate who can participate and under what conditions. For fintech companies, entry is governed by licensing requirements from the CBN, necessitating incorporation and adherence to specific capital requirements, particularly for Microfinance Banks (MFBs) categorized into tiers. Traditional banks, which also offer digital loans, operate under stringent licensing and capital provisions. For borrowers, access to formal digital credit often hinges upon possessing required documentation for bank accounts, a barrier that excludes over 70% of the unbanked population. Furthermore, stringent Know-Your-Customer (KYC) regulations, while intended for risk mitigation, inadvertently lead banks to cut off entire consumer groups, particularly in rural areas, in a bid to de-risk.

Conversely, informal financial systems such as *esusu* and local savings clubs operate with significantly more flexible boundary rules. Membership and participation are often based on social connections, whereby non-members can gain access to loans simply by being introduced by an existing member who guarantees repayment. This reliance on social capital and community endorsement rather than formal documentation or collateral generates a more inclusive entry point, particularly for those excluded by the formal sector. The contrast in boundary rules highlights a fundamental tension: formal rules prioritize regulatory compliance and risk aversion, often at the expense of broad inclusion, while informal rules prioritize social cohesion and trust for accessibility.

Position Rules

Position rules establish the roles and responsibilities of actors within the digital credit landscape. In the formal sector, digital lenders like Renmoney, Paylater, Menacred, Quickcheck, and even traditional banks such as GT Bank, UBA, and Access Bank, hold the position of credit providers. Borrowers occupy the position of credit recipients. Regulators, primarily the CBN and the National Information Technology Development Agency (NITDA), hold oversight positions, setting guidelines and enforcing compliance. Credit bureaus (e.g., First Central, CR Services, CRC) serve as information intermediaries, collecting and managing credit data.

Within informal systems, positions are often more fluid and reciprocal. In *esusu* schemes, participants frequently rotate between the positions of saver and borrower, contributing to a communal fund and taking turns to receive a lump sum. Leaders or secretaries of these clubs typically manage the funds and records, while existing members often act as guarantors for new or non-member borrowers, assuming a direct role in ensuring repayment. This distributed responsibility and reciprocal nature of positions in informal systems foster a collective ownership over financial outcomes, which is a hallmark of community-based trust infrastructure. The formal system's rigid, specialized positions can lead to an "us vs. them" dynamic between lenders and borrowers, while informal systems

inherently build solidarity.

Scope Rules

Scope rules define the range of potential outcomes and the types of services available within the digital credit market. Formal digital lenders offer a wide array of services, including nano loans and P2P lending, often for specific purposes such as paying school fees, starting small businesses, covering rent, or medical expenses. Beyond direct lending, fintechs also provide investment advisory services (e.g., PiggyVest), mobile payment applications (e.g., PayWithCapture), and group savings tools. The potential outcomes are broad, aiming to address diverse financial needs through digitally accessible platforms.

Informal systems, while perhaps narrower in their explicit offerings, effectively delimit their scope to core financial needs pertinent to their community. Local savings clubs primarily provide savings facilities, loan access, and opportunities for building credit history. Their outcomes are focused on meeting urgent financial needs without the extensive formalities demanded by banks. This focused scope, tailored to immediate community requirements, contributes to their perceived convenience and flexibility. The formal sector's expansive scope, while innovative, sometimes pushes products that, due to high costs or complex terms, may not always align with the genuine financial wellbeing of vulnerable populations.

Choice Rules

Choice rules dictate the actions participants may, must, or must not take. In the formal digital credit market, borrowers may apply for loans digitally, often without the onerous documentation or collateral required by conventional banks. Lenders may utilize advanced technologies such as AI and Machine Learning (ML) algorithms to analyze smartphone data (call logs, SMS history) for credit scoring and loan eligibility determination, bypassing traditional paperwork. Nevertheless, lenders must not engage in privacy-invading practices or unauthorized data sharing, as stipulated by the Nigeria Data Protection Act (NDPA 2023). Policies of popular platforms such as Google Play Store also dictate that loan applications must not promote personal loans requiring full repayment within 60 days or less. Despite these clear prohibitions, there is a significant disjuncture between prescribed choice rules and actual practice. Many digital lenders are observed to violate privacy rules by sending defamatory messages to borrowers' contacts upon default, a practice NITDA has sanctioned previously. The Google Play Store rule against short-term loans is also frequently unenforced, leading to concerns among loan applicants. This indicates that while formal choice rules exist to protect consumers, their effectiveness is undermined by enforcement gaps. In informal systems, choice rules are simpler and more directly enforced by social norms. Members may apply for loans during periodic meetings, and non-members must be introduced by an existing member to secure repayment. The clarity and direct social accountability embedded in these rules contribute to their high adherence rates.

Aggregation Rules

Aggregation rules determine how individual actions or data points are combined to produce collective outcomes or decisions. In the formal digital credit sector, automated credit scoring algorithms powered by AI and ML serve as primary aggregation mechanisms, processing vast amounts of data to determine loan eligibility and terms. Centralized credit bureaus aggregate credit information from various providers to generate credit reports and scores.

These systems aim for efficiency and objectivity in decision-making.

Nonetheless, the effectiveness of the formal aggregation rules is severely hampered by underlying data challenges. The absence of real-time, reliable customer data, coupled with the high cost of data acquisition and analysis, means that lenders often rely on arbitrary premises for loan decisions. Also, financial institutions frequently fail to update credit portfolios with credit bureaus, generating a critical information crisis that undermines the integrity of aggregated credit data. In contrast, informal financial systems rely on direct, community-based aggregation. Loan approvals within *esusu* clubs often involve collective decision-making or consensus among members during meetings. The shared responsibility for repayment, whereby members' contributions are pooled and then loaned out, represents a form of collective risk management and aggregation of resources. This informal aggregation, while not scalable in the same way as algorithmic models, benefits from inherent trust and localized knowledge, often leading to better risk assessment within its confined social sphere.

Information Rules

Information rules govern the access, quality, and dissemination of knowledge within the digital credit market. In the formal sector, significant efforts have been made to establish a robust information infrastructure. The Bank Verification Number (BVN) system and the ongoing development of a comprehensive National Identity database by NIMC are crucial for identity verification and data collection. Credit bureaus are mandated to collect and manage credit information, with the Credit Reporting Act of 2017 (see https://placng.org/i/wp-content/uploads/2019/12/Credit-Reporting-Act-2017.pdf) providing a framework for information exchange. Fintechs utilize various data points, including smartphone data, for credit assessments. The Nigeria Data Protection Act (NDPA) mandates consent for data processing, transparency regarding purpose, and security measures.

Despite these formal information rules, the market faces a profound "data crisis." The high cost of data acquisition, storage, and analysis remains a significant hurdle, especially for smaller fintechs. More critically, there is a pervasive absence of real-time and reliable data on customers, leading to arbitrary loan decisions and misallocation of credit. Lenders often fail to consistently update credit portfolios with credit bureaus, generating a sensitive information gap. This unreliable data ecosystem exacerbates information asymmetry between lenders and borrowers. In addition, a severe breach of information rules occurs when lenders misuse personal data, obtained ostensibly for "legibility purposes," for "algorithmic extortion" through debt-shaming. This lack of transparency regarding loan terms, often revealed only after a loan is taken, further compounds the information asymmetry.

In informal systems, information rules are implicitly governed by social networks and direct personal knowledge. Creditworthiness is ascertained through reputation, existing relationships, and the direct introduction by trusted community members. While documentation is minimal, the close-knit nature of these groups ensures a high degree of informal information exchange and verification. This reliance on social information, although not scalable, is highly effective within its community context, demonstrating how dense social ties can serve as a powerful, albeit localized, information infrastructure. The stark contrast underscores that while formal systems seek to mechanize information flow, their failure to ensure data quality and ethical use can be more detrimental than the simpler, trust-based information rules of informal systems.

Payoff Rules

Payoff rules define the incentives and deterrents that shape participant behavior. In the formal

digital credit market, the primary incentive for lenders is profit, often derived from exorbitant interest rates. Loans can carry rates as high as 36.6% for a 12-day tenor, or even 78.9% and up to 100% annually. These rates are frequently not stated upfront, leading to a deceptive incentive structure for borrowers. For borrowers, the incentive is instant access to credit without traditional collateral. But, the deterrents for default are severe and often unethical. Beyond financial penalties, digital lenders employ "character assassination" or "defamation" by sending privacy-invading messages to borrowers' contacts, causing humiliation, disgrace, and reputational damage. This "algorithmic extortion" serves as a powerful, albeit illegal, deterrent. Regulators like NITDA impose monetary sanctions (e.g., N10,000,000 fine on Soko Loans) and operational oversight as deterrents for non-compliant lenders.

In informal financial systems, payoff rules are structured differently. Interest rates, while present (e.g., 3-10% depending on the club), are generally more manageable. The primary deterrent for default is not legal enforcement but social sanction and reputational damage within the community. The consciousness that individuals, not banks, will suffer for defaults in P2P-like informal settings also encourages repayment. The incentive for participation includes the ease of loan access without collateral or guarantors for members and the opportunity to earn interest on savings. These social payoff rules rooted in collective responsibility and reputation foster high repayment rates and a strong sense of accountability, demonstrating a more balanced and community-aligned incentive structure than the profit-driven, often exploitative, payoff rules of some formal digital lenders.

Collective-choice and Constitutional-Choice Rules: The Regulatory and Legal Foundations

Beyond the day-to-day operational rules, the Nigerian digital credit market is shaped by higher-level rules that govern how operational rules are made and changed. These collective-choice and constitutional-choice rules establish the overarching regulatory and legal environment.

Collective-choice Rules

Collective-choice rules are established by regulatory bodies and affect operational activities by determining eligibility and the specific rules used to change operational rules. The CBN serves as the primary regulator, licensing fintechs and other financial institutions. The CBN has actively sought to deepen financial inclusion through Digital Financial Services (DFS) and microfinance, encouraging investments in tailored products and promoting digital literacy. Initiatives such as Tradermoni, Agri-Business Small Medium Enterprises Investment Scheme (AGSMEIS) and the NIRSAL microfinance bank were established to provide credit facilities and financial access.

To build a modern credit infrastructure, the CBN established the National Collateral Registry in 2016 and oversaw the enactment of the Secured Transaction in Movable Asset Act and the Credit Reporting Act in 2017. These reforms aimed to facilitate the use of movable assets as collateral and improve credit information exchange through licensed credit bureaus. For consumer protection, the CBN's Consumer Protection Framework—CPF (2016) and Consumer Protection Regulations (2019) set minimum standards for customer service, data privacy, transparency, and complaint handling for all CBN-licensed entities. The CBN also collaborates with the Nigeria Inter-Bank Settlement System (NIBSS) on initiatives like the Bank Verification Number (BVN) system to address data challenges.

The National Information Technology Development Agency (NITDA), as the apex IT regulator, issued the Nigeria Data Protection Regulation (NDPR) in 2019, providing a

comprehensive framework for personal data protection. NITDA has demonstrated its enforcement power by sanctioning platforms like Soko Lending Company Limited for privacy invasion and unauthorized data sharing, imposing significant fines and operational oversight. The Federal Competition and Consumer Protection Commission (FCCPC) established by the FCCPA (2018) further promotes consumer welfare and has approved the operations of over 70 digital lenders. Even external entities like Google Play Store have introduced collective-choice rules, blocking loan applications that require repayment within 60 days or less in Nigeria.

Despite this robust framework of collective-choice rules, a significant challenge lies in their effective enforcement. The persistence of predatory lending practices, high interest rates, and widespread debt-shaming, even after regulatory interventions and Google's policy changes, indicates a substantial gap between rule promulgation and actual compliance. This suggests that while the intent to regulate and protect is present, the mechanisms for monitoring, applying, and enforcing these rules at the operational level are often insufficient or circumvented. This weakens the ability of these collective-choice rules to foster trust and stability in the market.

Constitutional-Choice Rules

Constitutional-choice rules represent the deepest level of institutional analysis (Ostrom, 2019), defining the fundamental principles and processes for crafting collective-choice rules and, by extension, operational rules. Nigeria's legal landscape provides several foundational constitutional-choice rules that underpin the digital credit market. The Constitution of the Federal Republic of Nigeria of 1999 (as amended) guarantees and protects the privacy of citizens, their homes, correspondence, telephone conversations, and telegraphic communications. This constitutional right forms the bedrock for data protection regulations.

The Nigeria Data Protection Regulation (NDPR) of 2019 issued by NITDA,serves as a comprehensive framework for personal data protection, establishing lawful conditions for data processing and mandating security measures. Complementing this, the Credit Reporting Act (2017) provides data subjects with the right to privacy, confidentiality, and protection of their credit information. The National Identity Management Commission (NIMC) Act of 2007 restricts access to data within its database of registered individuals, reinforcing data security principles. In addition, the Cybercrimes (Prohibition, Prevention, Etc.) Act of 2015 stipulates requirements for financial institutions to retain and protect data and criminalizes the interception of electronic communications. Recent amendments under the Banks and Other Financial Institutions Act (BOFIA, 2020) provide for the establishment of a special credit tribunal for the enforcement and recovery of eligible loans, indicating a foundational commitment to legal redress.

The constitutional-choice rules as summarized in Table 4 establish a strong normative and legal foundation for a fair and secure digital credit environment. The existence of such fundamental protections suggests a clear intent to safeguard individual rights and promote market integrity. Nevertheless, the observed widespread violations of privacy and consumer rights by some digital lenders despite these foundational laws points to a critical disconnection. The difficulty and cost associated with changing deeper-level rules, as posited by the IAD framework, mean that these constitutional principles are relatively stable. Yet, their impact on operational outcomes depends heavily on the effectiveness of the collective-choice rules and their enforcement. The current situation suggests that the translation of these high-level principles into enforceable operational realities remains a significant challenge, undermining the very trust that these foundational rules are designed to build.

Table 4: Key Regulatory Rules and Their Impact on Digital Credit in Nigeria

Regulatory Area	Key Laws/Regulations (Collective-Choice Rules)	Impact on Digital Credit Market
Data Protection	Nigeria Data Protection Regulation (NDPR) 2019, CBN Consumer Protection Framework (2016), Cybercrimes (Prohibition, Prevention Etc) Act 2015, Credit Reporting Act (2017), NIMC Act (2007), NCC Consumer Code of Practice Regulations (2007)	Establishes legal basis for data processing, mandates consent, security measures, and restricts unauthorized disclosure. Aims to protect personal and credit information, crucial for building trust in digital transactions.
Consumer Protection	Federal Competition and Consumer Protection Act (2018), CBN Consumer Protection Framework (2016), CBN Consumer Protection Regulations (2019), NCC General Consumer Code of Practice (2007)	Sets standards for fair customer treatment, transparency, disclosure of terms, responsible business conduct, and complaint handling. Designed to prevent misleading practices and safeguard consumer rights against exploitation.
Credit Infrastructure	National Collateral Registry (2016), Secured Transaction in Movable Asset Act (2017), Credit Reporting Act (2017), CBN Guidelines for Credit Bureaus (2008, 2013), BOFIA (2020)	Lays foundation for modern credit risk management, facilitates use of movable assets as collateral, enables information exchange between credit bureaus and lenders, and provides for loan recovery mechanisms. Aims to improve access to and stability of credit.
Licensing & Operations	Banks and Other Financial Institutions Act (BOFIA, as amended), Revised Regulatory and Supervisory Guidelines for Microfinance Banks (2012, 2019 circular), State Money Lending Laws	Governs incorporation and licensing of financial institutions (banks, MFBs, fintechs), sets capital requirements, defines permitted/prohibited activities, and outlines operational compliance requirements. Ensures regulated entry and operation in the financial sector.

Source: Self-generated by the Author

Challenges and Dysfunctions Arising from Rule Configurations

The analysis of rule configurations within Nigeria's digital credit market reveals several significant challenges and dysfunctions, often stemming from the misalignment or inadequate enforcement of existing rules. These issues undermine market stability, erode public trust, and impede genuine financial inclusion.

One prominent dysfunction is the prevalence of *exorbitant interest rates and a lack of transparency* in loan pricing. As indicated earlier, digital loans in Nigeria often carry rates as high as 36.6% for a 12-day tenor, with some reaching 78.9% or even 100% annually. These rates are frequently not disclosed upfront, with details emerging only after a loan is taken. This practice highlights a failure of payoff rules to incentivize fair pricing and a breakdown in information rules regarding transparency. The arbitrary nature of loan pricing, which often deviates from standard benchmarking procedures, leads to significant negative impacts on

both lenders (due to borrower inability to repay) and borrowers (trapped in debt cycles). The high cost of credit directly contributes to financial exclusion, as investments with returns below these rates cannot be sustainably financed. This suggests that the current configuration of payoff rules, driven by profit motives without sufficient regulatory constraint, actively restricts the market's growth potential by narrowing the client base to only those engaged in extremely high-yielding activities.

The market is also plagued by a severe *data quality and availability crisis*. Despite the efforts of the Nigerian Credit Bureau to collect and manage credit information,and initiatives like the BVN system by the CBN and NIBSS, there is a persistent absence of real-time and reliable customer data. This directly impacts the effectiveness of information and aggregation rules, as lenders lack dependable systems to perform prerequisite checks on creditworthiness. The slow progress of the National Identity Management Commission (NIMC) in generating a comprehensive national identity database further exacerbates this challenge, leaving many Nigerians without a unified identity for easier credit assessments. A critical issue is the observed practice where financial institutions submit one-time information to credit bureaus without consistent updates, leading to a sensitive information gap. This undermines the very purpose of credit reporting and in turn leads to arbitrary loan decisions, increasing the risk of over-indebtedness for borrowers. The high cost of developing proprietary technology for metadata analysis also hinders the ability to maintain up-to-date customer credit profiles. This pervasive data problem indicates a fundamental weakness in the information infrastructure, preventing the effective operation of technologically advanced credit scoring models.

Compounding the aforementioned issues are instances of **fraud and identity theft**. Compromised identity data is utilized by fraudulent entities to obtain loans from unsuspecting lenders, causing unforeseen debts for victims. In other cases, individuals, often due to illiteracy or ignorance, willingly provide their personal data under false pretenses (e.g., promises of government grants), only for this data to be misused for loan applications. These occurrences reflect a failure of boundary and information rules to adequately protect participants and ensure the integrity of identity verification processes.

Perhaps the most egregious dysfunction is the widespread practice of *debt-shaming*, often referred to as "algorithmic extortion." Many online lending platforms resort to privacy invasion tactics to coerce loan repayments. This involves misusing access to borrowers' phone contacts (obtained under the guise of "legibility purposes") to send privacy-invading and defamatory messages to individuals who are not even parties to the loan transaction. The National Information Technology Development Agency (NITDA) has sanctioned companies for such violations, imposing fines and operational oversight. Nevertheless, the persistence of these practices, as widely reported on social media, indicates a significant failure of choice rules (what lenders must not do) and payoff rules (the unethical deterrents employed). Victims report profound feelings of humiliation, disgrace, and regret, with severe impacts on their relationships and daily lives, including professional consequences. This systematic breach of privacy and defamation, despite clear regulatory prohibitions and constitutional guarantees, severely erodes public trust in digital credit providers and the broader financial system.

Finally, these cumulative dysfunctions contribute to a *general aversion to formal credit* among Nigerians. Studies consistently show that Nigerians are savings-savvy but credit-averse, preferring to borrow from family and friends over formal financial institutions. Reasons cited, as mentioned earlier, include high interest rates, lack of collateral or guarantors, and a general pessimism about obtaining bank loans. The public's weariness from past ponzi schemes disguised as lending platforms (e.g., Ezubo) further fuels this distrust. This aversion, rooted in negative experiences shaped by dysfunctional payoff and information rules, limits the reach of formal financial inclusion initiatives and pushes individuals toward

potentially unsafe informal channels like loan sharks.

The pervasive nature of these challenges suggests that while collective-choice rules are in place, their enforcement is often weak, allowing dysfunctional operational rules to persist. This generates a feedback loop where negative experiences erode trust, reinforce a preference for informal systems, and hinder the development of a robust, trust-based digital credit infrastructure.

Informal Financial Systems: Rule Configurations for Community-based Trust

As noted earlier, in stark contrast to the formal digital credit market, Nigeria's informal financial systems such as *esusu* and local savings clubs operate under distinct rule configurations that inherently foster community-based trust. These systems have historically served as a vital source of capital, loans, and savings, particularly in rural areas where formal banking is sparse.

A key characteristic of these informal systems is their convenience and flexibility. They are perceived as simpler, easier to engage with, and better able to meet specific needs compared to formal institutions. This is largely due to their less formal boundary rules and choice rules. For instance, members can apply for loans during periodic meetings with "fewer formalities" and often without the need to furnish collateral. Non-members can access funds if introduced by an existing member, who then assumes the role of guarantor. This reliance on social collateral rather than physical assets significantly lowers barriers to entry.

The *trust-building mechanisms* within informal systems are deeply embedded in community ties and personal relationships. The high rate of loan repayment and low default observed in these systems (accounting for 85% of rural savings systems) is a testament to the effectiveness of these trust mechanisms. Payoff rules in these contexts include social sanctions and reputational costs for default, which are powerful deterrents within a close-knit community. The knowledge that individuals, rather than impersonal banks, will suffer from defaults in these P2P-like arrangements further encourages repayment. While interest rates may apply (e.g., 3-10%), the overall structure prioritizes collective responsibility and mutual support. Information rules are primarily informal, relying on shared knowledge, reputation, and direct interaction rather than centralized databases or complex algorithms. This localized, relationship-based information exchange is highly effective for assessing creditworthiness within the community.

Despite their strengths in fostering trust and accessibility, informal systems face limitations. They are *not recognized by the Central Bank*, leaving savers vulnerable to the risk of managers absconding with funds or failing to collect from defaulting members. Also, the funds available are often limited to the capacity of these small social circles. Nonetheless, the enduring success and high repayment rates of *esusu* and similar schemes underscore the immense potential of leveraging existing social capital and community structures as a foundation for financial services, particularly where formal institutions struggle to build trust or gather reliable data. Table 5 provides a comparative assessment of formal digital lender rules versus informal community-based rules.

Implications for "Community-as-Trust Infrastructure"

The analysis of rule configurations within Nigeria's digital credit market provides critical insights into the dynamics of trust formation and erosion, particularly relevant to the concept of "community-as-trust infrastructure." The current configuration of formal rules, despite regulatory intent, inadvertently generates a *trust deficit*. The operational rules governing

information, choice, and payoff such as the pervasive data quality issues, the unenforced prohibitions on privacy invasion, and the exorbitant interest rates generate perverse incentives. These incentives drive predatory lending practices and debt-shaming, which actively undermine borrower confidence and lead to feelings of humiliation and regret. This systemic erosion of trust by formal digital lenders, despite the existence of constitutional and collective-choice rules designed to protect consumers, significantly hinders the development of a robust digital "trust infrastructure." The public's weariness from past ponzi schemes further compounds this problem, making borrowers wary of new financial offerings.

Table 5: Comparison of Formal Digital Lender Rules vs. Informal Community-Based Rules

Rule Type	**Formal Digital Lenders**	**Informal Community-Based Systems (*e.g., Esusu*)**
Boundary Rules	Strict licensing (CBN, state laws), capital requirements, KYC regulations. Excludes unbanked due to documentation/perception of risk.	Flexible, based on social connections and introduction by existing members. Highly inclusive, relying on social collateral.
Position Rules	Specialized roles: Lender (bank/fintech), Borrower, Regulator, Credit Bureau. Hierarchical structure.	Fluid roles: Members as savers & borrowers, rotating. Managers/secretaries. Existing members as direct guarantors. Reciprocal.
Scope Rules	Wide range of digital loans (nano, P2P), payments, investments. Aims for broad financial needs.	Focused on core needs: Savings, loans for urgent needs, credit history building. Pragmatic and community-aligned.
Choice Rules	Digital application, AI/ML for credit scoring. Prohibitions on privacy invasion, short-term loans (often unenforced).	Simple application during meetings. Reliance on social guarantee for non-members. Directly enforced by social norms.
Aggregation Rules	Centralized algorithmic credit scoring, credit bureaus. Hampered by data quality/cost.	Decentralized, collective decision-making. Shared responsibility for funds and repayment. Leverages collective wisdom.
Information Rules	BVN, National ID, credit bureaus, smartphone data. Faces "data crisis" (cost, reliability, updates). Misuse for debt-shaming.	Relies on personal knowledge, reputation, direct interaction within social networks. Minimal documentation. Effective locally.
Payoff Rules	Exorbitant interest rates (up to 100% annually), fees. Coercive debt-shaming (defamation). Regulatory fines as deterrents.	Manageable interest rates (3-10%). Primary deterrent is social sanction, reputational damage. Incentives: ease of access, interest on savings.
Trust Mechanisms	Primarily legal/contractual, but undermined by enforcement gaps and unethical practices, leading to low public trust.	Primarily social, built on community ties, shared values, and direct accountability. Leads to high repayment rates and strong internal trust.

Source: Self-generated by the Author

Conversely, the enduring success of informal financial systems highlights a *trust*

surplus rooted in community structures. The rule configurations within *esusu* and similar groups demonstrate how social capital can serve as a powerful foundation for financial intermediation. Their boundary rules, which prioritize social introduction over formal documentation, and their payoff rules, which leverage social sanctions and reputational costs, generate a system where trust is inherent and accountability is direct. This exemplifies a "community-as-trust infrastructure" in action, whereby shared social values and collective risk management mechanisms foster high repayment rates and a sense of mutual obligation.

The critical observation is that the effectiveness of rules in fostering trust is not solely dependent on their formal articulation but profoundly on their configuration and enforcement. When rules are misaligned—for instance, when the promise of easy access (choice rules) is coupled with undisclosed high costs (payoff rules) and aggressive, privacy-violating collection methods (choice rules)—they lead to an environment ripe for exploitation, thereby damaging trust. The inability of collective-choice rules to consistently constrain these dysfunctional operational behaviors further exacerbates the problem.

Therefore, opportunities exist to *leverage the strengths of informal trust mechanisms* within the design and regulation of formal digital credit. This could involve adapting boundary rules to accept alternative forms of KYC based on community verification, developing information rules that integrate community-verified data points (e.g., social collateral or reputation scores from trusted community leaders), and re-evaluating payoff rules to align incentives with borrower well-being and responsible lending. A truly effective "community-as-trust infrastructure" in the digital credit space would require a deliberate re-configuration of rules to foster transparency, accountability, and ethical conduct, drawing lessons from the inherent trust-building mechanisms of Nigeria's informal financial systems. This would move beyond merely digitizing existing financial services to fundamentally rethinking how trust is built and maintained in distributed economic systems.

Conclusions and Recommendations: Toward Community-as-trust Infrastructure: Critique of "Community Capitalism" in Nigeria's Context

The preceding analysis of Nigeria's digital credit market as a resource ecosystem reveals fundamental challenges that necessitate a re-evaluation of current approaches to financial inclusion. The observed limitations and adverse outcomes largely stem from the prevailing logic of "community capitalism," underscoring the imperative for a shift toward a "community-as-trust infrastructure." Also, the analysis of rule configurations within Nigeria's digital credit market through the lens of the IAD Framework reveals a complex landscape where formal regulatory efforts and technological innovation coexist with significant challenges and the enduring presence of robust informal financial systems. While the CBN and other agencies have established a comprehensive set of collective-choice and constitutional-choice rules aimed at fostering financial inclusion, data protection, and consumer rights, their implementation and enforcement at the operational level remain inconsistent. This leads to market dysfunctions characterized by exorbitant interest rates, a pervasive data crisis, instances of fraud, and widespread unethical debt-shaming practices. These issues collectively erode public trust and contribute to a persistent aversion to formal credit, pushing many Nigerians toward less regulated, potentially unsafe, informal channels. Conversely, informal community-based financial systems such as *esusu* demonstrate the power of deeply embedded social rules in building and maintaining trust. Their reliance on social collateral, direct accountability and community-driven information exchange results in high repayment rates and effective financial intermediation, albeit at a localized scale. This highlights that a resilient "community-as-trust infrastructure" can thrive where rules are aligned with social norms and collective welfare.

While digital credit aims to expand financial access and inclusion, its current manifestation in Nigeria often aligns with the principles of "community capitalism." This is evident in models where financial services are extended through social ties (for example, by accessing individuals' phone contacts for debt recovery or through peer-to-peer lending platforms), but the underlying logic remains firmly rooted in market-driven incentives such as profit maximization and commission-based agent networks. The core challenges identified in the market—including exorbitant interest rates, a pervasive lack of transparency, algorithmic extortion (debt-shaming), and the misuse of personal data—are direct consequences of this market-driven approach. Instead of genuinely fostering inclusion, these practices lead to over-indebtedness, profound humiliation, and a significant erosion of trust, effectively incorporating vulnerable populations into financial markets on highly adverse terms. The reliance on social ties for coercive purposes such as contacting family and friends for debt collection represents a perversion of community. It transforms social capital into a tool for profit-driven discipline rather than a foundation for mutual support and collective wellbeing.

The critical observation here is that "community capitalism" utilizes community structures such as social networks and relationships primarily as a conduit for capitalist principles, including profit maximization and risk mitigation through social pressure. It does not inherently value community as an end in itself or as a foundation for cooperative governance. This fundamental difference explains why practices like debt-shaming emerge: if social ties can be monetized for debt recovery, they will be exploited, irrespective of ethical implications or the damage inflicted on a social fabric. This approach fundamentally perverts the very notion of community, reducing it to a mere resource for exploitation. This deepens the critique of "community capitalism," demonstrating how it can actively degrade social capital and trust, leading to significant negative social and economic outcomes. It highlights the urgent need for a model where community is not merely a means to a market end, but a foundational infrastructure for shared values and collective wellbeing.

The Imperative for "Community-as-Trust Infrastructure"

The paper proposes an alternative model whereby community transcends its role as a mere conduit for capitalism, becoming instead a foundational infrastructure for trust and cooperative economic governance. This necessitates a shift in perspective, moving beyond simply utilizing local networks for financial transactions and instead reimagining communities as collective governance structures for economic systems. The enduring success and resilience of informal financial systems such as *esusu* and local savings clubs provide compelling empirical evidence for the viability of community-as-trust infrastructure. These systems thrive on inherent community trust, shared social values, collective risk-sharing, and peer guarantees, leading to consistently high repayment rates and low default rates, all achieved without the need for formal collateral or extensive documentation. Their ability to meet specific financial needs and provide quick loan access stems directly from deeply embedded social norms and the collective management of funds. This alternative approach aligns with commons-based economic principles, where communities actively shape the rules, norms, and trust mechanisms that guide financial interactions.

The paper's core argument for "community-as-trust infrastructure" is strongly supported by the observed market dynamics. The consistent success of *esusu* despite its lack of formal recognition suggests that community-embedded trust is a powerful, yet often underutilized, resource. Conversely, the formal system's repeated failures to build and maintain trust, largely due to high interest rates, aggressive debt-shaming, and persistent data issues, generate a vacuum that informal systems effectively fill. The connection here is clear:

genuine financial inclusion, particularly for the financially excluded segments of the population, necessitates mechanisms that resonate with and build upon their existing trust frameworks. Therefore, integrating the principles of collective governance, shared values, and social accountability from successful informal systems into the design and operation of digital credit is not merely an idealistic aspiration, but a pragmatic necessity for overcoming the inherent limitations and adverse outcomes of "community capitalism." This shift could lead to the development of more sustainable, equitable, and genuinely inclusive digital credit systems, effectively moving beyond the "financialising tendencies" that currently exacerbate inequality and undermine the very promise of financial inclusion.

To foster a more robust and inclusive "community-as-trust infrastructure" within Nigeria's digital credit ecosystem, the following recommendations are put forth: (1) *Strengthen Enforcement of Collective-Choice Rules***:** it is imperative to prioritize the rigorous enforcement of existing regulations, particularly the Nigeria Data Protection Act (NDPA 2023), consumer protection frameworks, and applicable interest rate caps. This requires increased regulatory capacity, proactive monitoring of digital lending platforms, and swift, consistent punitive actions against non-compliant entities to deter predatory practices and rebuild public confidence. The observed non-enforcement of rules, such as Google Play Store's policy on short-term loans, must be addressed through collaborative efforts between regulators and technology platforms. (2) *Invest in Reliable and Accessible Data Infrastructure***:** addressing Nigeria's "data crisis" is paramount. This involves significant investment in developing real-time, reliable credit information systems and accelerating the comprehensive national identity scheme (NIMC). Also, regulatory bodies must mandate and enforce consistent, timely data submission by all financial institutions to credit bureaus, ensuring that credit profiles are accurate and up-to-date. This will enable more responsible lending decisions and reduce reliance on arbitrary assessments. (3) *Incentivize Responsible Lending and Fair Payoff Rules***:** policy interventions should aim to revise payoff rules to disincentivize exorbitant interest rates and predatory debt collection methods. This could involve setting clear, enforceable limits on interest rates and fees, promoting transparent disclosure of all loan terms upfront, and imposing severe penalties for practices like debt-shaming. Exploring innovative incentive structures that reward lenders for promoting borrower financial health and long-term inclusion, rather than short-term profit maximization through high-risk loans, is crucial. (4) *Integrate Community-Based Trust Mechanisms into Formal Design***:** lessons from the informal sector's success in building trust through social capital should be leveraged. This calls for developing hybrid models that integrate elements of informal trust mechanisms into formal digital credit platforms. Examples could include piloting community-based credit scoring models, utilizing alternative data points derived from community interactions (with appropriate privacy safeguards), or fostering partnerships between formal digital lenders and established community associations or traditional leaders to facilitate peer guarantees and local oversight. Such integration could make digital credit more accessible and trustworthy for underserved populations. (5) *Enhance Digital and Financial Literacy***:** comprehensive educational campaigns are needed to empower borrowers with knowledge about loan terms, interest rates, data privacy rights, and the risks associated with digital lending. This will enable them to make informed decisions, identify predatory practices, and protect themselves from fraud and exploitation. And, (6) *Foster Collaborative Regulatory Dialogue***:** continuous and inclusive dialogue among regulators, fintech innovators, traditional financial institutions, consumer advocacy groups, and representatives from informal community structures is essential. This collaborative approach can facilitate the co-generation of rules that are not only technologically advanced but also socially responsible, culturally sensitive, and effectively enforced, thereby building a more resilient and inclusive "community-as-trust infrastructure" in Nigeria's digital credit ecosystem.

In summary, this study demonstrates that access to digital credit in Nigeria is shaped not only by technological capabilities but also by the institutional and social environments in which these platforms operate. Community-based trust infrastructures—comprising local intermediaries, social norms, and sanctioning mechanisms—play a crucial role in mediating risk, building confidence, and facilitating financial inclusion. At the same time, these mechanisms can reproduce patterns of exclusion, reflecting broader inequalities in access to resources and social capital. By applying the IAD), this paper highlights the interplay between formal and informal rules in digital financial ecosystems. The findings suggest that policymakers and platform designers cannot rely solely on technological innovation to achieve inclusive outcomes; attention must be given to the social and institutional context that enables—or constrains—participation. Regulatory and design strategies that acknowledge and engage with community trust infrastructures are likely to produce more equitable, resilient, and effective digital credit systems. Overall, the study contributes to development scholarship by demonstrating how hybrid governance arrangements shape access to digital financial services in low-trust environments. Future research and policy efforts should focus on designing digital finance interventions that balance the efficiency of technology with the legitimacy and reach of local institutional arrangements, thereby advancing inclusive growth, poverty reduction, and financial empowerment across diverse contexts in the Global South.

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