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Scalable Merchant Acquisition Model for Payment Platform Penetration across Nigeria's Informal Commercial Economy

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Abstract

Nigeria's informal commercial economy represents a critical yet underserved segment of the national financial ecosystem, characterized by fragmented merchant profiles, cash-dependent transactions, and limited access to formal financial services. This paper proposes a scalable merchant acquisition model tailored to enhance payment platform penetration within this sector. Grounded in an integrative review of fintech adoption theories and informal market dynamics, the model emphasizes key adoption drivers, trust, accessibility, cost-effectiveness, and ease of use, and incorporates personalized onboarding, incentive mechanisms, and continuous support structures. Scalability is addressed through adaptability to regional and merchant heterogeneity, sustainable operational practices, and robust monitoring frameworks. Implementation considerations focus on overcoming infrastructural and literacy challenges through strategic partnerships with local agents and community influencers, alongside fintech collaborations. The model contributes theoretically by expanding acquisition frameworks to informal economies and practically by offering fintech providers actionable strategies for inclusive growth. Future research directions include empirical validation, integration of emerging technologies, and policy engagement to refine and scale the approach. This foundational framework aims to bridge financial inclusion gaps and catalyze digital payment adoption, fostering economic transformation across Nigeria's informal commercial landscape.

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1. Introduction

1.1 Background

Nigeria's informal commercial economy represents a significant portion of the country's overall economic activity, accounting for more than 65% of employment and a large share of daily transactions (Etim and Daramola, 2020, Igudia, 2014). This sector comprises small-scale merchants, street vendors, artisans, and micro-entrepreneurs who operate largely outside formal regulatory frameworks (Yusuff, 2011). Despite its size, the informal economy faces challenges, including limited access to formal financial services, which constrains business growth and economic inclusion. The informal sector's fragmented nature and lack of formal documentation often hinder participation in the digital economy, which in turn limits opportunities for scale and innovation (Onwe, 2013, Meagher, 2011). Payment platforms have emerged as vital tools for enhancing financial inclusion across emerging

markets. By enabling seamless, cashless transactions, these platforms reduce operational risks associated with cash handling and provide merchants with access to a broader customer base (Arner *et al*., 2020, Jameaba, 2020). Digital payments foster transparency, improve record-keeping, and facilitate access to credit and other financial products. For Nigeria's informal merchants, these benefits can translate into increased sales, better inventory management, and improved business resilience (Arner *et al*., 2018, Barr *et al*., 2020).

Furthermore, payment platforms support national development goals by accelerating the shift toward a cashless economy. The Central Bank of Nigeria and other regulatory bodies have encouraged fintech innovation to integrate informal traders into formal financial systems. Consequently, the widespread adoption of payment platforms can transform informal commercial activities into sustainable enterprises, contributing to economic growth and poverty alleviation (Chuen and Deng, 2017, Pazarbasioglu *et al*., 2020, Omarini, 2018).

1.2 Problem Statement (Weichert, 2017)

Despite the clear benefits of digital payment adoption, merchant acquisition within Nigeria's informal commercial economy remains a significant challenge. Many merchants are either unaware of available platforms or distrust digital solutions due to security concerns and low digital literacy. The informal sector's reliance on cash transactions, deeply rooted social and cultural habits, and inconsistent power and internet infrastructure further hinder adoption. These factors create barriers for payment providers attempting to scale their merchant base effectively (Nohumba *et al*., 2020, Donovan, 2012).

The impact of limited penetration is multifaceted. For merchants, it restricts access to efficient payment mechanisms and broader markets, limiting revenue growth and financial stability. For payment platforms, slow uptake results in underutilized technology investments and inhibits network effects critical for sustainable operations. At a macroeconomic level, slow digital adoption impedes progress toward a cashless economy, limiting the government's ability to formalize economic activity, improve tax collection, and foster inclusive growth (Weichert, 2017).

In addition, many existing acquisition strategies fail to address the heterogeneous nature of the informal economy, where merchants vary widely in size, sector, and digital readiness. Without tailored approaches that consider these variations, efforts to onboard merchants often result in low retention and suboptimal platform usage, undermining the potential for scalability and meaningful impact.

1.3 Research Objectives

This paper aims to develop a scalable merchant acquisition model designed to enhance payment platform penetration across Nigeria's informal commercial economy. The model seeks to address the unique barriers faced by informal merchants while leveraging enablers such as community trust, local partnerships, and user-centric onboarding processes. By focusing on scalability, the model intends to provide a replicable framework that payment providers can adopt and adapt across diverse informal market segments and geographic regions.

The contribution of this research lies in its integrative approach, combining insights from fintech adoption literature, informal sector dynamics, and practical acquisition strategies into a cohesive framework. Unlike existing studies that often focus on formal sectors or narrow contexts, this work explicitly targets the informal economy, acknowledging its complexities and offering actionable recommendations. The model's emphasis on sustainability and adaptability ensures that merchant acquisition is not only rapid but also leads to long-term engagement and growth.

Ultimately, the proposed acquisition model contributes to fintech innovation by bridging the gap between technology providers and underserved merchant populations. It supports national financial inclusion goals and informs policy-making by highlighting effective mechanisms for integrating informal traders into digital financial ecosystems. This foundational framework can guide practitioners and researchers seeking to enhance economic participation through technology-driven interventions.

2. Literature Review

2.1 Payment Platform Adoption in Emerging Markets

Payment platform adoption in emerging markets has been extensively studied due to its critical role in fostering financial inclusion and economic development. Existing models often emphasize factors such as perceived ease of use, trust, network effects, and regulatory environments (Zhu *et al*., 2004, Donovan, 2012). The Technology Acceptance Model (TAM) and Unified Theory of Acceptance and Use of Technology (UTAUT) frameworks have been applied to understand user behavior toward mobile and digital payments. However, adoption is frequently constrained by infrastructural challenges, including limited internet access, unreliable electricity, and low smartphone penetration, which disproportionately affect informal sectors (Liu *et al*., 2021, Au and Kauffman, 2008).

Challenges in adoption also stem from socio-cultural factors, such as distrust of financial institutions, fear of fraud, and resistance to change from cash-based transactions. Additionally, low levels of digital literacy among merchants and consumers hinder effective platform use. Economic factors such as transaction fees and perceived cost-benefit balance also influence adoption rates (Cao and Shi, 2021, Hannig and Jansen, 2010, Beck *et al*., 2009).

Lessons from similar emerging economies, such as Kenya's M-Pesa success and India's Unified Payments Interface, highlight the importance of tailored outreach, agent networks, and government support. These cases demonstrate that while technology is necessary, creating an enabling ecosystem that addresses trust, accessibility, and user education is crucial for broad-based adoption, especially in informal commercial environments (Koenig-Lewis *et al*., 2015, Ang, 2008).

2.2 Characteristics of Nigeria's Informal Commercial Economy

Nigeria's informal commercial economy is characterized by its vastness, diversity, and dynamism. It includes a wide range of merchant types, from street vendors and market traders to small-scale manufacturers and service providers (Osiki, 2018, Akiyode, 2017). These merchants often operate without formal registration, bank accounts, or formal credit histories, which limits their access to conventional financial services. Transaction behaviors tend to be cash-dominant, face-to-face, and based on trust and personal relationships rather than formal contracts (Carayannis and Von Zedtwitz,

2005).

The ecosystem dynamics are shaped by socio-economic factors such as income volatility, seasonal demand fluctuations, and limited business infrastructure. Merchants typically prioritize liquidity and immediate cash flow to sustain daily operations. Additionally, informal networks, including family ties, cooperatives, and local associations, play a central role in facilitating business activities and credit (Shemyakina *et al.*).

Understanding these characteristics is vital for designing payment solutions that align with merchant realities. Platforms must be flexible enough to accommodate irregular transaction volumes and informal record-keeping while fostering trust through local engagement. The heterogeneity within the informal economy necessitates segmentation and customization rather than one-size-fits-all approaches to drive meaningful adoption.

2.3 Merchant Acquisition Strategies

Merchant acquisition strategies in payment platforms traditionally rely on a mix of direct sales, referral incentives, agent-based outreach, and digital marketing campaigns. In formal sectors, these approaches are often supported by structured onboarding, credit assessments, and integrated financial (Kazan *et al*., 2018) products. Digital acquisition increasingly leverages data analytics, personalized offers, and mobile app engagement to convert and retain merchants (Staykova and Damsgaard, 2015, Levitin, 2006).

However, these strategies exhibit gaps when applied to informal sectors. Formal processes can be perceived as complex or intimidating, while referral systems may not fully leverage trusted community networks. Digital marketing effectiveness is limited by low smartphone usage and inconsistent internet access among informal merchants. Furthermore, retention remains a critical challenge, as initial onboarding does not guarantee sustained platform activity due to fluctuating merchant needs and external constraints (Hagiu, 2007, Kazan *et al*., 2018).

Current research advocates for hybrid approaches that combine technology with human-centered engagement, such as community agents who provide education and support (Bankole, 2011). Incentive models that address immediate business pain points, like transaction cost reductions or instant settlement, also show promise (Hänninen *et al*., 2019). Still, there is a lack of comprehensive frameworks tailored specifically to the nuances of informal economies, highlighting the need for models that emphasize adaptability, local partnerships, and continuous feedback mechanisms (Ligon *et al*., 2019, Hedman and Henningsson, 2015).

3. Conceptual Framework for Scalable Merchant Acquisition

3.1 Key Drivers of Merchant Adoption

At the core of merchant adoption lies the element of trust, which significantly influences whether informal merchants embrace payment platforms (Kämäräinen, 2003). Trust encompasses security assurance, reliability of the platform, and confidence in the provider's integrity (Noura *et al*., 2019). Informal merchants, often wary of digital transactions due to concerns about fraud and data privacy, require clear evidence that the platform safeguards their financial interests. Establishing trust can be fostered through transparent communication, endorsements by trusted community figures, and consistent positive user experiences (Khan, 2019, Dinner *et al*., 2014).

Accessibility is another crucial driver, ensuring that the platform is readily available to merchants regardless of their location or technological proficiency (Speta, 2000). Given the infrastructural challenges in many Nigerian informal markets, platforms must operate efficiently on basic devices and low-bandwidth networks. Physical accessibility through local agents or kiosks can also lower barriers for merchants unfamiliar with digital processes (Visser and Lanzendorf, 2004).

Cost-effectiveness directly affects adoption willingness. Merchants in low-margin businesses are sensitive to transaction fees and hidden costs; thus, affordable or tiered pricing models that reflect merchants' capacities encourage uptake (Yadav, 2010). Lastly, ease of use, intuitive interfaces, minimal paperwork, and simplified onboarding reduce resistance and foster frequent use. Together, these drivers form the foundation for designing acquisition strategies that resonate with informal merchants' unique needs (Meehan *et al*., 2011).

3.2 Model Components

The proposed acquisition model comprises three interlinked components designed to facilitate rapid yet sustainable merchant onboarding. The onboarding process focuses on simplicity and personalization, enabling merchants to register and activate accounts with minimal friction. It incorporates face-to-face assistance by community agents who provide hands-on guidance, mitigating literacy and trust barriers (OLAJIDE *et al*., 2021e, OGUNNOWO *et al*., 2020).

Incentive mechanisms are integral to motivating initial and sustained platform engagement. These can include transactional fee discounts, cashback rewards, referral bonuses, or access to business tools like sales analytics and credit facilities. By aligning incentives with merchant priorities, platforms encourage loyalty and higher transaction volumes (AYUMU and OHAKAWA, 2021, Ojika *et al*.).

Support structures ensure ongoing merchant success post-onboarding. Continuous education, responsive customer service, and peer support networks help merchants troubleshoot issues and optimize platform use. This includes regular training sessions and localized problem-solving hubs. Together, these components foster a holistic approach that not only acquires merchants but also supports their retention and growth within the digital payment ecosystem (EYINADE *et al*., 2020, Adeleke, 2021).

3.3 Scalability Considerations

For the acquisition model to scale effectively across Nigeria's diverse informal economy, adaptability is essential. This requires tailoring engagement tactics to accommodate regional cultural nuances, varying merchant sizes, and sector-specific needs (KOMI *et al*., 2021a). For example, rural market traders may require more intensive agent support, while urban small businesses might prefer digital onboarding options. Flexibility in communication channels, combining mobile, in-person, and community outreach, enhances inclusivity (OLAJIDE *et al*., 2021d, Kufile *et al*.).

Sustainability is also a core consideration, ensuring that acquisition efforts do not depend excessively on costly incentives or manual interventions. Leveraging technology for automated onboarding, data-driven targeting, and scalable

training content can reduce operational costs over time. Strategic partnerships with local organizations and fintech stakeholders distribute responsibilities and extend reach without proportionally increasing expenses (Ojika *et al*., 2021, Oluoha *et al*.).

Finally, the model incorporates continuous feedback mechanisms to monitor merchant satisfaction and platform usage, enabling iterative improvements. This dynamic approach ensures that acquisition efforts remain relevant, efficient, and capable of expanding the merchant base sustainably in the evolving informal commercial landscape (Oladuji *et al*., Adeleke *et al*., 2021).

4. Implementation Considerations

4.1 Operational Challenges and Mitigation

Implementing a scalable merchant acquisition model in Nigeria's informal commercial economy faces several operational challenges (ADEWOYIN *et al*., 2021). Infrastructure limitations remain a significant barrier; inconsistent electricity supply and unreliable internet connectivity reduce the effectiveness of digital payment platforms (SHARMA *et al*., 2021, Gbabo *et al*.). Many informal merchants operate in markets with minimal technological support, requiring payment solutions that function offline or in low-bandwidth environments. Addressing these constraints involves designing lightweight, resilient applications and investing in local infrastructure improvements where possible (ADELUSI *et al*., 2020, OSAMIKA *et al*., 2021).

Training and capacity-building are also critical to bridge the digital literacy gap among informal merchants. Many merchants lack prior experience with digital financial tools, making user education essential (Onifade *et al*., Onifade *et al*.). Training programs should be accessible, practical, and culturally sensitive, utilizing local languages and hands-on demonstrations. Deploying community agents who provide in-person support can help overcome literacy barriers and build trust (Idemudia *et al*., OLAJIDE *et al*., 2021c).

Mitigating these challenges requires an integrated approach that combines technology adaptation with human-centered outreach. This dual strategy ensures that merchants not only adopt the platform but also use it confidently and effectively (Omoegun *et al*., ONIFADE *et al*., 2021b). Continuous evaluation of these operational hurdles enables the refinement of implementation tactics, ensuring the acquisition model remains relevant and responsive to ground realities (Oluoha *et al*., 2021, Odedeyi *et al*., 2020).

4.2 Partnership and Stakeholder Engagement

Effective merchant acquisition depends heavily on strategic partnerships and stakeholder engagement. Local agents and community influencers play a pivotal role in bridging the gap between payment platforms and informal merchants (Nwangele *et al*., ADEWOYIN *et al*., 2020a). These trusted intermediaries facilitate onboarding, provide ongoing support, and champion platform benefits within their networks. Their deep understanding of local contexts enhances the relevance and credibility of acquisition efforts (OLAJIDE *et al*., 2020b, OLAJIDE *et al*., 2020c, OLAJIDE *et al*., 2021b).

Fintech partnerships, including collaborations with mobile network operators, financial institutions, and technology providers, expand the platform's reach and resource base. Joint initiatives can leverage existing agent networks, share costs, and co-create tailored solutions for informal market needs. Such alliances also help navigate regulatory landscapes and build institutional trust (OLAJIDE *et al*., 2020a, Oluoha *et al*.).

Engaging government agencies, trade associations, and civil society organizations further strengthens the ecosystem supporting merchant acquisition. These stakeholders contribute policy support, market insights, and advocacy. A coordinated multi-stakeholder approach ensures alignment of interests, maximizes resource utilization, and fosters an enabling environment conducive to scalable and sustainable adoption (Ogunnowo *et al*., 2021, Gbabo *et al*., Onifade *et al*.).

4.3 Monitoring and Feedback Mechanisms

Robust monitoring and feedback mechanisms are essential for tracking the effectiveness of merchant acquisition efforts and guiding continuous improvement. Key performance indicators should include metrics such as the number of merchants onboarded, active usage rates, transaction volumes, and retention rates over time. These data points offer insights into both quantitative growth and qualitative engagement (Komi *et al*., Ogunnowo).

Incorporating real-time feedback loops enables platforms to identify pain points quickly and respond proactively. Regular surveys, focus group discussions, and direct merchant feedback channels help capture user experiences, challenges, and suggestions. This participatory approach fosters a sense of ownership among merchants and strengthens their commitment to the platform (Adewoyin *et al*., 2020b, Onifade *et al*., 2021a, KOMI *et al*., 2021b).

Data analytics tools can aggregate and analyze behavioral patterns, enabling targeted interventions such as personalized training or incentive adjustments. Continuous learning from monitoring results ensures that acquisition strategies remain adaptive, efficient, and aligned with evolving merchant needs. Ultimately, a feedback-driven implementation process underpins the scalability and sustainability of merchant acquisition in the informal economy (OLAJIDE *et al*., 2021a, Nwani *et al*., 2020).

5. Conclusion

The scalable merchant acquisition model proposed in this paper offers a comprehensive approach tailored to the unique realities of Nigeria's informal commercial economy. By integrating core drivers such as trust, accessibility, cost-effectiveness, and ease of use, the model directly addresses the fundamental barriers that have historically limited payment platform adoption among informal merchants. Its design emphasizes simplicity and personalization through community-based onboarding, incentive alignment, and ongoing support, ensuring that merchants are not only acquired rapidly but also retained and empowered to use digital payments effectively.

Furthermore, the model's scalability considerations enable it to adapt to diverse regional, cultural, and business contexts within Nigeria's informal sector. This adaptability ensures that acquisition strategies remain relevant across a heterogeneous merchant base, from rural market traders to urban small enterprises. The inclusion of sustainable operational practices and continuous feedback mechanisms strengthens the model's resilience, positioning it as a

practical framework for fintech providers aiming for broad and lasting penetration in informal markets. Overall, the model's alignment with informal sector needs makes it a viable pathway to bridging financial inclusion gaps and catalyzing digital commerce transformation.

This study advances merchant acquisition theory by foregrounding the informal economy as a distinct and critical context for fintech adoption research. Unlike traditional acquisition frameworks that target formal businesses or general consumer populations, the model integrates socio-economic, infrastructural, and behavioral factors unique to informal merchants. By doing so, it expands theoretical understanding of adoption drivers, acquisition challenges, and scalability requirements in underrepresented market segments.

Practically, the model provides fintech practitioners with a structured yet flexible blueprint to design and implement acquisition strategies that are culturally sensitive and operationally feasible. Its emphasis on partnerships, agent networks, and incentive mechanisms offers actionable insights for building trust and engagement at scale. Policymakers and ecosystem stakeholders can also draw from the model to craft supportive environments and collaborative interventions that accelerate informal sector digitization. Collectively, these contributions enrich both academic discourse and real-world fintech practice, helping to bridge the gap between technology innovation and inclusive economic development.

While the model provides a robust conceptual foundation, empirical validation is essential to assess its effectiveness and identify contextual adaptations. Future research should involve pilot implementations across diverse informal markets to gather quantitative and qualitative data on adoption rates, retention, and business impact. Such studies would refine the model's components, incentive structures, and operational tactics based on real-world feedback. Additionally, exploring the integration of emerging technologies, such as AI-driven personalization, blockchain for enhanced security, and offline transaction capabilities, can enhance the model's functionality and scalability. Investigating the role of policy frameworks and regulatory incentives in supporting merchant acquisition efforts also remains a critical area for future inquiry.

Continued dialogue between researchers, fintech providers, merchants, and policymakers will be vital to evolve the model iteratively. Ultimately, such collaborative efforts can ensure that scalable acquisition strategies effectively contribute to bridging financial inclusion gaps and driving sustainable economic growth within Nigeria's informal commercial economy.

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