





## PAPER

# Mobile Money Enriches the Financial Literacy in Developing Economies: Quantitative Evidence from Small Businesses in Africa Post-COVID-19

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## ABSTRACT

This study examines the potential of mobile money (MM) to enhance the financial literacy (FL) of small and medium enterprises (SMEs) owners in Africa. Following the pandemic, regional policy interventions have promoted MM; however, its maximum potential remains untapped due to systemic impediments. Although modest increases have been observed in the level of financial inclusion and financial capacity building, developing economies like Nigeria remain far from achieving significant progress toward digital financial integration. The Actor-Network Theory (ANT) is adopted as a conceptual lens to address the interaction between users and regulators as “Actors” on one side and MM as an “Actant” on the other side. The paper develops a behavioural model that presents four stages of “actors-actant” interaction, including “problematisation”, “interestment”, “enrolment”, and “mobilisation”. Evidence is drawn from a mixed-methods approach, comprising 250 survey respondents and 10 interviews with regulators. Quantitative data were analysed using SPSS, while interviews were analysed based on thematic coding. Findings indicate a high level of awareness and widespread adoption of MM among the population. However, it exhibits a stark urban-rural divide: fund transfers are found overwhelmingly concentrated in urban centres, with only 3.3% of such transfers reaching rural areas. Mobilisation, knowledge of MM, and rate of adoption do not have a significant impact on FL in this developing context. Top-down adoption and governmental intervention appear to play a significant role in the accelerating rate of financial literacy.

## KEYWORDS

mobile money (MM), financial literacy (FL), actors network theory, financial inclusion (FI), digital divide, capacity building

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## 1 INTRODUCTION

The proliferation of mobile technology has been a pivotal driving force in developing nations, offering unprecedented pathways towards financial inclusion (FI) for populations hitherto excluded by mainstream financial institutions. Africa is the lead region for mobile financial services. After Kenya and Rwanda, Nigeria appears to be a rapidly growing digital economy, but with significant infrastructural deficiencies. Electronic payments made possible by using a mobile phone are an underlying enabler of more financial access and capability [1]. The post-COVID-19 era has further accelerated the digitalisation process, underscoring the need to leverage such technologies in building economic resilience. Nevertheless, despite repeated efforts by policymakers to promote the use of mobile money (MM), its envisioned effects are tempered by a series of inherent problems, including low financial literacy (FL), an inadequate technology-based infrastructure, and persistent digital disconnectivity between cities and rural areas. While FI has made positive strides in sub-Saharan and North African countries, Nigeria's journey towards complete digital financial integration is still in its infancy.

The question of utmost significance in this case is the direct relationship between financial access, FL, and poverty reduction. More than half of all adults worldwide are unbanked, a condition that is particularly prevalent in developing countries where poor infrastructure limits access to formal banking institutions [2]. MM is a powerful alternative, avoiding the need for brick-and-mortar bank branches and enabling millions to save, send, and receive money digitally for the first time [1]. By providing access to the formal financial system, the products empower individuals and microenterprises, catalysing economic activity and improving living standards. However, the effective utilisation of the same is contingent upon users possessing the requisite knowledge and skills to make informed financial choices. The problem, therefore, is not one of availability but ability. The capability gap contributes to delays in the adoption and optimal use of mobile money, as well as forecloses the overall socio-economic potential of mobile money. The research aims to fill this gap by examining the impact of MM on the FL of Nigerians. The primary objective of this study is to illuminate the benefits associated with MM for influential stakeholders, including policymakers, service providers, and citizens, thereby empowering them with the necessary information to improve service delivery and uptake.

This study aims to present empirical evidence that can inform the formulation of policy-focused interventions and FL initiatives aimed at addressing current gaps. Guided by this goal, the research is preceded by the question: *“What is the impact of mobile money on the FL of Nigerians?”* Through an examination of how individuals interact with MM and how this interaction reshapes their financial consciousness and behaviour, this study presents quantitative findings from small businesses and end-users in Lagos and other Nigerian states, providing a concrete description of the role of digital finance in fostering a more conscious and inclusive financial citizenry.

## 2 LITERATURE REVIEW

The controversy regarding MM and FL is at the intersection of technology, development economics, and financial services. The following sections offer a systemic review of the literature to define FI and FL in developing economies and to develop the theoretical framework and justify the adopted research methodologies. FI as a development goal, the role of digital financial services (DFS) as a necessary facilitator,

the nuanced mechanics and history of MM, and the critical, yet commonly overlooked, ingredient of digital financial literacy.

## 2.1 Financial inclusion and its pillars in Africa

Financial inclusion is currently a major priority of global development policy, recognised as a pillar for poverty reduction and economic prosperity [3]. It denotes access to and use of simple and low-cost financial services and products that meet the needs of individuals and businesses [4]. In the African region, despite decades of independence, many people remain unbanked, resulting in financial insecurity, particularly among rural dwellers [5]. The concept of FI is tied directly to economic development, because the level of a nation's FI can be tied to its per capita GDP [4]. Financial services are not amenities but development instruments that create a basis for improved livelihood and social mobility [4]. FL is a key pillar supporting FI, and it was defined by the Central Bank of Nigeria (CBN) as the process by which individuals acquire skills and knowledge to effectively utilise their financial wealth towards improved economic well-being [6] and [7].

Out of sub-Saharan African countries, the Nigerian population has the lowest level of knowledge to manage financial transactions effectively and utilise available products [5]. This deficiency is the root cause of financial exclusion. Taking advantage of this, the CBN launched the National FI Strategy in 2012 and the FL Framework in 2013 to reduce the level of financially excluded persons through consumer education, mass media campaigns, and school literacy initiatives [5], [8]. The literature suggests that a financially literate populace can make informed choices, manage risk effectively and contribute to economic growth in a more substantial way [6].

## 2.2 The rise of DFS

DFS, in the form of electronic transactions and payments using a mobile phone or card, has proven to be an efficient solution to the problem of traditional banking [9]. DFS is vital for small and medium enterprises (SMEs) because it provides them with access to secure electronic payment facilities and a broader range of financial services [10]. Moreover, DFS eliminates the frictions in a cash economy. While physical money is liquid, it is incredibly expensive to the poor in terms of carrying risks from theft, long-distance transaction transport costs, and psychological limitations to saving [11], [12]. The four principal pathways through which DFS channels welfare benefits to poor households are the following. First, a simple account provides a secure way to save money outside the home, reducing risks such as theft and enabling investment in micro-enterprises.

A Kenyan study found that access to an elementary savings account raised productive investment among women earners by 45% [13]. Secondly, connectivity with peers through electronic payments facilitates low-cost remittances and adds informal risk-sharing networks. The success of M-PESA in Kenya indicated that users could adapt to unexpected shocks, such as illness or crop failure, without their household consumption levels being negatively impacted [14]. Third, connections to institutions facilitate electronic payments between governments and utility providers, thereby reducing travel time and the need for intermediaries. An RCT in Niger set out that mobile payments to food security recipients reduced the distance they had to travel to receive transfers from 4km to just 0.9km [15]. Finally, exposure to

enhanced financial services leverages digital transaction information to build credit profiles, thereby allowing access to tailored credit and insurance products that are responsive to specific needs and risk profiles [16].

### 2.3 Mobile money: Evolution and impact

Evolution and Impact MM is a form of DFS where financial services are delivered over a mobile phone, and value is stored in an account that is linked to a mobile number [17]. It most commonly operates with one of three business models: MNO-led, bank-led, or a partnership model [18].

The MNO-led model, as exemplified by Safaricom's M-PESA in Kenya, has been successful where there is high mobile phone penetration but low banking penetration. M-PESA, introduced in 2007, was a revolutionary MM service that demonstrated the possibility of utilising a network of local agents for cash-out and cash-in services, resulting in corner shops becoming quasi-bank branches [19]. Its success was driven by the fact that the transfers were cheap, mobile penetration was high, and there was a pre-existing demand for convenient financial services [20]. As of 2017, M-PESA's transaction value stood at approximately 6.8 billion shillings, a testament to its deep penetration of the Kenyan economy [21]. MM expansion has been swift, from East Africa to South Asia and the rest of the developing world [1]. MM was launched in Nigeria officially in 2010, when the CBN licensed 16 operators, including bank-led schemes (e.g., GTBank MM, FirstMonie) and standalone providers [22]. Its growth has been hindered by a regulatory environment that, unlike in Kenya, has historically limited the scope of MNOs to roll out services. It has perpetuated a state of suspicion and ignorance, a key barrier to take-up [22]. The literature suggests that for MM to scale up in a sustainable manner, trust is established through stable agent networks and a focus on product quality [23].

### 2.4 Digital financial literacy and the research gap

The meeting of digital services and financial capability gives birth to the concept of digital FL, the capabilities and knowledge required to make sound choices within the digital financial context, from online transactions to mobile banking [4]. It is the capability to understand, analyse, and manage one's finances in a virtual space [4].

While technology provides the facilitation tools for FI, utilisation is contingent on FL. The lack thereof further jeopardises the provided infrastructure from being underused [24]. The literature has consistently shown that financial illiteracy within both rural and urban communities further restricts access to and utilisation of formal financial services [25]. Moreover, DFS adoption has been researched and found to be impacted even when services are available by issues such as agent liquidity issues and the tendency among users to spend money transferred via MM rather than use the platform to save [26]. This highlights the key gap that this study aims to bridge. There is a vast literature on MM (much of which is East Africa-centric) and a growing body of literature on FL; however, a significant gap remains in empirically bridging the two in the Nigerian case. As the thesis elucidates, the *"availability of studies that address MM and FL in Nigeria is lacking"* [27].

As noted in the thesis, the *"existence of studies that address MM and FL in Nigeria is inadequate"* [27]. Earlier empirical work in Nigeria has addressed FI problems in totality [28] or the interrelation between cashless policy and inclusion [29], but it has not conducted a comprehensive, user-focused analysis of the manner in which MM

use and persistence affect the FL and culture of Nigerian citizens. This study intends to fill this gap by providing quantitative and qualitative evidence of this link, hence contributing new knowledge to the literature on West African digital finance.

### 3 CONCEPTUAL FRAMEWORK

Actor-Network Theory (ANT) provides a valuable theoretical framework for examining the complex dynamics of adopting MM and its subsequent impact on FL in Nigeria. Drawn from the works of scholars like Michel Callon and Bruno Latour, ANT presents a novel approach to the study of socio-technical phenomena [30] and [31]. The theory surpasses other analytic tools by encompassing all the actors in a network, both human and non-human, as competent “actors” [32] and [33]. It implies that individuals, banks, and regulatory bodies are treated in the same manner as technological entities, such as cell phones, network infrastructures, and financial software, in the context of MM in Nigeria. Each of these actors, whether animate or inanimate, plays a significant role in shaping the network and determining its outcomes [34].

One of the most important ANT concepts is the process of “translation,” or how actors align their interests to create and maintain a network [34] and [35]. The process has four phases: “*problematization*,” “*interestment*,” “*enrolment*” and “*mobilisation*.” The most powerful actors initially construct a problem and offer a solution that renders them necessary, a process known as problematization. In Nigeria, introducing MM could be a solution to financial exclusion. The interestment is the stage where other players are convinced to adopt this potential solution by making it fit into an interest frame that attracts them. Enrolment is the process by which players adopt their place as determined in the network. Finally, mobilisation ensures the stability and ongoing coordination of the network, as powerful players seek to sustain the alliances that have been created [36] and [37].

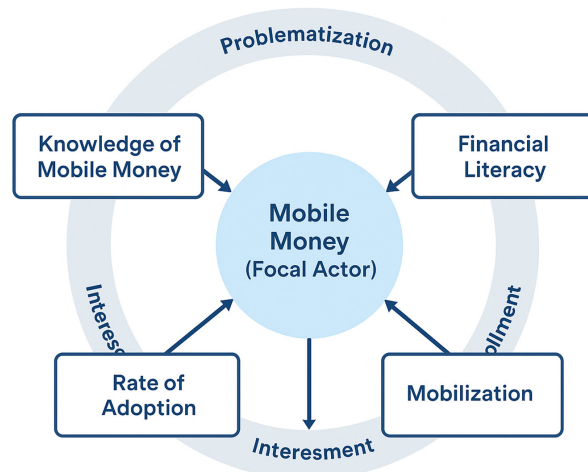


Fig. 1. Actor-Network-Theory for MM as a tool for FL

The explanatory power of the theory lies in its ability to trace the complexity of interactions and negotiations that either create or destroy a technological innovation [38] and [39]. Utilizing ANT to study MM in Nigeria, it is straightforward to analyse how the technology influences user behaviour and promotes FL. The theory helps to explain how various human and non-human actors collectively shape the MM landscape [40] and [41]. The socio-technical perspective is significant in

understanding the intricate nature of financial technology adoption and its broader social significance [42] and [43].

## 4 RESEARCH METHODOLOGY

While attempting to empirically analyse the impact of MM on FL for Nigerians, this study utilised a pragmatic research approach through a mixed-methods research design. This design type was chosen primarily to gather both the prevalence of MM adoption behaviour through quantitative data and the richness of users' experiences through qualitative data, in an attempt to understand the phenomenon in depth and holistically.

The research philosophy guiding this study contains elements of both interpretivism and positivism. The positivist element is realised in the use of a formal questionnaire for collecting quantifiable data, yielding quantifiable results as adoption rates, usage frequency, and ease of use. This corresponds to the deductive aspect of the research, where constructs rooted in evidence from FL and technology adoption literature were tested against the Nigerian reality. In parallel, the interpretivist paradigm guided the qualitative aspect of the research. Through the application of semi-structured interviews, this study aimed to understand customers' subjective experiences and the meanings attached to MM, keeping in mind that financial behaviours are socially situated and locally constructed [30]. This inductive analysis allowed the issues to emerge directly from the participants' accounts. The study employed a cross-sectional survey design, collecting data at a single point in time to provide a snapshot of the position for MM use and perceived effects. The semi-structured interviews and the structured questionnaire were the primary data-gathering instruments.

The survey was designed to collect demographic data and measure key measures on Likert scales. These, drawing upon well-established information systems research models, were Perceived Usefulness, Perceived Ease of Use, Attitude, and Behavioural Intention [31], [32]. The survey was administered in hard copy and Google Forms to maximise reach and response rate, and a small reward was offered to encourage response. The study sample population was Nigerian citizens who had access to or used MM services. A non-probability sampling technique was employed to select respondents from five of the six geopolitical zones in Nigeria (Abuja, Kano, Lagos, Port Harcourt and Abia), providing geographical representation.

One hundred fifty questionnaires were sent out, and 122 completed and usable returns were received, providing the foundation for the quantitative analysis. Additional data were also accessed through intensive telephone interviews with a sub-sample of participants, enabling a deeper insight into their lives. Data analysis progressed in two concurrent strands. For the quantitative data, the computer package SPSS (version 18) was employed for conducting descriptive statistical analysis.

Frequencies and proportions, means and standard deviations were calculated to yield summaries of demographic history and responses to Likert-type questions. Pie charts and bar graphs were used to present the data. Cronbach's alpha was used to test the internal consistency of the measurement scales, yielding a reliability coefficient of 0.835, indicating high reliability. For qualitative data collected through interviews, thematic analysis was used. Transcripts of interviews were screened for recurring themes, patterns and discrepancies, which were synthesised to provide rich contextual explanations of the quantitative findings. Ethics were prioritised at every level of the study; the anonymity and confidentiality of responses for every participant were ensured, and informed consent was obtained prior to data collection.

## 5 RESEARCH RESULTS

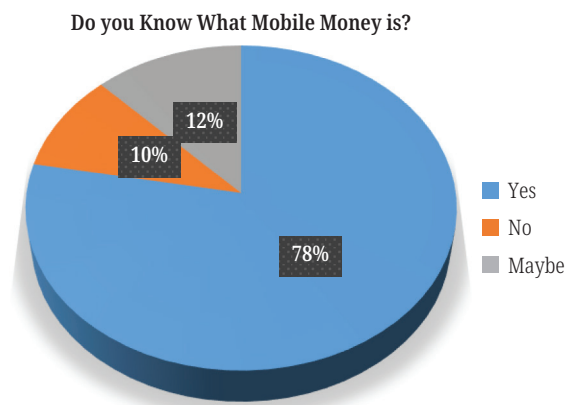
Analysis of the data obtained provides a rich picture of MM adoption rates, usage behaviour, and the perceived impact on FL in the Nigerian sample. Results are presented in three broad sections: a description of the research participants, quantitative outcomes from the survey on adoption and knowledge and conclusions on the perceived impact and use of MM, informed by qualitative findings from interviews.

### 5.1 Profile of respondents

The questionnaire was successful in getting 122 usable responses. The demographic profile was that of a moderately young, educated, and urban-based sample. Females comprised a narrow majority at 51.6% of the respondents. The 26–34 age category (33.6%) was the most dominant, followed by the 35–44 age category (30.3%). Single participants dominated the sample, accounting for 54.9% and 55.7% of the participants with a monthly income of below 150,000 Naira. Geographically, most of the respondents were from Abuja (39.3%) and Kano (29.5%). The respondents were educationally well-equipped, as 42.6% held a postgraduate degree and 39.3% were undergraduates; only 8.2% reported that they had not pursued further education beyond the secondary school level. Economically, 58% of the respondents were employed in their current job. Above all, for the study, digital penetration was effectively universal: 99.2% of survey respondents owned a mobile phone, and 96% had an active bank account, indicating a population highly likely to adopt digital money services.

### 5.2 Knowledge, awareness and adoption of MM

Survey findings confirm a high level of general awareness of MM, albeit not to the extent of actual usage. As depicted in Figure 2, a vast majority (78%) of respondents claimed to have heard about mobile money.



**Fig. 2.** Respondents' knowledge of MM

When asked where they sourced their information, the most common source was from the bank (49.2%), significantly more than other sources, such as friends and family (21.3%) or telecommunication service providers (5.7%). This indicates that bank-based models and communication channels currently dominate MM awareness in Nigeria. This is matched by a high adoption level in the sample. As shown in Figure 3, 72% of respondents reported being registered with an MM operator.

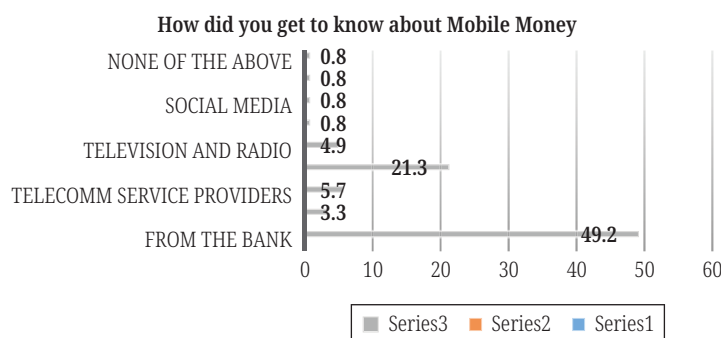


Fig. 3. Registration with MM operators

Among those registered, the market appears to be dominated by bank-led services, as shown in Figure 4. GTBank MM (GTB MM) was by far the most popular operator, used by 52.9% of registered respondents. First Monie followed at a distant second with 6.6%. This finding underscores the pivotal role of commercial banks in Nigeria’s MM ecosystem. For the 25% of respondents who were not registered, the primary reasons cited were a lack of awareness or understanding of how the services work.

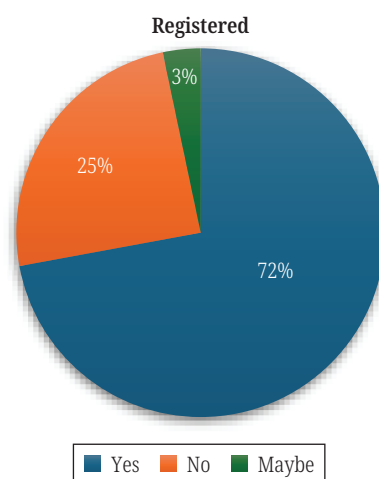


Fig. 4. Rate of adoption by MM operator

### 5.3 Perceived impact on FL and usage patterns

The main research tested the perceived link between MM usage and FL. When asked to rate themselves on their knowledge of the MM services, 30.3% reported “Average” and 28.7% reported “High”, indicating moderate confidence. However, when they were asked to rate themselves on their use of the services, they were more confident, with 40.2% reporting “High” and 26.2% reporting “Very High”. That indicates a pragmatic, do-it-yourself ability rather than theoretical knowledge only. One of the significant findings was validated when respondents were asked if MM services had improved their FL. Together, 50% of respondents agreed (27%) or strongly agreed (23%), while 30.3% were neutral.

This positive realisation is further supported by evidence regarding the advantages of MM. A broad 73% of the respondents agreed (45.1%) or strongly agreed (27.9%) that MM has numerous advantages. Similarly, 74.7% of them strongly agreed (42%) or agreed (30.3%) that MM increases the efficiency and effectiveness

of their transactions. The simplicity of using the service was also perceived by 75.6% of respondents, who agreed or strongly agreed.

The qualitative data from the interviews provides a rich background to these figures. One of the respondents, a manager at the CBN, summed up the learning process as follows: *“Mobile Money has improved my economic literacy since I learn something new with each transaction that I make. For example, with each transaction I make, it has also significantly improved my economic literacy. With each application I learn about, I also learn how it operates and the new features that have been added to it. Likewise, I learn about the limits of transactions and how MM applications function”*.

This claim explains how MM use serves as an experiential learning device that instantaneously enhances financial experience. Yet, one of the regional managers' interviewees preferred bank-based Internet banking products to stand-alone MM services and stated, *“I do not know what MM is as I do not have an idea what it is, to be honest”*, which confirms the fact that product awareness of MM may be low even for digitally empowered and banked customers. Another respondent, who is a businessman, emphasised the convenience and possibility of MM: *“I like it because it's at the tip of my hands. And very convenient, easy, and fast. I think MM has a great potential in Nigeria if there is awareness from the people, as everyone now has a mobile phone, there's no need to go and stand in line at the bank”*. Trend analysis of usage revealed MM as an integral part of the everyday financial lives of its users.

The usage frequency was highest at “every other day” (28.7%), followed by “once a week” (26.2%). The primary usage purpose of MM was overwhelmingly fund transfer (53.3%). It was then followed by balance enquiry (13.9%) and airtime buy (12.3%). The other uses, such as utility bill payments (9.8%) and cash withdrawals/deposits, were less common. With respect to their preferred mode of making transfers, 78.7% chose the mobile phone (including MM, mobile banking, etc.), indicating a strong preference for mobile-led financial management over laptops or bank counters. One key result is related to the recipient of these transfers. Most of the respondents (71.3%) mentioned that the recipients of their transfers reside in the city. Only 20.5% transferred money to towns, and a marginal 3.3% to villages. This conclusively highlights the urban bias in MM utilisation and predicts a broad digital divide, reinforcing the abstract's conclusion that rural communities are largely excluded from these financial flows. Finally, user satisfaction is satisfactory, as 72% of customers state they would recommend MM services to others.

## 6 RESEARCH DISCUSSION

The results of this study present a mixed picture of MM's function in Nigeria, highlighting both potential adoption and tangible user benefits, as well as enduring structural problems. The argument draws on these findings, relating them to previous research and the broader research question of the influence of MM on FL. The extremely high awareness (78%) and adoption (72%) rates among the study's urban, educated sample indicate a high level of readiness for DFS in Nigeria. This aligns with the global trend of digitalisation, yet it also highlights a unique characteristic of the Nigerian market: the dominance of bank-led MM models.

Compared to the MNO-success story of M-PESA in Kenya [20], both the most widely utilised platform (GTBank) and the primary source of information are affiliated with established banks. This suggests that Nigerian consumers have a high level of trust in established financial institutions and that these banks have successfully leveraged their existing customer bases to drive DFS adoption. This bank reliance will also inadvertently further perpetuate financial exclusion to the extent that

their outreach and promotion are necessarily aimed at their existing, largely urban-based, customer base. The most intriguing finding may be the positive impact on FL, as seen. The fact that 50% of customers have felt that the service has enhanced their financial education provides empirical evidence to support the theory that experiential learning with financial instruments can facilitate learning.

Interviewing the CBN manager is a vivid illustration of this experiential learning dynamic: *“through fee insight, transaction-level management, and the discovery of new features, consumers receive a lived-through financial education that traditional, top-down literacy efforts cannot hope to deliver”*.

This means that FL is not just a stepping stone to FI but is itself a product of it. Through MM, users are not merely sending money; they are actively engaging with the financial system, building capability and confidence in the process. This is reinforced by evidence that the use of financial services can foster confidence and enable individuals to participate in the global economy [4] and [35]. The study also looks critically at the constraints and imbalances of the current MM environment. The unevenness of fund remittances to city beneficiaries (71.3% to cities, as opposed to 3.3% to villages) is a glaring indication of an existing digital and financial divide.

Although MM has the potential to unify rural and urban economies, these findings suggest that it is currently consolidating existing city-based financial networks. This confirms the study's first hypothesis that Nigeria is a long way from achieving true digital FI [36]. The test, as intimated in the abstract, aims to encourage policymakers and providers to extend these services into rural areas, which not only requires technological infrastructure but also establishing robust, stable agent networks, a cornerstone of the M-PESA model [20]. Even usage patterns are instructive. The dominance of Person-To-Person (P2P) fund transfers (53.3%) as the top use case is just what one would anticipate in an emerging MM market. However, the relatively low usage for higher-end services, such as utility payments (9.8%) or payments for goods and services, suggests that the ecosystem is not yet mature. Expanding the value proposition beyond remittances is most urgent for deepening FI. This requires growth in the number of merchants and billers serving MM so that it can evolve from a primitive transfer solution into a comprehensive digital payment platform. Lastly, the rift between the larger practical capability to implement MM and the smaller self-reported theoretical knowledge is indicative of a subtle understanding of FL [37]. Consumers are not theorists by nature, but they are learning to understand how to utilise the digital tools put at their disposal effectively to manage their day-to-day finances.

This tool-focused, experience-based literacy is less likely to produce an immediate benefit for the customer compared to hypothetical knowledge about money. The high willingness to recommend (72%) indicates high customer satisfaction with the underlying benefits of convenience, speed, and ease, which provides a solid foundation for future expansion and increased FI. The challenge is to build upon this foundation and develop a more inclusive, equitable, and sophisticated digital financial platform for all Nigerians.

## 7 CONCLUSION

This study makes several notable contributions to the understanding of digital finance within one of the world's top developing economies. Its findings present new empirical evidence, subject theoretical frameworks to novel examination and provide policy insights to practitioners and policymakers interested in enhancing FI.

The study provides a concise, fact-orientated image of Nigeria's MM landscape. The results are four-pronged.

First, there is a general awareness and use of MM services by urban technology-capable Nigerians, with a pronounced dominance of bank-led models compared to MNO-led or independent models. Second, consumers attribute a causative, direct relationship between their use of MM and increased FL, suggesting that the use of digital financial instruments is a powerful driver of experiential learning. Third, the principal application of MM is currently centred on P2P fund transfers, with more sophisticated financial services less common, which implies that the market is quite immature. Fourth, and most significantly, the benefits and adoption of MM are disproportionately concentrated in urban areas, revealing a significant urban-rural gap that remains a major hurdle to widespread FI in the country [38].

In terms of theoretical contribution, this paper offers a persuasive empirical illustration of the application of ANT within the Nigerian MM environment. The research shows how the network of human actors (customers, bank workers and agents) and non-human actors (transaction fees, bank programmes, telecommunication networks and mobile phones) engage in interactions that promote the adoption and use of MM. The dominance of bank-led services, for instance, demonstrates how pervasive institutional actors can utilise their interests and infrastructure to create an effective network. Second, the research contributes to FL and FI literature. Instead of supposing literacy to be in itself the lead-up to inclusion, it provides evidence to argue that the relationship can be reversed. By showing that learning a financial technology can enhance financial capability, the study offers a more active and subtle explanation of how FL comes into being in the era of digital inclusion [39].

In terms of empirical contribution, this study fills a significant gap in the literature on the relationship between MM and FL in Nigeria. By offering quantitative and qualitative evidence following the COVID-19 pandemic, it revises and localises a discussion that has been predominantly driven by evidence from East Africa. Practical implications are immediate and substantial. For policymakers, the dramatic evidence of the rural-urban gap underscores the pressing need for targeted incentives and policies to expand agent networks and digital infrastructure into the underserved rural areas. It also supports the efforts of the CBN to foster FL but suggests that programmes be backed up by policies that enhance the practical usage of digital tools. For service providers, the report highlights the success of bank-led trust creation while also pointing to the huge untapped rural market and the potential to enhance the value proposition of MM beyond peer-to-peer transfers to include bill payments, merchant services and savings products.

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