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INNOVATIVE FINANCING MODELS, ACCESS TO CAPITAL, AND ECONOMIC PERFORMANCE OF OKADA OPERATORS IN METROPOLITAN LAGOS, NIGERIA

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Abstract

Commercial motorcycle taxis, locally known as Okada, are an important part of informal urban mobility in Metropolitan Lagos, Nigeria, providing last-mile connectivity and livelihood support for hundreds of thousands of operators. Despite their socioeconomic significance, Okada operators remain largely excluded from formal financial systems, depending instead on alternative capital sources to sustain their businesses. This study examines the financing models available to commercial motorcycle (Okada) operators in Metropolitan Lagos, assesses their access to capital, and evaluates the economic performance of the operators . A cross-sectional survey design was adopted, with data collected from 387 Okada operators across five local government areas Alimosho, Ikorodu, Mushin, Ojo, and Kosofe using a structured questionnaire. Twenty key informant interviews with cooperative society leaders, microfinance officers, and hire-purchase dealers provided complementary qualitative evidence. Data were analysed using descriptive statistics and thematic analysis. Findings show that informal savings schemes (ajo/esusu) recorded the highest mean score (M = 3.76) suggesting that they are perceived as an important source of business capital among the operators, followed by microfinance credit (M = 3.62) and hire-purchase arrangements (M = 3.59). Digital lending platforms attract growing but reluctant uptake (M = 3.30). Access to capital was moderately constrained (M = 3.18) with the affordability of interest rates (M = 2.81) and collateral requirements (M = 2.92) identified as major barriers. Economic performance is moderate (M = 3.33), with the ability to save regularly scoring lowest (M = 2.91). Government regulation ranks as the most severe

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financing barrier (M = 3.66), reflecting the institutional risk-aversion generated by the 2020 Lagos State partial Okada ban, which has significantly limited credit supply to the sector. The study recommends regulatory clarity for Okada operations, consumer protection for hire-purchase contracts, income-cycle-aligned microfinance products, Sharia-compliant financing options, and strengthened cooperative institutions.

Introduction

Urban mobility in sub-Saharan Africa is sustained by informal transport modes. Among the informal modes, the motorcycle taxi known variously as *boda-boda* in East Africa, *zemidjan* in Francophone West Africa, and *Okada* in Nigeria has emerged as an indispensable mode of intra-urban and last-mile transport, particularly in densely populated and infrastructurally underserved communities (Ehebrecht, Heinrichs, & Lenz, 2018; Owino et al., 2024). In Metropolitan Lagos, Okada operations represent both a transport solution and an economic safety net for thousands of low-income workers and commuters. The sector provides fast, door-to-door mobility across congested urban corridors where conventional public transport vehicles are inadequate, unreliable, or absent (Daramola, 2018; Behrens, Chalermpong, & Oviedo, 2021).

Beyond its transport function, Okada plays an important role in the informal economy. It absorbs significant numbers of young, underemployed men, especially migrants from Nigeria's hinterland, offering low-barrier entry into self-employment and a pathway to income generation (Olurinola, 2011; Deppuh & Ng'ang'a, 2022). Yet, the economic sustainability of these operators is persistently undermined by financial vulnerabilities. Access to capital remains the most critical constraint limiting operators' capacity to purchase motorcycles, maintain it in operational condition, and build financially resilient businesses (Hine, Huizenga, & Willilo, 2015; Sore, 2024).

Formal financial institutions in Nigeria have largely failed to serve the Okada operators. The lack of verifiable income streams, zero collateral, lack of credit history, and insufficient documentation collectively exclude operators from bank credit and formal insurance products (Kores, 2017; Fujinuma & Asahi, 2022). In this situation, innovative financing models encompassing hire-purchase agreements, cooperative credit societies, microfinance bank loans, informal rotating savings and credit associations (*ajo*/*esusu*), and digital and fintech-based lending platforms have emerged as the primary sources of capital for the sector. These mechanisms vary considerably in accessibility, cost, repayment flexibility, and alignment with operators' income cycles, yet their effects on operators' economic performance remain poorly understood and empirically underexplored.

Globally, the relationship between financing access and economic performance in informal transport has attracted a growing body of scholarship, particularly in Southeast Asia and East Africa (Mabula, 2014; Anuchitchanchai et al., 2025). Within Nigeria and the broader West African context, however, empirical enquiry into the financial architecture of the Okada sector is sparse. Existing studies have tended to focus on regulatory dimensions of motorcycle transport (Akor et al., 2024), risk and travel behaviour (Yakeen & Olorunnimbe, 2025), or broad socioeconomic implications (Daramola, 2018). This study addresses that gap. It proceeds from the premise that the economic performance of Okada operators in Metropolitan Lagos is not simply a function of market demand or regulatory conditions, but is fundamentally shaped by the financing models

through which operators access capital. The objectives of this paper are (i) To identify financing models used by Okada operators (ii) To examine access to capital among operators. (iii) To assess economic performance of Okada operators in Metropolitan Lagos.

The study makes both scholarly and practical contributions. Theoretically, it extends the literature on informal economy financing and financial inclusion in the urban transport sector. Practically, it provides evidence-based recommendations for policymakers, transport regulators, financial institutions, and development practitioners interested in improving the sustainability of informal mobility in Lagos and similar rapidly urbanising African cities. The paper is organised as follows: Section 2 presents a review of the literature on motorcycle taxi financing and economic performance. Section 3 describes the methodological approach. Section 4 presents and discusses the findings. Section 5 offers conclusions and recommendations.

Motorcycle Taxis in the Urban Informal Economy: A Global and African Perspective

The motorcycle taxi has evolved, over the past three decades, from a marginal transport option to a structurally embedded mode of urban mobility across the Global South. In sub-Saharan Africa specifically, the sector has expanded with remarkable speed, filling the spatial and temporal voids left by underfunded public transit systems and inadequate road infrastructure (Ehebrecht, Heinrichs, & Lenz, 2018). Across East, West, and Central Africa, motorcycle taxis are no longer peripheral, they are, for millions of urban residents, the primary means of daily movement and, for operators, the primary means of economic survival (Owino et al., 2024; Porter, 2014).

Scholarly attention to the sector has grown correspondingly, though unevenly. Ehebrecht et al. (2018) provided a synthesis of existing knowledge on motorcycle taxis in sub-Saharan Africa, noting the sector's critical role in urban mobility while identifying persistent research gaps, particularly in the areas of financing, governance, and operator welfare. Herawatie, Siswanto, and Widodo (2024), through a bibliometric analysis of the motorcycle taxi literature, confirmed that shared mobility and informal transport scholarship is expanding but remains geographically concentrated, with West Africa and Nigeria in particular underrepresented relative to the sector's scale and complexity in that region. Behrens, Chalermpong, and Oviedo (2021) further situate informal paratransit, including motorcycle taxis, within broader debates about the Global South's urban mobility systems, arguing that such modes demand policy engagement rather than regulatory suppression, given their deep functional integration into urban daily life.

In Southeast Asia, the motorcycle taxi sector has demonstrated both resilience and adaptability. Sopranzetti (2022), examining Bangkok's motorcycle taxi industry, documented how operators negotiated the disruption brought by ride-hailing platforms, revealing how informal transport actors respond innovatively to market and technological change. Anuchitchanchai et al. (2025) extended this analysis to electric motorcycle taxis in Bangkok, identifying the financing of vehicle transition as a central barrier to sustainability, a finding that aligns strongly with the Nigerian context. The role of digital transformation in reshaping motorcycle taxi operations and financing arrangements including the growing influence of fintech platforms is increasingly acknowledged as a global trend with particular implications for operators in developing economies (Armah & Li, 2024).

The Okada Sector in Nigeria: Transport Function, Livelihood, and Structural Vulnerability

In Nigeria, the Okada has occupied a contested but indispensable position in urban mobility since its proliferation in the 1990s. Daramola (2018) examined commercial motorcycle operations in Ibadan, establishing that the sector functions simultaneously as a transport service and an informal livelihood strategy, deeply embedded within the urban economy. The study highlighted the sector's sustainability challenges, noting that while Okada provides flexible employment, its operators are structurally vulnerable, constrained by poor access to capital, regulatory hostility, and precarious income flows.

Olurinola (2011) offered an important early empirical contribution on the relationship between informal self-employment and poverty alleviation, drawing on evidence from motorcycle taxi riders in Nigeria. The study found that Okada operations provide a meaningful income buffer for urban poor workers, reducing extreme poverty exposure, but that income gains are limited by the inability of operators to accumulate capital, upgrade their vehicles, or scale their businesses. This structural ceiling on economic mobility, the study argued, is directly linked to the absence of appropriate financing support.

More recently, Yakeen and Olorunnimbe (2025) investigated risk perception and travel behaviour among commercial motorcycle operators in Metropolitan Lagos, providing contemporary empirical grounding on the operational context within which this study is situated. Their findings document the high-risk environment in which Okada operators function and the compounding effect of financial insecurity on operators' risk-taking behaviour, a dynamic that underscores the centrality of capital access to both safety and economic outcomes. Akor et al. (2024), examining state taxation of the motorcycle transport business in Ebonyi State, demonstrated the revenue significance of the sector to local government while simultaneously pointing to the financial burden that multiple taxation regimes impose on operators, further constraining capital available for business reinvestment.

Atulomah (2025), in a scoping review of social entrepreneurial characteristics in commercial motorcycle start-ups, provides a useful framework for understanding Okada operators not merely as transport workers but as micro-entrepreneurs whose survival and growth are contingent on access to appropriate financing mechanisms, business support structures, and enabling regulatory environments.

Financing Models in Informal Transport: Mechanisms, Characteristics, and Limitations

The financing of motorcycle acquisition and operations in informal transport contexts draws on a diverse and layered set of mechanisms. These can be broadly categorised into formal institutional financing, semi-formal cooperative and group-based financing, and informal savings and credit arrangements, with a more recent fourth category of digital and fintech-based lending increasingly claiming relevance.

Hire-purchase agreements represent the most widely documented formal financing mechanism in the motorcycle transport sector across Africa and Asia. Under hire-purchase arrangements, operators obtain motorcycles through installment payment plans administered by dealers, vehicle importers, or, in some cases, motorcycle owners who rent out vehicles on daily commission the so-called *working-for-owner* model. Kores (2017) found hire-purchase to be a dominant growth driver

in motorcycle transport in Kajiado County, Kenya, enabling entry for operators who lack the capital for outright purchase. However, the arrangement creates significant financial pressure: fixed daily repayment obligations persist irrespective of daily earnings, exposing operators to debt stress during periods of low demand, illness, or vehicle breakdown. Fujinuma and Asahi (2022) examined default factors in motorcycle sales in developing countries, identifying income volatility and motorcycle depreciation as key drivers of repayment failure, with direct implications for operators' financial stability. In the Nigerian context, the hire-purchase model is pervasive but poorly regulated, with repayment terms that often favour the vehicle owner rather than the operator, creating asymmetric financial relationships that constrain capital accumulation.

Cooperative-based financing represents a collectively organised financing mechanism through which groups of operators pool resources, guarantee each other's loans, and access credit from cooperative societies or microfinance institutions. Mabula (2014) documented the establishment of a Motorcycle Riders Savings and Credit Cooperative Society (SACCOS) in Tanzania, demonstrating that cooperative structures can significantly improve operators' access to credit, reduce interest burdens, and build collective financial resilience. Deppuh (2023) and Deppuh and Ng'ang'a (2022), studying motorcycle transport growth in Kenya, found that cooperative membership positively influenced operators' access to capital and correlated with improved socioeconomic outcomes. The cooperative model draws its strength from social capital, the trust networks, shared accountability structures, and peer monitoring mechanisms that reduce the information asymmetries that exclude informal workers from formal credit markets. In the Lagos context, cooperative-based financing is consistent with the cultural tradition of collective economic solidarity, though the formalisation and regulatory oversight of such structures remain limited.

Informal savings and credit associations, known in Yoruba-speaking southwestern Nigeria as *ajo* and more broadly across Nigeria as *esusu*, constitute a foundational element of informal financial architecture. These rotating savings and credit associations (ROSCAs) operate on principles of mutual obligation, regular contribution, and turn-based credit allocation. While they do not generate interest in the conventional sense, they provide members with periodic lump sums that can be deployed for capital investment, including motorcycle purchase or major repairs. Ramadhanti and Hizryan (2025) examined the impact of microcredit on motorcycle taxi drivers' welfare in Indonesia, finding that access to informal credit mechanisms significantly improved drivers' consumption levels and capacity to maintain operational viability. The *ajo*/*esusu* model in Lagos enjoys high cultural legitimacy and low transaction costs but is constrained by the scale of accumulation achievable within informal social networks, limiting its suitability for major capital investments.

Microfinance institutions (MFIs) occupy a semi-formal space between bank credit and purely informal arrangements. Designed explicitly to serve the financially excluded, MFIs offer small loans with flexible collateral requirements, group-guarantee mechanisms, and repayment schedules calibrated to irregular income cycles. Hine, Huizenga, and Willilo (2015) identified MFIs as an important but underutilised channel for financing rural and informal transport services in developing countries, noting that the alignment between MFI loan products and transport operators' cash flow patterns is critical to repayment success. Sore (2024), examining credit

accessibility and motorcycle transport in Kenya, found that MFI access significantly influenced operators' ability to acquire and maintain motorcycles, though interest rates and group liability requirements remain barriers for some operators.

Digital and fintech-based lending platforms represent the most rapidly evolving financing mechanism in the informal transport sector. Mobile money platforms, peer-to-peer lending applications, and ride-hailing company credit schemes have introduced new modalities for capital access that bypass traditional documentation and collateral requirements, relying instead on digital transaction histories and algorithmic credit scoring. Armah and Li (2024) examined ICT implementation in motorcycle goods transport, identifying business efficiency and infrastructure access as key mediating factors in the uptake and impact of digital financing tools. While fintech lending offers speed and accessibility, concerns about high interest rates, short repayment windows, data privacy, and the risk of digital debt cycles have been widely noted, particularly for low-income operators with limited financial literacy (Anuchitchanchai et al., 2025).

Islamic and Sharia-compliant financing models, while less prominent in the Nigerian motorcycle transport literature, merit acknowledgement given the large Muslim population among Okada operators in Lagos. Saputra and Dewi (2025) documented the implementation of Sharia-based, interest-free motorcycle financing through cooperative structures in Indonesia, finding that such models enhanced access while preserving financial ethics in accordance with Islamic principles. Utami (2020) similarly examined Sharia-compliant vehicle leasing in Indonesia, arguing that interest-free arrangements reduce the debt burden on operators and improve long-term financial sustainability. These models carry potential applicability to Lagos's Muslim operator community, though they remain largely unexplored in the Nigerian transport financing literature.

Access to Capital by Okada Operators

In the economic performance literature, access to capital is recognised as a critical enabler of business survival, growth, and resilience. In the informal transport context, capital access determines operators' ability to acquire and own motorcycles outright, maintain vehicles in roadworthy condition, absorb the costs of accidents and repairs, and invest in supplementary income-generating activities (Porter, 2014; Olurinola, 2011). Studies from across sub-Saharan Africa and Southeast Asia consistently find that operators with broader and more affordable capital access report higher income stability, lower operational downtime, and greater capacity to reinvest in their businesses (Sore, 2024; Deppuh & Ng'ang'a, 2022; Ramadhanti & Hizryan, n.d.).

Economic Performance in the Informal Transport Sector

Economic performance in informal transport contexts is multidimensional, encompassing income levels and stability, vehicle maintenance capacity, business continuity, ability to cope with financial shocks, and longer-term wealth accumulation potential. Unlike formal sector enterprises where performance is measured through accounting profits and asset values, the economic performance of Okada operators is more appropriately assessed through a composite of indicators including daily or weekly net income, frequency of vehicle maintenance, frequency and duration of operational downtime, ability to meet household financial obligations, and capacity to save or reinvest surplus earnings.

Deppuh and Ng'ang'a (2022) measured socioeconomic empowerment among motorcycle transport operators in Kenya through housing conditions, income levels, educational investment in children, and healthcare access, dimensions that go beyond transport-specific metrics to capture holistic livelihood outcomes. Kores (2017) identified income growth, fleet expansion, and reduced reliance on vehicle owners as indicators of improved economic performance among motorcycle operators. Daramola (2018), writing in the Nigerian context, emphasised operational sustainability, defined as the ability to maintain a roadworthy vehicle and reliable service as the most immediate measure of economic performance for informal transport operators. This study draws on these frameworks to construct a composite measure of economic performance appropriate to the Metropolitan Lagos context.

Summary and Identified Research Gaps

The literature reviewed establishes clearly that: the motorcycle taxi sector is a significant component of informal urban mobility across sub-Saharan Africa; innovative financing models are the primary mechanisms through which operators access capital; and access to capital is a critical determinant of economic performance. However, significant gaps remain. Empirical studies specifically examining the financing and performance among Okada operators in Metropolitan Lagos are absent. The role of access to capital and economic performance has not been formally investigated in the Nigerian context. Furthermore, comparative analysis of the relative effectiveness of different financing models: hire-purchase, cooperative finance, *ajo*/*esusu*, microfinance, and digital lending, within a single urban informal transport market has not been undertaken. This study addresses these gaps directly, contributing both to regional scholarship on informal mobility and to the evidence base for financing policy targeting informal transport operators in Lagos.

Research Design

A cross-sectional survey design was adopted as the primary research strategy. Cross-sectional designs are well-suited to studies that seek to describe and explain patterns of association among variables at a specific point in time across a defined population (Sore, 2024; Deppuh, 2023). For this study, the design enabled systematic data collection from a large sample of Okada operators across Metropolitan Lagos, facilitating descriptive profiling of financing model utilisation. The cross-sectional approach is further justified by its efficiency in resource utilisation and its established precedent in informal transport research in sub-Saharan Africa (Ehebrecht, Heinrichs, & Lenz, 2018; Owino et al., 2024).

The quantitative survey was complemented by semi-structured interviews with selected key informants, including cooperative society leaders, microfinance institution loan officers, and motorcycle dealers operating hire-purchase schemes. This approach, weighted toward quantitative analysis, enabled numerical patterns identified in the survey data to be contextualised and enriched by interview providing insights into operators' lived financing experiences, consistent with the methodological approach advocated by Behrens, Chalermpong, and Oviedo (2021) for research on informal paratransit in the Global South.

Study Area

The study was conducted in Metropolitan Lagos, Nigeria. Lagos is Africa's largest city by population, with an estimated 15 to 22 million inhabitants (Yakeen & Olorunnimbe, 2025). The choice of Metropolitan Lagos as the study area is justified on multiple grounds. First, Lagos hosts one of the largest concentrations of Okada operators in West Africa, providing a sufficiently large and diverse population for empirical investigation. Second, the city's complex spatial structure characterised by severe traffic congestion, inadequate formal public transit coverage, and stark socioeconomic heterogeneity across neighbourhoods creates a compelling context in which the role of informal motorcycle transport, and the financing models sustaining it, can be rigorously examined. Third, Lagos's formal ban on Okada operations in certain high-density corridors, introduced in 2020 by the Lagos State Government, has restructured the spatial distribution of the sector and intensified financial pressures on operators who relocated to peripheral areas making the financial performance particularly salient and timely for investigation.

Five local government areas (LGAs) were purposively selected to capture the geographic and socioeconomic diversity of Okada operations across Metropolitan Lagos: Alimosho, Ikorodu, Mushin, Ojo, and Kosofe. These LGAs were selected on the basis of their documented high concentrations of active Okada operations, their varying proximity to the restricted zones established under the 2020 ban, and their representation of both inner-city and peripheral urban environments. This purposive selection of study locations is consistent with approaches adopted in comparable informal transport studies in Lagos and other large African cities (Daramola, 2018; Akor et al., 2024).

Population and Sampling

The target population for this study comprised all active commercial motorcycle (Okada) operators in Metropolitan Lagos. Given the informal and unregistered nature of much of the sector, a precise census of the operator population is unavailable. Estimates from the Lagos State Ministry of Transportation and motorcycle operators' union records suggest a population of approximately 200,000 to 300,000 active Okada operators within the metropolitan area, though these figures are acknowledged to be approximations given the sector's informality and the mobility of operators across zones.

A sample size of 400 respondents was determined using the Yamane (1967) formula for finite population estimation, applied to a conservative population estimate of 250,000 operators with a 95% confidence level and a 5% margin of error. This yielded a minimum required sample of 400, which was adopted as the target sample size. Following data cleaning and the removal of incomplete questionnaires, a final usable sample of 387 respondents was retained for analysis, representing a response and usability rate of 96.75%, which is considered highly satisfactory for field surveys in informal economy contexts in Nigeria (Olurinola, 2011; Atulomah, 2025).

A multistage sampling procedure was employed. In the first stage, the five target LGAs were purposively selected as described above. In the second stage, within each LGA, major Okada operational hubs typically motor parks, junction staging areas, and market access points were identified in consultation with local Okada union representatives. In the third stage, systematic random sampling was applied at each hub, with every third operator present at the time of data

collection approached for participation, until the LGA quota was filled. The distribution of the sample across LGAs was proportional to the estimated concentration of active operators in each area, with Alimosho and Ikorodu receiving the largest sub-samples given their status as the most active Okada zones in post-ban Metropolitan Lagos.

For the interview component, a purposive sample of 20 key informants was selected, comprising eight cooperative society leaders, six microfinance institution officers, and six motorcycle dealers engaged in hire-purchase arrangements. These informants were selected for their direct institutional involvement in the financing of Okada operations and their capacity to provide expert contextual insight into the mechanisms, constraints, and outcomes of different financing models.

Research Instrument and Measurement

The primary data collection instrument was a structured questionnaire organised into five sections corresponding to the study's key constructs.

Section A captured respondents' sociodemographic and operational characteristics, including age, educational attainment, years of Okada operation, ownership status (owner-operator versus hired-rider), daily average earnings, and LGA of primary operation.

Section B assessed utilisation of innovative financing models. Respondents were asked to identify all financing mechanisms they had used to acquire their motorcycle or fund operational expenses, and to rate their primary financing mechanism on dimensions of accessibility, affordability, repayment flexibility, and trustworthiness using a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The financing models assessed were: hire-purchase agreements, cooperative society loans, microfinance institution credit, *ajo/esusu* informal savings schemes, digital and fintech-based lending, and family or personal savings. This classification draws on and extends the typologies employed by Sore (2024), Mabula (2014), and Hine, Huizenga, and Willilo (2015).

Section C measured access to capital. Access to capital was assessed through a composite of eight items covering the adequacy of financing received for motorcycle acquisition, availability of funds for routine maintenance, capacity to finance emergency repairs, and ability to access top-up credit when needed. Items were scored on a five-point Likert scale, with the composite score aggregated to form the Access to Capital Index (ACI). Cronbach's alpha for this scale was computed at $\alpha = 0.81$, indicating good internal consistency.

Section D measured economic performance through a composite of ten items covering net daily income estimation, frequency of vehicle maintenance in the past three months, number of operational downtime days in the past month, self-assessed income stability, capacity to meet household financial obligations, and ability to save a portion of daily income. A composite Economic Performance Index (EPI) was constructed from these items, with Cronbach's alpha computed at $\alpha = 0.79$, confirming acceptable reliability.

Section E captured the perceptions of financing challenges and recommendations, providing data that informed the semi-structured interview guide and enriched the interpretation of quantitative findings.

The questionnaire was pre-tested on a pilot sample of 30 Okada operators in Agege LGA not included in the main study, and refined based on feedback regarding item clarity, translation accuracy, and completion time. The final instrument required an average of 22 minutes to complete

and was administered by trained field research assistants under the direct supervision of the lead researcher.

Data Collection Procedure

Field data collection was conducted over a period of eight weeks, with research assistants deployed to the identified operational hubs in each LGA during peak operational hours, early mornings (6:00–9:00 AM) and late afternoons (4:00–7:00 PM) to maximise contact with active operators. Research assistants were trained in questionnaire administration, informed consent procedures, and the protocols for handling sensitive financial information. All respondents were assured of anonymity and the exclusively academic purpose of the research before their consent was sought.

Semi-structured interviews with key informants were conducted separately by the lead researcher, each lasting between 15 and 20 minutes, and were audio-recorded with participants' permission. Interview transcripts were prepared and subjected to thematic analysis, with emergent themes used to contextualise and triangulate the quantitative findings.

Data Analysis

Quantitative data were entered into IBM SPSS Statistics and subjected to a analytical procedure.

Descriptive statistics, including frequencies, percentages, means, and standard deviations, were computed to profile respondents' sociodemographic characteristics, financing model utilisation patterns, access to capital levels, and economic performance indicators.

Thematic analysis of interview data was conducted using an inductive coding approach, generating themes that were mapped onto the quantitative variable domains to provide interpretive depth.

Validity, Reliability, and Ethical Considerations

Content validity was established through an expert review process involving three academic colleagues specialising in transport economics, informal sector finance, and urban development, who reviewed the questionnaire instrument and confirmed the relevance and coverage of items relative to the study's constructs. Internal consistency reliability was confirmed through Cronbach's alpha coefficients of 0.81 for the Access to Capital Index and 0.79 for the Economic Performance Index, both meeting the 0.70 threshold recommended in the social science research literature.

Ethical approval for the study was obtained from the Lagos State University Research Ethics Committee prior to commencement of fieldwork. All participation was voluntary, informed consent was obtained from each respondent prior to questionnaire administration, and no personally identifiable data were recorded. Interview audio recordings were stored securely and accessible only to the research team. The research was conducted in full compliance with ethical guidelines governing research involving human participants.

Socio-demographic and Operational Profile of Respondents

Sequel to the administration and return of questionnaires by the motorcycle operators in the five selected local government areas, 387 usable questionnaires were analysed. The socio-economic and operational profile of the riders are presented in Table 1.

Table 1: Socio-demographic Profile of Respondents (n = 387)

Variable	Category	Frequency	Percentage (%)
Age	Below 20 years	24	6.2
	21–30 years	152	39.2
	31–40 years	107	27.7
	41–50 years	83	21.5
	Above 50 years	21	5.4
Marital Status	Single	72	18.5
	Married	240	62.3
	Divorced	48	12.3
	Widowed	27	6.9
Education	No Formal Education	30	7.7
	Primary Education	42	10.8
	Secondary Education	155	40.0
	NCE/OND	92	23.8
	HND/Bachelor's Degree	53	13.8
	Postgraduate Degree	15	3.8
Years of Experience	Less than 1 year	37	9.2
	1–5 years	98	25.4
	6–10 years	107	27.7
	11–15 years	65	16.9
	Above 15 years	80	20.8
Ownership Status	Own Motorcycle	143	36.9
	Hire-Purchase	125	32.3
	Employer-Owned	80	20.8
	Cooperative-Owned	39	10.0
Average Daily Income	Less than N5,000	18	4.6
	N5,000–N10,000	176	45.4
	N10,001–N15,000	113	29.2
	N15,001–N20,000	60	15.4
	Above N20,000	20	5.4

In terms of age distribution, the results revealed that most of the motorcycle operators are youths. Approximately 66.9% of the operators were between 21 and 40 years of age. This result align with the findings by Deppuh and Ng'ang'a (2022) in Kenya and Olurinola (2011) in Nigeria. In addition, most of the operators (62.3%) are married, this shows that the informal transport sector serves as source of income for operators' families.

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In terms of educational qualification, the okada riders have higher educational qualifications than most people thought. Most of them (40.0%), are secondary school leavers, while 37.6% of them had NCE, OND, HND, and Bachelor's Degree Certificates. This result corresponds with the findings of Atulomah (2025) that most of the Okada riders are in the business due to unemployment and lack of jobs. 3.8% of the operators are holders of postgraduate degrees

In terms of experience as motorcycle operators, the result is well-distributed, with 65.4% of respondents having more than five years' experience. This high experience suggests a stable, operator community rather than a temporary workforce, supporting respondents' assessments of financing experiences and economic performance trends over time. Ownership structure is showing only 36.9% of respondents own their motorcycles outright, while 32.3% operate under hire-purchase arrangements and 20.8% ride employer-owned motorcycles. A further 10.0% operate cooperative-owned motorcycles. This result confirms the significance of hire-purchase as the dominant vehicle acquisition mechanism in the sector, consistent with findings from Kores (2017) and Fujinuma and Asahi (2022), and underscores the financial vulnerability of most operators who do not yet own their motorcycle.

Daily income result reveals that 74.6% of respondents earn between N5,000 and N15,000 per day, with a modal category of N5,000–N10,000 accounting for 45.4% of respondents. Against the backdrop of Nigeria's prevailing cost of living in Metropolitan Lagos, these income levels are modest and, for hire-purchase operators making daily repayments typically ranging from N1,500 to N3,000, leave limited surplus for savings, vehicle maintenance, or investment.

Perceptions of Innovative Financing Models

Table 2 presents the descriptive statistics for the eight items measuring respondents' perceptions of innovative financing models (IFM), rated on a five-point Likert scale. The total composite IFM mean of 3.43 (SD = 0.42) shows a moderately positive aggregate assessment of the available financing models, putting average perceptions between neutral and agreement.

Table 2: Descriptive Statistics. Innovative Financing Models (n = 387)

Item	Mean	SD
IFM6: Informal savings schemes (Ajo/Esusu) help raise business capital	3.76	1.08
IFM3: Microfinance institutions support motorcycle business financing	3.62	1.16
IFM4: Hire-purchase arrangements make motorcycle ownership easier	3.59	1.20
IFM7: Innovative financing reduced dependence on personal savings	3.52	1.14
IFM1: Cooperative societies provide easy access to loans	3.32	1.26
IFM5: Digital lending platforms have improved access to finance	3.30	1.28
IFM2: Cooperative loans have favourable repayment conditions	3.28	1.28
IFM8: Overall satisfaction with available financing options	3.03	1.25
Composite IFM	**3.43**	**0.42**

The most highly endorsed financing model is the *ajo/esusu* informal savings scheme (M = 3.76, SD = 1.08), revealing that traditional rotating savings and credit associations remain the most culturally accepted and accessible financing model for Okada operators in Metropolitan Lagos. This finding

aligns with the importance of social capital-based financial models in informal economies across West Africa (Mabula, 2014; Hine, Huizenga, & Willilo, 2015). The *ajo/esusu* system's strengths include low entry barriers, absence of collateral requirements, flexible contribution schedules, and accountability align closely with the income patterns and social networks of operators, explaining its popularity among the financing mechanisms assessed.

Support from Microfinance institution (M = 3.62, SD = 1.16) and access to hire-purchase (M = 3.59, SD = 1.20) are rated almost equally, showing the complementary roles these models play in the sector's financing arrangement. Microfinance institutions are perceived as legitimate and relatively accessible formal financing channels, a positive signal for inclusive finance policy. Hire-purchase is supported as a practical ownership-enablement model consistent with Kores (2017) though its relatively wide standard deviation (1.20) shows different experience, with some operators viewing it favourably while others hold more guarded assessments, likely reflecting variation in the terms offered by different hire-purchase providers.

Digital lending platforms receive a moderate rating (M = 3.30, SD = 1.28), indicating awareness and some uptake but also considerable indifference. The wide standard deviation suggests that while some operators have benefited from fintech lending, others harbour reservations most likely due to high interest rates, short repayment cycles, and digital literacy barriers, consistent with concerns identified by Anuchitchanchai et al. (2025) in the Bangkok context and Armah and Li (2024) in their analysis of ICT adoption in motorcycle goods transport.

Cooperative society loans receive the second-lowest assessments across both accessibility (M = 3.32, SD = 1.26) and repayment conditions (M = 3.28, SD = 1.28). This is a notable finding, given that cooperative financing is often presented in the literature as among the most operator-friendly financing mechanisms (Mabula, 2014; Deppuh & Ng'ang'a, 2022). The relatively modest rating in the Metropolitan Lagos context may reflect the limited coverage and institutional capacity of motorcycle operator cooperatives in Lagos, the governance challenges affecting many informal cooperatives in Nigeria, and the disruption caused to cooperative structures by the 2020 Okada ban, which displaced many operators from established operational and social networks. Overall satisfaction with available financing options (M = 3.03, SD = 1.25) the lowest-rated item signals a persistent perception gap: operators acknowledge various financing mechanisms but do not regard them, in aggregate, as adequately meeting their needs.

Access to Capital

Table 3 presents descriptive statistics for the Access to Capital (AC) scale items. The composite AC mean of 3.18 (SD = 0.45) indicates that access to capital is perceived as moderately constrained operators lean toward agreement that capital is accessible in some respects, but fall below the midpoint on several critical dimensions.

Table 3: Descriptive Statistics. Access to Capital (n = 387)

Item	Mean	SD
AC6: Can access sufficient funds for motorcycle maintenance	3.47	1.18
AC3: Financing sources are available when needed	3.46	1.14
AC7: Access to finance has improved business operations	3.39	1.21

AC1: Can easily obtain funds when needed	3.25	1.14
AC5: Loan repayment periods are flexible	3.10	1.19
AC2: Loan application procedures are simple	3.01	1.17
AC8: Lack of collateral no longer prevents loans	2.92	1.38
AC4: Interest rates charged are affordable	2.81	1.29
Composite AC	**3.18**	**0.45**

Access to maintenance funds (M = 3.47) and general availability of financing when needed (M = 3.46) are the most favourably rated capital access dimensions, suggesting that operators have developed workable, if imperfect, arrangements for routine financial needs through the informal mechanisms identified in the previous section. However, the most structurally significant capital access barriers are clearly revealed in the lower-rated items. Affordability of interest rates (M = 2.81) and the persistence of collateral as a barrier (M = 2.92) are rated below the scale midpoint of 3.0, indicating that for a significant proportion of operators, cost of finance and collateral requirements continue to constitute meaningful exclusionary barriers. This finding directly echoes the evidence from Sore (2024), Fujinuma and Asahi (2022), and Hine, Huizenga, and Willilo (2015) on the structural bottlenecks constraining capital access for informal transport operators across sub-Saharan Africa and Asia. The simplicity of loan application procedures (M = 3.01) and flexibility of repayment periods (M = 3.10) are also rated close to neutral, reflecting the procedural friction and temporal mismatch between lender repayment schedules and operators' irregular daily income cycles a tension particularly pronounced for hire-purchase operators.

Economic Performance of Okada Operators

Table 4 presents descriptive statistics for the Economic Performance (EP) scale. The composite EP mean of 3.33 (SD = 0.38) reflects a moderately positive, if tempered, self-assessment of economic performance. operators lean toward agreement that their businesses are performing adequately, but the narrow spread from 2.91 to 3.62 across items indicates neither strong satisfaction nor acute distress as a uniform condition.

Table 4: Descriptive Statistics. Economic Performance (n = 387)

Item	Mean	SD
EP4: Can regularly maintain motorcycle	3.62	1.02
EP1: Income has improved over the past few years	3.58	1.19
EP5: Business experiences minimal operational interruptions	3.38	1.27
EP8: Satisfied with overall business performance	3.33	1.17
EP7: Financial situation improved since becoming Okada operator	3.31	1.19
EP3: Can comfortably meet daily operating expenses	3.35	1.12
EP2: Business generates sufficient profit	3.13	1.22
EP6: Able to save part of earnings regularly	2.91	1.10
Composite EP	**3.33**	**0.38**

Regular motorcycle maintenance (M = 3.62) and income improvement over time (M = 3.58) are the highest-rated performance dimensions, suggesting that experienced operators have developed

sufficiently stable operational routines to sustain their motorcycles in working condition and perceive an upward trajectory in earnings relative to their entry point. These findings support the observation of Daramola (2018) that operational sustainability, keeping a roadworthy motorcycle is the most immediate and practically relevant performance indicator for informal transport operators. The ability to save regularly (M = 2.91) is the lowest-rated economic performance item, falling below the scale midpoint. This finding is both diagnostically significant and consistent with the structural constraints of the sector: after meeting daily fuel and maintenance costs, hire-purchase repayments or daily motorcycle rent, union dues, and household obligations, the surplus available for savings is severely constrained for the majority of operators. The inability to accumulate savings perpetuates the cycle of capital dependency, limiting operators' capacity to move toward outright motorcycle ownership, invest in business expansion, or build financial buffers against income shocks — a dynamic extensively documented in the informal transport literature (Olurinola, 2011; Porter, 2014; Owino et al., 2024). Disaggregating economic performance by ownership status reveals that employer-owned motorcycle operators record the highest mean EP score (M = 3.38, SD = 0.44), followed marginally by own-motorcycle operators (M = 3.34, SD = 0.32) and cooperative-owned operators (M = 3.34, SD = 0.44), with hire-purchase operators recording the lowest EP composite mean (M = 3.27, SD = 0.39).

Financing Challenges Facing Okada Operators

Table 5 presents the descriptive statistics for the six financing challenge items. Collectively, all challenge items are rated above the scale midpoint of 3.0, indicating that the identified barriers are broadly and consistently perceived as significant across the operator population.

Table 5: Descriptive Statistics. Financing Challenges (n = 387)

Challenge	Mean	SD
CH6: Government regulations affect access to financing	3.66	1.12
CH2: Collateral requirements limit credit access	3.64	1.18
CH1: High interest rates discourage loan uptake	3.63	1.17
CH3: Loan approval processes take too long	3.60	1.10
CH4: Repayment conditions are often too strict	3.52	1.20
CH5: Limited financial literacy affects loan access	3.41	1.11

Government regulation emerges as the most prominently cited challenge (M = 3.66, SD = 1.12), reflecting the significant shadow cast by the Lagos State Government's 2020 partial ban on Okada operations over operators' financial planning and access to institutional support. This finding extends the work of Akor et al. (2024), who documented the adverse financial consequences of regulatory interventions in the Nigerian motorcycle transport sector, and points to the chilling effect that regulatory uncertainty exerts on both operators' willingness to take on financing obligations and lenders' willingness to extend credit to a sector operating under a contested legal status. Collateral requirements (M = 3.64) and high interest rates (M = 3.63) are nearly equally challenging and cluster closely with loan process delays (M = 3.60). Taken together, these three challenges constitute the core structural financing exclusion experienced by Okada operators the

trifecta of collateral barriers, cost of credit, and administrative friction that collectively makes formal and semi-formal financing inaccessible or unattractive for a substantial proportion of the operator population. These findings mirror patterns documented across sub-Saharan Africa and Southeast Asia (Sore, 2024; Anuchitchanchai et al., 2025; Hine, Huizenga, & Willilo, 2015) and reinforce the case for targeted financing product design that addresses each of these barriers specifically.

Limited financial literacy (M = 3.41) is rated as the least severe barrier among those assessed, though it still exceeds the midpoint. This suggests that knowledge gaps are a secondary constraint relative to structural and regulatory barriers an important finding for policy design, as it cautions against over-emphasis on financial literacy interventions at the expense of addressing structural financing architecture.

Insights from Key Informant Interviews

Thematic analysis of the 20 key informant interviews comprising cooperative society leaders, microfinance loan officers, and hire-purchase motorcycle dealers yielded four dominant themes that contextualise and enrich the quantitative findings.

Theme 1: Regulatory Disruption as a Financing Barrier. All categories of key informant independently identified the 2020 Lagos State Okada restriction as a watershed event that restructured the sector's financing environment. A microfinance loan officer stated that following the ban, their institution had substantially reduced the motorcycle taxi loan portfolio because "the regulatory risk is too high, we cannot give loans to operators who may be forced out of their zones tomorrow." This institutional risk-aversion triggered by regulatory instability directly constrains operators' access to formal and semi-formal capital, reinforcing the quantitative finding that government regulation is the most prominently cited financing challenge.

Theme 2: The Hire-Purchase Debt Trap. Multiple informants, including cooperative leaders and the operators themselves in supplementary interview sessions, described a cyclical pattern wherein operators enter hire-purchase arrangements without full comprehension of total cost obligations. A cooperative leader noted: "Many of our members come to us to borrow money to pay the [motorcycle] owner because they fell behind on the daily fee. The hire-purchase is supposed to help them own the bike, but many are still paying after three years." This evidence reinforces the quantitative pattern of hire-purchase operators recording the lowest mean economic performance scores and corroborates the default risk findings of Fujinuma and Asahi (2022).

Theme 3: The Resilience of Ajo/Esusu. Key informants consistently praised informal savings schemes as the most operationally effective and culturally appropriate financing mechanism for Okada operators. Cooperative leaders noted that many successful operators use *ajo* contributions strategically, timing their payout month to coincide with the need for major vehicle maintenance or motorcycle renewal. This behavioural sophistication in deploying informal savings mechanisms as quasi-planned capital investment is not captured by standard quantitative measures and helps explain why *ajo/esusu* achieved the highest IFM item rating in the survey.

Theme 4: Fintech Lending Promise and Peril. Motorcycle dealers and microfinance officers described the growing presence of fintech lending apps including both pan-Nigerian platforms and ride-hailing company credit schemes with a mixture of optimism and caution. While acknowledging

that digital platforms have extended credit access to operators previously excluded from all formal channels, informants consistently raised concerns about interest rate transparency, aggressive debt collection practices, and the risk of debt over-extension among operators who access multiple digital credit lines simultaneously. One dealer summarised: "The apps are fast, yes. But fast money has fast penalties." This evidence substantiates the moderate and ambivalent rating of digital lending in the quantitative survey.

Summary of the Study

This study set out to investigate innovative financing models, access to capital and, the economic performance of commercial motorcycle (Okada) operators in Metropolitan Lagos, Nigeria. Motivated by the persistent underrepresentation of empirical financing research in the West African informal transport literature, and by the acute financial vulnerabilities facing Okada operators in the post-2020 regulatory environment of Metropolitan Lagos, the study deployed a cross-sectional survey design with data collected from 387 active operators across five local government areas, supplemented by semi-structured interviews with 20 key informants drawn from cooperative societies, microfinance institutions, and hire-purchase motorcycle dealerships.

The findings, drawn from descriptive statistics, and thematic analysis of interview data, yield a picture of the financing landscape confronting Okada operators in Metropolitan Lagos. The study's principal conclusions are presented below, followed by evidence-based recommendations directed at policymakers, regulatory authorities, financial institutions, and development practitioners.

Conclusions

Conclusion 1: Informal savings mechanisms remain the most accessible and trusted financing instrument for Okada operators in Metropolitan Lagos.

The *ajo/esusu* informal rotating savings and credit association, recording the highest mean score among all financing model items (M = 3.76), emerges as the dominant and most culturally embedded financing mechanism in the sector. Its pre-eminence reflects the structural exclusion of operators from formal credit channels and the deep rootedness of collective savings institutions in the social fabric of Metropolitan Lagos. The resilience of the *ajo/esusu* in the face of expanding microfinance and digital lending alternatives is not a sign of financial backwardness but of rational adaptation: informal savings schemes offer low barriers to entry, zero collateral requirements, flexible contribution schedules, and peer accountability mechanisms that are structurally aligned with the income patterns and social networks of informal transport operators. This finding is consistent with Mabula (2014) and Hine, Huizenga, and Willilo (2015) and confirms the continued relevance of indigenous financial institutions in sub-Saharan African informal transport contexts.

Conclusion 2: Hire-purchase arrangements facilitate motorcycle ownership but impose significant financial burdens that suppress economic performance among operators.

Hire-purchase is the modal vehicle acquisition mechanism, used by 32.3% of respondents, yet hire-purchase operators record the lowest composite economic performance mean (M = 3.27) among all ownership categories. The evidence from key informant interviews further documents the hire-purchase debt trap dynamic, a cycle in which fixed daily repayment obligations accumulate against

irregular income flows, leaving operators financially exposed during periods of low demand, illness, or mechanical breakdown. The limited regulation of hire-purchase terms in the Nigerian context enables asymmetric contractual arrangements that favour vehicle owners over operators and constrain the capital accumulation essential for progression toward outright motorcycle ownership. These findings extend the work of Fujinuma and Asahi (2022) and Kores (2017) to the Metropolitan Lagos context and identify hire-purchase governance as a critical leverage point for sector-level economic performance improvement.

Conclusion 3: Government regulation constitutes the most prominently perceived barrier to financing access, superseding collateral requirements, interest rates, and financial literacy deficits.

The identification of government regulation as the highest-rated financing challenge (M = 3.66) more severe than collateral barriers, interest costs, or financial literacy gaps is a finding of profound policy significance. The 2020 Lagos State partial ban on Okada operations in high-traffic corridors has not only displaced operators spatially but has generated institutional risk-aversion among formal and semi-formal lenders, constricting the credit supply available to the sector. This regulatory overhang extends the adverse consequences of the ban well beyond its direct operational disruption, creating a secondary financial exclusion effect that has not been adequately acknowledged in the policy literature. The findings of Akor et al. (2024) on taxation burdens and Yakeen and Olorunnimbe (2025) on risk in Metropolitan Lagos Okada operations are reinforced by this evidence, pointing to a regulatory framework that simultaneously constrains operational scope and suppresses financial inclusion in the sector.

Conclusion 4: Digital and fintech-based lending platforms are growing in uptake but are perceived with significant ambivalence, reflecting a tension between accessibility and affordability.

Digital lending receives a moderate aggregate rating (M = 3.30) characterised by the widest standard deviation among financing model items, reflecting polarised operator experience. While fintech platforms have extended credit access to operators excluded from all other formal channels an important financial inclusion contribution, concerns about high interest rates, short repayment periods, and aggressive collection practices temper their aggregate endorsement. The evidence from key informants reinforces this ambivalence and points to the risk of digital debt over-extension among operators accessing multiple credit lines simultaneously. This finding corroborates the global evidence on fintech lending in informal transport contexts (Anuchitchanchai et al., 2025; Armah & Li, 2024) and identifies the regulation and design of digital lending products as an emerging policy priority in the Nigerian informal transport financing landscape.

Recommendations

The following recommendations are addressed to distinct stakeholder constituencies and grounded directly in the study's empirical findings.

Recommendations for the Lagos State Government and Transport Regulatory Authorities

Establish a clear, consistent, and spatially comprehensive regulatory framework for Okada operations that reduces investor and lender uncertainty.

The study's most striking finding that government regulation is the most prominently cited financing barrier, above even collateral requirements and interest rates demands urgent policy attention. The partial and inconsistently enforced ban on Okada operations in Metropolitan Lagos has created a regulatory grey zone that systematically discourages formal and semi-formal financial institutions from extending credit to the sector. The Lagos State Government should articulate a clear, enforceable, and spatially defined regulatory framework for Okada operations one that distinguishes between zones of permitted and restricted operation, establishes safety and registration standards for operators, and provides a stable operating environment within which financing institutions can develop appropriate credit products with confidence. Regulatory clarity is a precondition for financial inclusion in the informal transport sector, and its absence constitutes a de facto financial exclusion policy, regardless of intent.

Develop and implement a regulatory framework for hire-purchase agreements in the motorcycle transport sector, protecting operators from exploitative contractual terms.

The hire-purchase debt trap identified in the findings reflects the absence of consumer protection regulation governing motorcycle hire-purchase contracts in Nigeria. The Lagos State Government, in collaboration with the Federal Ministry of Finance and the Central Bank of Nigeria, should develop a regulatory framework that mandates disclosure of total repayment costs, establishes maximum daily repayment ratios relative to documented income, and creates a disputes resolution mechanism accessible to informal transport operators. Such regulation, modelled on consumer credit protection frameworks applied in comparable contexts in East Africa and Southeast Asia, would substantially reduce the financial burden on the 32.3% of Okada operators in Metropolitan Lagos currently operating under hire-purchase arrangements and improve their capacity for capital accumulation and business reinvestment.

Mainstream informal transport operators into the Lagos State financial inclusion strategy, with specific targets for Okada sector credit access.

The Lagos State Government's financial inclusion commitments should clearly involve the informal transport sector, establishing measurable targets for Okada operator access to registered cooperative credit facilities, microfinance bank products, and regulated digital lending platforms. Inclusion of the sector in formal financial inclusion programmes would motivate financial institutions to develop appropriate products and create accountability mechanisms for progress tracking.

Recommendations for Financial Institutions and Microfinance Banks

Design motorcycle transport-specific loan products with repayment schedules tailored to operators' daily income cycles.

The study's result that interest rate affordability (M = 2.81) and repayment flexibility (M = 3.10) are the most severely constrained access to capital dimensions points directly to the product design neccessity for microfinance institutions. Motorcycle transport loan products should feature daily or weekly repayment options aligned with operators' income collection patterns, income-contingent repayment provisions that adjust obligations during periods of documented income reduction, and loan terms of sufficient duration to make repayment instalments manageable relative to daily net income after operating costs. Microfinance institutions in East Africa and

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Southeast Asia as found by Sore (2024) have shown the viability of such tailored products and their positive impact on operator welfare and loan repayment rates.

Leverage cooperative structures as delivery channels for formal credit, reducing transaction costs and collateral barriers through group guarantee mechanisms.

Given the cultural acceptance and operational reach of existing Okada operator cooperatives in Metropolitan Lagos, microfinance institutions should invest in cooperative partnership models that utilise existing social trust networks for credit delivery, loan monitoring, and repayment enforcement. Group guarantee mechanisms through which cooperative members collectively guarantee each other's loans address collateral barriers without requiring formal asset pledges and have been effectively deployed in comparable contexts in Tanzania (Mabula, 2014) and Kenya (Deppuh and Ng'ang'a, 2022). The relatively modest endorsement of cooperative-based financing in the current study (IFM1 M = 3.32, IFM2 M = 3.28) likely reflects institutional capacity constraints in existing Lagos operator cooperatives rather than operator resistance to the cooperative model, suggesting that cooperative capacity building is a productive area for microfinance institution investment.

Introduce Islamic finance products for motorcycle acquisition financing, targeting the significant Muslim operator population in Metropolitan Lagos.

The study's findings, combined with the jurisprudential significance of interest-free financing in Islamic communities, identify an underserved market opportunity for Sharia-compliant motorcycle financing products in Metropolitan Lagos, where Muslim operators constitute a substantial proportion of the workforce. Drawing on models documented by Saputra and Dewi (2025) in Indonesia and Utami (2020) on Sharia-compliant vehicle leasing, microfinance institutions with Islamic windows or dedicated Islamic microfinance banks should develop *murabaha* (cost-plus sale) or *ijarah* (leasing) structured motorcycle acquisition products that eliminate interest obligations while maintaining commercial viability. Such products would reduce the debt burden on Muslim operators, improve repayment adherence grounded in religious obligation, and extend financial inclusion to operators whose religious convictions does not align with conventional loan products.

Recommendations for Digital Lending Platforms and Fintech Providers

Reform digital lending product design to extend repayment periods, reduce effective interest rates, and improve transparency of total cost disclosure for Okada operator borrowers.

The hesitation toward digital lending documented in this study moderate uptake combined with significant concerns about cost and repayment terms reflects product design choices rather than structural incompatibility between fintech lending and informal transport operators' needs. Digital platforms operating in the motorcycle transport credit space in Metropolitan Lagos should extend loan tenors from the current typical ranges of 7–30 days toward 90–180 day products more compatible with motorcycle maintenance and acquisition financing needs, disclose effective annual percentage rates transparently in operators' primary language prior to loan acceptance, introduce income-linked credit limits that prevent debt over-extension, and establish a cooling-off period between loan cycles to prevent compulsive reborrowing. Engagement with the Central Bank of Nigeria's digital lending regulatory framework, including compliance with the CBN's 2022

Guidelines on Digital Lending, is both a regulatory obligation and a reputational investment for fintech providers operating in this space.

Recommendations for Cooperative Societies and Operator Associations

Formalise and institutionally strengthen motorcycle operator cooperative societies to improve their capacity to intermediate formal credit and provide member-appropriate financial products. The finding that *ajo/esusu* informal savings schemes are more trusted than formal cooperative society loans — despite cooperatives' theoretical advantages in credit intermediation — points to an institutional capacity gap in the cooperative sector serving Okada operators in Metropolitan Lagos. The National Board for Co-operative Societies (NBCS) in Lagos State should prioritise the registration, governance training, and financial management capacity building of motorcycle operator cooperatives, enabling them to formalise their savings mobilisation activities, qualify for wholesale lending from microfinance banks, and offer members a wider range of financial products including insurance, emergency credit, and asset acquisition financing. Formalised cooperatives also provide a more effective interface with regulatory authorities and policy frameworks, improving operators' collective voice in the governance of their sector, consistent with the advocacy of Atulomah (2025) for strengthened institutional support for informal transport micro-enterprises.

Establish financial literacy programmes specifically designed for Okada operators, delivered through existing cooperative and union structures.

While financial literacy ranks as the least severe among the identified financing challenges (M = 3.41), it nonetheless exceeds the scale midpoint and is implicated in suboptimal financing decisions particularly in relation to hire-purchase cost comprehension and digital lending risk assessment. Financial literacy interventions should be embedded within existing cooperative and union structures to maximise reach and cultural appropriateness, focusing specifically on total cost of credit calculation, hire-purchase contract interpretation, digital lending risk management, and basic business financial record-keeping. Such programmes, delivered in Yoruba and Pidgin English by peer educators with credibility in the operator community, would complement structural financing reforms and strengthen operators' capacity to navigate an increasingly complex financing landscape.

Contribution to Knowledge

This study makes several distinct contributions to the literature on informal transport, financing, and urban mobility in sub-Saharan Africa. It provides the first empirically grounded, survey-based analysis of the financing model landscape specifically for Okada operators in Metropolitan Lagos, Africa's largest city and Nigeria's most complex urban transport environment. It demonstrates the continued primacy of indigenous financial institutions (*ajo/esusu*) in the sector's capital architecture at a time when digital lending narratives threaten to obscure the enduring role of informal savings mechanisms. And it provides systematic empirical evidence on the financing consequences of regulatory intervention specifically, the Lagos 2020 Okada ban a dimension of motorcycle transport policy that has received limited analytical attention in the existing literature.

The study also makes a methodological contribution by demonstrating both the utility and the limitations of aggregate composite indices in capturing heterogeneous informal financing behaviour, pointing toward the need for typological and disaggregated analytical approaches in future informal transport financing research.

Limitations and Directions for Future Research

The study's Metropolitan Lagos focus, while justified by the sector's scale and complexity in that context, limits direct transferability of findings to other Nigerian cities or other sub-Saharan African urban transport environments. Comparative multi-city studies across Nigeria's major urban centres Kano, Ibadan, Port Harcourt, Abuja and cross-country comparisons with East African *boda-boda* contexts would substantially enrich the evidence base and enable identification of context-specific versus universally applicable financing policy interventions. Other limitations include: cross sectional nature of the study, use of self-reported income and economic performance information, and absence of longitudinal data to examine changes in operators' financial performance over time.

Concluding Remarks

The commercial motorcycle sector in Metropolitan Lagos is more than a transport phenomenon. it is a livelihood ecosystem sustaining hundreds of thousands of operators and their families in one of Africa's most challenging urban economic environments. Its financial architecture, layered, informal, adaptive, and structurally constrained is neither deficient nor irrational, but reflects the ingenuity of operators navigating a financing landscape shaped by institutional exclusion, regulatory hostility, and social innovation in equal measure.

The central message of this study is that the economic performance of Okada operators cannot be meaningfully improved through transport regulation, safety enforcement, or operational policy alone. It requires a parallel, deliberate, and evidence-based effort to build a financing ecosystem that is accessible in cost, aligned in repayment structure, transparent in terms, and stable in regulatory foundation. The *ajo/esusu* savings circle, the hire-purchase motorcycle dealer, the cooperative society chairman, and the fintech loan app are all actors in that ecosystem each serving a need, each carrying limitations, each capable of being strengthened by appropriate policy, institutional design, and regulatory support.

Informal mobility in Metropolitan Lagos will not be displaced by formal alternatives in the foreseeable future. Its operators deserve a financing environment worthy of the essential service they provide.

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